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Basewide Background Study Report

for

Naval Station Newport
Newport, Rhode Island

Naval Facilities Engineering Command
Mid-Atlantic

Contract Number N62467-04-D-0055
Contract Task Order 402

July 2008

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BASEWIDE BACKGROUND STUDY REPORT

FOR

NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

COMPREHENSIVE LONG-TERM
ENVIRONMENTAL ACTION - NAVY (CLEAN) CONTRACT

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EXECUTIVE SUMMARY

This report presents the findings of the Naval Station (NAVSTA) Newport Basewide Background Study conducted by Tetra Tech NUS, Inc. (Tetra Tech) for the U.S. Department of the Navy (Navy). The study was conducted under the Comprehensive Long -Term Environmental Action Navy (CLEAN) Contract No. N62467-04-D-0055, Contract Task Order (CTO) 402 in accordance with the Work Plan for Basewide Background Study, Naval Station Newport, Newport, Rhode Island dated May 2006.

This Basewide Background Study was conducted to determine background soil metals concentrations at NAVSTA Newport to assist in evaluation of on-site analytical data for current and future site investigations under the Installation Restoration (IR) Program and other programs. Previous environmental investigations have found arsenic concentrations in soils at NAVSTA Newport IR consistently higher than the Rhode Island Department of Environmental Management (RIDEM) arsenic direct exposure criteria of 7.0 milligrams per kilogram (mg/kg), and ceiling level of 15 mg/kg. Given the Navy's policy is that non-site related chemicals (whether naturally occurring or anthropogenic) will not be addressed as part of remedial activities, this investigation was undertaken to determine basewide background metals concentrations in soils.

The primary objective of the Basewide Background Study is to establish background concentrations of metals in soils for the NAVSTA Newport sites by determining the occurrence, geochemical abundance, and variability (scatter) of surface and subsurface soil metals concentrations at locations within or near NAVSTA Newport, which are not affected by site activities and may reflect both naturally-occurring and anthropogenic chemical contributions to the soils. It is the Navy's intent that this data will be compared with the data collected for current and future NAVSTA Newport sites under investigation as a part of the IR Program, UST Program, and other programs to distinguish site-related metal contaminants from non-site-related background (naturally occurring and anthropogenic) metals in soil. These comparisons will be provided in the reports to be prepared for these sites after field investigations are completed. An additional objective is to characterize the metal concentrations in the bedrock located beneath the facility to support interpretations of the background soil results.

To support the development of a background soil database, samples were collected from six soil types present at NAVSTA Newport as defined and mapped by the United States Department of Agriculture (USDA). Samples were collected at two depth categories (surface and subsurface) analyzed for Target Analyte List (TAL) metals. The vast majority of NAVSTA Newport property is comprised of seven soil types that are listed below with their abbreviations:

- Mansfield mucky silt loam (Ma)

- Merrimack sandy loam (MmA)
- Newport silt loam (Ne)
- Pittstown silt loam (Pm)
- Stissing silt loam (Se),
- beach soils (Ba) and
- Udorthents (UD)

The Udorthents-Urban land complex (UD) soil type are defined as moderately well-drained to excessively-drained soils that have been disturbed by cutting or filling. This definition does not differentiate between native soil altered in place and soil altered by bringing non-local soil in as fill material. Since by definition as disturbed and highly variable, UD areas that could be considered "background" are not only difficult to define, but also difficult to collect a sufficient number of samples to adequately characterize the distribution of metals. Therefore, sample efforts focused on soil collection from the other six prominent soil types.

In addition, sampling of bedrock cores from the two predominant formations underlying the base (Rhode Island formation, representing phylite, and purgatory conglomerate) was conducted to generate data that may be useful in interpreting the source of arsenic in soils within the study area.

To provide the baseline background measurements, the following specific task objectives were developed for the Basewide Background Study:

1) Provide a metal constituent data set for background soils from the predominant soil types present at NAVSTA Newport IR sites and other environmental study sites.

2) Identify similarities and differences in the data sets for each soil type with a statistical significance.

3) Provide robust and statistically based background soils data set (or sets) that can be utilized in future site-specific studies to assess the significance of the presence and concentration of individual metals.

The first objective of this report, to provide a chemical constituent data set for background soils, was fulfilled by providing a data set of analytical results for each soil type that is representative of non-site-related background conditions at areas in the vicinity of NAVSTA Newport. Table ES-1 provides the mean concentrations measured for select metals by soil type. These mean concentrations are presented for information only. They are not intended to be used to make decisions by a threshold comparison

approach [i.e., site mean vs. background mean]. Data is provided for both surface soil samples (collected from the 0 to 1-foot depth interval) and subsurface soil samples (collected from an interval selected in the field between 1 and 10 feet below ground surface). A full summary of the descriptive statistics for the final data sets for each soil type was prepared.

TABLE ES-1

MEAN CONCENTRATIONS OF SELECT METALS BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Soil Type:	Mansfield Mucky Silt Loam (Ma)	Merrimack Sandy Loam (Mm)	Newport Silt Loam (Ne)	Pittstown Silt Loam (Pm)	Stissing Silt Loam (Se)	Beach Soil (Ba)
Surface Soils (0 to 1-foot depth interval)						
Arsenic	7.05	4.03	6.28	9.59	13	1.03
Beryllium	0.388	0.419	0.485	0.33	0.35	0.151
Chromium	12	9.87	11.3	13.5	12.7	5.84
Lead	17.6	10.8	16.6	31.2	23.2	3.14
Manganese	128	141	171	289	130	116
Mercury	0.0479	0.0271	0.0844	0.0848	0.0559	--
Subsurface Soils (selected from 1 to 10-foot depth interval)						
Arsenic	16.8	4.04	3.71	14.3	16.8	--
Beryllium	0.497	0.384	0.394	0.529	0.524	--
Chromium	14.5	11.4	11.3	14.4	14.8	--
Lead	8.75	7.66	6.77	8.22	10.3	--
Manganese	501	316	285	549	461	--
Mercury	0.00829	--	0.0077	0.00757	--	--

Units: mg/kg.

Note: Table not intended for use by threshold comparison approach (i.e., site mean vs. background mean).

To facilitate future use of these background soil data sets for statistical comparison to site data sets, further characterization of the properties of each soil type was performed, including quantitative statistical tests of the distributional shape of the observed data compared to a reference normal or lognormal population. In addition, graphical analyses of probability plots, box plots, and histograms are used to identify the occurrence and potential influence of non-detects, outliers, and data points which depart from the expected trend in each soil type.

The second objective of this report was to identify the statistically significant differences or similarities between soil types, based on chemical concentrations, which may then be used to determine if all soils can be considered as one background data set or if each soil type represents a different background condition. To accomplish this task, a series of comparative statistical tests were performed to determine whether significant differences exist between metals concentrations found in samples of each soil type versus other remaining soil types and between samples from the combined set of surface soil versus

subsurface soil. The statistical comparisons between soil data sets were summarized. Based on these findings, the majority of individual soil types revealed differences in metal concentrations when compared to all other soil types. Therefore, in order to accurately characterize background soil types for future comparisons with Site data, background soil data sets for metals should be segregated into discrete groups, distinguished by the mapped soil types and by surficial versus subsurface depth classifications.

The surficial soil types associated with elevated concentrations (i.e. with a statistical level of significance of 0.025 probability) of several metals relative to other surface soils were Pittstown silt loam and Stissing silt loam, while the Beach soil and Merrimack sandy loam exhibited significantly lower concentrations of several metals compared to other soil types. The subsurface soil types associated with elevated concentrations of several metals relative to other subsurface soils were Mansfield mucky silt loam and Stissing silt loam, while the soil types Newport silt loam and Merrimack sandy loam exhibited significantly lower concentrations of several metals compared to other soil types.

In the overall comparison of all subsurface soil to all surface soil, 12 metals were found to be elevated in the subsurface soil group, based on one or more valid statistical tests. In contrast, only 6 metals were found to be elevated in the surface soil group.

The metals associated with elevated surficial concentrations were aluminum, barium, lead, mercury, selenium, and vanadium. Of these, lead and mercury are often associated with non-point source anthropogenic deposition across many geographic regions. Vanadium may be associated with anthropogenic sources or natural sources.

The metals associated with elevated subsurface concentrations were arsenic, beryllium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, and zinc. In some cases these differences may reflect contributions of mineral elements from bedrock. Table ES-2 provides that mean concentration for select metals in bedrock formations; a full summary of the descriptive statistics for the final data sets for each bedrock formation is presented in Appendix E1.

TABLE ES-2

MEAN CONCENTRATIONS OF SELECT METALS IN BEDROCK FORMATIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Formation:	Rhode Island	Purgatory Conglomerate
	Mean	Mean
Arsenic	37.8	9.6
Beryllium	0.498	0.247
Chromium	7.89	9.32
Lead	9.21	12.4

Manganese	646	840

Units: mg/kg.

The influence of bedrock concentrations of arsenic on local soil concentrations at NAVSTA Newport is evident from examination of the bedrock metals data. The median level of arsenic in samples of Rhode Island formation (representing phylite) was 6 times greater than the median arsenic level found in purgatory conglomerate (42.2 mg/kg versus 7.4 mg/kg, respectively). In addition, iron and arsenic concentrations exhibited a fair degree of positive correlation in bedrock from the Rhode Island formation, consistent with the regression of arsenic on iron from all soil types that revealed very high correlation.

The third objective of this report, to provide a robust and statistically based background soils data set that can be utilized in future site-specific studies, was accomplished with the development of a database of background soil data. Using this database, Site data can be compared to background using one of two valid approaches, based on either the comparative method, in which a Site data set is statistically compared to one particular background soil type using an array of parametric and nonparametric tests, or by application of a geochemical prediction equation, which involves comparison to 95 percent upper prediction limits based on all soil types.

The geochemical prediction method is based on linear relationships observed between trace metals and covarying mineral components, such as aluminum or iron, which are present in natural abundance in soil. The strength of these relationships within the background soils data set is evaluated by examining the amount of data scatter around the best fit line, and is quantified by the correlation coefficient (r). A particular site sample can be plotted with respect to the predictor (X-variable) metal concentration and the trace metal concentration (Y-variable) and examined to see if this data point falls in between the upper and lower prediction limits for background data, and whether the mineral level (X-variable) is also within the range of background data. If the plotted point lies within the statistical limits established for background data, this indicates that the sample's trace metal concentration is likely to be associated with the natural mineral components of that sample.

Statistically-based geochemical prediction equations were derived for 11 metals. These equations can be used across multiple soil types to predict whether a site sample falls within the geochemical upper prediction limits associated with background soils. Two geochemical methods, a factor analysis method and a single predictor metal, are provided to allow an optimal selection of a geochemical regression for future site applications. The particular regression selected for a given site application should be based on several factors, including the quality of fit of the regression, the complexity of prediction formula (ease of use), the likelihood that the predictor metal is influenced by non-background conditions, the robustness of prediction to outliers in the predictor variable, and the prediction interval coverage (frequency of false positives) in a given background soil type. Geochemical prediction equations were only derived for metals that are associated with human health-based regulatory or toxicity criteria for soil exposure.

The background soil databases presented in this report are available for use in future investigations at NAVSTA Newport, and comprise a robust, base-wide background database. Analytical results for metals from on-site or site-related soil samples can be statistically compared to background data of the same soil type (via the comparative method) or compared to upper prediction limits on background representing all soil types (via a geochemical prediction method) to determine if concentrations are elevated above background. While both methods are valid for most soil types, for some soils such as the Udorthents-Urban land complex (UD) the geochemical method is the intended and preferred method for comparison to background.

1.0 INTRODUCTION

This report presents the findings of the Naval Station (NAVSTA) Newport Basewide Background Study conducted by Tetra Tech NUS, Inc. (Tetra Tech) for the U.S. Department of the Navy (Navy). The study was conducted under the Comprehensive Long -Term Environmental Action Navy (CLEAN) Contract No. N62467-04-D-0055, Contract Task Order (CTO) 402 in accordance with the Work Plan for Basewide Background Study, Naval Station Newport, Newport, Rhode Island dated May 2006.

This Basewide Background Study was conducted to determine background soil metals concentrations at NAVSTA Newport to assist in evaluation of on-site analytical data for current and future site investigations under the Installation Restoration (IR) Program, Underground Storage Tank (UST) Program, and other programs. In previous environmental investigations, it has been observed that the arsenic concentrations in soils at NAVSTA Newport IR sites have been consistently higher than the anticipated levels, and higher than the Rhode Island Department of Environmental Management (RIDEM) arsenic direct exposure criteria of 7.0 milligrams per kilogram (mg/kg), and ceiling level of 15 mg/kg. Given the Navy's policy that remedial activities will not be based on non-site related chemicals (whether naturally occurring or anthropogenic) it was determined that this investigation was needed to determine basewide background metals concentrations in soils.

This report presents the activities and findings of the background study field investigation, which involved soil sample collection at NAVSTA Newport and nearby non-Navy properties in Newport, Middletown and Portsmouth, Rhode Island. In the report, metals concentrations in different types of the NAVSTA Newport area soils are identified and the geochemical origins of these metals are discussed. Also presented is an evaluation of metals concentrations that are related to natural parent materials (local bedrock, etc.), versus those that are more likely the result of anthropogenic activities. The study was conducted according to the Naval Facilities Engineering Command Guidance, Environmental Background Analysis, Volume 1: Soil, dated April 2002, to meet the specific objectives described in Section 1.1 below.

1.1 BACKGROUND STUDY REGULATORY AND POLICY FRAMEWORK

The performance of the NAVSTA Newport Basewide Background Study is based on applicable federal law and state regulations, as well as Navy policy, as summarized below.

Section 104(3)(A) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) states "the President shall not provide for a removal or remedial action under this section in response to a release or threat of release of a naturally occurring substance in its unaltered form…". Therefore, it is necessary to establish, if possible, the naturally occurring substances in the soil,

particularly these which may be identified as Contaminants of Potential Concern (COPCs) in a CERCLA-compliant risk assessment.

The United States Environmental Protection Agency (USEPA) defines “background” as substances or locations that are not influenced by releases from a site, and are usually described as naturally-occurring (not influenced by human activity) or anthropogenic (present as a result of human activity) (EPA, 2002).

The Rhode Island Department of Environmental Management (RIDEM) Site Remediation Regulations (DEM-DSR-01-93) defines “background” as the ambient concentrations of hazardous substances present in the environment that have not been influenced by human activities, ***or*** the ambient concentrations of hazardous substances consistently present in the environment in the vicinity of the contaminated site, which are the result of human activities unrelated to releases at the contaminated site. Additionally, RIDEM regulations state that background samples provide baseline measurements to determine what the concentrations of chemicals would be at a site if releases had not occurred there. Rhode Island regulations provide an allowance for determining background conditions under the Site Remediation Regulations, Section 8.06 A:

> “Sampling of hazardous substances in background areas may be conducted to distinguish concentrations related to the contaminated site from concentrations of hazardous substances not related to activities at the contaminated site or to support the development of soil objectives under the provisions of Rule 8.02 (Soil Objectives).”

Navy policy requires that there is a clear and concise understanding of chemicals released from a site in order to assure proper focus and remediation of the release. To this end, background evaluations are needed during the site investigations in order to differentiate between the site conditions and background sources. These evaluations should include naturally-occurring chemicals and anthropogenic chemicals (CNO, 2004).

These requirements recognize that both naturally-occurring and anthropogenic background conditions should be considered in developing site cleanup levels. Previous environmental investigations conducted at NAVSTA Newport Installation Restoration (IR) Program sites, as well as sampling of background areas near these sites, indicate that naturally-occurring background levels of some metals may be higher in soils at and near NAVSTA Newport than in other background areas of Rhode Island (TtNUS, 2000; TtNUS, 2004). To investigate background chemical conditions at NAVSTA Newport sites both naturally-occurring and anthropogenic chemical contributions to the soils must be considered.

1.2 STUDY OBJECTIVE

The primary objective of the Basewide Background Study is to establish background concentrations of metals in soils for the NAVSTA Newport sites by determining the occurrence, geochemical abundance, and variability (scatter) of surface and subsurface soil metals concentrations at locations within or near NAVSTA Newport, which are not affected by site activities and may reflect both naturally-occurring and anthropogenic chemical contributions to the soils. It is the Navy's intent that this data will be compared with the data collected for current and future NAVSTA Newport sites under investigation as a part of the IR Program, UST Program, and other programs to distinguish site-related metal contaminants from non-site-related background (naturally occurring and anthropogenic) metals. Distinguishing background metals will ensure implementation of Navy policy, which requires that non-site related chemicals are not addressed as part of remedial activities. These comparisons will be provided in the reports to be prepared for these sites after field investigations are completed. An additional objective is to characterize the metal concentrations in the bedrock located beneath the facility to support interpretations of the background soil results.

To provide the baseline background measurements the following specific task objectives were developed for the Basewide Background Study:

1) Provide a metal constituent data set for background soils from the predominant soil types present at NAVSTA Newport IR sites and other environmental study sites.

2) Identify similarities and differences in the data sets for each soil type with a statistical significance.

3) Provide robust and statistically based background soils data set (or sets) that can be utilized in future site-specific studies to assess the significance of the presence and concentration of individual metals.

1.3 REPORT ORGANIZATION

This Basewide Background Study report provides a summary of the investigation activities, data interpretation and statistical methods, and the results of the investigation. It is divided into six sections, with tables and figures presented following the text. The sections include: Executive Summary, Introduction, Background Information, Investigation Activities, Data Analysis and Statistical Testing, Findings and Conclusions, and Glossary.

Appendix A presents a list of samples used in this study. The field documentation from samples collected is presented in Appendix B. Appendix C presents photo-documentation of the investigation activities. Appendix D presents the analytical results from background samples collected as part of this investigation. Appendix E presents additional statistical backup and calculations not detailed in the text or tables. Lastly, Appendix F presents the correlation analyses developed for this study.

2.0 BACKGROUND INFORMATION

A brief description and history of NAVSTA Newport and the surrounding vicinity as well as a summary of the criteria used to select the background sample locations are presented below.

2.1 LOCATION AND FACILITY HISTORY

NAVSTA Newport is located approximately 60 miles southwest of Boston, Massachusetts and 25 miles south of Providence, Rhode Island. The facility occupies approximately 1,063 acres, with portions located in the City of Newport and Towns of Middletown and Portsmouth, Rhode Island. The facility layout follows the western shoreline of Aquidneck Island for nearly 6 miles, facing the east passage of Narragansett Bay. A figure presenting the current extent of NAVSTA Newport and the IR Sites locations is included as Figure 2-1.

The Newport area was first used by the Navy during the Civil War as a temporary location for the Naval Academy. Beginning in 1869, permanent activities in the area were established and later expanded to include ordnance development, a training facility, a fuel depot and housing for servicemen during World War I and World War II. Following World War II, use of on-site facilities was slowly phased out and primary activities shifted to include research and development, specialized training and preparedness for modern warfare. In 1962, Newport became the headquarters of the Commander Cruiser-Destroyer Force Atlantic. In April 1973, the Shore Establishment Realignment (SER) Program resulted in the reorganization of naval forces, and activity again declined. (Envirodyne Engineers, 1983)

From 1974 to the present, research and development and training have been the primary activities at Newport. The name of the base was changed from Naval Education Training Center (NETC) to NAVSTA Newport in 1998. The major commands currently located at NAVSTA Newport include the Naval Education and Training Center, Surface Warfare Officers School Command, Naval Undersea Warfare Center, and the Naval War College.

2.2 HISTORY AND USE OF SURROUNDING PROPERTIES

Prior to the occupation of the property by the Navy, the land was primarily used for agriculture and soils were likely impacted by the application of pesticides and fertilizers. Metal-bearing pesticides that may have been used on farms in this area include lead arsenate, sodium arsenate, and arsenic trioxide. Lead arsenate was a common insecticide, and sodium arsenate and arsenic trioxide were formerly used as herbicides. Arsenic, cadmium, and other heavy metals could also have been added to the soils through

the application of phosphate fertilizers. Additionally, the soils contain metals originating from the natural weathering of the parent bedrock.

The common and consistent uses of land prior to Navy occupation as well as the surrounding properties strongly suggest that portions of these parcels exhibit conditions that could be considered “background”. The concentrations of elements and compounds present in these areas are likely to reflect both naturally occurring and anthropogenic chemicals present at the NAVSTA Newport IR sites and/or Study Areas if releases had not occurred there.

2.3 GEOLOGIC CONDITIONS

Soil types covering the majority of the NAVSTA Newport IR property were targeted in this investigation. In addition, the physical and chemical influence of weathering bedrock on the unconsolidated overburden material was analyzed. The following section provides an overview of the soil types and bedrock formations of interest in this investigation.

2.3.1 Soil Types

According to the United States Department of Agriculture (USDA) Soil Survey of Rhode Island (USDA, 1981), the vast majority of NAVSTA Newport Property is comprised of seven soil types that are listed below with their abbreviations:

Mansfield mucky silt loam (Ma)
Merrimack sandy loam (MmA)
Newport silt loam (NeA, NeB, NeC, NP)
Pittstown silt loam (PmA, PmB)
Stissing silt loam (Se), beach soils (Ba)
Udorthents (UD)

The location of each of these soil types is shown as a map unit identified by the designated abbreviation on the detailed soil maps included with the soil survey. A map unit consists of one or more major soils and some minor soils or miscellaneous areas and is named for the major soils. Since soils have characteristic natural variability they typically blend into each other on the landscape as their properties gradually change. Consequently, every map unit is made up of the soils for which it is named and some included areas that belong to other soil type(s).

Four additional map units occur within the NAVSTA Newport boundary, but one unit, Urban land (Ur), is not a soil type, and the other three: the Birchwood sandy loam (Bc), Poquonock loamy fine sand (PsB), and Windsor loamy sand (WgB), are only found in a small area along the eastern border of the facility, near the McAllister Point Landfill. The seven prominent soil types are described below as detailed in the Soil Survey of Rhode Island (USDA, 1981).

Mansfield mucky silt loam (Ma). This very poorly-drained soil, formed in compact glacial till derived mainly from dark gray phyllite, shale, conglomerate, and schist bedrock types, occurs in nearly level depressions and small drainage ways of drumlins. The surface layer is typically black mucky silt loam about eight inches thick. The subsoil is dark gray silt loam, seven inches thick. The substratum is dark gray and olive gray silt loam that contains flat rock fragments and extends to a depth of 60 inches or more. Included in this map unit are small areas of poorly-drained Stissing (Se) soils. The permeability of the soil is moderate in the surface layer and subsoil, and slow or very slow in the substratum. Available water capacity is moderate, and runoff is slow. This soil has a seasonal high water table at or near the surface from late fall through mid-summer. Many areas have poor drainage and standing water during wet seasons. The soil is extremely acid through medium acid.

Merrimac sandy loam (MmA). This somewhat excessively-drained soil, formed in outwash deposits derived from schist, gneiss, and phyllite rock types, occurs on nearly level portions of outwash plains and terraces. Typically the surface layer is dark brown sandy loam and is about eight inches thick. The subsoil is yellowish brown and dark yellowish brown sandy loam up to 17 inches thick. The substratum is light yellowish brown gravelly sand to a depth of 60 inches or more. About ten percent of the map unit consists of other soils. The permeability of the soil is moderately rapid in the surface layer and upper part of the subsoil, moderately rapid to rapid in the lower part of the subsoil, and rapid in the substratum. Available water capacity is moderate, and runoff is slow. The soil is extremely acid through medium acid.

Newport silt loam (NeA, NeB, NeC, NP). These well-drained soils are found on the crests and side slopes of drumlins and glacial till plains. Formed in compact glacial till, these soils are derived mainly from dark sandstone, conglomerate, argillite, and phyllite rock types. The surface layer is typically very dark brown silt loam, about eight inches thick. The subsoil is olive brown and olive silt loam, 16 inches thick. The substratum is olive gray silt loam that contains flat rock fragments and extends to a depth of 60 inches or more. Ten to 15 percent of the NeA, NeB, and NeC map units, and thirty percent of the NP map unit consist of other soils (Bc, Ps, Pm, and UD). Permeability is moderate or moderately rapid in the surface layer and subsoil, and slow or very slow in the substratum. Available water capacity is moderate, and runoff is medium to rapid, depending on the slope. The soil is very strongly acid through medium acid.

Pittstown silt loam (PmA, PmB). These soils are moderately well-drained and are found on the side slopes and crests of glacial upland hills and drumlins. Formed in compact glacial till, these soils are derived mainly from dark phyllite, slate, shale, and schist rock types. The surface layer is typically very dark grayish brown silt loam, about eight inches thick. The subsoil is dark yellowish brown and olive brown silt loam up to 20 inches thick, and mottled in the lower part. The substratum is olive gray, mottled silt loam that contains flat rock fragments and extends to a depth of 60 inches or more. About ten percent of the Pittstown map units consist of other soils (Ma, Ne, Se, and stony soils). The permeability of the soil is moderate in the surface layer and subsoil and slow in the substratum. Available water capacity is moderate, and runoff is slow to medium, depending on the slope. The soil has a seasonal high water table at a depth of about 20 inches from late fall through mid-spring. The soil is very strongly acid through medium acid.

Stissing silt loam (Se). This poorly-drained soil, formed in compact glacial till derived from dark gray phyllite, slate, shale, occurs on nearly level areas or depressions of drumlins and glacial upland hills. Typically the surface layer is very dark gray silt loam, about eight inches thick. The subsoil is dark grayish brown, mottled silt loam that is seven inches thick. The substratum is dark gray, mottled silt loam to a depth of 60 inches or more. About ten percent of the Se map unit consists of other soils. The permeability of the soil is moderate in the surface layer and subsoil and slow in the substratum. Available water capacity is moderate, and runoff is slow. The soil has a seasonal high water table near the surface from late fall through spring. The soil is extremely acid through medium acid.

Beaches (Ba). The Ba map unit consists of long, narrow areas of sand dunes or escarpments. It also includes sandy, gravelly, or cobbly areas that are exposed during low tide, which are common along the NAVSTA Newport shoreline. Slopes range from zero to eight percent. About five percent of the Ba map unit includes rock outcrops, Matunuck mucky peat (Mk) soils, and Udipsamments (sandy soils that lack distinct subsurface horizons and occur in sand dune and blowout areas that have been stabilized by beach grasses).

Udorthents-Urban land complex (UD). Seventy percent of the complex consists of Udorthents – moderately well-drained to excessively-drained soils that have been disturbed by cutting (to a depth of two feet or more) or filling (with more than two feet of fill). Twenty percent of the UD map unit includes areas that are covered by buildings or pavement, and ten percent is comprised of other (undisturbed) soils. Udorthent is a general classification term that applies to a variety of soils that are well-drained and lack well-developed pedogenic horizons. The *Soil Survey of Rhode Island* assigns this term to soils on till plains and outwash terraces that have been disturbed by cutting or filling. Thus, the original (uncut/unfilled) soil within a UD area may consist of any one or combination of the well-drained soil types that occur in the vicinity of the facility. The fill material within a UD area may consist of well-drained base

soils and/or off-base fill materials. Consequently, the soil properties within and between UD areas are expected to be highly variable.

2.3.2 Bedrock Formations

The prominent bedrock formations present beneath NAVSTA Newport include the Rhode Island Formation and the Purgatory Conglomerate (Hermes et al, 1994). The Rhode Island Formation, which underlies most of the Narragansett Basin, occurs beneath the vast majority of NAVSTA Newport and consists of shale, slate, phyllite, and schist. The Purgatory Conglomerate, only occurs in a few small areas of Newport County, consists of quartzite clasts in a predominantly quartz sand matrix and is only found on NAVSTA Newport along the western sides of Coasters Harbor Island and Coddington Point.

Field observations of rock fragments in surface and subsurface soils and Soil Conservation Service descriptions of soil genesis strongly suggest that the soils on NAVSTA Newport formed from rock within these two major formations. According to the Soil Conservation Service, the Mansfield mucky silt loam (Ma) and Newport silt loam (NeA, NeB, NeC, NP)) soils formed in till derived from conglomerate, phyllite, argillite, and/or schist. The Merrimack sandy loam (Mm), Pittstown silt loam (PmA, PmB) and Stissing silt loam (Se) soils formed in outwash or till were derived from shale, slate, phyllite, and/or schist. Field observations indicate the Beach (Ba) soils on the facility were derived from the erosional debris of both rock types. Since the soils on NAVSTA Newport appear to have been derived from the rock types found beneath the facility, the concentrations of metals in these rock types have been characterized in order to better interpret the concentrations of metals in the background soils.

2.4 SAMPLE LOCATION SELECTION CRITERIA

The Basewide Background Study was performed to establish background concentration ranges for metals in soils by "targeting" areas that have not been impacted by NAVSTA Newport IR site activities. Specifically, background soil samples were collected from areas that were determined to be free of localized anthropogenic sources. For example, a location that may reflect high lead concentration due to the proximity to a major highway was avoided. Soil sample location selection was centered on ensuring the data were representative of background conditions. Furthermore, individual sample stations were randomly located within each sample area for the greatest statistical variation and unbiased representation.

As a result of the Udorthents-Urban land complex (UD) soil type being, by its very definition, disturbed and highly variable, it was difficult not only to locate UD areas that could be considered “background”, but also to collect a sufficient number of samples to adequately characterize the distribution of metals in this map unit. Therefore, sample efforts focused on soil collection from the other six prominent soil types.

Selection of Sampling Areas:

The selection of background soil and bedrock sampling areas was based on the current and historical use of the areas and the soil and rock types present. Areas that have not experienced significant development since approximately 1942 were evaluated. At least one sampling area for each of the six soil types and two rock formations were selected for collection of background samples.

The soil chemistry may differ, even within a single soil designation, with depth. Therefore, both surface and subsurface soil samples were collected within each soil type. Surface soil samples were collected from the 0 to 1-foot depth interval while subsurface soil samples were collected from an interval between 1 to 10 feet bgs. Data from samples collected as part of previous background investigations, including two surface soil samples of the Newport silt loam (NeB) soil type from the Melville North Landfill background soil investigation (TtNUS, 1998) and 40 surface soil samples (20 of the Stissing silt loam (Se); 20 of the Pittstown silt loam (Pm) soil type) from the NUSC Disposal Area SA-08 background soil investigation (TtNUS, 2006), were incorporated into the statistical analysis performed for this Basewide Background Study. Subsurface soil samples were collected during this investigation from the same 40 surface soil locations collected as part of the NUSC Disposal Area SA-08 background soil investigation.

According to the Navy's *Guidance for Environmental Background Analysis, Volume 1: Soil* (2002), a background dataset usually contains "more than 20 to 30 unbiased and representative measurements". Therefore, 20 surface soil samples and 20 subsurface soil samples were evaluated for each of the six sampled soil types. Only 13 soil samples were evaluated for the Beach soil (Ba) type due to sample condition restrictions (refer to Section 3.2 for details).

3.0 INVESTIGATION ACTIVITIES

A summary description of the field investigation activities that were conducted as part of the Basewide Background Study is presented in this section. The sampling program for the Basewide Background Study included the collection of soil samples from selected undisturbed areas either directly on NAVSTA Newport or in the immediate proximity thereof and of the same soil type as is present on the facility. In addition, bedrock samples were collected from each of the two prominent formations present beneath NAVSTA Newport.

3.1 INTRODUCTION

The following sections detail the soil and bedrock field sampling activities that were performed during the Basewide Background Study. Figure 3-1 shows the soil classification designations for the NAVSTA Newport facility and immediate surrounding vicinity and the background sample Areas A through D. Sample locations in Areas A through D are depicted on Figures 3-2 through 3-5, respectively.

3.2 SOIL SAMPLING

A total of 173 soil samples were collected from 113 locations. In addition, duplicate samples and aqueous quality control (QC) samples were collected in accordance with the Work Plan. All samples were collected from areas selected to represent soil types present on NAVSTA Newport IR sites and other study areas.

Background soil sampling areas were evaluated in terms of soil type as well as land use history. According to soil survey maps presented in the USDA Soil Survey of Rhode Island, the soil types mapped on the NAVSTA Newport IR sites and Study Areas include: Mansfield mucky silt loam (Ma); Merrimac sandy loam (MmA); Newport silt loam (NeA, NeB, NeC, NP); Pittstown silt loam (PmA, PmB); Stissing silt loam (Se); and Beach soils (Ba). Each soil type was sampled as part of the Basewide Background Study.

Surface soil samples were collected from the 0 to 1-foot depth interval. For purposes of this study, “subsurface” soil are considered soil collected from an interval selected in the field between 1 and 10 feet below ground surface (bgs).

Soil samples were collected as described in the Work Plan. Table 3-1 presents a summary of soil samples collected. A detailed list of the soil samples collected is presented in Table A-1 (Appendix A). The general extent of each mapped soil type was determined by transferring Trimble Global Positioning

System (GPS) coordinates from the USDA Soil Survey of Rhode Island map using Geographic Information System (GIS) software to a Trimble GPS unit to identify the soil type boundary at the selected sample locations. The description of each soil type was also used as a guide to further determine the exact type of soil to be sampled once in the field. Soil boring logsheets, located in Appendix B, describe the soil characteristics observed for each sample. Discrepancies in the plotted sample locations in relation to overlying soil classification extents on Figures 3-2 through 3-4 may be attributed to the general imprecision of the soil classification layer matching with the base map at the scale of interest. Each sample was inspected by a qualified soil scientist to determine the exact soil type sampled. Some local variations in the soil type were observed within the soil classification extent and have been documented as such on the individual boring logsheet. Where a variation from the anticipated soil classification extent was present, the resulting sample identification was modified to include an additional sequence for clarification. A detailed summary of the samples collected is presented in Table A-1 (Appendix A).

Soil sampling activities took place in two separate phases as a direct result of property access availability. During Phase I, conducted September 11 through 28, 2006, soil samples were collected from unused property NUWC leased area south (upgradient) of the NUSC Disposal Area (Figure 3-2, Area A), the transmission line vicinity (Figure 3-3, Area B) and the Anchorage and Coddington Cove Housing Area (location not shown). During Phase II, conducted March 26 through 29, 2007, soil samples were collected from Prudence Island (Figure 3-4, Area C).

The location of collected soil samples were adjusted at several areas due to property access constraints and the presence of undisturbed soil. Sample collection on Prudence Island was revised from the Work Plan to include 10 additional Newport silt loam (NeB) classified soils, as well as a reduction in the number of Beach soil (Ba) locations sampled from 20 to 13, as a result of property access constraints. In addition, the Merrimac sandy loam (MmA) sample locations were redistributed from those presented in the Work Plan to reduce impact on existing environmental features. Upon direction from the Navy, only surface soil samples were collected from the 13 Beach soil (Ba) locations due to equipment access restrictions and the determination that the Beach soil (Ba) type has limited applicable use to the IR Program; subsurface soil samples were not collected from the Beach soil (Ba) soil type.

Soil samples of the Newport silt loam (NeB) soil type were collected from the transmission line area as an alternative to the proposed sample locations selected in the Melville Pond vicinity, described in the Work Plan. Access restrictions and lack of undisturbed soil in the Melville Pond area were factors that were considered. Figure 3-3 presents the sample locations of this area, referenced as Area B.

Ten samples were collected from the Anchorage and Coddington Cove Housing Area as specified in the work plan. However, field observations of the collected soil indicate the soil has been disturbed and is

not considered background soil, as defined in Section 2.4 of this report. Therefore, these 10 Newport silt loam (NP) samples have been excluded from the statistical analysis performed as part of this study. This decision represents a corrective action executed as part of the Quality Assurance (QA) program that is addressed in the Work Plan.

Each soil sample location was surveyed using a GPS unit as described in the Work Plan. In addition, photo-documentation of the investigation activities, sample locations and sampled soil has been included in Appendix C.

Specific Standard Operating Procedures (SOPs) were used as described in the Work Plan for Basewide Background Study, Naval Station Newport, Newport, Rhode Island, May 2006 (TtNUS, 2006). Appropriate chain-of-custody procedures were followed as described in the Work Plan and samples were labeled, packaged and shipped according to TtNUS SOP SA-6.1. Field documentation for the investigation activities are provided in Appendix B.

3.3 BEDROCK SAMPLING

A total of 30 bedrock samples were collected from two locations. In addition, duplicate samples and aqueous quality control (QC) samples were collected in accordance with the Work Plan. All samples were collected on Navy property and were selected to represent the two major bedrock formations present on NAVSTA Newport.

Bedrock samples were collected as described in the Work Plan. Table 3-2 presents a summary of bedrock samples collected from the two bedrock coring locations, RI1 and PC1, located at the southern extent of Coasters Harbor Island shown on Figure 3-5 (Area D). The bedrock coring locations were selected to target each of the two major bedrock formations including the Rhode Island Formation and the Purgatory Conglomerate (Hermes et al, 1994). Bedrock borings were advanced using drive and wash methods through the unconsolidated material in the overburden. Bedrock coring was then continued in five-foot core intervals to approximately 50 feet into the bedrock using a double-walled core barrel. Each rock core was then reviewed and described using standard rock description methods in accordance with TtNUS SOP No. GH-1.3. The boring logsheets are included in Appendix B.

Observations indicated that the targeted bedrock formation was not uniform throughout the collected core. Variations in the formation description have been documented as such on the individual boring logsheet. Where a variation from the anticipated bedrock formation classification extent was present, the resulting sample identification was modified to include an additional sequence for clarification. Four samples from the PC1 bedrock coring location were identified as Rhode Island Formation samples and

not the anticipated Purgatory Conglomerate formation samples. A complete list of the bedrock samples collected is presented in Table A-3 (Appendix A).

The bedrock coring locations were surveyed using a GPS unit as described in the Work Plan. In addition, photo-documentation of the investigation activities, sample locations and sampled bedrock has been included in Appendix C.

Appropriate chain-of-custody procedures were followed as described in the Work Plan and samples were labeled, packaged and shipped according to TtNUS SOP SA-6.1.

3.4 SAMPLE ANALYSIS AND ANALYTICAL DATA VALIDATION

All background soil and bedrock samples were analyzed by Tetra Tech's subcontractor laboratory (Empirical Laboratories, LLC) for Target Analyte List (TAL) Metals by USEPA SW-846 Methods 6010B/7470A/7471. Soil sample analytical results are presented in Appendix D.

Tetra Tech performed a Tier II data validation on the TAL metals analytical data. The data validation was performed according to the Region I, EPA-NE Laboratory Data Validation Functional Guidelines for Evaluating Inorganic Analyses, modified February 1989. The metals data were evaluated based on the following parameters:

- data completeness
- holding times
- calibration verification
- field and laboratory blank analyses
- ICP interference check sample results
- matrix spike recoveries
- laboratory duplicate results
- laboratory control sample results
- field duplicate precision
- ICP serial dilution results
- detection limits

The data review results were submitted to the project manager as an internal memorandum summarizing data qualification, problems and resolutions, if any.

4.0 DATA ANALYSIS AND STATISTICAL TESTING

This section presents the data analysis and statistical evaluation results that were performed to accomplish the three main objectives for the NAVSTA Newport Basewide Background Study. The first objective was to develop a database comprising background concentrations of metals in soils, which is representative of non-site-related background conditions at areas in the vicinity of NAVSTA Newport. The second objective of this report was to identify the statistically significant differences or similarities between soil types, based on chemical concentrations, which may then be used to determine if all soils can be considered as one background data set or if each soil type represents a different background condition. The third objective of this report was to present the background soils database and derived statistical findings in a useful format that enables future site-specific studies to statistically compare Site data to background by means of one of two valid approaches, based on either the comparative method (Section 4.6), in which a particular Site data set is statistically compared to one background soil type using an array of parametric and nonparametric tests, or by application of a geochemical prediction equation (Section 4.7), which involves comparison of Site results to 95 percent upper prediction limits based background concentrations representing all soil types.

Preliminary steps for data pretreatment are discussed first, including procedures for handling and presenting non-detects, duplicates, and data qualifiers. Second, an assessment of candidate outliers is performed for each soil type. Next, an exploratory and descriptive data analysis is presented, which includes tabular statistics, histograms, box plots, probability plots, and population distributional shape tests. Background soil analytical data is presented in its entirety in Appendix D. Figures 4-1, 4-2, and 4-3, showing soil sample locations in Areas A, B, and C respectively, display analyte concentrations for arsenic and other metals in surface and subsurface soil that are positively detected in one or more soil samples. Candidate outliers are shown on these figures.

Following completion of the above steps, univariate statistical tests are used to evaluate if there are significant differences between the metal concentrations found in each background soil type. In addition, a geochemical evaluation of the multivariate nature of elemental correlations in background soils is provided in order to better describe the dependence of background soil concentrations for elements of interest on covarying mineral concentrations. The geochemical analysis begins with a visual assessment of scatter plots for element pairs exhibiting some degree of geochemical association within one soil type or combined across all soil types, and summarizes the Pearson correlation coefficients for each metal versus other metals. In addition, factor analysis is used to characterize multiple elemental correlations within the combined data sets and to generate equations used to back-predict metal concentrations based on the overall mineral pattern in any background sample. The linear trends in certain metal-metal concentrations are further enhanced by either logarithmic or power transformations as necessary. The

most useful and accurate equations for predicting geochemical associations are then established by linear regression to quantify linear slopes, intercepts, and estimate upper 95 percent prediction limits for future geochemical comparisons of site data to background levels. In addition, the elemental correlations and metal concentrations in two underlying bedrock types are presented to help interpret the basis of the underlying background soil mineral concentrations.

4.1 GENERAL STATISTICAL METHODOLOGY

Statistical methods used in this background study were applied in accordance with current EPA and Navy guidance (EPA, 2007a, 2007b, 2006a, 2006b, 2002, 2001, 1997, 1994, 1992a, 1992b, 1989; CNO, 2004, NFEC, 2004, 2003, and 2002) and other literature references (Brownlee, 1965, Gilbert, 1993 and 1987; Gehan, 1965; and Millard and Deverel, 1988). For the development of background soil data sets, the objective of comparative statistical tests was to determine whether significant differences (i.e. elevated concentrations) exist between concentrations of metals found in soils associated with various USDA soil types or between surface and subsurface soils. These tests were implemented as two separate one-way comparisons, first to evaluate whether a data set (A) exhibits concentrations significantly greater than those in data set (B), followed by the reverse comparison [is data set (B) greater than (A)]. Consistent with recommended guidance, the statistical level of significance was set to a probability level (P-level) of 0.025 for each one-way test, so that the overall chance of mistakenly concluding that two data sets are different, if in fact their concentrations really belong to the same underlying population, would be 0.05. This is because the overall probability of declaring a difference is comprised of two components – a 0.025 probability that concentrations in the first data set appear to be greater than those in the second, plus the probability that the second data set appears to have concentrations greater than the first (also 0.025).

The statistical approach for the geochemical evaluation of background soils adheres to Navy guidance (NFEC, 2004, 2003, and 2002) and utilizes general principles taken from publications in the areas of factor analysis (Malinowski, 1991) and weighted linear regression with confidence limits (Zorn, 1997). In the geochemical evaluation, metal-mineral pairs were identified in background soil that exhibit a potentially useful degree of positive correlation based on a careful visual examination of scatter plots and correlation coefficients. The element pairs that yielded the most accurate and reliable linear predictions were optimized via a least squares regression to calculate the slope, intercept, and statistical upper 95 percent prediction limits for a given metal of interest. These upper and lower prediction limits are intended to be used to evaluate acceptable background ranges for a given metal present in a sample and are a function of the predictor (X-variable) metal concentration in that particular sample.

4.2 PRELIMINARY STEPS

Several data pretreatment steps were applied prior to conducting statistical tests. To aid in data manipulation and interpretation for those sections of this report presenting applications of geochemical statistics, the original field sample identification labels were modified with a prefix consisting of a two-digit abbreviation for soil type and a two-digit abbreviation for surface or subsurface depth categorization. All analytical data were validated before use and any rejected data were eliminated from further consideration. Estimated values (J-qualifier) were used as the reported values. Before conducting distributional tests or outlier tests, a value of one-half the sample detection limit was substituted for each non-detected (U qualified) result; however, this application is only valid if there are less than 15 percent non-detects. Because of the potential for non-detects producing bias and suggesting misleading data trends, most of the exploratory graphics plots were annotated with special symbols to identify non-detects.

Field duplicate samples were averaged together and considered as one result. For duplicates, where one result was positive and the other result was a non-detect, the calculation of the average result was modified if half the detection limit exceeded the positive result. In these situations, the positive result was used to represent the average.

4.3 OUTLIER TESTS

All background data sets were evaluated for potential outliers before conducting any statistical comparisons between data groups. Potential outliers were investigated for systematic errors, reporting errors, and analytical bias and then located on a site map to check for any pattern of localized, anthropogenic contamination that is not representative of the background area as a whole. Statistical outlier testing was conducted on the untransformed data based on either Dixon's test for normally-distributed data with less than 25 samples (EPA, 2006a) or a nonparametric alternative. For cases where the analytical data for a substance did not fit a normal distribution, Walsh's test is a nonparametric outlier test recommended by the aforementioned guidance. However, Walsh's test could not be applied for this project because no individual soil type data sets contained the minimum sample size of 60 necessary to perform this test. Therefore, to evaluate outliers with nonparametric data sets, Tukey's test was applied for nonparametrically-distributed data (75th quartile plus 3 times the interquartile range).

A five-step process is recommended for outlier evaluation (EPA, 2000 and 2002), consisting of identification of extreme values, application of statistical outlier tests (where feasible), scientific review of candidate outliers to decide on their disposition, conducting data analysis with and without statistical outliers, and documentation of this process.

In the first step, extreme values were identified in each soil type data set. Dixon's outlier test was applied to each background soil type using untransformed data. Results of Dixon's test are presented in Appendix E2 on Tables E2-1 through E2-13. Outlier screening was conducted by successively deleting the largest, second largest, and third largest data points from the set, computing the distributional fit and, if data were normally distributed, then performing Dixon's outlier test on the remaining data points versus the excluded data point. Tukey's nonparametric outlier test was conducted on untransformed data by comparing each sample concentration to a critical value represented as the 75th quantile plus 3 times the interquartile range (IQR). Candidate outliers from either Dixon's test or Tukey's test were labeled with the sample ID and marked with a black diamond on each box plot (Appendix E3, Figures E3-1 through E3-43).

For each soil type, probability (Q-Q) plots (Appendix E5, Figures E5-1 through E5-14) were used to evaluate how well the data distribution matches a normal or lognormal shape, and whether any suspected outlier falls above the predicted line. A point of departure at the upper end of the probability plot may indicate either that the candidate outlier does not belong to the same population distribution as the rest of the data or that the overall population shape, including the outlier, is neither normal nor lognormal. In addition, histograms depict the distributional shape, showing the mode, the relative frequency of detection at various concentration ranges, and the spread of data points near the upper end.

After candidate outliers were identified based on statistical outlier tests, a scientific review and evaluation of the plausible reasons for outliers was performed for each candidate. Candidate outliers were located on a map (see Figures 4-1, 4-2, and 4-3) to determine if elevated concentrations were co-located and/or possibly affected by localized anthropogenic contamination unrelated to any region-wide source. The final decision to retain candidate extreme values was based upon considerations that the observed levels were plausibly consistent with natural conditions (within the range of naturally occurring metals concentrations) or because associated samples were beyond the proximal range of influence from Site activities and did not represent evidence of any localized source that is uniquely found within the background area and not plausible to consider as part of a region-wide source or pattern. EPA guidance QA-G9 (EPA, 2006a) further elaborates on the rationale for handling outliers: "Outliers may also represent true extreme values of a distribution (for instance, hot spots) and indicate more variability in the population than was expected." In addition, it is noted, "These [outlier] tests should only be used to identify data points that require further investigation. The tests alone cannot determine whether a statistical outlier should be discarded or corrected within a data set; this decision should be based on judgmental or scientific grounds."

The following presents a brief discussion of several of the more important candidate outliers that were evaluated:

Arsenic

Potential candidate outliers occurred for arsenic in several soil types. Candidate outliers are shown on univariate box plots (Appendix E3, Figure E3-5), which presents data for arsenic subcategorized by soil classification and depth range (surface or subsurface). Arsenic values that exceed critical values for either Dixon's Outlier Test or Tukey's Outlier Test are shown with a solid diamond and labeled with the sample ID. In addition, for each soil type, probability (Q-Q) plots (Appendix E5) provide a graphic example of how well the data distribution matches a normal or lognormal shape, and whether any suspected outlier falls above the predicted line, which could indicate that the sample does not belong to the same population distribution as the rest of the data.

Sample DABK-S-SO06-0001 contained the highest concentration of arsenic (71.7 mg/kg) within the NAVSTA basewide background study area. In the surface soil data set representing Stissing Silt Loam (SeSS), this sample result was a candidate outlier based on Dixon's Extreme Value Test (Appendix E2, Table E2-10) and Tukey's Test for the 75th quantile plus 3 times the interquartile range. In Figure E5-10, the probability (Q-Q) plot for arsenic indicates the suspected outlier falls above the predicted line. The deviation is pronounced in the normal Q-Q plot but more subtle in the lognormal plot, so that the Shapiro Wilk W-test did not reject the hypothesis that the data set which includes the candidate outlier belongs to a lognormal population distribution. If the candidate outlier were to be removed based on Dixon's Outlier Test (Table E2-10), the revised data would match a lognormal distribution slightly better, and in addition the data would also match a normal distribution.

Further evaluation determined that there were no serious data validation QC problems associated with this particular sample, although the value was coded "J" due to positive ICP interference attributed to iron. The estimated interference due to iron was only 11 percent of the value reported for the sample in question, based on the relative proportionality to iron levels in the sample and the ICP QC solution, so the impact on accuracy is minor. It is not possible to further improve the accuracy of arsenic sample results after the fact, since the interference check QC solution contains multiple interferents, and interpretation is more complex than with single analyte QC solutions. In addition, the complexity of environmental samples makes it difficult to apply any further correction to reported results after the fact, since various ICP interference corrections may be applied to the raw signal before the instrument levels are displayed.

The sample location was reviewed in Figure 4-1 and found not to be associated with any localized pattern of elevated arsenic contamination. (The nearest sample points were locations SO04, SO05, SO07, SO09, and SO10, and none of these revealed arsenic greater than 12.6 mg/kg.) In the proximity of location SO06, there were no geographic features or structures that might suggest special or unique

sources of contamination not representative of the background area as a whole. It is conceivable that arsenic-containing pesticides or herbicides may have contributed to regional background conditions, especially since a farm is located upstream of the area. Lead arsenate, calcium arsenate, and sodium arsenate are the three arsenical pesticides that were most commonly used in the New England area, starting from the mid-1800s until the mid-1970s (USGS, 2004).

The elevated arsenic level in sample SO06 may be related to an elevated iron concentration. Sample SO06 contained the greatest background concentration of iron (53,900 mg/kg) in the entire background data set, as well as the greatest concentration of arsenic. The Q-Q plot (Figure E5-10) also reveals this sample contains a higher concentration of iron than expected based on an inflection point for iron in the probability plots. Hydrous iron, aluminum, and manganese oxides have been considered to be the main component controlling significant adsorption properties of arsenic in soils (Cai, 2002). As shown in Appendix F2, Figure F2-1, the correlation coefficient between iron and arsenic was 0.87 in all background surface soil. The correlation coefficient of a data set measures the extent of a linear relationship between two variables on a scale of zero to one, with a score of zero representing no relationship and a score of 1.0 representing all points falling perfectly on a line. The high correlation coefficient indicates that arsenic levels increase with iron levels because of the adsorption capacity of iron in soil. Although this data point falls slightly above the domain of the 95 percent upper prediction interval based on the linear regression performed for arsenic on iron (Appendix F5, Figure F5-4), the data point was retained for geochemical analysis and was found not to significantly inflate the upper prediction limit, since other residuals of similar magnitude occurred based on the errors in the observed versus predicted values from the regression line (Appendix F6, Figure F6-4). Based on the soil conditions found in this area, the iron is clearly a natural feature, a result of mineral leaching and bedding over time as soils have developed. The sample in question shows the highest concentration of iron and thus the highest concentration of accumulated arsenic. Therefore, sample DABK-S-SO06-0001 is not an anomaly, it is just the high end of the sample group. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the arsenic result for sample DABK-S-SO06-0001 was retained for the final background data set.

Sample DABK-S-SO25-0001 contained the highest concentration of arsenic (21.3 mg/kg) within the data set for surface soil type Pittstown Silt Loam (PmSS). The value was a candidate outlier based on Dixon's Extreme Value Test for this soil type. Further evaluation determined that there were no serious data validation QC problems associated with this particular sample, although the value was coded "J" due to positive ICP interference attributed to iron. ICP interference was estimated to account for a very small percentage of the total analyte signal for arsenic, and the results for this sample are considered usable. The sample location was reviewed in Figure 4-1 and it was found that this location was not associated with any localized pattern of elevated arsenic contamination. (The nearest neighbors were locations SO23 and SO26, none of which revealed arsenic greater than 15 mg/kg.) In the proximity of location

SO25, there were no geographical features or structures that might suggest special or unique sources of contamination not representative of the background area as a whole. The cause of the elevated arsenic level in this sample may be explained by the co-occurrence of an elevated iron concentration. As noted above, the correlation coefficient between iron and arsenic was 0.87. Sample SO25 contained the greatest background concentration of iron (43,300 mg/kg) in the soil type PmSS data set, as well as the greatest concentration of arsenic. The high correlation coefficient indicates that arsenic levels increase with iron levels because of the adsorption capacity of iron in soil. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the arsenic result for sample DABK-S-SO25-0001 was retained for the final background data set.

Sample DABK-S-SO20-0001 contained the second highest concentration of arsenic (23.5 mg/kg) within the background data for surface soil type Stissing Silt Loam (SeSS). The value was a candidate outlier based on Dixon's Test for this soil type. Further evaluation determined that there were no serious data validation QC problems associated with this particular sample, although the result was qualified (J) due to positive ICP interference associated with iron. ICP interference was estimated to account for a very small percentage of the total analyte signal for arsenic, and the results for this sample are considered usable.

The sample location was reviewed in Figure 4-1 and it was found that this location was not associated with any localized pattern of elevated arsenic contamination in soil. The nearest soil sample was location SO19, approximately 160 feet from SO20, which revealed arsenic at 9.2 mg/kg. The soil samples SD11 through SD20, which are located in a drainage pathway approximately 60 to 110 feet away from SO20, revealed arsenic concentrations ranging from 10.7 mg/kg to 35.5 mg/kg, with a median of 19 mg/kg, similar to SO20. However, SO20 is located outside of the surface water/sediment drainage pathway. In the proximity of location SO20, there were no geographical features or structures that might suggest special or unique sources of contamination not representative of the background area as a whole. The cause of the elevated arsenic level in this sample may be explained by the co-occurrence of an elevated iron concentration. As previously noted, a high correlation coefficient occurred between iron and arsenic in surface soil. Sample SO20 contained the second largest background concentration of iron (23,500 mg/kg) in the soil type SeSS data set, as well as the second largest concentration of arsenic. The high correlation coefficient indicates that arsenic levels increase with iron levels because of the adsorption capacity of iron in soil. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the arsenic result for sample DABK-S-SO20-0001 was retained for the final background data set.

Sample BWBK-SS-MA06-0001 contained the highest concentration of arsenic (22.5 mg/kg) within the background data for surface soil type Mansfield Mucky Silt Loam (MaSS). The value was a candidate outlier based on Dixon's Test for this soil type. Further evaluation determined that there were no serious

data validation QC problems associated with this particular sample. The sample location was reviewed in Figure 4-1 and it was found that this location was not associated with any localized pattern of elevated arsenic contamination in soil. The nearest soil samples were locations MA05, MA07, and MA12, all of which revealed arsenic at levels less than or equal to 4.7 mg/kg. The cause of the elevated arsenic level in this sample may be explained by the co-occurrence of an elevated iron concentration.

Barium

Samples BWBK-SS-BA110-0001 and BWBK-SS-BA104-0001 contained the highest (14.5 mg/kg) and second highest (8.9 mg/kg) concentrations of barium within the background data for surface soil type beaches (BaSS). The remaining barium data revealed a range of concentrations from 6.3 mg/kg to 8 mg/kg, so all values were within a factor of 2.5 of the candidate outliers. The two largest values were candidate outliers based on Dixon's Extreme Value Test for this soil type. Further evaluation determined that there were no data validation QC problems associated with these particular samples. The sample locations were not adjacent to one another in Figure 4-3. Therefore, there were no scientific or judgmental reasons to justify eliminating these results, so the barium results for samples DABK BWBK-SS-BA110-0001 and BWBK-SS-BA104-0001 were retained for the final background data set.

Chromium

Sample DABK-S-SO02-0001 contained the highest concentration of chromium (28.2 mg/kg) within the background data for soil type SeSS. The value was a candidate outlier based on Dixon's Extreme Value Test for this soil type. Further evaluation determined that there were no data validation QC problems associated with this particular sample. The sample location was reviewed in Figure 4-1 and it was found that this location was not associated with any localized pattern of elevated chromium contamination. The nearest neighbors were locations SO01 and SO05, which revealed chromium in a range from 11.9 mg/kg to 15 mg/kg. In the proximity of location SO02, there were no geographical features or structures that might suggest special or unique sources of contamination not representative of the background area as a whole. In the remaining samples of soil type SeSS, chromium was found at levels between 9 mg/kg and 16 mg/kg (between one-third and one-half of the level in SO02), which indicates that the suspect outlier is close to the range of concentrations for other samples. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the chromium result for sample DABK-S-SO02-0001 was retained for the final background data set.

Cobalt

Sample DABK-S-SO32-0001 contained the highest concentration of cobalt (13.8 mg/kg) within the background data for soil type PmSS. The value was a candidate outlier based on Dixon's Extreme Value Test for this soil type. Further evaluation determined that there were no data validation QC problems associated with this particular sample. The PmSS soil type data set displayed a median for cobalt equal to 6.95 mg/kg, so concentrations for half of the data set were within a factor of two of the candidate outlier, which indicates that the suspect outlier is close to the range of concentrations for other samples. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the cobalt result for sample DABK-S-SO32-0001 was retained for the final background data set.

Iron

Sample DABK-S-SO06-0001 contained the highest concentration of iron (53,900 mg/kg) within the background area. The value was a candidate outlier based on Dixon's Extreme Value Test for soil type SeSS. Further evaluation determined that there were no data validation QC problems associated with this particular sample. The sample concentration was double that of the next lower iron concentration within the soil type Se data set. In addition, the soil type SeSS data set displayed a median concentration for iron equal to 18,500 mg/kg, so concentrations for half of the data set were within a factor of three of the candidate outlier, which indicates that the suspect outlier is close to the range of concentrations for other samples. The sample location was reviewed in Figure 4-1 and it was found that this location was not associated with any localized pattern of elevated iron contamination. The location proximity was not associated with any geographical features or structures that may not be representative of the background area as a whole. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the iron result for sample DABK-S-SO06-0001 was retained for the final background data set.

Sample DABK-S-SO25-0001 contained the highest concentration of iron (43,300 mg/kg) within the background data for soil type PmSS. The value was a candidate outlier based on Dixon's Extreme Value Test for soil type PmSS. Further evaluation determined that there were no serious data validation QC problems associated with this particular sample, although the value was coded "J" due to field duplicate imprecision (iron values for this pair were 23,300 and 63,300 mg/kg). The sample location was reviewed Figure 4-1 and it was found that slightly elevated iron levels in this data set roughly form a line connecting locations SO25, SO26, SO24, and SO22, which together comprise the four highest concentrations of iron in the soil type PmSS data set. However, this phenomenon could be related to naturally occurring mineral distributions. Also, the location proximity was not associated with any geographical features or structures that may not be representative of the background area as a whole. In addition, the soil type PmSS data set displayed a median concentration for iron equal to 18,300 mg/kg, so concentrations for half of the data set were within approximately a factor of two of the candidate outlier, which indicates that the suspect outlier is close to the range of concentrations for other samples. Therefore, there were no

scientific or judgmental reasons to justify eliminating this result, so the iron result for sample DABK-S-SO25-0001 was retained for the final background data set.

Zinc

Sample DABK-S-SO02-0001 contained the highest concentration of zinc (81.7 mg/kg) within the background data for soil type SeSS. The value was a candidate outlier based on Dixon's Extreme Value Test for this soil type. Further evaluation determined that there were no data validation QC problems associated with this particular sample. The SeSS soil type data set displayed a median for zinc equal to 41.7 mg/kg, so concentrations for half of the data set were within a factor of two of the candidate outlier, which indicates that the suspect outlier is close to the range of concentrations for other samples. Therefore, there were no scientific or judgmental reasons to justify eliminating this result, so the zinc result for sample DABK-S-SO02-0001 was retained for the final background data set.

Disposition of Outliers: Data for several samples were identified as potential outliers. However, no results were found to be miscalculated or misreported, and no results were suggested to be attributable to any localized pattern of contamination that would be restricted to the background area but ruled out for affecting the site area as a whole. Therefore, all background data were retained for use either because of considerations that the observed levels were plausibly consistent with natural conditions or because associated samples were beyond the proximal range of influence from Site activities and did not represent evidence of any localized source that is uniquely found within the background area and not part of a region-wide pattern.

4.4 EXPLORATORY AND DESCRIPTIVE DATA ANALYSIS

The exploratory and descriptive data analysis of background soil defines the properties of each soil type by a series of tabular statistics, histograms, box plots, probability plots, and population distributional shape evaluations. These steps help to identify several important properties of the distribution of individual metals within each soil type or among all soil types, such as range, median, variance, skewness, and also serve to illustrate the differences between soil types on a qualitative level. In addition, the assessment of distributional fit to a normal or lognormal population is a precondition to performing any quantitative comparisons between soil types using parametric and nonparametric comparative statistical tests.

4.4.1 Quantitative Assessment of Distributional Shape

For each data subset (for example, soil type category), probability (Q-Q) plots and the Shapiro Wilk W-test were used to evaluate how well the data distribution matches either a normal or lognormal shape, and whether any region of data points represented on the graph curves away from the predicted line. A non-linear bend in the Q-Q probability plot, a point of departure from linearity at one end of the probability plot, or a W-test score that is below the critical W-Table value all suggest that the observed data are not normally distributed, which can indicate that the data belong to a population having some other distributional form, the presence of multiple populations within the same data set, or the presence of outliers.

Normally distributed data exhibit a characteristic "bell-shape" curve that is symmetrical, whereas lognormal data have a skewed shape with a longer tail at the high-concentration end. The W-test was performed twice – first using the original data, and then using the logarithms of the data. A five percent level of significance was used to determine whether or not the data deviate from either hypothesized distribution. Data sets that conform to a normal or lognormal distribution will be evaluated with parametric statistical tests whenever possible. Data that are non-normally distributed are then evaluated solely with non-parametric comparative statistical tests.

Appendix E5, Figures E5-1 through E5-14, present the results of the Shapiro Wilk W test for each soil type alongside a graphical presentation of distributional fit (the Q-Q plot, which should follow a straight line if the data closely match a normal or lognormal distribution). Note that the Shapiro-Francia Test (EPA, 1992a) was substituted for the Shapiro Wilk test for data sets involving more than 50 samples.

4.4.2 Histograms, Box Plots, and Probability (Q-Q) Plots

Graphical presentations of the data (e.g., simple scatterplots, box plots, histograms, probability plots, or posting plots) may identify potential outliers, indicate the presence of more than one data population in a data set (population analysis), suggest that data gaps exist, and/or that there are spatial or temporal trends in the dataset. Each of these has the potential to confound data evaluations and statistical analysis designed to determine if site concentrations exceed background concentrations.

The most useful multi-purpose visualization plot consists of side-by-side univariate box plots for comparing each subcategory of data (for example, simultaneous box plots for different soil types). The box plots shown in Appendix E3, Figures E3-1 through E3-43 are shaded to highlight the interquartile range (25th to 75th percentile), annotated with the concentration of the median, include a vertical line ("whiskers") that terminate at the maximum and minimum values, labeled with the sample IDs of

candidate outliers, and populated with distinct symbols for individual data points representing detects versus non-detects. At a glance, these plots illustrate which soil types are similar, the extent and magnitude of candidate outliers, whether a significant portion of the data set is non-detected, and the range of detection limits. While box plots are not equivalent to rigorous statistical tests, they do reveal that many, if not most, metals show clearly visible concentration differences between certain soil types (based on different interquartile ranges). Some metals tend to be generally greater in subsurface soil than in surface soil, while a few metals show the opposite trend. Some metals vary in trend from one soil type to the next. Certain soil types (notably PmSS and SeSS) revealed slightly higher levels of several metals compared to other soil types. Box plots can be used to note those metals having a sizable percentage of non-detects (in particular, antimony, mercury, selenium, and silver) and which as a consequence have more a more limited scope of application for either comparative statistical tests or geochemical analysis.

The probability (Q-Q) plots presented in Appendix E5, Figures E5-1 through E5-14, augment the identification of outliers in each soil type data set and identify any specific high-end data points or data ranges that contribute to a poor fit to a normal distributional shape.

Histograms, which are presented in Appendix E4, Figures E4-1 through E4-13, help to assess overall distributional shape by illustrating the mode, the relative frequency of detection at various concentration ranges, and the spread of data points near the upper end. These may be used in conjunction with probability plots to determine which data points contribute anomalies relative to the assumption of a normal bell curve shape. Note that many of the histogram plots of individual soil types form an uneven graph of distributional shape due to the very small number of samples (20) in each data set.

4.4.3 Tabular Descriptive Statistics

Appendix E1, Tables E1-1 through E1-13, present tabular descriptive statistics that quantify key attributes of each data set's distribution (e.g., its range, central tendency, and variability). Calculated statistics include the range (difference between minimum and maximum), interquartile range (difference between the 25th percentile and the 75th percentile), median, arithmetic mean, standard deviation, variance, coefficient of variation (standard deviation divided by mean times 100), skewness (a measure of non-symmetry in the tails), kurtosis (a measure of the sharpness of the peak of the distribution), and geometric mean (anti-log of the mean of log-transformed data). The statistics presented in this document do not include any univariate upper confidence limits (UCLs). Consequently, the use of substitution methods for UCL calculation for data sets with non-detects is not relevant. A general summary of the range of metals concentrations found in all soil types is presented in Table 4-1, which lists the mean, minimum, maximum, and frequency of detection for each analyte in each data set.

4.5 COMPARATIVE STATISTICAL TESTS

4.5.1 Methods to Compare Background Data Groups

The statistical procedures discussed in this section test the hypothesis that the concentrations in one background data group are not significantly greater than those in a second background data group. While the same methods are generally used to compare site data to the background data, the intent for this report is merely to determine which, if any, background data groups for a given substance can be combined (e.g., can the surface and subsurface data for a given metal be combined, or can data sets for different soil types be combined?). If appropriate, it may be desirable to merge statistically similar data sets, because the use of a larger set of composite data will result in a lower chance of overlooking any significant difference that might exist in future comparisons between IR site and background populations (i.e. better statistical power).

Because there are six different USDA soil classifications in the NAVSTA Newport basewide background database (abbreviated in this report as Ba, Ma, Mm, Pm, Ne, and Se), the possible number of different ways that surface soil types could be statistically compared to one another is large. Therefore, it was decided to statistically test each individual soil type only to see if the concentrations of any metal were greater than those in the composite collection of other soil types, after which a reverse comparison was done to test if concentrations were lower rather than higher. In addition, the collective set of all background surface soil data was compared to all subsurface soil data, and vice versa. The overall conclusions of these comparative statistical tests are summarized in Table 4-2, while the detailed results for each series of pairwise statistical comparisons between any two soil data sets are presented in Appendix E6, Tables E6-1 through E6-24. Pertinent information presented for each statistical test performed includes a statement of the hypothesis considered, the conclusion of the test, the calculated false positive probabilities (P-values), computed sample score values or ranks, reference critical values, and footnotes indicating the general assumptions, limitations, and interpretations applicable to each test. Note that the statistical tests used for this project did not include computation of UCLs or univariate upper prediction limits. Consequently, advanced procedures for handling non-detects were not required. To support the two-sample statistical tests used in this report, in certain cases goodness-of-fit tests were performed twice, first including non-detects and a second time after excluding non-detects.

To compare two particular background data subsets, an array of several recommended quantitative statistical tests was employed, including three quantitative tests that look for overall differences between two populations of data values; a quantitative test that essentially looks for hot spots in one population relative to the other; and two tests that examine only the frequency of detection (proportion of detected versus non-detected values in one data set versus the other), but not the magnitude of values. Thus,

measured statistical differences between populations can reflect either differences in central tendency, upper ranks, or frequency of detection.

Each type of statistical test required meeting certain assumptions and preconditions. As previously noted, one important assumption relates to the occurrence of non-detects. When there are less than 15 percent non-detects, EPA and Navy guidance may allow the option of using 1/2 of non-detects as a proxy value to compute distributional statistics for two sample parametric tests. However, since this represents a source of uncertainty, further study of the potential influence of non-detects on the estimated distributional shape for each data set is recommended (EPA, 2002). This is documented by the Shapiro Wilk W tests and the Q-Q plots in Appendix E5 which are performed twice, first including the non-detects, and second, excluding non-detects. This extra step is necessary only in cases where there are less than 15 percent non-detects, which occurred for mercury in surface soil type MmSS and magnesium in the combined set of surface soil data. The other background data sets displaying non-detects showed a frequency of greater than 15 percent, so that only nonparametric methods were allowed for the affiliated two sample hypothesis tests, and in such cases determination of distributional shape is not relevant to statistical decision-making. This is the most reliable approach because there are drawbacks with detection limit adjustment methods that add uncertainty or bias. First, adjustment methods require that the detection limits must all be the same value (EPA, 2006a, Section 4.7.2.1 and Navy, 2002, Appendix B, Table B-2), which is a technically incorrect assumption because analytical results for individual soil samples may involve different preparation weights, percent moisture corrections, and dilution factors. In addition, nonparametric methods can be used successfully to avoid the necessity of imputing surrogate values for non-detected measurements (EPA, 2002, Section 4.4, page 4-7). In addition, the underlying validity of parametric tests depends on the reliability of distributional tests, and “tests for the distribution of the data often fail if there are insufficient data, if the data contain multiple populations, or if there is a high proportion of non-detects in the samples” (EPA, 2002, Section 5.3, page 5-3). Two nonparametric tests that are useful in handling non-detects include Gehan’s test, which can handle multiple detection limits, and the Quantile test, which can be used for upper rank data subset comparisons that consist of positive values all greater than the highest detection limit in the data sets. Both of these tests are valid given a wide range and number of non-detects.

4.5.2 Statistical Level of Significance (Alpha or P-Level)

To control the possibility of statistical tests falsely concluding that concentrations from one background data subset are greater than another background subset, a selected alpha level was established. The alpha level is the probability of making a wrong decision if a statistical test concludes that samples from data set A belong to a population whose concentrations exceed those in the other population represented by data set B, under the circumstances where in reality both underlying populations are the same. An

alpha level of 0.025 was used for one-sided tests that compare one background subgroup to another. In contrast, an alpha level of 0.05 is expected to be used for future tests that compare site data to background.

For this background study, the overall conclusion (whether one soil data set's concentrations are greater than the other) was assumed to be "yes" if any one of the quantitative tests that use concentrations concluded that data were elevated. If no conclusion (either yes or no) could reached for any of these quantitative tests (e.g., if the assumptions necessary to run each of the various tests were not valid), then a "yes" or "no" conclusion resulting from the frequency of detection tests was considered applicable. For this project, computer algorithms were employed to automatically perform applicable statistical tests whenever the necessary underlying assumptions were valid. Further information regarding each statistical test is presented below:

4.5.3 Student's t-Test and Satterthwaite t-Test

The means of the two background data sets were compared if both background data sets matched a normal distribution. If the data sets exhibited equal standard deviations (based upon Bartlett's test for equal variances), then the student's t-test was applied; otherwise, Satterthwaite's t-test was used to test if the means were different. The t-test was considered valid only if at least 85 percent of each data set consisted of positive detects, there were at least three sampling points in each data set, and the pooled standard deviation was not zero. The t-test was never performed using log-transformed data sets because of the potential for misinterpretation of the true underlying distribution that tends to occur with lognormal fitting (EPA, 1997).

4.5.4 Mann-Whitney U Test or Gehan's Test

A nonparametric test was applied to determine whether two given background data sets belonged to populations with identical medians and rank distributions. The Mann-Whitney test and the analogous Gehan's test both required combining the two data sets, ranking results from smallest to largest, and evaluating whether the two sets had a similar distribution of data within the range of low to high ranks. The Mann-Whitney U test or the Gehan test statistics were computed using appropriate score adjustments for tied values and a normal approximation when sufficient data points were available; whereas, an exact computation of probabilities was used in situations where there were very few (for example, less than eight) data points. The prevalence and magnitude of non-detects can bias the outcome of the Mann-Whitney U test, but does not adversely bias the accuracy of Gehan's test unless the range of detection limits follows a different pattern in the two groups being compared. Therefore, Gehan's test replaced the Mann-Whitney U test if any of the following preconditions were met:

- if more than 40 percent non-detects were present in either of the two subgroups;

- if the number of non-detect data points from the first subgroup that were greater than both data sets' lower 25th percentile for positive detections was greater than 10 percent of the total number of detects in the first subgroup;

- if the number of non-detect data points from the second subgroup that were greater than both data sets' lower 25th percentile for positive detections was greater than 10 percent of the total number of detects in the second subgroup;

- if the ratio of the highest detection limit to the lowest detection limit among all data groups combined was greater than 3.5;

- if greater than 15 percent of the data points in the first subgroup consisted of non-detects that were less than the 25th percentile of the subset of non-detected data from the first subgroup but greater than the 25th percentile of the subset of non-detected data from the second subgroup (a relative shift in the distribution of the two data sets' non-detects occurring in a low percentile range). The same test of assumptions was performed for the converse situation (more than 15 percent of data from the second subgroup consisting of non-detects whose magnitude was less than the 25th percentile of non-detected data from the second subgroup but greater than the 25th percentile of non-detected data from the first subgroup). The same test of assumptions was performed at the 75th percentile and 95th percentile of two background data sets, such that evaluating all of these tests together served to identify any significant shifts in the relative distribution of non-detects compared between the two subgroups from the background population.

4.5.5 Quantile Test

The quantile test or upper ranks test (EPA, 1992b, 2006a) is a type of hot spot test. This test combines two subgroups of sample data into one set and determines whether an upper rank subset displays an unusually large proportion of data points belonging to one subgroup rather than a mixture of samples from the two groups in the expected proportion equal to the ratio of number of samples between the parent data groups. In this procedure, the probability was calculated that k or more samples from the largest r data points in the combined data set belong to one subgroup, with the null hypothesis that the two subgroups come from the same population. If calculations show there is less than a five percent chance that k or more samples could be observed among a subset of the r largest upper ranks of the

data, then the test concluded that k samples from one subgroup had statistically elevated concentrations, which might reflect one or more hot spots.

4.5.6 Test of Proportions or Fisher Exact Test

In the event that none of the above quantitative comparative statistical tests yielded a definite “yes” or “no” decision, a test of proportions was used to determine if the percentage of positively detected results was greater in one background data subgroup versus the other. When only a very small portion of results is detected (less than 10 percent), this test is recommended (EPA, 2006a, 1989). The test is routinely applied using a normal distribution approximation to the probability but is not considered valid when fewer than five samples are detected in either data subgroup. To reach a confident decision in such cases, a generalized version of the test of proportions, called the Fisher Exact Test, was applied (Brownlee, 1965). This test can be applied to all situations because it calculates the exact probability for all combinations of possible outcomes and gives a probability level for the condition where the observed frequency of detects in one subgroup is greater than the other, given the number of samples involved.

4.5.7 Type and Number of Samples Needed for Statistical Reliability

To control the possibility of statistical tests falsely concluding that concentrations in two subpopulations of background are indistinguishable, when in actuality one group comes from a population having concentrations that are higher, a goal for the statistical test’s power was established. The power of a test is defined as the probability the statistical test will properly conclude data set A concentrations exceed those of data set B, given a situation where the two populations A and B have a true difference in mean equal to a particular amount, called the minimum detectable difference (MDD).

The numbers of samples required for the t-test, Mann-Whitney test, and upper ranks test were established in the work plan by comparison with formulas for estimating statistical performance presented in Navy guidance (NFEC, 2002) and EPA guidance (EPA, 1992b). Charts which identify the minimum number of samples required to achieve a certain level of statistical power for each of these test methods are presented in Appendix E7 on Tables E7-1 through E7-3. In addition, a RIDEM requirement was followed for collecting a minimum of 20 background samples of each soil type.

Using 20 samples, each data group should generally have sufficient statistical power to detect relatively small differences in two background population characteristics for most contaminants. However, several sample-specific properties can adversely affect statistical power, such as frequency of detection, elevated detection limits due to matrix effects or dilution, and population distributional shape and standard deviations.

4.5.8 Results of Statistical Comparisons Between Background Soil Types

Table 4-2 presents the results of a series of 24 pairwise statistical comparisons between individual soil types and all other soils. The following findings were noted:

- In the overall comparison of all subsurface soil to all surface soil, 12 metals were found to be elevated in the subsurface soil group, based on one or more valid statistical tests, which reveal that concentrations were greater with a statistical level of significance of 0.025 probability. In contrast, only 6 metals were found to be elevated in the surface soil group.

- The metals associated with elevated surficial concentrations were aluminum, barium, lead, mercury, selenium, and vanadium. Of these, lead and mercury are often associated with non-point source anthropogenic deposition across many geographic regions. Vanadium may be associated with anthropogenic sources or natural sources.

- The metals associated with elevated subsurface concentrations were arsenic, beryllium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, and zinc. In some cases these differences may reflect contributions of elevated metals from bedrock, which could be further investigated by looking at the soil proportionalities between iron and aluminum versus other metals (for example, arsenic), and comparing these ratios to levels found in underlying bedrock.

- Thirteen metals were determined to have significantly lower concentrations in beaches surface soil compared to other surface soil types, which is to be expected considering the lower composition of metals in silicate minerals and lesser ability to absorb or retain metals. These trends were reflected in the geochemical association plots for most metals.

- Thirteen metals were determined to have significantly lower concentrations in MmSS surface soil compared to other surface soil types.

- Ten metals were determined to have significantly greater concentrations in PmSS surface soil and eight metals had significantly greater concentrations in SeSS surface soil, when compared to all other surface soils. These trends were also reflected in several geochemical association plots.

- Thirteen metals were determined to have significantly greater concentrations in SeSB subsurface soil compared to other subsurface soil types.

- Ten metals were determined to have significantly greater concentrations in MaSB subsurface soil and nine metals had significantly greater concentrations in PmSB subsurface soil, when compared to all other subsurface soils.

- Fourteen metals were determined to have significantly lower concentrations in NeSB subsurface soil and twelve metals had significantly lower concentrations in MmSB subsurface soil, when compared to all other subsurface soils.

Overall, numerous differences were seen between the various soil subgroups. Given the large proportion of metals displaying significant differences in concentrations between the tested pairs of soil subgroups, this suggests significant compositional differences exist between soil subgroups and between surface and subsurface soil. However, this does not rule out combining soil types for geochemical association analysis, presented in Section 4.6.

4.6 SPATIAL DATA ANALYSIS AND ELEMENTAL CORRELATION

4.6.1 Elemental Correlation

Based on geological and geochemical principles and observation, certain groups of metals tend to occur together in natural soils. For example, trace metal concentrations in soils often show a high degree of correlation with aluminum and/or iron, because the sorption of trace metals is frequently controlled by aluminosilicate clay minerals and/or iron oxide grain coatings.

The elemental correlation method is based on these natural relationships between trace metals and aluminum and iron or other covarying metals present in natural abundance in soil, and it uses statistical techniques founded on geochemical principles to identify background metal concentration ranges and ratios. The first step in the analysis is to construct a table of Pearson correlation coefficients between all metals within each background data subset. Appendix F1, Figures F1-1 through F1-13, present a correlation matrix for the metal-metal pairs comprising each soil type. Some, but not all, of the single-soil-type data sets displayed generally weaker correlation patterns compared to correlations based on collective data from all soil types. To an extent, some of this effect was a consequence of the overall geochemical similarity inherent within any individual USDA soil type, which represents only a narrow range of variation in observed values for any two metals. In other words, the correlation coefficient can be suppressed if there is too short of a range along both the X-direction and the Y-direction to numerically reveal any linear trend that is not overshadowed by random scatter.

Because of this, a consolidated correlation table was also prepared for each metal, which lists the correlation coefficients for each particular metal pair for every soil type, and also presents the correlation coefficients for the aggregate set of all surface soil data or all subsurface soil data. Appendix F2, Figures F2-1 through F2-10, present this overall summary of metal-metal soil correlation coefficients and was employed, along with factor analysis and scatter plots, to help select the optimal metals which display a high level of geochemical association across all soil types and therefore represent good candidates for predictive geochemical regressions.

4.6.2 Spatial Data Analysis

In Appendix F2, alongside the matrix of Pearson correlation coefficients for each pair of metals, graphical scatter plots are also presented to help visualize the linear associations between the metals of interest and the primary common normalizing elements aluminum and iron, or between any other metal-metal pairs displaying good to high correlation (r greater than approximately 0.7 or 0.75). These scatter plots provide a graphic representation of the nature and strength of the relationship between each trace metal and the reference metals. In single-soil-type scatter plots, as was the case with correlation coefficient tables, the ability to distinguish a linear trend was impaired somewhat by the narrow ranges of observed metals concentrations.

4.7 GEOCHEMICAL PREDICTION METHODS

The geochemical prediction method is based on utilizing the linear relationships observed between trace metals and covarying mineral components, such as aluminum or iron, which are present in natural abundance in soil. The element pairs that yield the most accurate and reliable linear predictions in the background soils data set are optimized via a least squares regression to calculate the slope, intercept, and statistical upper 95 percent prediction limits for a given metal of interest. These upper prediction limits are intended to be used to evaluate acceptable background ranges for a given metal present in a sample. A particular site sample can be plotted with respect to the predictor (X-variable) metal concentration and the trace metal concentration (Y-variable) and examined to see if this data point falls in between the upper and lower prediction limits for background data, and whether the mineral level (X-variable) is also within the range of background data. If the plotted point lies within the statistical limits established for background data, this indicates that the sample's trace metal concentration is likely to be associated with the natural mineral components of that sample.

For most metals, the range of background soil concentrations was able to be accurately predicted by one or more linear regressions. These linear regressions were selected based on the scatter plots having the

narrowest region of random scatter and best linear shape. In some cases more than one predictor metal was identified that could serve as a useful predictor of background levels for the metal of interest.

In order to establish a reliable and defensible estimate of the background concentration range, there should be a strong geochemical relationship between two metals. The strength of the relationship is evaluated by examining the amount of data scatter around the best fit line, and it is quantified by the correlation coefficient (r). The correlation coefficient is derived from the regression coefficient (r^2) which represents the fraction of the variation in the trace metal that can be explained by the regression line. A related quantity, called the standard error of the Y-estimate, is another useful figure of merit for measuring the accuracy of Y-predictions. The standard error of the Y-estimate represents the square root of the sum of the squared residual errors (observed Y-values minus predicted Y-values squared) divided by the number of data points minus the number of constants calculated from the data (slope and intercept).

Two types of regressions were performed, as discussed in the following sections. Simple linear regressions were based on only one predictor metal, such as iron, while a more complex, but more powerful technique of factor analysis was used to establish analyte back-prediction equations based on an optimized linear dependency which is primarily a function of the concentrations of multiple metals that all exhibit a high loading onto the same factor vector having a significant loading coefficient for the metal of interest. Factor analysis makes use of all of the useful metals data rather than only one predictor metal data to model the linear trend in the observed background levels for a metal of interest, and incorporates mathematical algorithms to prevent possible problems caused by multicollinearity when regressing several metals in a multiple linear regression (MLR).

Geochemical regressions were performed for those metals found in background soils which have associated human health criteria established in federal or state guidance, and for which useful regressions were possible because analytical data were comprised entirely of detected results or else represented by a high percentage of detections in several soil types. As noted in Table 4-3, certain regression data sets omitted soil types where non-detects occurred in more than one or two samples. In Table 4-3, the first three metals regressed consists of arsenic, lead, and chromium, which arguably represent some of the most frequently selected chemicals of potential concern (COPCs) at generic or typical sites. The second group of metals regressed consists of beryllium, manganese, and mercury, which can also be important from a human health standpoint but which might be less often selected as COPCs, generally speaking. The third group regressed includes the rather uncommon COPCs barium, copper, nickel, vanadium, and zinc. Metals that were not considered at this time for geochemical predictions because of lack of published human health criteria include aluminum, calcium, cobalt, iron, magnesium, potassium, and sodium. In addition, cadmium and selenium were detected only occasionally in background soils and so were not able to be regressed accurately due to non-detects. Note that

antimony, silver and thallium were not detected at all in the validated analytical results for background soils at NAVSTA Newport.

4.7.1 Linear Regressions Based on a Single Predictor Metal

For those metals exhibiting a strong geochemical association across multiple soil types, linear regression was used to draw a best fit line through the data points and to show the 95 percent upper prediction interval for a future y-measurement predicted from a single x-measurement observation. The slope and y-intercept of the line and the confidence and prediction intervals about the line define the expected relationship between the two metals. By defining and plotting the expected relationship, outliers were highlighted and the background concentration range and ratio were able to be estimated. Table 4-3 summarizes the various geochemical regressions performed for elements of interest, and references Appendix F5, Figures F5-1 through F5-65, for the individual graphs of regression lines and 95 percent upper prediction limits. Surface soil and subsurface soil types are highlighted on separate graphs to show how they fall within the overall regression of soil data.

While geochemical regressions can conceivably be performed individually using one soil type at a time, the modeled uncertainties are much larger based on the greater amount of scatter and smaller range of X-values and Y-values in each single-soil-type data set. For example, Appendix F5, Figures F5-5 through F5-16, show the geochemical prediction lines and 95 percent upper and lower percent prediction limits for arsenic predicted from iron using data from one soil type at a time, superimposed over a simultaneous plot of all soil types regressed together. Most of the smaller regression lines for individual soil types do fall inside of the main regression region, but it is obvious that their slopes and upper limits contain more variability and uncertainty caused by the greater relative influence of scatter with the smaller size of the data sets regressed. A similar trend of increased level of uncertainty with single-soil-type regressions is also plotted for lead in regressions on vanadium in surface soil, as shown in Appendix F5, Figures F5-19 through F5-24. Therefore, for the remaining metals, only the regressions across multiple soil types were considered.

4.7.2 Weighted Regression to Improve the Evenness of Coverage of Prediction Limits

Another technique for evaluating the goodness of fit of a regression is to evaluate the coverage, or percent of data points included, between the 95 percent upper and lower prediction limits, and to further examine the number and location of individual data points that fall outside the upper prediction limits. If the data are normally distributed, then the residual errors will be of the same magnitude at the low end and the high end of the Y-predicted values from the regression. However, this is often not the case, and the regression may tend to have more outliers at the upper end, or sometimes in the middle. The exact

cause of a larger spread in trace metal concentrations at higher concentrations of the geochemical predictor metal is not usually known, as there could be different solid phases present in the samples and different geochemical processes responsible for the trace metal distribution among these phases. However, in order to more precisely estimate the bounded region of the observed data using graphical models, in such cases, a data weighting transformation may help to cover 95 percent of the data points with a different shaped boundary line representing the upper and lower prediction limits. While an unweighted linear regression of a large data set always generates parallel lines for upper and lower prediction limits, in contrast, a weighted linear regression, where the squared residual errors are weighted by the quantity (1/x) squared, will produce a widening band between the upper and lower prediction limits, that matches a symmetrical linear wedge shape. Alternatively, using weights of 1/square root of (x times y) also produces a widening band between upper and lower prediction limits, but forms a curve that widens in a less extreme manner compared to a wedge shape at the higher end. In addition, sometimes data points appear to exhibit widening scatter at the upper end of the regression, but are constrained to a more restricted region of constant parallel width of scatter at the low end. In such cases, a funnel or cigar shaped prediction limit envelope may be employed that widens at the high end but becomes parallel at the low end. To generate a modified weight that has an absolute minimum value equal to a constant, the residual weight equation was set equal to the quantity: 1/square root of [MAX(x – Xmin , X-constant) x MAX(y – Ymin , Y-constant)]. All of the regression lines, confidence limits, and statistical figures of merit were calculated according to published and accepted methods for weighted linear regression with confidence limits (Zorn, 1997).

The best choice for weighting of residuals should give approximately 95 percent coverage across the whole regression plot and should also yield a plot of residuals that, when multiplied by respective weights, has a constant spread of minimum to maximum residual errors across the entire domain of the regression region, which is best evaluated by means of a graph of squared weighted residuals versus Y-predicted. On such a graph, the weighted residuals should appear to be an approximately constant height band and should be centered about zero median residual error. Appendix F6, Figures F6-1 through F6-47, present plots of the residual errors for each linear regression, displaying the observed minus predicted Y-values squared, multiplied by the weighting function selected as appropriate. Wherever the residuals displayed an uneven shape (for example, a funnel shape), then alternate weighting of the linear regression was attempted to try and produce a better fit of the upper prediction line to encompass the residuals more uniformly. Further supporting information for each of the combined soil-type linear regression calculations, including data representing statistical summation terms and all prediction line and upper prediction limit calculations, is provided in Appendix F8, Tables F8-1 through F8-13.

Another point to consider is whether residuals are normally distributed, which is one of the assumptions for a 95 percent prediction limit that actually covers 95 percent of the population, on the average.

Appendix F7, Figures F7-1 through F7-27, present probability (Q-Q) plots for the weighted residuals for each regression. While the weighted residuals should follow a straight line, failure to strictly adhere to a modeled line does not always mean that the upper prediction interval does not encompass 95 percent of the scatter points underneath the upper prediction limit boundary. Practically speaking, with soil data sets comprised of 99 to 234 data points, the plots in Appendix F5 usually demonstrate that prediction limits represent an envelope encompassing the scatter plot of roughly 95 percent of the background population, give or take. Where too few or too many outliers occur compared to the expected 5 percent, in certain cases, the alpha value for the t-distribution can be changed from 0.1 (two-sided) to a different value, if this successfully forces the upper prediction limit to cover 95 percent of the data with an even spread of data points inside the upper prediction limit and leaves approximately 5 percent outliers evenly spread just above the upper prediction limits. While this modification might not appear sound or defensible at first glance, such a large regression actually represents a large simulation effort to model data uncertainty, analogous to how EPA's Technical Support Center in Las Vegas, Nevada has applied alpha levels of 97.5 percent or 99 percent to certain distributional modeling estimates while being able to demonstrate through simulations that an overall coverage of 95 percent of the data is achieved in practice (EPA, 2007b).

Note that, if too many points are outliers for one particular soil type, then an alternate linear regression should be considered for evaluating any site data associated with that soil type.

4.7.3 Data Transformations Before Regression to Improve Linearity

The topic of transformations during geochemical evaluation is not covered by current guidance documents. However, the rationale for such transformations is justified by the behavior of the bounding shape which must surround the points in the data sets graphed. For example, if a cluster of data points on an X-Y geochemical graph appear to match the shape of a crescent or “bananoid” such that the best fit curve would be concave, then a poor fit might occur if one attempted to generate upper prediction limits on untransformed data with a linear regression. Similarly, since the major axis of an ellipse is linear, a confidence ellipse also would not match the concave curve of a “bananoid” data cluster. In particular, a higher frequency of occurrence of data points exhibiting positive versus negative deviations in the measured perpendicular distance to the major axis would occur in those points farther removed from the center on the major axis scale. Clearly, such a condition would not result in a bivariate normal distribution or any type of symmetrical marginal distribution of data along the two perpendicular ellipse axes. Therefore, it is the intent of data transformations to achieve a more symmetrical deviation of points from a best fit line.

For several metals, the initial scatter plots of predictor metal versus trace metal concentrations showed a concave shape that was able to be linearized by transforming the trace metal on the Y-axis using a power transform before regression. Values of one-half or two-thirds power were effectively utilized in certain instances to straighten out the shape of scatter plots for selected metals before performing regressions.

In some instances, the geochemical correlation plots showed much higher scatter at high concentrations and also included some unevenness in the shape of the scatter of the data about the line. There were several data sets that were effectively linearized by logarithmic transformation of all Y-values and X-values before regression (or in one case, only the X-values were transformed).

While preliminary data transformations may be needed to achieve an accurate linear regression fit of the data to a prediction line, one slight disadvantage to this technique is that using power transformations with coefficients less than 1 for the Y-value or logarithms of the Y-value will cause the back-transformed upper prediction limits to be wider, and care should be taken to examine the underlying spread of the data to make sure that errors do indeed scale with increasing concentrations in the manner suggested by the back-transformed prediction limits.

The effects of uncertainties in prediction intervals caused using transformations and weighted variance were carefully evaluated and investigated in each case. The following steps were documented:

- In Appendix F6, the weighted residual variance for the data points in each regression is plotted against the predictor chemical concentration. The spread of deviations of the residuals of the observed versus predicted values, normalized to the weighted variance, are fairly even across the domain of each regression, which greatly improved the uniform behavior of residuals compared to before transformation and weighting. Also, Appendix F7 provides probability (Q-Q) plots for the residuals, which tend to approximately follow a line to indicate normally distributed residuals given the variance weighting employed.

- The practical coverage of the fitted prediction envelope for each background population is tabulated in Table 4-3. The number of data points of each soil type that fall outside the prediction envelope is shown. When 100 to 200 data points are employed in one regression, there are sufficient data to assume that all of the background population is adequately represented and coverage of approximately 95 % of the background data is verified directly.

- Table 4-3 contains a tabulation of the relative width of the prediction interval in four separate regions for each regression: 25th percentile, median, 75th percentile, and 90th percentile. For example, the first arsenic regression shows the upper region of the regression, where the 90th percentile of Y-predicted equals an arsenic concentration in original units of 18.17 mg/kg. At this point the upper prediction limit is equal to the predicted value plus 52 percent of the predicted value. Thus, the relative rank of the quality of fit to a regression can be compared by looking at the narrowness of the width of the prediction interval. For example, a 95 percent upper prediction limit equal to the predicted value plus 20 percent is a better fit than an upper prediction limit equal to the predicted value plus 30 percent.

4.7.4 Using Regressions to Compare the Predicted Range of Background to Site Data

The elemental correlation analysis results can be used in future comparisons with IR site data. Concentration ratios that fit the background relationship and fall within regression line prediction intervals most likely represent background conditions. Concentrations that plot as outliers on trace metal vs. reference metal scatter plots may represent contamination.

Note that the proper limits for the expected prediction domain should be established so that the linear relationship is not extrapolated beyond the proven region where background soil data points fall within the regression line. This domain is usually set to be the corresponding predictor metal concentrations representing the lowest and highest X-values in the background data set that fall within the prediction limits.

4.8 FACTOR ANALYSIS APPLIED TO GEOCHEMICAL PREDICTION REGRESSIONS

Factor analysis can be interpreted as a mathematical method that attempts to reproduce an entire data set of sample results by extracting certain common factors, each of which is represented by a linear combination of the different metals concentrations (Malinowski, 1991, and Sharaf, 1986). This is analogous to each sample being composed of a combination of various amounts from each mineral (factor) component, although the extracted factors may or may not actually represent pure mineral components, since other properties such as cation exchange capacity of clays or organic carbon content may simultaneously enhance the concentration of several metals to give the appearance of co-varying levels with constant relative proportions. The metals that were detected in all samples were included in the factor analysis for all combined soil types. In the factor analysis, the correlation matrix showed high positive correlation coefficients between metals that contributed to a given factor. This indicates that among the samples in a given data set, groups of metals which comprise one factor tend to have concentrations in a fixed proportion, given the absence of any other factors affecting the same metals.

While linear regression plots for metal pairs within background soils can be used to predict the range of naturally occurring or expected concentrations in future comparisons to site data, a further extension of this technique which uses even more of the available information is to define the background data sets by means of simultaneous multi-element correlation analysis. Multiple correlations may be characterized by factor analysis to provide a means to describe the overall pattern of covarying minerals in the sample data sets, which may then be used to facilitate prediction of upper limits of background ranges for trace metals in soils considering a sample's overall mineral pattern. Analogous to single element prediction methods, in many cases the regression plots predicted by factor analysis of multiple metals can provide a more accurate estimate of the linearity of the correlation and a narrower prediction window from which to evaluate background soil concentrations. There are a number of ways to optimize factor analysis, and the method is very sensitive to variable outputs of derived factor patterns depending on the specific modeling options, so multiple trial simulations and comparison of overall prediction errors among simulations was needed. Therefore, the reliability of predictions using each factor analysis model was confirmed by leaving out the influence of the metal in question for performing a set of sample predictions, and then tabulating the overall residuals of observed versus predicted values across all samples in the data set and graphing the regression line and 95 percent prediction intervals of the observed versus predicted values for each analyte. The relative prediction errors, expressed as observed minus predicted values divided by the observed values, were tabulated for all results in the factor analysis back-prediction support calculations shown in Appendix F4, Tables F4-1 through F4-5.

Factor analysis was successfully applied to predict background metal concentrations in conjunction with regression methods. In other words, the factor analysis was used to produce an output predicted Y-

value, which is then input as the X-value for a regression of observed Y-values versus the predictor variable concentrations. The predicted values from factor analysis were often found to closely match the trace metal observed value, but sometimes required further data transformation in the Y-value before regression. The method for determining the back-calculated predicted Y-value from factor analysis is documented for each set of factor analysis equations used in Appendix F4. Basically, the factor pattern coefficients (FPC) matrix is replaced with zeros across the row containing the metal of interest, which prevents the invalid use of Y-values (the metal of interest) as an input to the prediction equation for a future Y-value. However, so that the factor analysis formulas remain unbiased, each column of coefficients must be adjusted by multiplication by a scalar constant equal to the original sum of column coefficients divided by the sum of column coefficients minus the coefficient from the row containing the metal to be predicted. Comparison of back-predictions done with and without the influence of the metal in question revealed that strong predictive accuracy was maintained, as long as one or more other metals loaded significantly (value of 0.5 or greater) onto the same factors as those which had high loadings for the metal of interest.

One caveat with the factor analysis model is that good geochemical predictive ability is not guaranteed. The predictive accuracy across a large data set must be verified for each metal before application by means of a scatter plot of predicted Y-value versus observed Y-value. For many metals, two or more versions of the factor analysis models were tested before finding a good predictive model. The final factor models used are documented in Appendix F3, showing the factor pattern matrix (FPM), the factor pattern coefficients matrix (FPC), the normalizing constants for the data set (means and standard deviations), the correlation coefficients within that data set, and the case factor scores for each sample. In some cases, a factor model was adopted that was comprised of untransformed data in original concentration units for all soil. In other cases, mixed logarithmic transformation was used for those metals which appear to follow a logarithmic probability distribution. In one instance, only surface soil was factor analyzed, or only subsurface soil, since the surface and subsurface data sets could not be simultaneously fit well using the same model. In some cases, a sediment data set consisting of 20 samples of hydric soil type Se was added to the soil data set, and used to calculate factor matrices. Again, as long as the regression prediction line was found to closely fit the nonhydric soil data with good coverage by the upper prediction limit, this demonstrates that the final model worked. However, in every case the upper and lower domain for valid prediction is based on actual soil samples, not sediment samples.

Because the factor analysis method gives predictions that are less affected by outliers for one metal, it usually achieved a slightly better fit than the single-metal predictor regressions for the various metals shown in Table 4-3. However, factor analysis is also more complex and may not be practical for others to implement, so both the factor analysis method and the single-metal predictor method were shown for

applicable elements for the geochemical regressions in Table 4-3. In nearly all cases, a factor analysis model was found which yields better accuracy than the single element regression methods.

5.0 FINDINGS AND CONCLUSIONS

This section presents the findings and conclusions for the NAVSTA Newport Basewide Background Study.

Analytical results used to develop the background soil data sets for this study were based on samples of six USDA soil types present at NAVSTA Newport, subcategorized according to two depth intervals to distinguish surface soil from subsurface soil. The background database was selected to retain only sample locations that were upgradient or beyond the influence of NAVSTA Newport sites (Section 2).

The database was evaluated to eliminate data points of questionable usability and accuracy (Section 3). In addition, the outlier tests and follow up evaluations (Section 4.3) identified and determined the disposition of candidate outliers or data points that represented hot spots or anthropogenic sources that did not represent region-wide background conditions. In all cases, no scientific or judgmental reasons were found that could support eliminating any background locations as not representative.

5.1 INVESTIGATION FINDINGS

The findings for each of the study's objectives as presented in Section 1.2 are provided in the following sections.

5.1.1 Background Soil Constituent Data Set

As described in Section 1.2, the first objective of this study was to provide a chemical constituent data set for background soils. This objective was fulfilled by providing a data set of analytical results for each soil type that is representative of non-site-related background conditions at areas in the vicinity of NAVSTA Newport. A summary of the descriptive statistics for the final data sets for each soil type is presented in Table 4-1, with a more detailed tabulation of descriptive statistics for each soil type listed in Appendix E1. To facilitate future use of these background soil data sets for statistical comparison to site data sets, distributional properties for each soil type are presented in Section 4.4, including a statistical comparison of the measured fit of the observed data to a reference normal or lognormal shape, and graphical analyses of probability plots, box plots, and histograms, which identify the occurrence and potential influence of non-detects, outliers, and/or data points which depart from the expected trend plotted for each soil type.

5.1.2 Soil Types Similarities and Differences

As described in Section 1.2, the second objective of this report was to identify the statistically significant differences or similarities between soil types, based on chemical concentrations, which may then be used to determine if all soils can be considered as one background data set or if each soil type represents a different background condition. To accomplish this task, a series of comparative statistical tests were performed as described in Section 4.5.8 to determine whether significant differences exist between analyte concentrations found in samples of each soil type versus other remaining soil types and between samples from the combined set of surface soil versus subsurface soil. A summary of statistical comparisons between soil data sets is provided in Table 4-2. Based on these findings, the majority of individual soil types revealed differences in metal concentrations when compared to all other soil types, which were shown to be statistically significant typically for about 8 to 13 metals in a given series of pairwise comparisons.

This indicates that significant compositional differences exist between the majority of soil subgroups. Therefore, in order to accurately characterize background soil types for future comparisons with Site data, background soil data sets for metals should be segregated into discrete groups, distinguished by the six previously defined soil types and by surficial versus subsurface depth classifications.

In the overall comparison of all subsurface soil to all surface soil, 12 metals were found to be elevated in the subsurface soil group, based on one or more valid statistical tests, which reveal that concentrations were greater with a statistical level of significance of 0.025 probability. In contrast, only 6 metals were found to be elevated in the surface soil group.

The metals associated with elevated surficial concentrations were aluminum, barium, lead, mercury, selenium, and vanadium. Of these, lead and mercury are often associated with non-point source anthropogenic deposition across many geographic regions. Vanadium may be associated with anthropogenic sources or natural sources.

The metals associated with elevated subsurface concentrations were arsenic, beryllium, calcium, chromium, cobalt, copper, iron, magnesium, manganese, nickel, potassium, and zinc. In some cases these differences may reflect contributions of elevated metals from bedrock. The influence of notable bedrock concentrations of arsenic on local soil concentrations at NAVSTA Newport is evident from examination of the data. Appendix E3, Figure E3-6 demonstrates that the median level of arsenic in bedrock samples from the Rhode Island formation (representing phylite) was 6 times greater than the median arsenic level found in purgatory conglomerate (42.2 mg/kg versus 7.4 mg/kg, respectively). In addition, iron and arsenic concentrations exhibited a fair degree of positive correlation in bedrock from the

Rhode Island formation, consistent with the regression of arsenic on iron from all soil types that revealed very high correlation, as shown in Appendix F5, Figures F5-3 and F5-4.

Thirteen metals were determined to have significantly lower concentrations in beaches surface soil compared to other surface soil types, which is to be expected considering the lower composition of metals in silicate minerals and lesser ability to absorb or retain metals. These trends were reflected in the geochemical association plots for most metals.

Thirteen metals were determined to have significantly lower concentrations in MmSS surface soil compared to other surface soil types.

Ten metals were determined to have significantly greater concentrations in PmSS surface soil and eight metals had significantly greater concentrations in SeSS surface soil, when compared to all other surface soils. These trends were also reflected in several geochemical association plots.

Thirteen metals were determined to have significantly greater concentrations in SeSB subsurface soil compared to other subsurface soil types.

Ten metals were determined to have significantly greater concentrations in MaSB subsurface soil and nine metals had significantly greater concentrations in PmSB subsurface soil, when compared to all other subsurface soils.

Fourteen metals were determined to have significantly lower concentrations in NeSB subsurface soil and twelve metals had significantly lower concentrations in MmSB subsurface soil, when compared to all other subsurface soils.

5.1.3 Individual Metal Assessment Data Sets

As described in Section 1.1, the third objective of this report was to provide a robust and statistically based background soils data set that can be utilized in future site-specific studies. To accomplish this goal, the final background soil data sets, which are summarized in Section 4.4.3, represent data sets that can be applied to determine whether Site data are similar to background using one of two valid approaches, based on either the comparative method, in which a Site data set is statistically compared to one particular background soil type using an array of parametric and nonparametric tests, or by application of a geochemical prediction equation, which involves comparison to 95 percent upper prediction limits based on all soil types.

With regards to the geochemical method, which is described in Section 4.7, Table 4-3 provides statistically-based geochemical prediction equations for 11 metals that can be used across multiple soil types to predict whether a site sample falls within the geochemical upper prediction limits associated with background soils. Two methods, a factor analysis method and a single predictor metal, are provided to allow an optimal selection of a geochemical regression for future site applications. The selection of an optimal regression method should be based partly on ranking the quality of fit of the regression (i.e., the narrowness of the prediction interval), plus other factors which include:

1. complexity of prediction formula,
2. likelihood that the predictor variable is influenced by non-background conditions,
3. robustness of prediction to outliers in predictor variable, and
4. prediction interval coverage (frequency of false positives) in a given background soil type.

Geochemical prediction equations were only derived for metals that are associated with human health-based regulatory or toxicity criteria for soil exposure. In addition, for some metals, such as mercury, geochemical regression was only possible for a few soil types where positive detections were universal.

Whenever the geochemical method is applied, the following limitations should be recognized:

- First, the predictor metal (X-variable) concentration in the site sample being evaluated must fall within the valid effective predictive domain of the regression, which is defined as the concentration range between the lowest and highest observed X-values in the background data set that fall within the 95 percent prediction limits of the regression.

- Second, the USDA soil type associated with the site sample should be one which displays good coverage in the particular background soil regression chosen for use. In other words, if a sizable percentage (much greater than 5 percent) of the background soil results for the pertinent soil type represent points above the upper prediction limits, then a different regression should be considered where possible.

- Third, the geochemical prediction equation is intended to compare one future site sample at a time to background upper prediction limits. If the number of site samples is greater than three, then the chances of a false positive outcome are increased to well above 5 percent; i.e., there is an increased probability of deciding that site concentrations are greater than background even when all site samples actually belong to the same population as background.

In some cases, the upper prediction limits equation can be modified to give a corrected Type I error rate, provided the data are normally distributed. In all other cases, if the geochemical method cannot be applied under valid conditions, then the alternative comparative method should be used to evaluate site data relative to background conditions.

There are also certain guidelines and caveats for using the comparative method. In all cases, the general assumption should be that each series of statistical tests will be run using a one-sided P-level of 0.05 to compare site data to one individual background soil type data set. However, if there are very few samples (for example, less than 8 to 10) within a site data set, then comparative tests may exhibit reduced statistical power (as described in Section 4.5.7), so that the minimum detectable difference may be undesirably large given the specific goals of the study. In such cases, the geochemical method may be preferable. In addition, the comparative method is unreliable if the native USDA soil type present at a site cannot be determined or matched to a particular soil type considered in this background study, which might occur, for example, if surface and subsurface soil have been disturbed by construction or if fill was brought in representing an unknown composite of soils from the surrounding nearby area. In such cases, the alternative geochemical method allows a valid and robust comparison to local background conditions no matter what the soil type, because the geochemical method assumes that any combination of the USDA soil types in the background data set are allowed to be present in the site data set. It is not even necessary, for example, that the predictor metal (X-variable) concentration be within the background range of one soil type, as long as the concentration is within the overall range for the composite background data set.

Due to the cultural history of NAVSTA Newport, Udorthents-Urban land complex (UD) (fill material) is present in many areas. For these areas the geochemical method is the intended and the preferred approach for performing comparisons to background.

5.2 CONCLUSIONS

Using only analytical results for soil sample locations not influenced by NAVSTA Newport sites, background soil data sets were developed for six USDA soil types, subcategorized by surface and subsurface depth intervals,. The data set was developed by evaluation methods that eliminated data points of questionable usability and accuracy, and checked for candidate outliers or data points that represented hot spots or anthropogenic sources that did not represent region-wide background conditions. No scientific or judgmental reasons were found that could support eliminating any background locations as not representative.

Numerous differences were seen between the various soil subgroups. A large proportion of metals display significant differences in concentrations between the soil subgroups, suggesting significant compositional differences between soil subgroups and between surface and subsurface soil. Therefore, in order to accurately characterize background soil types for future comparisons with Site data, background soil data sets for metals should be segregated into discrete groups, distinguished by soil types and by surficial versus subsurface depth classifications.

Elevated subsurface concentrations of some metals may reflect contributions of elevated metals from bedrock. The influence of notable bedrock concentrations of arsenic on local soil concentrations at NAVSTA Newport is evident from examination of the data. The median level of arsenic in bedrock samples from the Rhode Island formation (representing phylite) is six times greater than the median arsenic level found in purgatory conglomerate (42.2 mg/kg versus 7.4 mg/kg, respectively). In addition, iron and arsenic concentrations exhibited a fair degree of positive correlation in bedrock from the Rhode Island formation, consistent with the regression of arsenic on iron from all soil types that revealed very high correlation.

In conclusion, the background soil databases presented in this report are available for use in future investigations at NAVSTA Newport, and comprise a robust, base-wide background database. Soil metals concentrations at sites should not be expected to be limited to the average concentrations reported in this document but be within the ranges measured and predicted. Using this database, analytical results for metals from on-site or site-related soil samples can be statistically compared to background data of the same soil type (via the comparative method) or compared to upper prediction limits on background representing all soil types (via a geochemical prediction method) to determine if concentrations are elevated above background.

6.0 SIMPLIFIED GLOSSARY OF ENVIRONMENTAL STATISTICAL TERMS

Critical Value – The reference criteria used in a statistical test, which is a lookup value from a table. Typically, performing a statistical test first requires calculating a sample statistic from the environmental results, then comparing it to a lookup reference value. If the sample statistic falls outside of the limit shown by the critical value, this indicates there is a high chance that the assumed hypothesis is false, for example, that two sets of data are not from the same population or that the shape of the distribution is not what was assumed.

Distributional Shape – For a set of samples collected at random from a single type of source or population, a graph that shows what portion of the samples have concentrations less than the average, similar to the average, or greater than the average. The curved graph typically shows a hump in the middle, where sample concentrations are more likely to fall, versus a downward slope off to the right and to the left, where there are fewer samples at the extremes. A set of environmental data may have a distributional shape similar to a normal (bell-shaped) curve, or the shape may be lopsided (skewed).

Frequency of Detection – For a set of environmental samples, the number of samples where a substance was found divided by the total number of samples collected. Only sample results that are usable are included (not invalid results for which measurement errors were judged to be unacceptable or values qualified as non-detected or unreliable due to blank contamination).

Geometric Mean – A measure of the center of a data set, used when the data have a long right tail, or lognormal in shape. The geometric mean can be computed by averaging the logarithms of individual sample concentrations, and then taking the antilog.

Interquartile Range – The span of concentrations between the 25th quantile and the 75th quantile. (See quantile.) The interquartile range includes half of all of the data points in a data set, with 25 percent of the data points obtained from either side of the median.

Kurtosis – A measure of the flatness or sharpness in the distributional shape of a set of data, as compared to the typical bell shape of a normal distribution. A data set that has negative kurtosis has a cluster of samples spread evenly on either side of the mean or center of the distribution, as shown by a curve that is flatter near the center. Conversely, positive kurtosis means sample concentrations show a sharp spike of maximum occurrence right at the mean or center, but fall off quite rapidly the farther away the values are from the mean, such that the distributional shape has a sharper peak at the center when compared to a normal distribution's bell-shaped curve.

Lognormal Distribution – A set of data ;points that, after taking the logarithms of each sample result, can be plotted to show a spread of data that resembles the bell-shaped curve of the normal distribution, with more points clustered near the mean and fewer data points as one extends to farther distances on either side of the mean.

Mean of All Data – Average of all sample concentrations in a set of data, including samples where the substance was detected and also non-detected results, for which one-half of the detection limit is included in the average.

Median – A concentration that divides a set of sample results into two groups having equal numbers of samples, such that half of the samples in the data set have concentrations less than the median value and the other half have concentrations greater than the median.

Non-parametric Test – A statistical test that does not require the assumption that the sample data have a normal distributional shape. Most non-parametric tests involve comparisons based on the comparative ranks of the sample concentration values instead of calculations involving the concentration values.

Normal Distribution – A set of values that, when plotted, show a spread of data with more points clustered near the mean and displaying fewer data points the farther the distance on either side of the mean, which appears symmetric in shape and resembles a bell-shaped curve. The shape of any normal distribution can be expressed using a specific mathematical formula involving only the mean and the standard deviation.

Outlier – A sample result that has a concentration much greater than all others in a set of data, possibly suggesting measurement errors or an unusual underlying source of contamination different than the rest of the population. Candidate outliers are initially identified by statistical outlier tests, and should be investigated for scientific or judgmental reasons explaining the anomalous value, and may be retained or discarded, depending on further evaluation.

P – Value – The outcome of a statistical test, expressed as the likelihood that the observed amount of disagreement between two data sets could have been caused by random fluctuations and that the two data sets actually belong to the same population. A low probability (for example, less than 0.025) indicates that it is very unlikely this disagreement is due to anything other than a real difference in the two populations being compared.

TABLES

TABLE 3-1

SOIL SAMPLE SUMMARY
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area Description	Sample Area/ Figure No.	Target Composite Sample Interval (Depth, ft)[1]	Previous Background Studies Samples[2]	Basewide Background Study Samples	Total Samples
Mansfield mucky silt loam (Ma)	South of NUSC Disposal Area, NUWC	Area A/ Fig. 3-2	0 to 1	--	20	
			1 to 10	--	20	40
Merrimack sandy loam (MmA)	North of Pine Hill on Prudence Island	Area C/ Fig. 3-4	0 to 1	--	20	
			1 to 10	--	20	40
Newport silt loam (NeA, NeB, NeC, NP)	East and south of Melville Pond	Area B/ Fig. 3-3	0 to 1	2[3]	--	
	West of the airfield on Prudence Island	Area C/ Fig. 3-4	0 to 1	--	10	
			1 to 10	--	10	
	Transmission line north of Rainbow Housing Area	Area B/ Fig. 3-3	0 to 1	--	10	
			1 to 10	--	10	
	South of NUSC Disposal Area, NUWC	Area A/ Fig. 3-2	1 to 10	--	1	43
Pittstown silt loam (PmA, PmB)	South of NUSC Disposal Area, NUWC	Area A/ Fig. 3-2	0 to 1	20[4]	--	
			1 to 10	--	24	44
Stissing silt loam (Se)	South of NUSC Disposal Area, NUWC	Area A/ Fig. 3-2	0 to 1	20[4]	--	
			1 to 10	--	15	35
Beach Soils (Ba)	Southern coastal area on Prudence Island	Area C/ Fig. 3-4	0 to 1	--	13	
			1 to 10	--	--	13
			TOTALS	42	173	215

NOTES:

1 Specific sample interval based on soil conditions present.
2 See Table A-2 for a detailed summary of samples collected in previous investigations.
3 Collected during MNLF Background Soil Investigation.
4 Collected during NUSC Disposal Area (SA-08) Background Soil Investigation.

TABLE 3-2

BEDROCK SAMPLE SUMMARY
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Bedrock Type	Sample Area	Sample Area/ Figure No.	Boring ID	Samples Collected	Total Samples Collected
Rhode Island Formation (RI)	Southern most extent of Coaster's Harbor Island	Area D/ Fig. 3-5	RI1	15	19
			PC1	4	
Purgatory Conglomerate (PC)	Southern most extent of Coaster's Harbor Island	Area D/ Fig. 3-5	RI1	0	11
			PC1	11	
			TOTAL		**30**

TABLE 4-1

COMPARISON OF THE GENERAL RANGE OF CONCENTRATIONS ACROSS ALL SOIL AND BEDROCK TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Surface Soils												
Soil Type:	MaSS		MmSS		NeSS		PmSS		SeSS		BaSS	
	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean
Aluminum	5470 - 16800	11300	8300 - 15500	11800	9260 - 17900	13100	9110 - 14600	11200	8240 - 16700	12100	3710 - 5290	4270
Arsenic	2.40 - 22.50	7.05	2.40 - 6	4.03	1.70 - 17.10	6.28	4.70 - 21.30	9.59	2.63 - 71.70	13	0.83 - 1.30	1.03
Barium	15 - 61	39.4	15.60 - 31.70	22.4	18.20 - 36.30	25.2	28.10 - 53.10	39.7	15.10 - 60.60	35	6.30 - 14.50	7.69
Beryllium	0.12 - 0.62	0.388	0.26 - 0.58	0.419	0.28 - 0.79	0.485	0.35 - 0.35	0.33	0.37 - 0.37	0.35	0.14 - 0.17	0.151
Cadmium	0.077 - 0.15	0.0453	--	--	0.068 - 0.53	0.0748	--	--	--	--	--	--
Calcium	304 - 2620	981	222 - 480	323	231 - 559	370	--	--	--	--	588 - 4830	1420
Chromium	4.80 - 17.40	12	5.80 - 15.10	9.87	6.30 - 17.10	11.3	11.20 - 16	13.5	8.30 - 28.20	12.7	4.80 - 7.45	5.84
Cobalt	0.85 - 7.50	4.08	1.30 - 4.60	2.87	1.50 - 7.40	3.83	4.50 - 13.80	7.25	3.60 - 11.90	5.52	1.60 - 2.50	1.95
Copper	1.60 - 10.60	5.82	3.60 - 11.30	6.84	3.30 - 20.30	10.1	--		--		2.70 - 10.05	4.13
Iron	5940 - 26600	14800	8240 - 18000	13800	9020 - 23000	15100	12700 - 43300	19800	8840 - 53900	19600	7180 - 9920	8210
Lead	10.80 - 34.20	17.6	5.30 - 18.40	10.8	8.20 - 44	16.6	17.90 - 49.50	31.2	13.40 - 38	23.2	2.60 - 4.75	3.14
Magnesium	555 - 2700	1720	767 - 2290	1520	932 - 2780	1740	1360 - 1960	1610	1570 - 2930	1660	1655 - 2370	1970
Manganese	27.90 - 286	128	80.40 - 194	141	85.50 - 290	171	101 - 477	289	50 - 373	130	102.45 - 135	116
Mercury	0.018 - 0.10	0.0479	0.016 - 0.056	0.0271	0.021 - 0.24	0.0844	0.10 - 0.68	0.0848	0.10 - 0.12	0.0559	--	--
Nickel	2.80 - 15	9.75	4.50 - 10.60	7.7	4.60 - 16.50	9.44	7.50 - 14.40	10.3	5.30 - 19.10	11	5.20 - 8.20	6.24
Potassium	216 - 547	351	276 - 840	494	308 - 666	402	--	--	--	--	459 - 877	552
Selenium	0.23 - 0.73	0.37	0.18 - 0.55	0.251	0.20 - 0.89	0.295	--	--	--	--	--	--
Sodium	62.30 - 195	69.5	63.30 - 63.30	32.3	--		--	--	--	--	131 - 349	254
Vanadium	11.60 - 30.40	21.1	10.80 - 22.70	17	12.50 - 23.10	18.1	26.10 - 35.80	30.5	14 - 34.20	25.1	5.20 - 8.30	6.37
Zinc	10.50 - 57.80	33.1	15.10 - 29.40	22	15.60 - 67.40	29.9	25.90 - 93.70	50.2	21.40 - 81.70	43.3	18.10 - 35.25	20.9

Subsurface Soils										
Soil Type:	MaSB		MmSB		NeSB		PmSB		SeSB	
	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean	Range (Min - Max)	Mean
Aluminum	8630 - 14150	10600	5520 - 12000	8830	8090 - 12300	10600	8390 - 13200	10600	9060 - 14000	11100
Arsenic	5.70 - 43.65	16.8	2.50 - 6.70	4.04	1.90 - 5.80	3.71	5.30 - 23.50	14.3	4.40 - 32.20	16.8
Barium	13.60 - 41.15	26.6	14.60 - 42.90	24.3	16.40 - 39.60	26.5	18.20 - 33.40	25.8	20.70 - 30.20	25.2
Beryllium	0.36 - 0.78	0.497	0.28 - 0.71	0.384	0.30 - 0.51	0.394	0.39 - 0.76	0.529	0.44 - 0.61	0.524
Cadmium	0.14 - 0.19	0.0547	--	--	0.07 - 0.08	0.0322	0.13 - 0.15	0.0717	0.08 - 0.25	0.135
Calcium	676 - 1870	1390	348 - 923	605	324 - 792.50	540	646 - 1650	1090	703 - 1540	1170
Chromium	11.60 - 18.70	14.5	6.20 - 18.80	11.4	7.60 - 14.90	11.3	11.90 - 21.30	14.4	12.60 - 17.30	14.8
Cobalt	5.90 - 19.90	10.4	4.60 - 11.30	6.95	4.80 - 9.60	7.07	6.50 - 17.10	11.5	9 - 17.70	13.7
Copper	6.10 - 24.40	15.3	9.20 - 43.70	14.3	8.50 - 16.50	12.9	6.50 - 25.80	14.6	11.10 - 30.50	19.6
Iron	15100 - 51700	27200	10600 - 24000	16200	11800 - 23700	18000	14900 - 38700	26900	15000 - 42650	29600
Lead	6.40 - 13.40	8.75	5.30 - 10.60	7.66	5.50 - 7.80	6.77	5.20 - 11.30	8.22	7.10 - 13.50	10.3
Magnesium	1920 - 4200	2880	1880 - 4580	2990	2050 - 3890	2940	2080 - 3360	2750	2380 - 3850	2970
Manganese	157 - 1750	501	193 - 669.50	316	176 - 634	285	214 - 1520	549	191 - 1330	461
Mercury	0.0205 - 0.022	0.00829	--	--	0.01 - 0.02	0.0077	0.016 - 0.016	0.00757	--	--
Nickel	11.80 - 25.40	19.3	7.60 - 22.60	12.9	8.80 - 19	13.5	11.40 - 27.10	18.5	15.10 - 37.10	24.2
Potassium	288 - 721	521	610 - 2440	1300	441 - 2040	1030	359 - 590	462	412 - 677	548
Selenium	0.22 - 0.36	0.148	--	--	--	--	0.71 - 0.71	0.148	0.33 - 0.33	0.155
Sodium	59.30 - 107	47.3	54.90 - 67.80	30.5	54.90 - 54.90	29.3	54.10 - 94.50	68.7	58.80 - 60.80	35.2
Vanadium	15.30 - 25.50	18.9	8.60 - 19	13.2	11.70 - 18.50	14	15.20 - 28.50	19.3	15.50 - 21.15	18.7
Zinc	30.50 - 71.40	49.3	18.70 - 42.80	29.6	22.10 - 41.90	32	29.70 - 61.40	42.6	34.10 - 74.50	55.4

Bedrock				
Formation:	Rhode Island		Purgatory Conglomerate	
	Range (Min - Max)	Mean	Range (Min - Max)	Mean
Aluminum	943 - 16300	9750	2860 - 12600	7920
Antimony	0.55 - 0.55	0.474	0.52 - 0.52	0.43
Arsenic	1.3 – 79	37.8	0.23 - 27.1	9.6
Barium	1.3 - 12.2	4.69	0.8 - 20.1	4.19
Beryllium	0.07 - 0.869	0.498	0.06 - 0.75	0.247
Calcium	72.5 - 11800	3260	687 - 39500	9680
Chromium	3.7 - 19.2	7.89	4.9 - 18.1	9.32
Cobalt	0.35 - 31.9	13.6	3.8 - 37.3	15.1
Copper	0.68 - 53.3	20.6	6 - 60	17.8
Iron	2040 - 50100	29400	10800 - 61600	27500
Lead	0.965 - 26.3	9.21	2.5 - 31	12.4
Magnesium	591 - 7940	5320	1980 - 7830	3860
Manganese	13.9 - 3830	646	71.4 - 3680	840
Nickel	0.91 - 58.4	28.5	4.5 - 34.1	16.5
Potassium	66.3 - 400	188	57.1 - 537	128
Silver	0.073 - 0.095	0.0451	1.3 - 1.3	0.253
Sodium	62.4 - 346	128	0.085 - 0.085	0.0394
Vanadium	0.62 - 17.8	8.32	65.7 - 354	142
Zinc	2.9 - 125	59	4.8 - 35.9	12.1

NOTES:
Units are mg/kg.
-- = Not detected
BaSS = Beaches Surface Soil
MaSS/SB = Mansfield Mucky Silt Loam Surface Soil/Subsurface Soil
MmSS/SB = Merrimack Sandy Loam Surface Soil/Subsurface Soil
NeSS/SB = Newport Silt Loam Surface Soil/Subsurface Soil
PmSS/SB = Pittstown Silt Loam Surface Soil/Subsurface Soil
SeSS/SB = Stissing Silt Loam Surface Soil/Subsurface Soil

TABLE 4-2

SUMMARY OF STATISTICAL COMPARISONS BETWEEN BACKGROUND SOIL TYPES BASEWIDE BACKGROUND STUDY NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Pairwise Comparisons Between Individual Surface Soil Types and All Other Surface Soils
Significant difference? greater than (Y), not greater than (N), inconclusive (NA), no data (---)

Appendix E Table No.:	E6-1	E6-2	E6-3	E6-4	E6-5	E6-6	E6-7	E6-8	E6-9	E6-10	E6-11	E6-12
Soil Types Compared:	BaSS > Other SS	Other SS > BaSS	MaSS > Other SS	Other SS > MaSS	MmSS > Other SS	Other SS > MmSS	NeSS > Other SS	Other SS > NeSS	PmSS > Other SS	Other SS > PmSS	SeSS > Other SS	Other SS > SeSS
Aluminum	N	Y	N	N	N	N	Y	N	N	N	N	N
Arsenic	N	Y	N	N	N	Y	N	N	Y	N	Y	N
Barium	N	Y	Y	N	N	Y	N	Y	Y	N	Y	N
Beryllium	N	Y	N	N	N	N	Y	N	N	N	N	N
Cadmium	---	NA	NA	NA	---	NA	N	N	---	NA	---	NA
Calcium	Y	N	Y	N	N	Y	N	N	---	N	---	N
Chromium	N	Y	Y	N	N	Y	N	N	Y	N	N	N
Cobalt	N	Y	N	N	N	Y	N	N	Y	N	Y	N
Copper	N	Y	N	N	N	N	Y	N	---	N	---	N
Iron	N	Y	N	N	N	Y	N	N	Y	N	Y	N
Lead	N	Y	N	N	N	Y	N	N	Y	N	Y	N
Magnesium	Y	N	N	N	N	N	N	N	N	Y	N	N
Manganese	N	Y	N	Y	N	Y	Y	N	Y	N	N	Y
Mercury	---	N	N	N	N	Y	Y	N	N	N	N	N
Nickel	N	Y	N	N	N	Y	Y	N	Y	N	Y	N
Potassium	Y	N	N	N	Y	N	Y	N	---	N	---	N
Selenium	---	NA	Y	N	N	N	N	N	---	NA	---	NA
Sodium	Y	N	N	N	N	Y	---	NA	---	NA	---	NA
Vanadium	N	Y	N	N	N	Y	N	Y	Y	N	Y	N
Zinc	N	Y	Y	N	N	Y	N	N	Y	N	Y	N

Pairwise Comparisons Between Individual Subsurface Soil Types and All Other Subsurface Soils
Significant difference? greater than (Y), not greater than (N), inconclusive (NA), no data (---)

Appendix E Table No.:	E6-13	E6-14	E6-15	E6-16	E6-17	E6-18	E6-19	E6-20	E6-21	E6-22	E6-23	E6-24
Soil Types Compared:	MaSB > Other SB	Other SB > MaSB	MmSB > Other SB	Other SB > MmSB	NeSB > Other SB	Other SB > NeSB	PmSB > Other SB	Other SB > PmSB	SeSB > Other SB	Other SB > SeSB	All SS > All SB	All SB > All SS
Aluminum	N	N	N	Y	Y	N	N	N	Y	N	Y	N
Arsenic	Y	N	N	Y	N	Y	Y	N	Y	N	N	Y
Barium	N	N	N	N	Y	N	N	N	N	Y	Y	N
Beryllium	N	N	N	Y	N	Y	Y	N	Y	N	N	Y
Cadmium	N	N	---	N	N	Y	NA	N	Y	N	N	N
Calcium	Y	N	N	Y	N	Y	Y	N	Y	N	N	Y
Chromium	Y	N	N	Y	N	Y	Y	N	Y	N	N	Y
Cobalt	N	N	N	Y	N	Y	Y	N	Y	N	N	Y
Copper	Y	N	N	Y	N	Y	N	N	Y	N	N	Y
Iron	Y	N	N	Y	N	Y	Y	N	Y	N	N	Y
Lead	Y	N	N	N	N	Y	N	N	Y	N	Y	N
Magnesium	N	N	N	N	N	N	N	Y	N	N	N	Y
Manganese	Y	N	N	Y	N	Y	Y	N	N	N	N	Y
Mercury	N	N	---	N	N	N	NA	NA	---	NA	Y	N
Nickel	Y	N	N	Y	N	Y	N	N	Y	N	N	Y
Potassium	N	Y	Y	N	Y	N	N	Y	N	Y	N	Y
Selenium	N	NA	---	NA	---	N	NA	NA	NA	NA	Y	N
Sodium	N	N	N	N	N	Y	Y	N	N	N	N	N
Vanadium	Y	N	N	Y	N	Y	Y	N	Y	N	Y	N
Zinc	Y	N	N	Y	N	Y	N	N	Y	N	N	Y

NOTES:

BaSS = Beaches Surface Soil
MaSS/SB = Mansfield Mucky Silt Loam Surface Soil/Subsurface Soil
MmSS/SB = Merrimack Sandy Loam Surface Soil/Subsurface Soil
NeSS/SB = Newport Silt Loam Surface Soil/Subsurface Soil
PmSS/SB = Pittstown Silt Loam Surface Soil/Subsurface Soil
SeSS/SB = Stissing Silt Loam Surface Soil/Subsurface Soil

TABLE 4-3

SUMMARY OF FIT QUALITY FOR PREDICTION OF GEOCHEMICAL ASSOCIATION
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ELEMENT, Overall Quality of Fit (Rank*), and Ease of Use	Dataset Description: No. of Samples, Soil Types Included, Data Transformations	Predictor (X) Variable and Effective Prediction Domain (D) = Min./Max.	Prediction Applies to Soil Types	Prediction Equation		Standard Error (SE) Y-Estimate and r^2	Width of 95% Prediction Interval Given as Plus or Minus Percent of Y-Predicted Value: Region of Regression	Predicted Y-Value**	95% LCL (– %)**	95%UCL (+ %)**	No. of Data Points > 95% Upper Prediction Limits by Soil Type: BA	MA	MM	NE	PM	SE	References to Report Figures and Tables
ARSENIC	234 samples	X = Iron	All SS and	$(As)^{0.67} = m\ (Fe) + b$	slope (m)	S.E. of Y =	25% Quantile	4.63	-60%	76%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-3, F5-4**
Good Fit	All SS, SB, SE-SED	D: Fe = 5940 - 53900	SB		2.3391E-04	1.06	Median	6.92	-56%	69%	0/13	3/20	0/20	2/22	0/20	6/20	Residuals vs. Y-pred: F6-3, F6-4
(Ranked 2nd*)	Arsenic 2/3 Power				intercept (b)	r^2 =	75% Quantile	11.67	-49%	60%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-2
simple to use	Iron (original units)				-6.2687E-01	0.81	90% Quantile	18.17	-44%	52%	NA	3/20	0/20	0/20	1/24	0/15	Regression Calcs: F8-1
ARSENIC	234 samples	X = (predicted As) from	All SS and	$(As)^{0.67} = m\ (As\text{-predict}) + b$	slope (m)	S.E. of Y =	25% Quantile	3.93	-54%	67%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-1, F5-2**
Good Fit	Including all SS, SB	6 Factor Analysis, without	SB	where As-predict = sum of	2.9634E-01	0.96	Median	6.87	-49%	59%	0/13	2/20	0/20	4/22	0/20	2/20	Residuals vs. Y-pred: F6-1, F6-2
(Ranked 1st*)	and SE-SED; Power	Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	12.14	-43%	50%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-1
complex to use	transform after fac. anal.	D = Min/Max of factor scores		$\sum$ metal(j) * factor coeff.(ij)	1.2453E+00	0.84	90% Quantile	18.90	-38%	44%	0/20	3/20	1/20	0/20	3/24	0/15	Reg. Calc F8-1; Fac Anal F3-1,F4-1
LEAD	115 samples	X = Vanadium	All SS	$(Pb)^{0.5} = m\ (V) + b$	slope (m)	S.E. of Y =	25% Quantile	9.67	-44%	57%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-18**
Good Fit	All SS	D: V = 5.2 - 35.8			1.4824E-01	0.62	Median	16.29	-43%	56%	0/13	2/20	0/20	3/22	0/20	2/20	Residuals vs. Y-pred: F6-6
(Ranked 2nd*)	Lead 1/2 Power				intercept (b)	r^2 =	75% Quantile	23.40	-42%	54%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-4
simple to use	Vanadium (orig. units)				9.3823E-01	0.77	90% Quantile	30.17	-41%	52%	NA	NA	NA	NA	NA	NA	Regression Calcs: F8-2
LEAD	214 spls (SS and SB) in	X = (predicted Pb) from	All SS	$(Pb)^{0.67} = m\ (Pb\text{-predict}) + b$	slope (m)	S.E. of Y =	25% Quantile	10.29	-42%	49%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-17**
Good Fit	factor anal.; regressed	6 Factor Analysis, without		where Pb-predict = sum of	2.7984E-01	1.19	Median	15.91	-39%	45%	0/13	2/20	0/20	4/22	2/20	2/20	Residuals vs. Y-pred: F6-5
(Ranked 1st*)	115 spls.(SS); Power	Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	23.38	-36%	41%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-3
complex to use	transform after fac. anal.	D = Min/Max of factor scores		$\sum$ metal(j) * factor coeff.(ij)	1.6740E+00	0.81	90% Quantile	30.84	-34%	38%	NA	NA	NA	NA	NA	NA	Reg. Calc F8-2; Fac Anal F3-2,F4-2
LEAD	99 samples (all SB)	X = (predicted Pb) from	All SB	$(Pb) = m\ (Pb\text{-predict}) + b$	slope (m)	S.E. of Y =	25% Quantile	7.00	-24%	24%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-25**
Good Fit		5 Factor Analysis, without		where Pb-predict = sum of	9.7965E-01	1.02	Median	7.80	-22%	22%	NA	NA	NA	NA	NA	NA	Residuals vs. Y-pred: F6-7
(Ranked 1st*)		Be,Cd,Hg,Na,Se		5 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	9.01	-19%	19%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-5
complex to use	All Data Untransformed	D = Min/Max of factor scores		$\sum$ metal(j) * factor coeff.(ij)	1.6747E-01	0.71	90% Quantile	10.52	-16%	16%	NA	1/20	2/20	0/22	1/20	1/20	Reg. Calc F8-3; Fac Anal F3-3,F4-3
LEAD	99 samples (all SB)	X = Zinc	All SB	$(Pb) = m\ (Zn) + b$	slope (m)	S.E. of Y =	25% Quantile	7.02	-27%	27%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-26**
Good Fit		D: Zn = 18.7 - 74.5			1.1556E-01	1.14	Median	7.93	-24%	24%	NA	NA	NA	NA	NA	NA	Residuals vs. Y-pred: F6-8
(Ranked 2nd*)					intercept (b)	r^2 =	75% Quantile	9.41	-20%	20%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-6
simple to use	All Data Untransformed				3.4722E+00	0.64	90% Quantile	10.52	-18%	18%	NA	1/20	3/20	0/22	0/20	1/20	Reg. Calc F8-3
LEAD	99 samples (all SB)	X = Iron	All SB	$(Pb) = m\ (Fe) + b$	slope (m)	S.E. of Y =	25% Quantile	6.96	-29%	29%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-28**
Good Fit		D: Fe = 10600 - 51700			1.7964E-04	1.21	Median	8.07	-25%	25%	NA	NA	NA	NA	NA	NA	Residuals vs. Y-pred: F6-10
(Tied 3rd Rank*)					intercept (b)	r^2 =	75% Quantile	9.20	-22%	22%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-8
simple to use	All Data Untransformed				4.0221E+00	0.59	90% Quantile	10.28	-20%	20%	NA	1/20	2/20	0/22	0/20	2/20	Reg. Calc F8-3
LEAD	99 samples (all SB)	X = Nickel	All SB	$(Pb) = m\ (Ni) + b$	slope (m)	S.E. of Y =	25% Quantile	7.04	-29%	29%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-27**
Good Fit		D: Ni = 7.6 - 37.1			2.4870E-01	1.22	Median	8.01	-25%	25%	NA	NA	NA	NA	NA	NA	Residuals vs. Y-pred: F6-9
(Tied 3rd Rank*)					intercept (b)	r^2 =	75% Quantile	9.19	-22%	22%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-7
simple to use	All Data Untransformed				3.9031E+00	0.59	90% Quantile	10.21	-20%	20%	NA	1/20	2/20	0/22	1/20	0/20	Reg. Calc F8-3

TABLE 4-3

SUMMARY OF FIT QUALITY FOR PREDICTION OF GEOCHEMICAL ASSOCIATION
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ELEMENT, Overall Quality of Fit (Rank*), and Ease of Use	Dataset Description: No. of Samples, Soil Types Included, Data Transformations	Predictor (X) Variable and Effective Prediction Domain (D) = Min./Max.	Prediction Applies to Soil Types	Prediction Equation		Standard Error (SE) Y-Estimate and r^2	Width of 95% Prediction Interval Given as Plus or Minus Percent of Y-Predicted Value: Region of Regression	Predicted Y-Value**	95% LCL (– %)**	95%UCL (+ %)**	No. of Data Points > 95% Upper Prediction Limits by Soil Type: BA	MA	MM	NE	PM	SE	References to Report Figures and Tables
CHROMIUM	214 samples, mixed logs	X = (predicted Cr) from	All SS and	$(Cr)^{0.5}$ = m (Cr-predict) + b	slope (m)	S.E. of Y =	25% Quantile	10.35	-22%	24%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-33, F5-34**
Good Fit	before factor analysis;	5 Factor Analysis, without	SB	where Cr-predict = sum of	1.5524E-01	0.24	Median	12.42	-23%	26%	0/13	1/20	1/20	0/22	0/20	1/20	Residuals vs. Y-pred: F6-15, F6-16
(Ranked 1st*)	afterward, 1/2 power then	Be,Ca,Cd,Cu,Hg,Na,K,Se		5 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	14.09	-24%	28%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-11
complex to use	regression of SS+SB	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	1.5608E+00	0.77	90% Quantile	15.54	-25%	29%	NA	2/20	2/20	0/20	4/24	0/15	Reg. Calc F8-5; Fac Anal F3-4,F4-4
CHROMIUM	234 samples for factor	X = (predicted Cr) from	All SS and	(Cr) = m (Cr-predict) + b	slope (m)	S.E. of Y =	25% Quantile	10.49	-26%	26%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-29, F5-30**
Good Fit	analysis of SS, SB, and	6 Factor Analysis, without	SB	where Cr-predict = sum of	9.4622E-01	2.03	Median	12.42	-27%	27%	0/13	0/20	1/20	0/22	1/20	2/20	Residuals vs. Y-pred: F6-11, F6-12
(Ranked 2nd*)	SE-SED; Regressed SS	Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	14.48	-27%	27%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-9
complex to use	and SB after factor anal.	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	7.2330E-01	0.65	90% Quantile	16.06	-27%	27%	NA	3/20	2/20	0/20	5/24	0/15	Reg. Calc F8-4; Fac Anal F3-1,F4-1
CHROMIUM	214 samples	X = LN (Iron)	All SS and	(Cr) = m (LN{Fe}) + b	slope (m)	S.E. of Y =	25% Quantile	10.70	-31%	31%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-35, F5-36**
Good Fit	All SS and SB	D: LN (Fe) = 8.69 - 10.9	SB		6.5344E+00	2.00	Median	12.22	-27%	27%	0/13	2/20	0/20	1/22	1/20	1/20	Residuals vs. Y-pred: F6-17, F6-18
(Ranked 3rd*)	Chromium orig. units				intercept (b)	r^2 =	75% Quantile	14.01	-24%	24%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-12
simple to use	Iron (Natural Log)				-5.1733E+01	0.66	90% Quantile	15.54	-21%	21%	NA	1/20	2/20	0/20	2/24	0/15	Regression Calcs: F8-5
CHROMIUM	214 samples	X = Aluminum	All SS and	(Cr) = m (Al) + b	slope (m)	S.E. of Y =	25% Quantile	10.84	-36%	36%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-31, F5-32**
Fair Fit	All SS and SB	D: Al = 3710 - 17900	SB		9.6864E-04	2.67	Median	12.20	-37%	37%	0/13	0/20	0/20	0/22	0/20	1/20	Residuals vs. Y-pred: F6-13, F6-14
(Ranked 4th*)					intercept (b)	r^2 =	75% Quantile	13.62	-37%	37%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-10
simple to use	All data original units				1.8310E+00	0.40	90% Quantile	15.65	-38%	38%	NA	1/20	2/20	0/20	3/24	0/15	Regression Calcs: F8-4
BERYLLIUM	factor anal. 174 samples:	X = (predicted Be) from	All SS and	$(Be)^{0.5}$ = m (Be-predict) + b	slope (m)	S.E. of Y =	25% Quantile	0.36	-29%	34%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-37, F5-38**
Good Fit	SS/SB,omit PMSS/SESS)	6 Factor Analysis, omit Cd,	SB	where Be-predict = sum of	9.3556E-01	0.0542	Median	0.44	-31%	36%	0/13	0/20	0/20	0/22	0/20	0/20	Residuals vs. Y-pred: F6-19, F6-20
(Ranked 1st*)	afterward, 1/2 power then	Hg,Na,Se, omit PMSS/SESS		6 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	0.51	-32%	38%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-13
complex to use	regression of SS+SB	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	2.4500E-01	0.76	90% Quantile	0.57	-33%	39%	NA	0/20	1/20	0/20	0/24	0/15	Reg. Calc F8-6; Fac Anal F3-5,F4-5
BERYLLIUM	174 samples, all SS + SB,	X = Aluminum	All SS and	$(Be)^{0.5}$ = m (Al) + b	slope (m)	S.E. of Y =	25% Quantile	0.37	-36%	44%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-39, F5-40**
Fair Fit	omit PMSS and SESS;	D: Al = 3710 - 17900	SB		2.9864E-05	0.0729	Median	0.42	-34%	41%	0/13	0/20	0/20	0/22	0/20	0/20	Residuals vs. Y-pred: F6-21, F6-22
(Ranked 2nd*)	Beryllium 1/2 power				intercept (b)	r^2 =	75% Quantile	0.47	-32%	38%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-14
simple to use	Aluminum original units				3.3300E-01	0.57	90% Quantile	0.57	-30%	35%	NA	3/20	1/20	0/20	5/24	1/15	Regression Calcs: F8-6
MANGANESE	214 samples	X = (predicted LN{Mn}) from	All SS and	LN{Mn}=m(LN{Mn}-pred)+b	slope (m)	S.E. of Y =	25% Quantile	157.13	-53%	111%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-41, F5-42**
Fair Fit	All SS and SB	5 Factor Analysis, without	SB	where LN{Mn}-predict = sum of	9.0905E-01	0.45	Median	225.06	-52%	110%	0/13	0/20	0/20	1/22	5/20	0/20	Residuals vs. Y-pred: F6-23, F6-24
(Ranked 1st*)	Mixed Log Transformed	Be,Ca,Cd,Cu,Hg,Na,K,Se		5 factor scores, i^{th} score =	intercept (b)	r^2 =	75% Quantile	329.23	-53%	111%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-15
complex to use	Manganese logs	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	4.9179E-01	0.58	90% Quantile	469.57	-53%	111%	NA	1/20	1/20	0/20	5/24	1/15	Reg. Calc F8-7; Fac Anal F3-4,F4-4
MANGANESE	214 samples	X = LN (Iron)	All SS and	LN{Mn} = m (LN{Fe}) + b	slope (m)	S.E. of Y =	25% Quantile	172.77	-56%	127%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-43, F5-44**
Fair Fit	All SS and SB	D: LN (Fe) = 8.69 - 10.9	SB		1.1492E+00	0.50	Median	225.83	-56%	127%	0/13	0/20	0/20	0/22	0/20	0/20	Residuals vs. Y-pred: F6-25, F6-26
(Ranked 2nd*)	Manganese and Iron				intercept (b)	r^2 =	75% Quantile	309.62	-56%	127%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-16
simple to use	Log-Transformed				-5.8276E+00	0.49	90% Quantile	404.82	-56%	128%	NA	2/20	2/20	0/20	4/24	2/15	Regression Calcs: F8-7
MERCURY	62 samples from MASS,	X = Copper	MASS,	(Hg) = m (Cu) + b	slope (m)	S.E. of Y =	25% Quantile	0.03	-181%	181%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-45**
Poor Fit	MMSS, NESS (other	D: Cu = 1.6 - 20.3	MMSS,		7.4210E-03	0.032	Median	0.05	-117%	117%	NA	0/20	0/20	3/22	NA	NA	Residuals vs. Y-pred: F6-27
(Limited data)	soils mostly nondetect)		and NESS		intercept (b)	r^2 =	75% Quantile	0.07	-80%	80%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-17
high uncertainty	All data original units				-2.7412E-03	0.51	90% Quantile	0.10	-55%	55%	NA	NA	NA	NA	NA	NA	Regression Calcs. F8-8

TABLE 4-3

SUMMARY OF FIT QUALITY FOR PREDICTION OF GEOCHEMICAL ASSOCIATION
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ELEMENT, Overall Quality of Fit (Rank*), and Ease of Use	Dataset Description: No. of Samples, Soil Types Included, Data Transformations	Predictor (X) Variable and Effective Prediction Domain (D) = Min./Max.	Prediction Applies to Soil Types	Prediction Equation		Standard Error (SE) Y-Estimate and r^2	Width of 95% Prediction Interval Given as Plus or Minus Percent of Y-Predicted Value: Region of Regression	Predicted Y-Value**	95% LCL (– %)**	95%UCL (+ %)**	No. of Data Points > 95% Upper Prediction Limits by Soil Type: BA	MA	MM	NE	PM	SE	References to Report Figures and Tables
BARIUM	214 samples, all SS + SB;	X = (predicted Ba) from	All SS and	**(Ba) = m (Ba-predict) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	21.82	-48%	48%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-46, F5-47**
Fair Fit	mixed logs before factor	5 Factor Analysis, without	SB	where Ba-predict = sum of	8.7932E-01	**7.21**	Median	26.18	-46%	46%	0/13	5/20	0/20	0/22	1/20	3/20	Residuals vs. Y-pred: F6-28, F6-29
(Ranked 1st*)	analysis; then regression	Be,Ca,Cd,Cu,Hg,Na,K,Se		5 factor scores, i^{th} score =	**intercept (b)**	**r^2 =**	75% Quantile	31.52	-44%	44%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-18
complex to use	of Ba on predicted Ba	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	2.5091E+00	**0.53**	90% Quantile	37.32	-42%	42%	NA	1/20	0/20	0/20	1/24	0/15	Reg. Calc F8-9; Fac Anal F3-4,F4-4
BARIUM	214 samples	X = Aluminum	All SS and	**(Ba) = m (Al) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	23.88	-54%	54%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-48, F5-49**
Fair Fit	All SS and SB	D: Al = 3710 - 17900	SB		2.9105E-03	**8.86**	Median	27.96	-53%	53%	0/13	3/20	0/20	0/22	5/20	2/20	Residuals vs. Y-pred: F6-30, F6-31
(Ranked 2nd*)					**intercept (b)**	**r^2 =**	75% Quantile	32.25	-52%	52%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-19
simple to use	All data original units				-3.1842E+00	**0.29**	90% Quantile	38.35	-52%	52%	NA	0/20	1/20	0/20	0/24	0/15	Regression Calcs: F8-9
COPPER	factor anal. 174 samples:	X = (predicted Cu) from	All SS and	**(Cu) = m (Cu-predict) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	6.80	-54%	54%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-50, F5-51**
Good Fit	SS/SB,omit PMSS/SESS)	6 Factor Analysis, omit Cd,	SB	where Cu-predict = sum of	1.0181E+00	**3.21**	Median	10.72	-45%	45%	0/13	0/20	0/20	2/22	0/20	0/20	Residuals vs. Y-pred: F6-32, F6-33
(Ranked 1st*)	afterward, regression of	Hg,Na,Se, omit PMSS/SESS		6 factor scores, i^{th} score =	**intercept (b)**	**r^2 =**	75% Quantile	14.48	-40%	40%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-20
complex to use	Cu on predicted Cu	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	-6.7896E-01	**0.75**	90% Quantile	19.21	-35%	35%	NA	1/20	2/20	0/20	2/24	0/15	Reg. Calc F8-10; Fac Anal F3-5,F4-5
COPPER	174 samples, all SS + SB,	X = Nickel	All SS and	**(Cu) = m (Ni) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	7.55	-66%	66%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-52, F5-53**
Good Fit	omit PMSS and SESS;	D: Ni = 2.8 - 37.1	SB		8.1132E-01	**3.59**	Median	10.39	-48%	48%	1/13	0/20	0/20	4/22	0/20	0/20	Residuals vs. Y-pred: F6-34, F6-35
(Ranked 2nd*)					**intercept (b)**	**r^2 =**	75% Quantile	14.77	-36%	36%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-21
simple to use	All data original units				4.8912E-01	**0.69**	90% Quantile	19.30	-32%	32%	NA	1/20	1/20	1/20	0/24	0/15	Regression Calcs: F8-10
NICKEL	214 samples	X = (predicted Ni) from	All SS and	**(Ni) = m (Ni-predict) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	8.69	-33%	33%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-54, F5-55**
Good Fit	All SS and SB	6 Factor Analysis, without	SB	where Ni-predict = sum of	8.6320E-01	**2.33**	Median	11.79	-31%	31%	0/13	1/20	1/20	1/22	0/20	0/20	Residuals vs. Y-pred: F6-36, F6-37
(Ranked 1st*)		Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	**intercept (b)**	**r^2 =**	75% Quantile	16.39	-28%	28%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-22
complex to use	All data original units	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	1.5111E+00	**0.86**	90% Quantile	20.77	-25%	25%	NA	0/20	1/20	0/20	0/24	2/15	Reg. Calc F8-11; Fac Anal F3-2,F4-2
NICKEL	214 samples	X = Iron	All SS and	**(Ni) = m (Fe) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	9.38	-42%	42%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-56, F5-57**
Good Fit	All SS and SB	D: Fe = 5940 - 53900	SB		6.2084E-04	**3.45**	Median	11.68	-40%	40%	0/13	0/20	0/20	0/22	0/20	0/20	Residuals vs. Y-pred: F6-38, F6-39
(Ranked 2nd*)					**intercept (b)**	**r^2 =**	75% Quantile	15.17	-37%	37%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-23
simple to use	All data original units				6.2687E-01	**0.69**	90% Quantile	18.99	-34%	34%	NA	2/20	2/20	0/20	1/24	5/15	Regression Calcs: F8-11
VANADIUM	234 samples for factor	X = (predicted V) from	All SS and	**(V) = m (V-predict) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	16.42	-39%	39%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-58, F5-59**
Fair Fit	analysis of SS, SB, and	6 Factor Analysis, without	SB	where V-predict = sum of	7.2336E-01	**4.80**	Median	18.76	-41%	41%	1/13	0/20	0/20	0/22	11/20	3/20	Residuals vs. Y-pred: F6-40, F6-41
(Ranked 1st*)	SE-SED; Regressed SS	Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	**intercept (b)**	**r^2 =**	75% Quantile	22.23	-44%	44%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-24
complex to use	and SB after factor anal.	D = Min/Max of factor scores		∑ metal(j) * factor coeff.(ij)	5.0920E+00	**0.47**	90% Quantile	26.36	-46%	46%	NA	0/20	0/20	0/20	1/24	2/15	Reg. Calc F8-12; Fac Anal F3-1,F4-1
VANADIUM	214 samples	X = Aluminum	All SS and	**(V) = m (Al) + b**	**slope (m)**	**S.E. of Y =**	25% Quantile	16.26	-43%	43%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-60, F5-61**
Fair Fit	All SS and SB	D: Al = 3710 - 17900	SB		1.8752E-03	**5.13**	Median	18.88	-43%	43%	0/13	0/20	0/20	0/22	17/20	3/20	Residuals vs. Y-pred: F6-42, F6-43
(Ranked 2nd*)					**intercept (b)**	**r^2 =**	75% Quantile	21.65	-43%	43%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-25
simple to use	All data original units				-1.1813E+00	**0.40**	90% Quantile	25.58	-42%	42%	NA	0/20	0/20	0/20	1/24	0/15	Regression Calcs: F8-12

TABLE 4-3

SUMMARY OF FIT QUALITY FOR PREDICTION OF GEOCHEMICAL ASSOCIATION
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ELEMENT, Overall Quality of Fit (Rank*), and Ease of Use	Dataset Description: No. of Samples, Soil Types Included, Data Transformations	Predictor (X) Variable and Effective Prediction Domain (D) = Min./Max.	Prediction Applies to Soil Types	Prediction Equation		Standard Error (SE) Y-Estimate and r^2	Width of 95% Prediction Interval Given as Plus or Minus Percent of Y-Predicted Value: Region of Regression	Predicted Y-Value**	95% LCL (– %)**	95%UCL (+ %)**	No. of Data Points > 95% Upper Prediction Limits by Soil Type: BA	MA	MM	NE	PM	SE	References to Report Figures and Tables
ZINC	214 samples	X = (predicted Zn) from	All SS and	$(Zn)^{0.67}$ = m (Zn-predict) + b	slope (m)	S.E. of Y =	25% Quantile	28.70	-35%	39%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-62, F5-63**
Fair Fit	All SS and SB	6 Factor Analysis, without	SB	where Zn-predict = sum of	1.8408E-01	**1.75**	Median	35.11	-35%	40%	1/13	1/20	0/20	2/22	3/20	3/20	Residuals vs. Y-pred: F6-44, F6-45
(Ranked 1st*)	2/3 power transform	Be,Ca,Cd,Cu,Hg,Na,K,Se		6 factor scores, i^{th} score =	**intercept (b)**	r^2 =	75% Quantile	42.79	-35%	40%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-26
complex to use	after factor analysis	D = Min/Max of factor scores		$\sum$ metal(j) * factor coeff.(ij)	3.8727E+00	**0.66**	90% Quantile	50.46	-34%	39%	NA	5/20	0/20	0/20	0/24	0/15	Reg. Calc F8-13; Fac Anal F3-2,F4-2
ZINC	214 samples	X = LN (Iron)	All SS and	LN{Zn} = m (LN{Fe}) + b	slope (m)	S.E. of Y =	25% Quantile	28.66	-30%	44%	BASS	MASS	MMSS	NESS	PMSS	SESS	**Regression Line: F5-64, F5-65**
Fair Fit	All SS and SB	D: LN (Fe) = 8.69 - 10.9	SB		8.1209E-01	**0.22**	Median	34.63	-30%	44%	1/13	2/20	0/20	1/22	8/20	4/20	Residuals vs. Y-pred: F6-46, F6-47
(Ranked 2nd*)	Zinc and Iron				**intercept (b)**	r^2 =	75% Quantile	43.28	-30%	44%	SESD	MASB	MMSB	NESB	PMSB	SESB	Residuals Normality Plot: F7-27
simple to use	Log-Transformed				-4.4032E+00	**0.72**	90% Quantile	52.30	-30%	44%	NA	0/20	0/20	0/20	0/24	0/15	Regression Calcs: F8-13

Selecting an optimal geochemical regression for a site application should be based partly on ranking* (the narrowness of prediction interval), plus other factors which include: (1) complexity of prediction formula, (2) likelihood that predictor variable is influenced by non-background conditions, (3) robustness of prediction to outliers in predictor variable, and (4) prediction interval coverage (frequency of false positives) in a given background soil type.

* -- Relative Rank is based on the narrowness of the width of the prediction interval, for example, a 95% upper prediction limit equal to the predicted value plus 20% is a better fit than one based on the predicted value plus 30%.

** -- Y-Predicted Value, 95% UCL and LCL shown in original concentration units, back-transformed as applicable. Highlighted if UCL >200% (white lettering); >100% (underlined); LCL <-75% (white lettering); <-50% (underlined).

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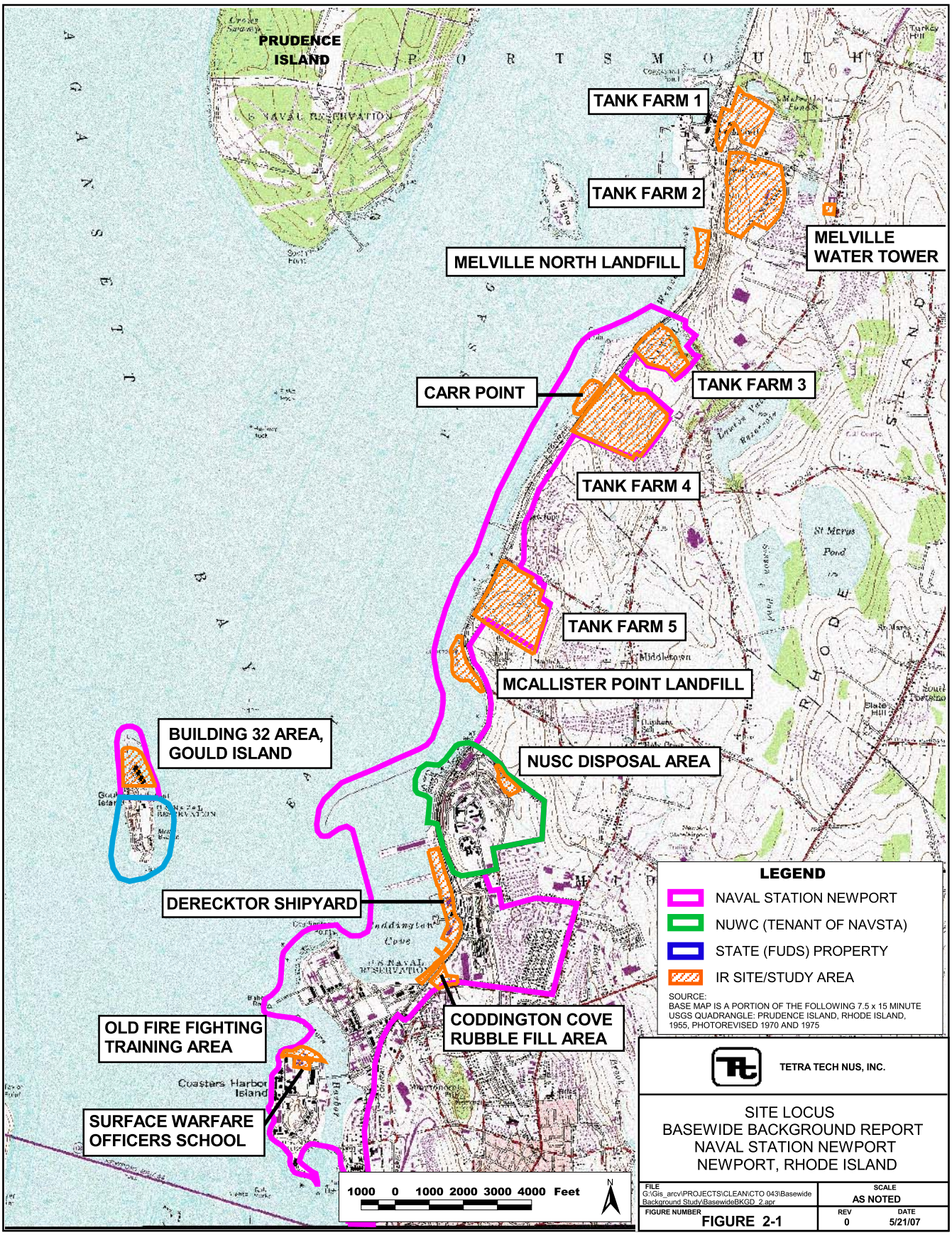
FIGURES



TETRA TECH NUS, INC.

SITE LOCUS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

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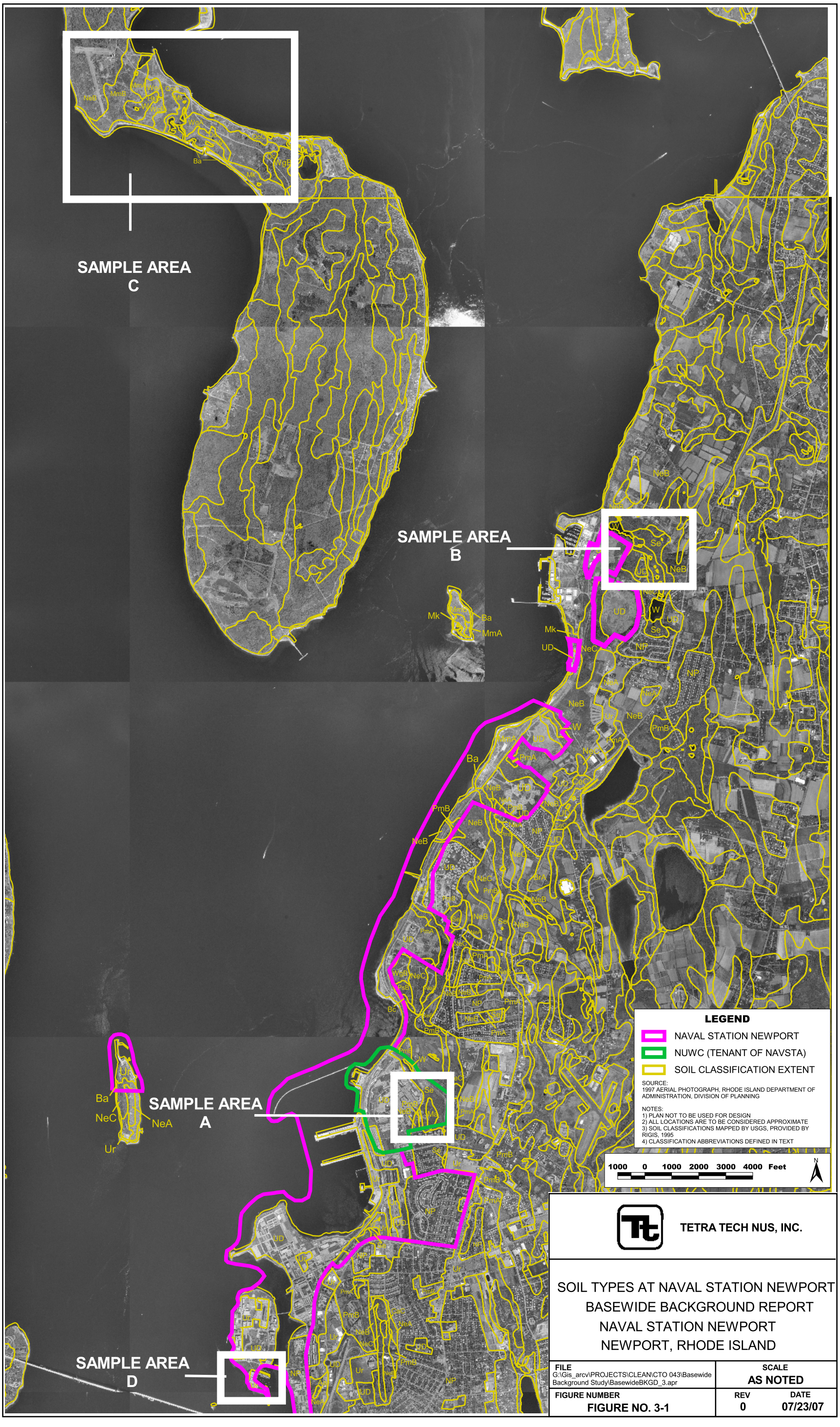
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C
SAMPLE AREA
B
SAMPLE AREA
A
SAMPLE AREA
D
LEGEND
NAVAL STATION NEWPORT
NUWC (TENANT OF NAVSTA)
SOIL CLASSIFICATION EXTENT
SOURCE:
1997 AERIAL PHOTOGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING
NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
2) ALL LOCATIONS ARE TO BE CONSIDERED APPROXIMATE
3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT
1000 0 1000 2000 3000 4000 Feet
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TETRA TECH NUS, INC.
SOIL TYPES AT NAVAL STATION NEWPORT
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND
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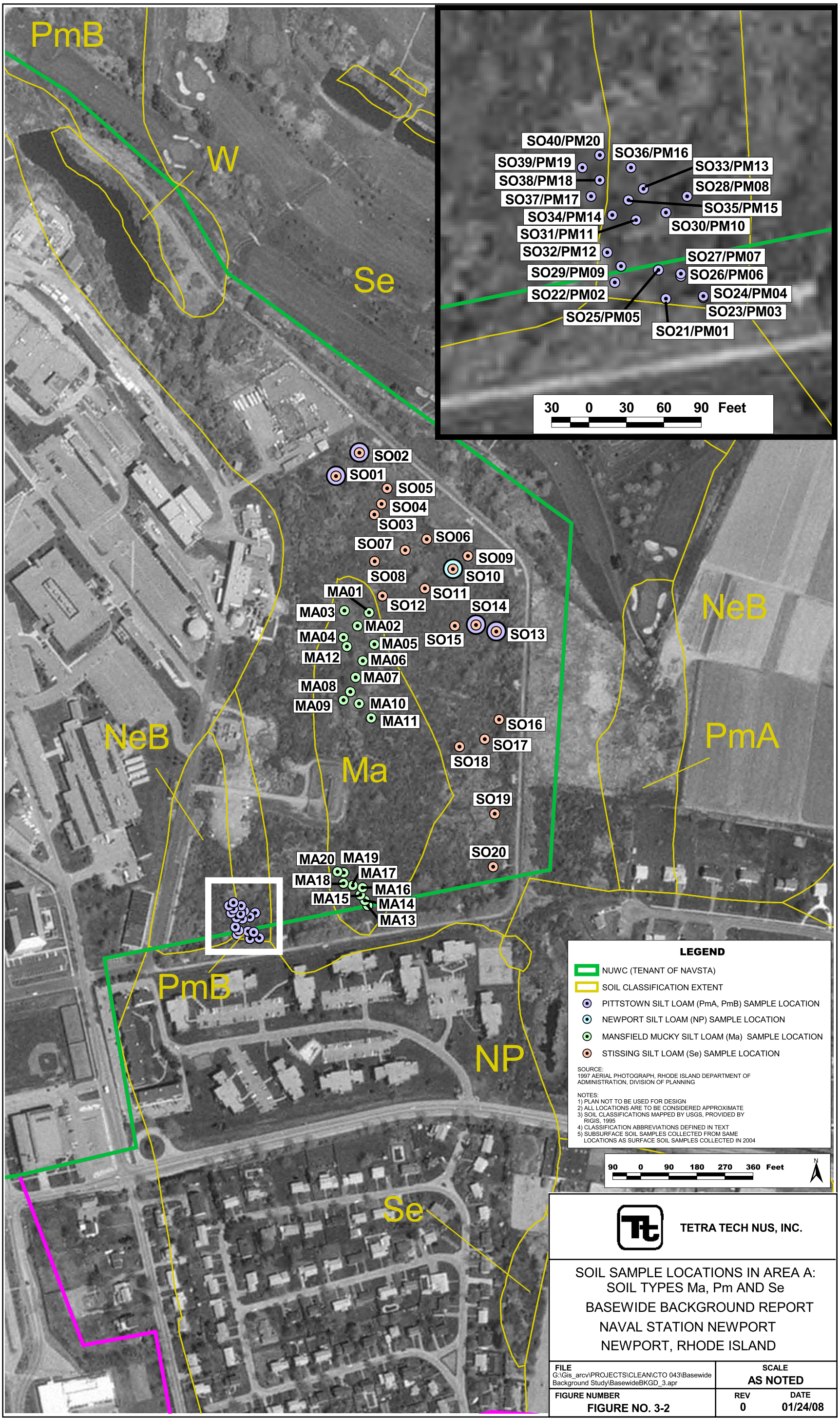
07/23/07


PmB
W
Se
SO40/PM20
SO36/PM16
SO39/PM19
SO33/PM13
SO38/PM18
SO28/PM08
SO37/PM17
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SO34/PM14
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SO31/PM11
SO32/PM12
SO27/PM07
SO29/PM09
SO26/PM06
SO22/PM02
SO24/PM04
SO23/PM03
SO25/PM05
SO21/PM01
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SO02
SO01
SO05
SO04
SO03
SO06
SO07
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MA03
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SO17
SO18
NeB
Ma
NeB
PmA
SO19
SO20
MA20
MA19
MA17
MA18
MA16
MA15
MA14
MA13
PmB
NP
Se
LEGEND
NUWC (TENANT OF NAVSTA)
SOIL CLASSIFICATION EXTENT
PITTSTOWN SILT LOAM (PmA, PmB) SAMPLE LOCATION
NEWPORT SILT LOAM (NP) SAMPLE LOCATION
MANSFIELD MUCKY SILT LOAM (Ma) SAMPLE LOCATION
STISSING SILT LOAM (Se) SAMPLE LOCATION
SOURCE:
1997 AERIAL PHOTOGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING
NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
2) ALL LOCATIONS ARE TO BE CONSIDERED APPROXIMATE
3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT
5) SUBSURFACE SOIL SAMPLES COLLECTED FROM SAME LOCATIONS AS SURFACE SOIL SAMPLES COLLECTED IN 2004
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N
TETRA TECH NUS, INC.
SOIL SAMPLE LOCATIONS IN AREA A:
SOIL TYPES Ma, Pm AND Se
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND
FILE
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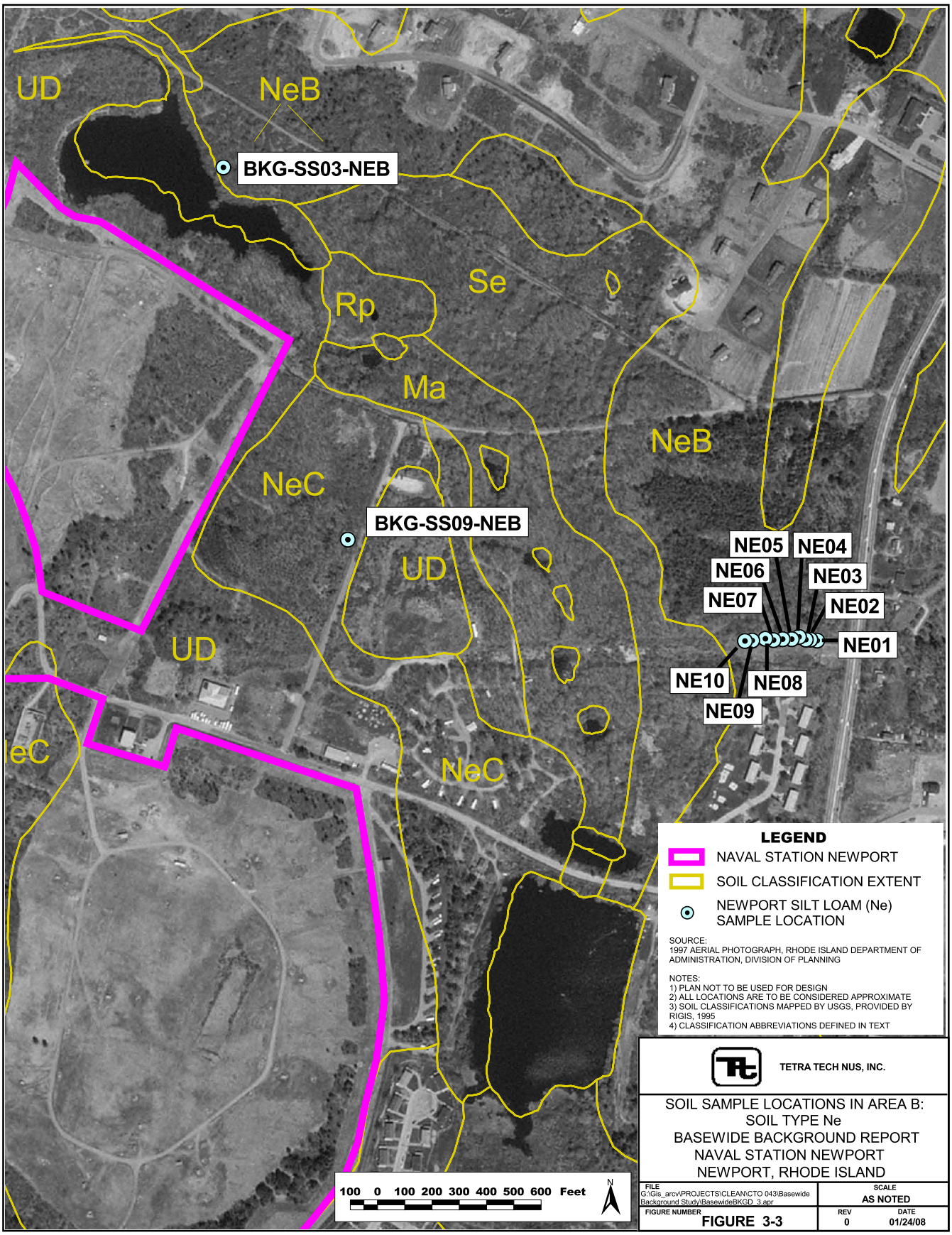
SCALE
AS NOTED
FIGURE NUMBER
FIGURE NO. 3-2
REV
0
DATE
01/24/08



TETRA TECH NUS, INC.

SOIL SAMPLE LOCATIONS IN AREA B:
SOIL TYPE Ne
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

FILE	SCALE
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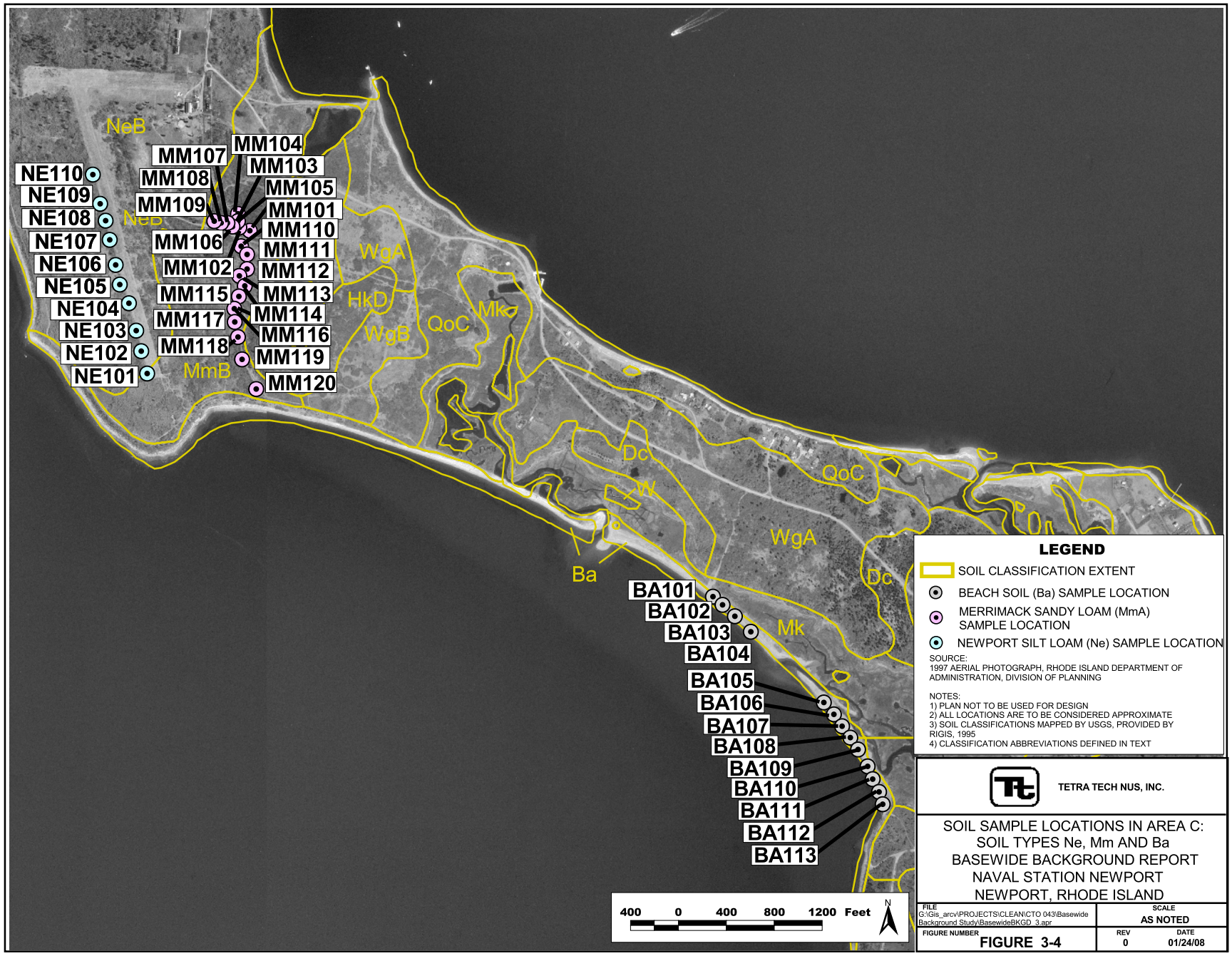
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BA104
BA105
BA106
BA107
BA108
BA109
BA110
BA111
BA112
BA113
400 0 400 800 1200 Feet
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LEGEND
SOIL CLASSIFICATION EXTENT
BEACH SOIL (Ba) SAMPLE LOCATION
MERRIMACK SANDY LOAM (MmA) SAMPLE LOCATION
NEWPORT SILT LOAM (Ne) SAMPLE LOCATION
SOURCE:
1997 AERIAL PHOTOGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING
NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
2) ALL LOCATIONS ARE TO BE CONSIDERED APPROXIMATE
3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT
TETRA TECH NUS, INC.
SOIL SAMPLE LOCATIONS IN AREA C:
SOIL TYPES Ne, Mm AND Ba
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND
FILE
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AS NOTED
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REV
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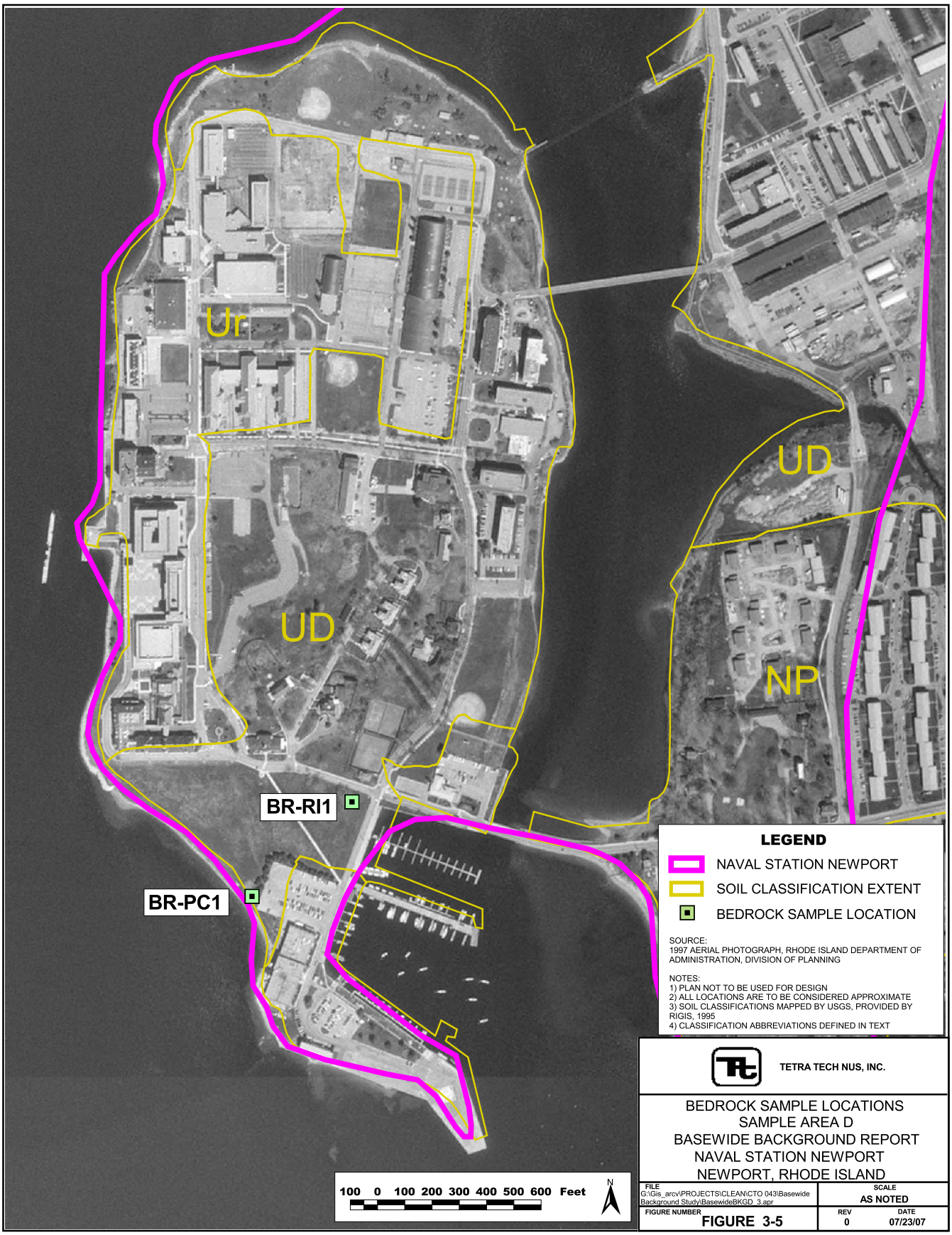
DATE
01/24/08



LEGEND

- NAVAL STATION NEWPORT
- SOIL CLASSIFICATION EXTENT
- BEDROCK SAMPLE LOCATION

SOURCE:
1997 AERIAL PHOTOGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING

NOTES:
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3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT

TETRA TECH NUS, INC.

BEDROCK SAMPLE LOCATIONS
SAMPLE AREA D
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

FILE	SCALE	
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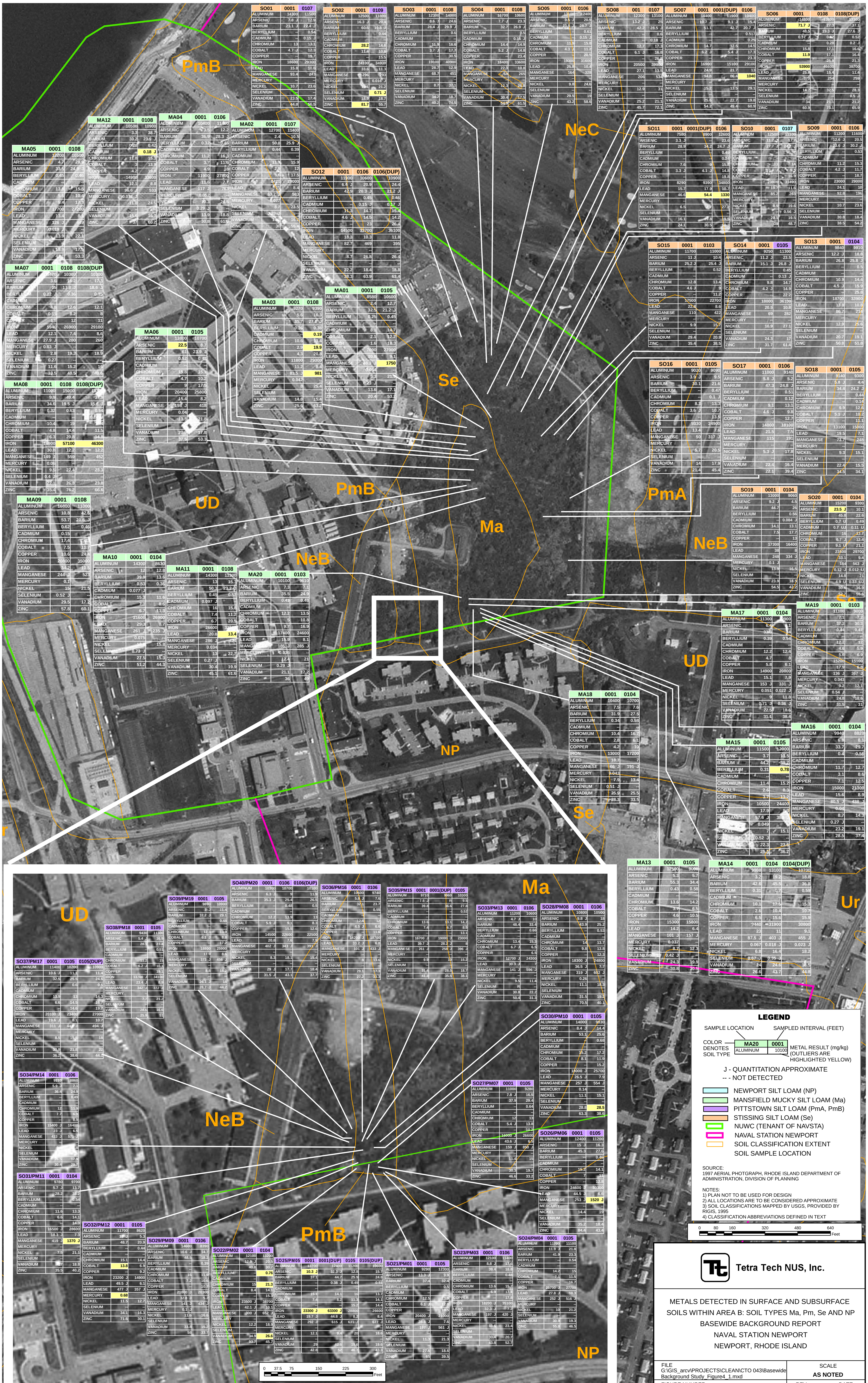

SO01	0001	0107
ALUMINUM	14300	11500
ARSENIC	7.8 J	12.9
BARIUM	21.1 J	22.4 J
BERYLLIUM	--	0.54
CADMIUM	--	0.15 J
CHROMIUM	13	13.1
COBALT	4.7 J	12.3
COPPER	--	19.7
IRON	18600	29300
LEAD	15.8	10.6
MANGANESE	93.4	243
MERCURY	--	--
NICKEL	10.7	23.6
SELENIUM	--	--
VANADIUM	23.5	17.4
ZINC	44.8	56.5

SO02	0001	0109
ALUMINUM	12500	11800
ARSENIC	16.3 J	20.4
BARIUM	60.6	19.8 J
BERYLLIUM	--	0.44
CADMIUM	--	--
CHROMIUM	28.2	14.6
COBALT	11.4	10.6
COPPER	--	15.5
IRON	24100	34900
LEAD	33.6	11.3
MANGANESE	296	293
MERCURY	--	0.016 J
NICKEL	19.1	21.2
SELENIUM	--	0.71 J
VANADIUM	18.9	18.7
ZINC	81.7	55.7

SO03	0001	0108
ALUMINUM	12300	14000
ARSENIC	8.6 J	24.6
BARIUM	28.4 J	29.9 J
BERYLLIUM	--	0.6
CADMIUM	--	--
CHROMIUM	11.9	16.6
COBALT	3.7 J	17.7
COPPER	--	30.5
IRON	19100	40900
LEAD	28.7	12.9
MANGANESE	68.7	451
MERCURY	--	--
NICKEL	8.7	37.1
SELENIUM	--	--
VANADIUM	34.2	18.7
ZINC	40.2	74.5

SO04	0001	0108
ALUMINUM	16700	10600
ARSENIC	7.7 J	23.3
BARIUM	32.7	26.9 J
BERYLLIUM	--	0.5
CADMIUM	--	0.16 J
CHROMIUM	14.4	14.9
COBALT	5.2 J	14.8
COPPER	--	23.4
IRON	18400	33600
LEAD	22.3	10.8
MANGANESE	68	265
MERCURY	--	--
NICKEL	12.3	26.8
SELENIUM	--	--
VANADIUM	30.4	17.5
ZINC	54.9	61.5

SO05	0001	0106
ALUMINUM	13100	12400
ARSENIC	9.5 J	20.9
BARIUM	23.8 J	28.7 J
BERYLLIUM	--	0.61
CADMIUM	--	0.15 J
CHROMIUM	11.9	15.8
COBALT	4.3 J	11.2
COPPER	--	20.5
IRON	19300	31600
LEAD	25.8	10.4
MANGANESE	164	328
MERCURY	--	--
NICKEL	9.8	24.6
SELENIUM	--	--
VANADIUM	29.5	19
ZINC	43.2	58.6

SO08	001	0107
ALUMINUM	12300	13100
ARSENIC	13.2 J	25
BARIUM	42.2	28.5 J
BERYLLIUM	--	0.6
CADMIUM	--	0.18 J
CHROMIUM	12.7	17.3
COBALT	6.1 J	16.8
COPPER	--	26.8
IRON	20500	39900
LEAD	27.1	13.5
MANGANESE	206	534
MERCURY	--	--
NICKEL	12.9	31
SELENIUM	--	--
VANADIUM	25.2	21.1
ZINC	45.7	72.1

SO07	0001	0001(DUP)	0106
ALUMINUM	14400	11900	10400
ARSENIC	10.7 J	9.1 J	15.4
BARIUM	51.1	42.7	20.7 J
BERYLLIUM	--	--	0.517
CADMIUM	--	--	0.25
CHROMIUM	14.7	12.5	14.5
COBALT	6.2 J	5.4 J	17.3
COPPER	--	--	23.3
IRON	16900	15100	29100
LEAD	24.9	21.7	13
MANGANESE	94.8	86.4	1040
MERCURY	--	--	--
NICKEL	15.2	13.5	29.1
SELENIUM	--	--	--
VANADIUM	25.6	22.7	19.8
ZINC	54.2	49.4	60.9

SO06	0001	0108	0108(DUP)
ALUMINUM	14800	13600	13300
ARSENIC	71.7 J	27.3	37.1
BARIUM	48.5	19.3 J	27.6 J
BERYLLIUM	0.37 J	0.62	0.52
CADMIUM	--	0.28	0.2 J
CHROMIUM	15.8	17.1	16.6
COBALT	11.9	17.1	16.4
COPPER	--	25.9	21.3
IRON	53900	46600	38700
LEAD	25.6	15.4	11.4
MANGANESE	373	254	259
MERCURY	--	--	--
NICKEL	14.7	32.5	28.3
SELENIUM	--	--	0.5 J
VANADIUM	34	21.1	21.2
ZINC	60.9	73.1	65.9

SO11	0001	0001(DUP)	0106
ALUMINUM	7580	8900	12600
ARSENIC	3.3 J	--	23.6
BARIUM	28.9	34.2	24.7 J
BERYLLIUM	--	--	0.49
CADMIUM	--	--	0.24
CHROMIUM	7.6	9	15.8
COBALT	3.3 J	4.1 J	14.8
COPPER	--	--	19.8
IRON	8290	9390	34800
LEAD	15.7	17.9	10.7
MANGANESE	46.6	54.4	1330
MERCURY	--	--	--
NICKEL	6.5	7.7	27.2
SELENIUM	--	--	--
VANADIUM	16.1	19.8	19.5
ZINC	24.1	30.5	60.3

SO10	0001	0107
ALUMINUM	12500	11100
ARSENIC	11.2 J	17.7
BARIUM	27.7 J	24.7 J
BERYLLIUM	--	0.57
CADMIUM	--	--
CHROMIUM	11	14
COBALT	3.9 J	9.5
COPPER	--	16.9
IRON	23800	31400
LEAD	19.7	11.6
MANGANESE	85.2	263
MERCURY	--	--
NICKEL	8.9	19.6
SELENIUM	--	0.56 J
VANADIUM	23.1	19.5
ZINC	35	48.7

SO09	0001	0106
ALUMINUM	11200	11600
ARSENIC	12.6 J	20.5
BARIUM	23.6 J	30.2 J
BERYLLIUM	--	0.53
CADMIUM	--	--
CHROMIUM	11.2	15.3
COBALT	4.2 J	11.7
COPPER	--	18.7
IRON	23000	29000
LEAD	24.1	10
MANGANESE	92.8	196
MERCURY	--	--
NICKEL	10.7	23.6
SELENIUM	--	--
VANADIUM	30.8	18.4
ZINC	38.5	54.2

MA05	0001	0108
ALUMINUM	12200	10500
ARSENIC	4.7	28.9
BARIUM	33.5	24.9 J
BERYLLIUM	0.45	0.46
CADMIUM	--	--
CHROMIUM	13.8	15.5
COBALT	5.6	10.4
COPPER	9.4	17.3
IRON	17700	27200
LEAD	13.4	8.1
MANGANESE	126 J	449
MERCURY	0.019 J	--
NICKEL	13.9	22.1
SELENIUM	--	--
VANADIUM	19.9	17.5
ZINC	42.1	53.3

MA12	0001	0108
ALUMINUM	10500	10900
ARSENIC	3.3	38.7
BARIUM	30.2	23.9 J
BERYLLIUM	0.28	0.42
CADMIUM	--	0.18 J
CHROMIUM	11.8	15.3
COBALT	3	13.9
COPPER	4.2	19.8
IRON	14900	33600
LEAD	12.1	8.8
MANGANESE	96.6 J	533
MERCURY	0.018 J	--
NICKEL	11.8	24.6
SELENIUM	--	--
VANADIUM	15.6	16.7
ZINC	37	60.2

MA04	0001	0106
ALUMINUM	10400	11400
ARSENIC	3.5	12.2
BARIUM	36.9	28.3 J
BERYLLIUM	0.32	0.45
CADMIUM	--	--
CHROMIUM	11.2	16.3
COBALT	3.7	11.6
COPPER	4.9	18
IRON	11900	27800
LEAD	11.6	7.7
MANGANESE	117 J	763
MERCURY	0.052	--
NICKEL	10.3	24.5
SELENIUM	0.29 J	--
VANADIUM	13.9	18.8
ZINC	30.8	61.6

MA02	0001	0107
ALUMINUM	12700	11400
ARSENIC	2.4	10.5
BARIUM	50.8	25.9 J
BERYLLIUM	0.44	0.39
CADMIUM	--	--
CHROMIUM	11.7	15.9
COBALT	2.9	12
COPPER	3.6	17.5
IRON	8420	29000
LEAD	11	8.4
MANGANESE	63.7 J	583
MERCURY	0.077	--
NICKEL	8.7	23.5
SELENIUM	0.38 J	--
VANADIUM	14.2	16.7
ZINC	30	55.4

SO12	0001	0106	0106(DUP)
ALUMINUM	11900	10600	10900
ARSENIC	6.4 J	20.9	24.4
BARIUM	42.9	20.3 J	21.2 J
BERYLLIUM	--	0.45	0.46
CADMIUM	--	0.15 J	0.17 J
CHROMIUM	11.3	14.7	15.4
COBALT	4.6 J	14.5	14.2
COPPER	--	23	26.4
IRON	14500	33700	36100
LEAD	18.3	10.3	11.8
MANGANESE	82.7	469	395
MERCURY	--	--	--
NICKEL	8.7	26.8	26.4
SELENIUM	--	--	--
VANADIUM	22.2	18.4	18.8
ZINC	38.3	63.9	63.4

SO15	0001	0103
ALUMINUM	11700	11000
ARSENIC	11 J	10.4
BARIUM	25.2 J	25.4 J
BERYLLIUM	--	0.52
CADMIUM	--	--
CHROMIUM	12.8	13.4
COBALT	4.6 J	9
COPPER	--	11.2
IRON	17500	22700
LEAD	22.8	8.6
MANGANESE	110	422
MERCURY	--	--
NICKEL	9.9	15.7
SELENIUM	--	--
VANADIUM	29.4	20.9
ZINC	35.4	38.5

SO14	0001	0105
ALUMINUM	9250	11300
ARSENIC	11.2 J	23.5
BARIUM	15.1 J	26.8 J
BERYLLIUM	--	0.45
CADMIUM	--	0.13 J
CHROMIUM	9.8	14.7
COBALT	4.2 J	14.9
COPPER	--	22.2
IRON	18000	36100
LEAD	20.5	10.8
MANGANESE	69	282
MERCURY	--	--
NICKEL	10.9	27.1
SELENIUM	--	--
VANADIUM	24.3	17
ZINC	31.7	61.4

SO13	0001	0104
ALUMINUM	9840	9910
ARSENIC	12.2 J	18.8
BARIUM	26.8	25.8 J
BERYLLIUM	--	0.5
CADMIUM	--	--
CHROMIUM	10.9	14.4
COBALT	4.5 J	15.9
COPPER	--	25.8
IRON	18700	33900
LEAD	13.8	10.8
MANGANESE	86.7	214
MERCURY	--	--
NICKEL	12.9	25.6
SELENIUM	--	--
VANADIUM	20.7	19.1
ZINC	50.8	51.8

MA07	0001	0108	0108(DUP)
ALUMINUM	5470	10300	10300
ARSENIC	3.6	16.2	17.3
BARIUM	15	17.8 J	18.6 J
BERYLLIUM	0.12 J	0.36	0.35
CADMIUM	--	--	--
CHROMIUM	4.8	12.6	12.1
COBALT	0.85	8.2	8
COPPER	1.8	12	11
IRON	5940	26900	29100
LEAD	12.1	7.4	8.6
MANGANESE	27.9 J	280	260
MERCURY	0.03 J	--	--
NICKEL	2.8	19.3	18.9
SELENIUM	0.27	--	--
VANADIUM	11.6	15.2	16
ZINC	10.5	48.5	49.6

MA06	0001	0105
ALUMINUM	13800	10700
ARSENIC	22.5	8.7
BARIUM	61	23.9 J
BERYLLIUM	0.52	0.43
CADMIUM	--	--
CHROMIUM	15.8	15.1
COBALT	4.7	10.2
COPPER	9	17.5
IRON	20400	25800
LEAD	15.4	8.2
MANGANESE	198 J	418
MERCURY	0.04	--
NICKEL	13.3	21.8
SELENIUM	--	--
VANADIUM	20.9	17.8
ZINC	37.5	53.3

MA03	0001	0108
ALUMINUM	9270	9390
ARSENIC	5.6	16.3
BARIUM	35.7	27.1 J
BERYLLIUM	0.36	0.38
CADMIUM	--	0.19
CHROMIUM	10.6	13.4
COBALT	2.9	19.9
COPPER	4.3	20.8
IRON	11800	29300
LEAD	11.2	8.4
MANGANESE	83.5 J	981
MERCURY	0.042	--
NICKEL	8	25.4
SELENIUM	--	--
VANADIUM	14.8	15.4
ZINC	25.6	63.2

MA01	0001	0105
ALUMINUM	8580	10600
ARSENIC	2.4	12.7
BARIUM	32.5	21.2 J
BERYLLIUM	0.25	0.45
CADMIUM	--	--
CHROMIUM	8.1	14.7
COBALT	2.1	12.2
COPPER	1.6	18.3
IRON	7090	27000
LEAD	10.8	9.1
MANGANESE	48.3 J	1750
MERCURY	0.044	--
NICKEL	5.3	21.9
SELENIUM	0.23 J	--
VANADIUM	13.6	17.1
ZINC	20.4	53.2

MA08	0001	0108	0108(DUP)
ALUMINUM	11000	15000	133[illegible]
ARSENIC	9.9	49.4	37.9
BARIUM	34.6	19.5 J	15.6 J
BERYLLIUM	0.32	0.63	0.54
CADMIUM	--	--	0.1[illegible] J
CHROMIUM	10.4	19	[illegible]
COBALT	4.8	14.4	11.5
COPPER	6.3	20.8	14.8
IRON	18900	57100	46300
LEAD	30.8	12.2	12.2
MANGANESE	149 J	559	452
MERCURY	0.06	--	--
NICKEL	9.5	27.4	23.3
SELENIUM	0.4 J	--	--
VANADIUM	22.1	26.3	23.8
ZINC	35.4	76.2	66.6

MA09	0001	0108
ALUMINUM	16800	11000
ARSENIC	10.8	42.6
BARIUM	53.7	21.6 J
BERYLLIUM	0.62	0.46
CADMIUM	0.15	--
CHROMIUM	17.4	13
COBALT	7.5	11.7
COPPER	10.6	24.4
IRON	20800	35000
LEAD	34.2	10.5
MANGANESE	244 J	523
MERCURY	0.1	--
NICKEL	15	21.5
SELENIUM	0.52 J	--
VANADIUM	29.5	17.2
ZINC	57.8	60.1

MA10	0001	0104
ALUMINUM	14300	8630
ARSENIC	12	12.8
BARIUM	39.9	13.6
BERYLLIUM	0.53	0.36
CADMIUM	0.077 J	--
CHROMIUM	15.3	11.6
COBALT	7.1	8.6
COPPER	6.7	11.3
IRON	21600	26900
LEAD	29.3	8.7
MANGANESE	261 J	235 J
MERCURY	0.075	--
NICKEL	[illegible]	15.8
SELENIUM	0.73 J	--
VANADIUM	27.5	15.3
ZINC	51.2	44.3

MA11	0001	0108
ALUMINUM	14300	11300
ARSENIC	13	15.7
BARIUM	50.3	23.2 J
BERYLLIUM	0.49	0.57
CADMIUM	0.097 J	--
CHROMIUM	16	15.8
COBALT	7.4	11.2
COPPER	6.7	20.5
IRON	26600	32[illegible]
LEAD	20.8	13.4
MANGANESE	286 J	424
MERCURY	0.034	--
NICKEL	13	22.7
SELENIUM	0.27 J	--
VANADIUM	30.4	19.9
ZINC	45.1	61.6

MA20	0001	0103
ALUMINUM	10100	9610
ARSENIC	7.3	7.1
BARIUM	35.5	24.9
BERYLLIUM	0.43	0.48
CADMIUM	--	--
CHROMIUM	12.2	13.5
COBALT	5	10.8
COPPER	9.7	16.9
IRON	17400	24600
LEAD	15.9	8.1
MANGANESE	186 J	285 J
MERCURY	0.036	--
NICKEL	12.4	21
SELENIUM	0.29 J	--
VANADIUM	21.1	17.2
ZINC	36	49

SO16	0001	0105
ALUMINUM	9020	9090
ARSENIC	3.9 J	9.5
BARIUM	30.1	21.6
BERYLLIUM	--	0.47
CADMIUM	--	0.1 J
CHROMIUM	8.3	13.3
COBALT	3.6 J	10.7
COPPER	--	13.5
IRON	9330	24900
LEAD	13.4	7.6
MANGANESE	50	317 J
MERCURY	--	--
NICKEL	5.7	20.5
SELENIUM	--	--
VANADIUM	14	17.9
ZINC	21.4	45.4

SO17	0001	0106
ALUMINUM	11000	9140
ARSENIC	5.8 J	5.2
BARIUM	47.3	24.8 J
BERYLLIUM	--	0.51
CADMIUM	--	0.12
CHROMIUM	9.1	13.1
COBALT	4.6 J	9.8
COPPER	--	12.7
IRON	14800	18100
LEAD	21.5	7.5
MANGANESE	115	191
MERCURY	--	--
NICKEL	5.3 J	17.8
SELENIUM	--	--
VANADIUM	22.4	16.4
ZINC	22.1	39.4

SO18	0001	0105
ALUMINUM	9140	9300
ARSENIC	5.8 J	4.4
BARIUM	34.4	24.2 J
BERYLLIUM	--	0.44
CADMIUM	--	0.14
CHROMIUM	9.9	12.6
COBALT	5.1 J	10.2
COPPER	--	11.1
IRON	13100	15000
LEAD	19.5	7.1
MANGANESE	73.7	248
MERCURY	--	--
NICKEL	9.3	15.1
SELENIUM	--	--
VANADIUM	22.4	15.5
ZINC	34.5	34.1

SO19	0001	0104
ALUMINUM	13000	9060
ARSENIC	9.2 J	4.5
BARIUM	44.7	26
BERYLLIUM	--	0.56
CADMIUM	--	0.084 J
CHROMIUM	14.1	13.1
COBALT	7.5	17.7
COPPER	--	13
IRON	17300	16400
LEAD	38	8
MANGANESE	248	334 J
MERCURY	0.1 J	--
NICKEL	13.9	16.5
SELENIUM	--	--
VANADIUM	23.9	18.5
ZINC	54.5	42.2

SO20	0001	0104
ALUMINUM	15200	9300
ARSENIC	23.5 J	10.1
BARIUM	45.8	22.6
BERYLLIUM	0.7 U	0.49
CADMIUM	0.7 UJ	0.11 U
CHROMIUM	16	13.7
COBALT	6.7 J	12.4
COPPER	9.1 U	21.1
IRON	23500	29700
LEAD	33.1	9.4
MANGANESE	184	563 J
MERCURY	0.12 J	0.012 U
NICKEL	14.8	21
SELENIUM	4.9 U	0.33 UJ
VANADIUM	30.6	16.9
ZINC	52.7	55.6

MA17	0001	0104
ALUMINUM	11300	10900
ARSENIC	6.4	8.1
BARIUM	33.8	34
BERYLLIUM	0.39	0.54
CADMIUM	--	--
CHROMIUM	12.2	12.4
COBALT	4.7	8
COPPER	5.8	6.1
IRON	14900	20800
LEAD	15.1	7.9
MANGANESE	153 J	331 J
MERCURY	0.051	0.022 J
NICKEL	9	11.8
SELENIUM	0.71 J	0.36 J
VANADIUM	22.5	18.6
ZINC	31.1	38.4

MA19	0001	0103
ALUMINUM	11100	9000
ARSENIC	7.1	7.2
BARIUM	37.2	30.3
BERYLLIUM	0.44	0.47
CADMIUM	--	--
CHROMIUM	12.2	12
COBALT	4.6	5.9
COPPER	5.6	6.9
IRON	15200	15100
LEAD	17.9	6.8
MANGANESE	136 J	367 J
MERCURY	0.043	--
NICKEL	9.2	12.1
SELENIUM	0.54 J	--
VANADIUM	24.8	18.6
ZINC	31.5	31

MA18	0001	0104
ALUMINUM	10400	10700
ARSENIC	7.5	7.6
BARIUM	31.9	27.5
BERYLLIUM	0.34	0.58
CADMIUM	--	--
CHROMIUM	10.4	16.7
COBALT	2.8	6.1
COPPER	4.2	10
IRON	13000	17200
LEAD	18.7	7
MANGANESE	66 J	191 J
MERCURY	0.043	--
NICKEL	7.9	13.4
SELENIUM	0.51 J	--
VANADIUM	25.9	25.5
ZINC	28.3	33.5

MA16	0001	0104
ALUMINUM	9940	8820
ARSENIC	6.8	8.1
BARIUM	33.7	29.7
BERYLLIUM	0.4	0.56
CADMIUM	--	--
CHROMIUM	11.7	12.7
COBALT	3.1	8.6
COPPER	7.1	12.5
IRON	15000	21300
LEAD	15.6	8.9
MANGANESE	80.5 J	438 J
MERCURY	0.04	--
NICKEL	8.7	14.3
SELENIUM	0.27 J	--
VANADIUM	23.2	19.1
ZINC	28.5	37.4

MA15	0001	0105
ALUMINUM	11500	12000
ARSENIC	3.7	13.5
BARIUM	44.2	39.7
BERYLLIUM	0.31	0.78
CADMIUM	--	--
CHROMIUM	11.4	15.2
COBALT	2.6	8.3
COPPER	3.7	13.2
IRON	10500	24400
LEAD	17.9	8.3
MANGANESE	57.6 J	38[illegible] J
MERCURY	0.049	--
NICKEL	7	15.1
SELENIUM	0.52 J	--
VANADIUM	22.3	23.6
ZINC	25.5	36.2

MA13	0001	0105
ALUMINUM	12500	9000
ARSENIC	5.3	5.7
BARIUM	55.3	34.4
BERYLLIUM	0.43	0.58
CADMIUM	--	--
CHROMIUM	13.6	14.2
COBALT	3.7	6.5
COPPER	4.6	10.5
IRON	15300	15800
LEAD	14.2	6.4
MANGANESE	101 J	157 J
MERCURY	0.037	--
NICKEL	8.7	12.3
SELENIUM	0.42 J	--
VANADIUM	24.3	19.9
ZINC	30.8	30.5

MA14	0001	0104	0104(DUP)
ALUMINUM	9980	13100	10700
ARSENIC	3.2	19.2	18.8
BARIUM	42.6	45.5	36.8
BERYLLIUM	0.31	0.7	0.59
CADMIUM	--	--	--
CHROMIUM	10.1	17.5	15.3
COBALT	2.6	10.4	10.7
COPPER	6.5	15.6	15.9
IRON	9440	31900	30800
LEAD	23	11	9.1
MANGANESE	87.5 J	403 J	455 J
MERCURY	0.067	0.018 J	0.023 J
NICKEL	6.8	16.4	18.2
SELENIUM	0.67 J	0.35 J	--
VANADIUM	24	24.6	18.5
ZINC	26.6	43.7	44.8

SO37/PM17	0001	0105	0105(DUP)
ALUMINUM	11400	10200	10900
ARSENIC	10.6 J	11.1	11.4
BARIUM	32.5	25.5	24.6
BERYLLIUM	--	0.6	0.6
CADMIUM	--	--	--
CHROMIUM	13.9	13	14.3
COBALT	6.6	14.5	16.7
COPPER	--	14.6	19.7
IRON	20100 J	23400	27000
LEAD	19.6 J	8.1	10.7
MANGANESE	311 J	447 J	494 J
MERCURY	--	--	--
NICKEL	8.5	15.5	18
SELENIUM	--	--	--
VANADIUM	30.9	21.8	22
ZINC	36.2	38.6	44.1

SO38/PM18	0001	0105
ALUMINUM	9430	11300
ARSENIC	5.4 J	16.9
BARIUM	28.1	23.4
BERYLLIUM	--	0.51
CADMIUM	--	--
CHROMIUM	11.2	15
COBALT	6.2 J	10.1
COPPER	--	19.1
IRON	13700 J	34100
LEAD	23.4 J	8.9
MANGANESE	342 J	372 J
MERCURY	--	--
NICKEL	7.7	21.2
SELENIUM	--	--
VANADIUM	28.6	16.6
ZINC	25.9	51

SO39/PM19	0001	0105
ALUMINUM	9890	10900
ARSENIC	7 J	11.4
BARIUM	37.2 J	29.1
BERYLLIUM	--	0.48
CADMIUM	--	--
CHROMIUM	12.3	13.9
COBALT	6.1 J	8.8
COPPER	--	17.2
IRON	18800	25900
LEAD	17.9	8.6
MANGANESE	373 J	456 J
MERCURY	--	--
NICKEL	8.8	18.2
SELENIUM	--	--
VANADIUM	26.1 J	18
ZINC	28.7 J	44.2

SO40/PM20	0001	0106	0106(DUP)
ALUMINUM	10300	10700	10100
ARSENIC	6.3 J	9	11.9
BARIUM	35.3 J	25.4	26.5
BERYLLIUM	--	0.48	0.5
CADMIUM	--	--	--
CHROMIUM	12.2	13.9	13
COBALT	5.9 J	9.1	8.3
COPPER	--	15.5	12.6
IRON	14500	22600	22500
LEAD	20.8	7.6	7.9
MANGANESE	402 J	343 J	391 J
MERCURY	--	--	--
NICKEL	8.3	18.1	15.4
SELENIUM	--	--	--
VANADIUM	29 J	17.7	18.4
ZINC	31.5 J	43.1	37.7

SO36/PM16	0001	0106
ALUMINUM	10600	9740
ARSENIC	5.8 J	7.6
BARIUM	32.1	23.7
BERYLLIUM	--	0.55
CADMIUM	--	--
CHROMIUM	12.4	12
COBALT	4.5 J	6.6
COPPER	--	11.6
IRON	14200 J	18700
LEAD	33.2 J	6.8
MANGANESE	101 J	433 J
MERCURY	--	--
NICKEL	8	13.6
SELENIUM	--	--
VANADIUM	28.1	17.3
ZINC	27.2	33.3

SO35/PM15	0001	0001(DUP)	0105
ALUMINUM	9710	9960	10300
ARSENIC	7.5 J	R	9.5
BARIUM	39.8	36.6	27.8
BERYLLIUM	--	--	0.52
CADMIUM	--	--	--
CHROMIUM	13.6	13.1	14.2
COBALT	7.4	6.7	8.5
COPPER	--	--	13.1
IRON	16700 J	19000 J	23000
LEAD	39.7 J	28.2 J	8
MANGANESE	261 J	258 J	396 J
MERCURY	--	--	--
NICKEL	9.9	10	15.2
SELENIUM	--	--	--
VANADIUM	31.4	28.5	18.7
ZINC	41.3	35.5	38.1

SO33/PM13	0001	0106
ALUMINUM	11200	10600
ARSENIC	4.7 J	10
BARIUM	48.4	33.4
BERYLLIUM	--	0.66
CADMIUM	--	--
CHROMIUM	13.4	15.3
COBALT	6.7 J	6.5
COPPER	--	6.5
IRON	12700 J	24300
LEAD	30.3 J	7
MANGANESE	141 J	596 J
MERCURY	--	--
NICKEL	9.5	11.4
SELENIUM	R	--
VANADIUM	30.8	22.2
ZINC	50.4	31.3

SO28/PM08	0001	0106
ALUMINUM	10800	10500
ARSENIC	9.8 J	18
BARIUM	43.9	25.2
BERYLLIUM	--	0.53
CADMIUM	--	--
CHROMIUM	14	13.7
COBALT	9.8	13.8
COPPER	--	12.3
IRON	18300 J	24800
LEAD	36.5 J	7.7
MANGANESE	319 J	602 J
MERCURY	0.26	--
NICKEL	11.1	18.3
SELENIUM	--	--
VANADIUM	31.5	19.2
ZINC	70.5	40.1

SO30/PM10	0001	0105
ALUMINUM	14000	9830
ARSENIC	8.4 J	14.4
BARIUM	53.1	25.6
BERYLLIUM	--	0.68
CADMIUM	--	--
CHROMIUM	15.2	17.2
COBALT	8.1	11.9
COPPER	--	15.2
IRON	18000 J	25700
LEAD	26.5 J	7.9
MANGANESE	257 J	554 J
MERCURY	0.14	--
NICKEL	11.1	15.1
SELENIUM	--	--
VANADIUM	28.8	28.5
ZINC	63.3	38.6

SO27/PM07	0001	0105
ALUMINUM	11000	9280
ARSENIC	7.8 J	16.5
BARIUM	37.9	29.4
BERYLLIUM	--	0.64
CADMIUM	--	--
CHROMIUM	12	13
COBALT	5.4 J	13.8
COPPER	--	10.2
IRON	16000 J	26600
LEAD	43.6 J	6.5
MANGANESE	159 J	850 J
MERCURY	--	--
NICKEL	11.4	15
SELENIUM	R	--
VANADIUM	30.3	19.7
ZINC	46.6	33.2

SO26/PM06	0001	0105
ALUMINUM	12400	11200
ARSENIC	15 J	16.3
BARIUM	45.3	27.6
BERYLLIUM	--	0.46
CADMIUM	--	--
CHROMIUM	15.2	14.1
COBALT	7	11
COPPER	--	12.8
IRON	24600 J	30300
LEAD	44.5 J	6.6
MANGANESE	253 J	1520 J
MERCURY	--	--
NICKEL	14.4	19
SELENIUM	--	--
VANADIUM	35.2	18.4
ZINC	84.4	43.4

SO34/PM14	0001	0106
ALUMINUM	9110	8860
ARSENIC	5.9 J	7.1
BARIUM	36.4	24.9
BERYLLIUM	--	0.49
CADMIUM	--	--
CHROMIUM	12	11.9
COBALT	7.7	6.9
COPPER	--	8.9
IRON	15400 J	16400
LEAD	23 J	6.5
MANGANESE	433 J	571 J
MERCURY	--	--
NICKEL	[illegible]	[illegible]
SELENIUM	[illegible]	[illegible]
VANADIUM	26.5	17.9
ZINC	30.4	29.7

SO31/PM11	0001	0104
ALUMINUM	9780	9700
ARSENIC	5.7 J	13.7
BARIUM	28.2	33.2
BERYLLIUM	--	0.54
CADMIUM	--	--
CHROMIUM	11.6	13.3
COBALT	6.6	14.1
COPPER	--	14.3
IRON	16500 J	28600
LEAD	18.3 J	7.3
MANGANESE	419 J	1370 J
MERCURY	--	--
NICKEL	7.5	21.1
SELENIUM	--	--
VANADIUM	27	18.8
ZINC	35.5	40.2

SO32/PM12	0001	0105
ALUMINUM	11700	8620
ARSENIC	15 J	5.3
BARIUM	48.7	20.9
BERYLLIUM	--	0.44
CADMIUM	--	--
CHROMIUM	15.1	14.4
COBALT	13.8	6.9
COPPER	--	9.2
IRON	23200 J	14900
LEAD	49.5 J	6.1
MANGANESE	477 J	357 J
MERCURY	0.68	--
NICKEL	11.5	12.7
SELENIUM	--	--
VANADIUM	34.1	16.3
ZINC	71.6	30.1

SO29/PM09	0001	0106
ALUMINUM	14600	8390
ARSENIC	10.6 J	14.7
BARIUM	48.5	18.2
BERYLLIUM	--	0.39
CADMIUM	--	--
CHROMIUM	16	11.9
COBALT	7.2	10.6
COPPER	--	10.7
IRON	21800 J	20300
LEAD	32.8 J	5.2
MANGANESE	141 J	434 J
MERCURY	0.1 J	--
NICKEL	11.6	16.6
SELENIUM	--	--
VANADIUM	33.8	15.2
ZINC	58	33.7

SO22/PM02	0001	0104
ALUMINUM	12100	13200
ARSENIC	12.9 J	20.5
BARIUM	40.8	30.7
BERYLLIUM	--	0.76
CADMIUM	--	--
CHROMIUM	15	21.3
COBALT	8.4	14.1
COPPER	--	15.3
IRON	23500 J	38700
LEAD	42.1 J	10.1
MANGANESE	300 J	652 J
MERCURY	--	--
NICKEL	12.2	18.9
SELENIUM	--	--
VANADIUM	34.9	26.6
ZINC	93.7	45.7

SO25/PM05	0001	0001(DUP)	0105	0105(DUP)
ALUMINUM	13700	12400	11200	10600
ARSENIC	10.3 J	32.3 J	12.8	15.7
BARIUM	37.1	44.7	25.9	24.8
BERYLLIUM	--	0.38 J	0.49	0.51
CADMIUM	--	--	--	--
CHROMIUM	15.1	14.1	16	13.7
COBALT	7.4	8.2	11.3	14.1
COPPER	--	--	15.2	14.4
IRON	23300 J	63300 J	28800	26600
LEAD	19.7 J	44.8 J	8.2	8.4
MANGANESE	292 J	615 J	631 J	677 J
MERCURY	--	--	--	--
NICKEL	12.1	9.4	20	18.6
SELENIUM	--	--	--	--
VANADIUM	29	42.6	19.6	19.6
ZINC	42.8	52	46.7	43.3

SO21/PM01	0001	0105
ALUMINUM	9290	12300
ARSENIC	13.3 J	9.9
BARIUM	37.4	32.4
BERYLLIUM	--	0.5
CADMIUM	--	--
CHROMIUM	12.5	13.9
COBALT	6.1 J	12.8
COPPER	--	10.5
IRON	20400 J	21000
LEAD	35.8 J	7.6
MANGANESE	197 J	561 J
MERCURY	--	--
NICKEL	11.3	21.3
SELENIUM	--	--
VANADIUM	27.6	18.6
ZINC	65	39.5

SO23/PM03	0001	0106
ALUMINUM	12100	11400
ARSENIC	8.8 J	17.6
BARIUM	39.4	18.8
BERYLLIUM	--	0.48
CADMIUM	--	--
CHROMIUM	13.6	15.7
COBALT	6.9	17.1
COPPER	--	17.8
IRON	18200 J	35100
LEAD	32.3 J	7.2
MANGANESE	197 J	420 J
MERCURY	--	--
NICKEL	13.6	23.4
SELENIUM	--	--
VANADIUM	30.4	20.7
ZINC	43.8	52.7

SO24/PM04	0001	0105
ALUMINUM	11700	11100
ARSENIC	11.9 J	21.8
BARIUM	41.9	23.3
BERYLLIUM	--	0.54
CADMIUM	--	--
CHROMIUM	14.2	15
COBALT	7.1	11.5
COPPER	--	16.7
IRON	25700 J	27700
LEAD	27.8 J	10.3
MANGANESE	252 J	516 J
MERCURY	--	--
NICKEL	10	21.2
SELENIUM	--	--
VANADIUM	30.9	19.3
ZINC	55.8	46.5

LEGEND

SAMPLE LOCATION — SAMPLED INTERVAL (FEET)

COLOR DENOTES SOIL TYPE — MA20 | 0001 — ALUMINUM | 10100 — METAL RESULT (mg/kg) (OUTLIERS ARE HIGHLIGHTED YELLOW)

J - QUANTITATION APPROXIMATE
-- - NOT DETECTED

- NEWPORT SILT LOAM (NP)
- MANSFIELD MUCKY SILT LOAM (Ma)
- PITTSTOWN SILT LOAM (PmA, PmB)
- STISSING SILT LOAM (Se)
- NUWC (TENANT OF NAVSTA)
- NAVAL STATION NEWPORT
- SOIL CLASSIFICATION EXTENT
- SOIL SAMPLE LOCATION

SOURCE:
1997 AERIAL PHOTGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING

NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
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3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT

0 80 160 320 480 640 Feet

Tetra Tech NUS, Inc.

METALS DETECTED IN SURFACE AND SUBSURFACE SOILS WITHIN AREA B: SOIL TYPES Ma, Pm, Se AND NP
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

FILE	SCALE	
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FIGURE NUMBER	REV	DATE
FIGURE 4-1	0	01/21/08

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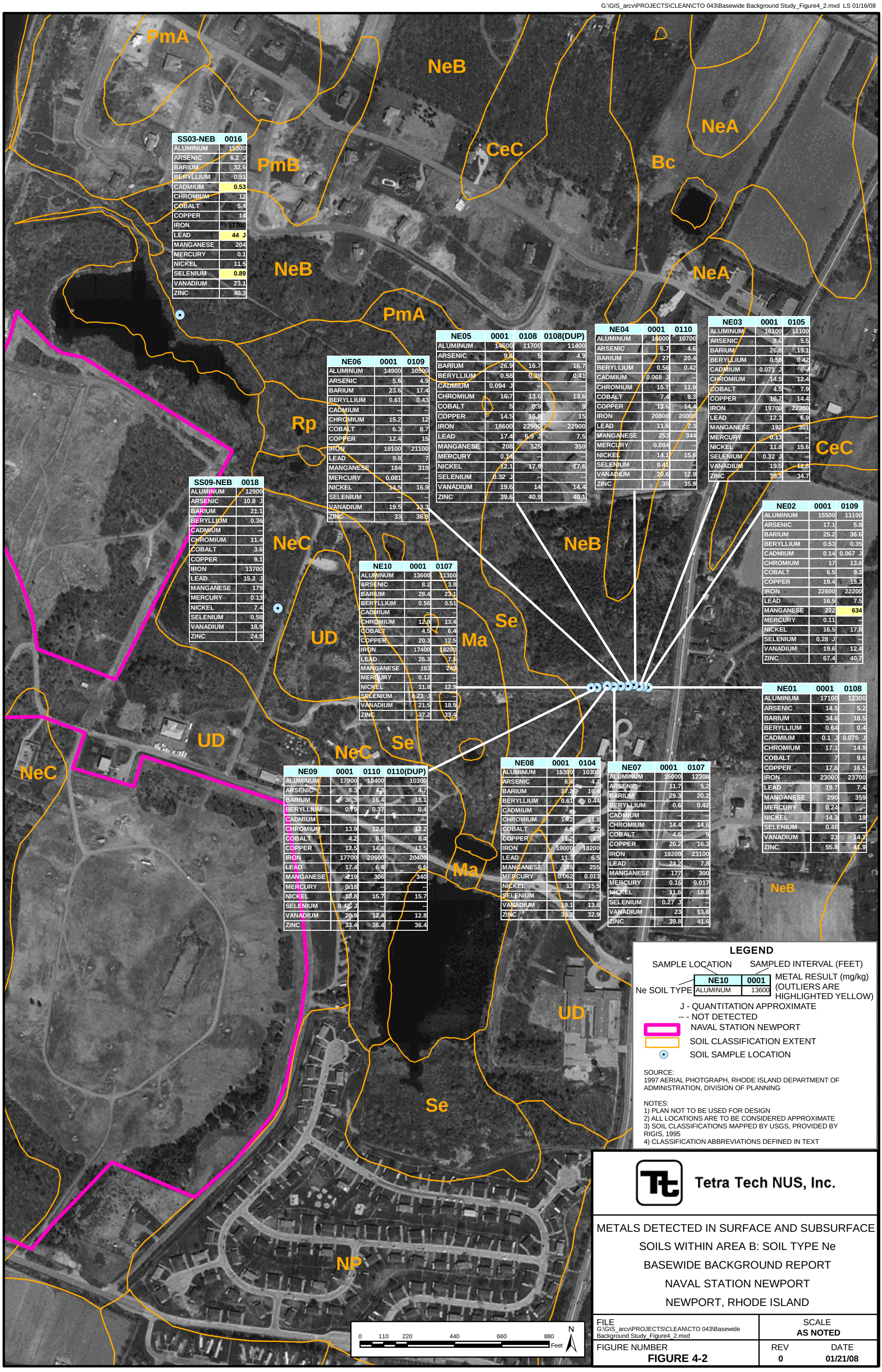
G:\GIS_arcv\PROJECTS\CLEAN\CTO 043\Basewide Background Study_Figure4_2.mxd LS 01/16/08



SS03-NEB	0016
ALUMINUM	15300
ARSENIC	6.2 J
BARIUM	32.6
BERYLLIUM	0.51
CADMIUM	0.53
CHROMIUM	12
COBALT	5.4
COPPER	14
IRON	17700
LEAD	44 J
MANGANESE	204
MERCURY	0.1
NICKEL	11.5
SELENIUM	0.89
VANADIUM	23.1
ZINC	40.3

NE06	0001	0109
ALUMINUM	14900	10500
ARSENIC	5.6	4.9
BARIUM	23.6	17.4
BERYLLIUM	0.61	0.43
CADMIUM	--	--
CHROMIUM	15.2	12
COBALT	6.3	8.7
COPPER	12.4	15
IRON	19100	21100
LEAD	9.8	7
MANGANESE	184	319
MERCURY	0.081	--
NICKEL	14.5	16.9
SELENIUM	--	--
VANADIUM	19.5	13.3
ZINC	33	36.8

NE05	0001	0108	0108(DUP)
ALUMINUM	14600	11700	11400
ARSENIC	9.4	5	4.9
BARIUM	26.9	16.7	16.7
BERYLLIUM	0.58	0.39	0.41
CADMIUM	0.094 J	--	--
CHROMIUM	16.7	13.6	13.6
COBALT	5	8.9	9
COPPER	14.5	16.8	15
IRON	18600	22900	22900
LEAD	17.4	6.9 J	7.5
MANGANESE	208	325	359
MERCURY	0.14	--	--
NICKEL	12.1	17.9	17.6
SELENIUM	0.32 J	--	--
VANADIUM	19.6	14	14.4
ZINC	39.6	40.9	40.1

NE04	0001	0110
ALUMINUM	16000	10700
ARSENIC	6.7	4.6
BARIUM	27	20.4
BERYLLIUM	0.56	0.42
CADMIUM	0.068 J	--
CHROMIUM	15.7	11.9
COBALT	7.4	8.3
COPPER	13.6	14.4
IRON	20800	20000
LEAD	11.6	7.3
MANGANESE	253	344
MERCURY	0.084	--
NICKEL	14.1	15.6
SELENIUM	0.41	--
VANADIUM	20.6	12.9
ZINC	35	35.9

NE03	0001	0105
ALUMINUM	16100	11100
ARSENIC	8.6	5.5
BARIUM	26.8	19.1
BERYLLIUM	0.59	0.42
CADMIUM	0.071 J	--
CHROMIUM	14.5	12.4
COBALT	4.5	7.9
COPPER	10.7	14.4
IRON	19700	22300
LEAD	12.3	6.9
MANGANESE	192	301
MERCURY	0.13	--
NICKEL	11.8	15.6
SELENIUM	0.32 J	--
VANADIUM	19.5	12.8
ZINC	35.3	34.7

SS09-NEB	0018
ALUMINUM	12900
ARSENIC	10.8 J
BARIUM	21.1
BERYLLIUM	0.36
CADMIUM	--
CHROMIUM	11.4
COBALT	3.6
COPPER	9.1
IRON	13700
LEAD	15.2 J
MANGANESE	179
MERCURY	0.13
NICKEL	7.4
SELENIUM	0.58
VANADIUM	18.9
ZINC	24.9

NE10	0001	0107
ALUMINUM	13600	11300
ARSENIC	8.2	3.8
BARIUM	28.4	23.1
BERYLLIUM	0.56	0.51
CADMIUM	--	--
CHROMIUM	12.8	13.4
COBALT	4.5	6.4
COPPER	20.3	12.5
IRON	17400	18200
LEAD	26.3	7.5
MANGANESE	193	249
MERCURY	0.12	--
NICKEL	11.8	12.9
SELENIUM	0.23 J	--
VANADIUM	21.5	18.5
ZINC	37.2	33.4

NE02	0001	0109
ALUMINUM	15500	11100
ARSENIC	17.1	5.8
BARIUM	25.2	36.6
BERYLLIUM	0.53	0.35
CADMIUM	0.14	0.067 J
CHROMIUM	17	13.6
COBALT	6.5	9.3
COPPER	19.4	15.3
IRON	22600	22200
LEAD	16.5	7.5
MANGANESE	222	634
MERCURY	0.11	--
NICKEL	16.5	17.8
SELENIUM	0.28 J	--
VANADIUM	19.6	12.4
ZINC	67.4	40.7

NE01	0001	0108
ALUMINUM	17100	12300
ARSENIC	14.5	5.2
BARIUM	34.6	18.5
BERYLLIUM	0.64	0.4
CADMIUM	0.1 J	0.075 J
CHROMIUM	17.1	14.9
COBALT	7	9.6
COPPER	17.6	16.5
IRON	23000	23700
LEAD	19.7	7.4
MANGANESE	290	359
MERCURY	0.24	--
NICKEL	14.3	19
SELENIUM	0.48	--
VANADIUM	23	14.1
ZINC	55.8	41.9

NE09	0001	0110	0110(DUP)
ALUMINUM	17900	10400	10300
ARSENIC	8.3	4.3	4.7
BARIUM	36.3	16.4	18.1
BERYLLIUM	0.79	0.37	0.4
CADMIUM	--	--	--
CHROMIUM	13.9	12.6	12.2
COBALT	4.2	8.1	8.4
COPPER	12.5	14.4	13.5
IRON	17700	20600	20400
LEAD	17.4	6.4	6.6
MANGANESE	219	306	340
MERCURY	0.18	--	--
NICKEL	10.8	15.7	15.7
SELENIUM	0.42 J	--	--
VANADIUM	20.9	12.4	12.8
ZINC	33.4	36.4	36.4

NE08	0001	0104
ALUMINUM	15300	10300
ARSENIC	6.4	4.4
BARIUM	27.2	16.4
BERYLLIUM	0.61	0.44
CADMIUM	--	--
CHROMIUM	14.2	11.8
COBALT	4.9	8.2
COPPER	11.2	13
IRON	19000	18200
LEAD	11.3	6.5
MANGANESE	185	255
MERCURY	0.062	0.013
NICKEL	13	15.5
SELENIUM	--	--
VANADIUM	19.1	13.8
ZINC	33.2	32.9

NE07	0001	0107
ALUMINUM	15000	12300
ARSENIC	11.7	5.2
BARIUM	29.3	20.2
BERYLLIUM	0.6	0.42
CADMIUM	--	--
CHROMIUM	14.4	14.6
COBALT	4.6	9
COPPER	20.2	16.3
IRON	19200	23100
LEAD	24.2	7.8
MANGANESE	177	300
MERCURY	0.16	0.017
NICKEL	11.6	18.8
SELENIUM	0.27 J	--
VANADIUM	23	13.6
ZINC	39.8	41.6

LEGEND

SAMPLE LOCATION — SAMPLED INTERVAL (FEET)

Ne SOIL TYPE

NE10	0001
ALUMINUM	13600

METAL RESULT (mg/kg) (OUTLIERS ARE HIGHLIGHTED YELLOW)

J - QUANTITATION APPROXIMATE

-- - NOT DETECTED

NAVAL STATION NEWPORT

SOIL CLASSIFICATION EXTENT

SOIL SAMPLE LOCATION

SOURCE:
1997 AERIAL PHOTGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING

NOTES:
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3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT

Tetra Tech NUS, Inc.

METALS DETECTED IN SURFACE AND SUBSURFACE SOILS WITHIN AREA B: SOIL TYPE Ne

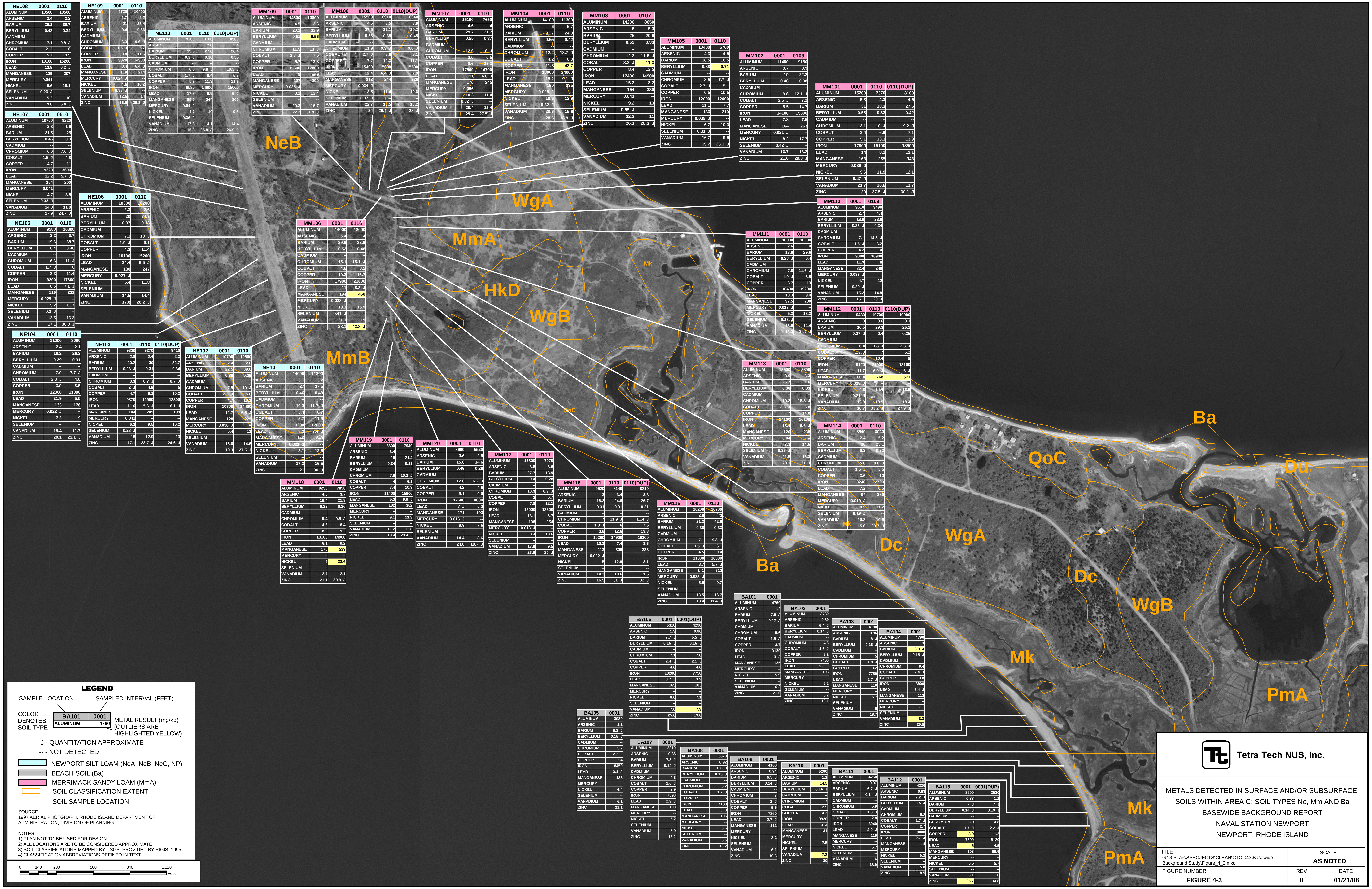
BASEWIDE BACKGROUND REPORT

NAVAL STATION NEWPORT

NEWPORT, RHODE ISLAND

FILE	SCALE
G:\GIS_arcv\PROJECTS\CLEAN\CTO 043\Basewide Background Study_Figure4_2.mxd	AS NOTED

FIGURE NUMBER	REV	DATE
FIGURE 4-2	0	01/21/08



NE108	0001	0110
ALUMINUM	10500	10500
ARSENIC	2.4	2.2
BARIUM	26.1	30.7
BERYLLIUM	0.42	0.34
CADMIUM	--	--
CHROMIUM	7.1	9.8 J
COBALT	2 J	6
COPPER	5.7	13.9
IRON	10100	15200
LEAD	13.8	6.2 J
MANGANESE	129	207
MERCURY	0.041	--
NICKEL	5.6	10.1
SELENIUM	0.26 J	--
VANADIUM	15.3	16
ZINC	19.6	26.4 J

NE109	0001	0110
ALUMINUM	9720	10400
ARSENIC	1.7	2.2
BARIUM	21	33.4
BERYLLIUM	0.4	0.36
CADMIUM	--	--
CHROMIUM	6.3	9.6 J
COBALT	1.5 J	5.7
COPPER	3.8	11.6
IRON	9020	14900
LEAD	8.4	6.4 J
MANGANESE	119	214
MERCURY	0.024 J	--
NICKEL	4.6	10.2
SELENIUM	0.33 J	--
VANADIUM	12.5	14
ZINC	16.6	26.3 J

NE110	0001	0110	0110(DUP)
ALUMINUM	9260	10100	10500
ARSENIC	3	2.6	2.4
BARIUM	19.6	27.6	26.4
BERYLLIUM	0.3 J	0.36	0.35
CADMIUM	--	--	--
CHROMIUM	6.6	9.8 J	10.3 J
COBALT	1.7 J	6.4	5.8
COPPER	5.9	11.3	11.7
IRON	9580	14600	15000
LEAD	17.8	6.9	6 J
MANGANESE	85.5	244	205
MERCURY	0.04 J	--	--
NICKEL	4.7	10	9.8
SELENIUM	0.36 J	--	--
VANADIUM	17.3	14.1	14.4
ZINC	15.6	25.8 J	26.9 J

MM109	0001	0110
ALUMINUM	14300	10800
ARSENIC	4.5	3.6
BARIUM	20.2	33.9
BERYLLIUM	0.51	0.56
CADMIUM	--	--
CHROMIUM	11.5	13 J
COBALT	2.8 J	7.5
COPPER	5.7	13.8
IRON	15500	17800
LEAD	9	9
MANGANESE	127	290
MERCURY	0.025 J	--
NICKEL	8.2	13.4
SELENIUM	--	--
VANADIUM	20.3	16.7
ZINC	22.2	31.9 J

MM108	0001	0110	0110(DUP)
ALUMINUM	15500	8910	8640
ARSENIC	4.5	3.5	3.8
BARIUM	27.5	22.1	20.3
BERYLLIUM	0.58	0.38	0.45
CADMIUM	--	--	--
CHROMIUM	11.9	9.9 J	9.8 J
COBALT	2.7 J	6.6	6.1
COPPER	7.7	12.3	11.1
IRON	15400	15600	15500
LEAD	12.4	6.4 J	7.9
MANGANESE	113	244	226
MERCURY	0.034 J	--	--
NICKEL	8.5	11.4	10.6
SELENIUM	0.37 J	--	--
VANADIUM	22.7	13.5	13.2
ZINC	24	29.4 J	28 J

MM107	0001	0110
ALUMINUM	15100	7650
ARSENIC	4.6	4
BARIUM	29.7	21.7
BERYLLIUM	0.55	0.37
CADMIUM	--	--
CHROMIUM	12.6	16 J
COBALT	3.6	6.6
COPPER	8.6	13.3
IRON	17800	14700
LEAD	11	6.8 J
MANGANESE	176	245
MERCURY	0.056	--
NICKEL	10.3	11.4
SELENIUM	0.32 J	--
VANADIUM	20.4	12.4
ZINC	29.4	27.5 J

MM104	0001	0110
ALUMINUM	14100	11300
ARSENIC	6	6.7
BARIUM	31.7	24.3
BERYLLIUM	0.55	0.42
CADMIUM	--	--
CHROMIUM	12.4	13.7 J
COBALT	4.2	8.8
COPPER	11.3	43.7
IRON	18000	24000
LEAD	15.2	9.1 J
MANGANESE	190	335
MERCURY	0.028 J	--
NICKEL	10.6	12.9
SELENIUM	0.32 J	--
VANADIUM	20.6	15.6
ZINC	28.3	38.9 J

MM103	0001	0107
ALUMINUM	14200	8050
ARSENIC	6	5.3
BARIUM	25	20.9
BERYLLIUM	0.52	0.33
CADMIUM	--	--
CHROMIUM	12.2	11.8 J
COBALT	3.2 J	11.3
COPPER	8.4	13.5
IRON	17400	14900
LEAD	15.2	8.2
MANGANESE	154	330
MERCURY	0.041	--
NICKEL	9.2	13
SELENIUM	0.55 J	--
VANADIUM	22.2	11
ZINC	26.1	28.3 J

MM105	0001	0110
ALUMINUM	10400	6760
ARSENIC	4.3	4.5
BARIUM	18.5	16.5
BERYLLIUM	0.38	0.71
CADMIUM	--	--
CHROMIUM	8.5	7.7 J
COBALT	2.7 J	5.1
COPPER	6.5	10.5
IRON	12000	12000
LEAD	11.1	7.7
MANGANESE	136	210
MERCURY	0.039 J	--
NICKEL	6.7	10.3
SELENIUM	0.31 J	--
VANADIUM	16.7	9.9
ZINC	19.7	23.1 J

MM102	0001	0109
ALUMINUM	11400	9150
ARSENIC	3.7	3.9
BARIUM	19	22.2
BERYLLIUM	0.46	0.38
CADMIUM	--	--
CHROMIUM	9.6	12.1 J
COBALT	2.6 J	7.2
COPPER	5.5	14.7
IRON	14100	15800
LEAD	7.8	7.5
MANGANESE	164	263
MERCURY	0.021 J	--
NICKEL	8.2	17.7
SELENIUM	0.42 J	--
VANADIUM	16.7	13.2
ZINC	21.6	29.8 J

MM101	0001	0110	0110(DUP)
ALUMINUM	15200	7370	8100
ARSENIC	5.8	4.3	4.6
BARIUM	31	18.3	27.5
BERYLLIUM	0.58	0.33	0.42
CADMIUM	--	--	--
CHROMIUM	12.1	10 J	9.2 J
COBALT	3.4	6.9	7.1
COPPER	9.1	13.1	13.9
IRON	17800	15100	18500
LEAD	14	8.1	13.1
MANGANESE	163	255	343
MERCURY	0.038 J	--	--
NICKEL	9.6	11.9	12.1
SELENIUM	0.47 J	--	--
VANADIUM	21.7	10.6	11.7
ZINC	29	27.5 J	30.1 J

NE107	0001	0510
ALUMINUM	10700	8220
ARSENIC	2.3	1.9
BARIUM	21.5	25
BERYLLIUM	0.46	0.3
CADMIUM	--	--
CHROMIUM	6.6	7.6 J
COBALT	1.5 J	4.8
COPPER	4.7	11
IRON	9320	13600
LEAD	12.2	5.7 J
MANGANESE	164	200
MERCURY	0.041	--
NICKEL	4.7	8.8
SELENIUM	0.33 J	--
VANADIUM	14.8	11.8
ZINC	17.9	24.7 J

MM110	0001	0109
ALUMINUM	9610	9490
ARSENIC	2.7	4.4
BARIUM	18.9	23.8
BERYLLIUM	0.26 J	0.34
CADMIUM	--	--
CHROMIUM	7.1	14.3 J
COBALT	1.5 J	6.2
COPPER	4.2	14
IRON	9880	16900
LEAD	11.9	8
MANGANESE	82.4	240
MERCURY	0.033 J	--
NICKEL	4.7	12
SELENIUM	0.29 J	--
VANADIUM	15.2	14.8
ZINC	15.1	29 J

NE106	0001	0110
ALUMINUM	10300	10200
ARSENIC	2.3	2.6
BARIUM	20	34.7
BERYLLIUM	0.37	0.38
CADMIUM	--	--
CHROMIUM	7.1	10 J
COBALT	1.9 J	6.1
COPPER	4.3	11.4
IRON	10100	15200
LEAD	24.4	6.5 J
MANGANESE	130	247
MERCURY	0.027 J	--
NICKEL	5.4	11.8
SELENIUM	--	--
VANADIUM	14.5	14.4
ZINC	17.8	28.2 J

NE105	0001	0110
ALUMINUM	9580	10800
ARSENIC	2.2	3.7
BARIUM	19.6	38.7
BERYLLIUM	0.4	0.46
CADMIUM	--	--
CHROMIUM	6.6	11 J
COBALT	1.7 J	6
COPPER	3.3	11.4
IRON	9200	17300
LEAD	8.5	7.1 J
MANGANESE	119	322
MERCURY	0.025 J	--
NICKEL	5.2	11.7
SELENIUM	0.2 J	--
VANADIUM	12.5	16.2
ZINC	17.1	30.3 J

MM106	0001	0110
ALUMINUM	14000	12000
ARSENIC	5.4	4
BARIUM	29.6	32.6
BERYLLIUM	0.52	0.48
CADMIUM	--	--
CHROMIUM	15.1	15.1 J
COBALT	4.6	8.5
COPPER	10.3	16.7
IRON	17900	21600
LEAD	11	8.3 J
MANGANESE	194	450
MERCURY	0.028 J	--
NICKEL	10.1	15.9
SELENIUM	0.41 J	--
VANADIUM	21.1	19
ZINC	28.1	42.8 J

MM111	0001	0110
ALUMINUM	10900	10000
ARSENIC	2.6	4
BARIUM	17.8	29.6
BERYLLIUM	0.28 J	0.4
CADMIUM	--	--
CHROMIUM	7.8	11.6 J
COBALT	1.9 J	6.8
COPPER	3.7	13
IRON	10400	19200
LEAD	10.3	9.4
MANGANESE	97.5	280
MERCURY	0.017 J	--
NICKEL	5.3	13.3
SELENIUM	0.18 J	--
VANADIUM	13.9	14.4
ZINC	16.3	31.7 J

MM112	0001	0110	0110(DUP)
ALUMINUM	9430	10700	10000
ARSENIC	3	3.6	3.1
BARIUM	16.5	29.3	26.1
BERYLLIUM	0.27 J	0.4	0.35
CADMIUM	--	--	--
CHROMIUM	6.4	11.8 J	12.3 J
COBALT	1.3 J	7	6.2
COPPER	4.3	10.4	8
IRON	9120	21000	18100
LEAD	11.7	6.9 J	6 J
MANGANESE	80.4	768	571
MERCURY	0.028 J	--	--
NICKEL	4.8	14.4	13.9
SELENIUM	0.21 J	--	--
VANADIUM	12.8	18.5	18.4
ZINC	16.7	33.2 J	27.9 J

NE104	0001	0110
ALUMINUM	11000	8090
ARSENIC	2.4	2.1
BARIUM	18.2	26.2
BERYLLIUM	0.29	0.31
CADMIUM	--	--
CHROMIUM	7.9	7.7 J
COBALT	2.3 J	4.8
COPPER	3.9	8.5
IRON	12300	11800
LEAD	21.9	5.5
MANGANESE	133	176
MERCURY	0.022 J	--
NICKEL	7.3	9
SELENIUM	--	--
VANADIUM	15.4	11.7
ZINC	20.1	22.1 J

NE103	0001	0110	0110(DUP)
ALUMINUM	9330	9270	9410
ARSENIC	2.8	2.4	2.3
BARIUM	20.2	30	32.7
BERYLLIUM	0.28 J	0.31	0.34
CADMIUM	--	--	--
CHROMIUM	8.3	8.7 J	8.7 J
COBALT	2 J	4.9	5
COPPER	4.7	9.1	10.3
IRON	9870	12900	13300
LEAD	11.6	5.6 J	6.1 J
MANGANESE	104	209	199
MERCURY	0.041	--	--
NICKEL	6.3	9.5	10.2
SELENIUM	0.28 J	--	--
VANADIUM	15	12.9	13
ZINC	17.1	23.7 J	24.6 J

NE102	0001	0110
ALUMINUM	10700	10800
ARSENIC	2.4	2.6
BARIUM	22.5	39.6
BERYLLIUM	0.36	0.39
CADMIUM	--	--
CHROMIUM	7.9	10 J
COBALT	2.3 J	5.6
COPPER	4.7	10.1
IRON	10700	14400
LEAD	12.7	6.6 J
MANGANESE	128	229
MERCURY	0.038 J	--
NICKEL	6.4	11
SELENIUM	--	--
VANADIUM	15.8	14.6
ZINC	19.3	27.5 J

NE101	0001	0110
ALUMINUM	14000	11800
ARSENIC	3.1	3.2
BARIUM	27	37.5
BERYLLIUM	0.46	0.48
CADMIUM	--	--
CHROMIUM	10.3	11.7 J
COBALT	3.4	6.7
COPPER	5.7	11.9
IRON	13200	17600
LEAD	8.2	7.4 J
MANGANESE	146	243
MERCURY	0.021 J	--
NICKEL	8.1	12.5
SELENIUM	--	--
VANADIUM	17.3	16.5
ZINC	21	30 J

MM113	0001	0110
ALUMINUM	13500	8890
ARSENIC	3.9	3.3
BARIUM	25.7	21.6
BERYLLIUM	0.38	0.33
CADMIUM	--	--
CHROMIUM	10.2	18.8 J
COBALT	2.3 J	6.8
COPPER	7	14.8
IRON	14100	16100
LEAD	18.4	6.6 J
MANGANESE	120	268
MERCURY	0.04	--
NICKEL	7.3	14.6
SELENIUM	0.36 J	--
VANADIUM	21.5	13.3
ZINC	23.1	31 J

MM114	0001	0110
ALUMINUM	8540	8040
ARSENIC	2.4	5.2
BARIUM	16	23.1
BERYLLIUM	0.3	0.32
CADMIUM	--	--
CHROMIUM	5.8	8.8 J
COBALT	1.5 J	5.5
COPPER	3.6	10
IRON	8240	12700
LEAD	7.2	6.5
MANGANESE	94	289
MERCURY	0.019 J	--
NICKEL	4.5	11.2
SELENIUM	0.19 J	--
VANADIUM	10.8	10.6
ZINC	15.6	23.7 J

MM119	0001	0110
ALUMINUM	8300	7940
ARSENIC	3.4	4
BARIUM	19	21.4
BERYLLIUM	0.34	0.31
CADMIUM	--	--
CHROMIUM	7.6	10.2 J
COBALT	4	6.1
COPPER	7.4	10.9
IRON	11400	15800
LEAD	5.3	6.9 J
MANGANESE	182	302
MERCURY	--	--
NICKEL	9.1	11.9
SELENIUM	--	--
VANADIUM	11.2	12.8
ZINC	19.4	29.4 J

MM120	0001	0110
ALUMINUM	8900	5520
ARSENIC	3.6	2.5
BARIUM	15.6	14.6
BERYLLIUM	0.49	0.28
CADMIUM	--	--
CHROMIUM	12.8	6.2 J
COBALT	4.2	4.6
COPPER	9.1	9.6
IRON	17600	10600
LEAD	7 J	5.3
MANGANESE	171	193
MERCURY	0.016 J	--
NICKEL	8.9	7.6
SELENIUM	--	--
VANADIUM	14.4	8.6
ZINC	24.8	18.7 J

MM117	0001	0110
ALUMINUM	12800	7070
ARSENIC	3.8	3.6
BARIUM	27.7	18.9
BERYLLIUM	0.4	0.28
CADMIUM	--	--
CHROMIUM	10.3	6.9 J
COBALT	3	6.7
COPPER	7.8	12.1
IRON	15000	13500
LEAD	13.1	6.7
MANGANESE	138	254
MERCURY	0.018 J	--
NICKEL	8.4	10.6
SELENIUM	--	--
VANADIUM	17.8	9.5
ZINC	23.8	25 J

MM118	0001	0110
ALUMINUM	9250	7890
ARSENIC	4.5	3.7
BARIUM	19.4	21.3
BERYLLIUM	0.32	0.36
CADMIUM	--	--
CHROMIUM	9.4	9.5 J
COBALT	4.6	8.4
COPPER	8.2	19.2
IRON	13100	14900
LEAD	6.1	9.2
MANGANESE	178	539
MERCURY	--	--
NICKEL	9	22.6
SELENIUM	--	--
VANADIUM	12.7	12.1
ZINC	21.1	30.9 J

MM116	0001	0110	0110(DUP)
ALUMINUM	9520	8140	8810
ARSENIC	3	3.4	3.8
BARIUM	18.2	24.8	26.7
BERYLLIUM	0.31	0.31	0.31
CADMIUM	--	--	--
CHROMIUM	7	11.9 J	11.4 J
COBALT	1.8 J	6	7.5
COPPER	3.8	12.6	13.3
IRON	10200	14900	16300
LEAD	10.3	7.4	8.6
MANGANESE	113	306	333
MERCURY	0.022 J	--	--
NICKEL	5	12.9	13.1
SELENIUM	--	--	--
VANADIUM	14.3	10.6	11.5
ZINC	16.5	31 J	32 J

MM115	0001	0110
ALUMINUM	10200	10700
ARSENIC	2.8	3
BARIUM	21.3	42.9
BERYLLIUM	0.38	0.33
CADMIUM	--	--
CHROMIUM	7.1	9.8 J
COBALT	1.5 J	6.1
COPPER	4.5	9.4
IRON	11000	16300
LEAD	8.7	5.7 J
MANGANESE	141	313
MERCURY	0.025 J	--
NICKEL	5.5	9.7
SELENIUM	--	--
VANADIUM	13.5	16.7
ZINC	18.4	31.4 J

BA101	0001
ALUMINUM	4760
ARSENIC	1.2
BARIUM	7.5 J
BERYLLIUM	0.17 J
CADMIUM	--
CHROMIUM	5.6
COBALT	1.9 J
COPPER	3.7
IRON	9130
LEAD	3 J
MANGANESE	135
MERCURY	--
NICKEL	5.9
SELENIUM	--
VANADIUM	6.3
ZINC	21.6

BA102	0001
ALUMINUM	3730
ARSENIC	0.89
BARIUM	6.4 J
BERYLLIUM	0.14 J
CADMIUM	--
CHROMIUM	4.8
COBALT	1.6 J
COPPER	3.2
IRON	7400
LEAD	2.6 J
MANGANESE	103
MERCURY	--
NICKEL	5.2
SELENIUM	--
VANADIUM	5.2
ZINC	18.1

BA103	0001
ALUMINUM	4130
ARSENIC	0.96
BARIUM	8 J
BERYLLIUM	0.15 J
CADMIUM	--
CHROMIUM	5
COBALT	1.8 J
COPPER	3.2
IRON	7780
LEAD	2.7 J
MANGANESE	110
MERCURY	--
NICKEL	5.7
SELENIUM	--
VANADIUM	6
ZINC	18.7

BA104	0001
ALUMINUM	4790
ARSENIC	1.3
BARIUM	8.9 J
BERYLLIUM	0.15 J
CADMIUM	--
CHROMIUM	6.4
COBALT	2.4 J
COPPER	3.8
IRON	8800
LEAD	3.4 J
MANGANESE	113
MERCURY	--
NICKEL	7.1
SELENIUM	--
VANADIUM	8.3
ZINC	20.5

BA106	0001	0001(DUP)
ALUMINUM	5310	4290
ARSENIC	1.3	0.96
BARIUM	7.7 J	6.5 J
BERYLLIUM	0.16 J	0.16 J
CADMIUM	--	--
CHROMIUM	7.1	7.8
COBALT	2.4 J	2.1 J
COPPER	4.6	4.6
IRON	10200	7750
LEAD	3.7 J	3.9
MANGANESE	165	103
MERCURY	--	--
NICKEL	8.6	7.1
SELENIUM	--	--
VANADIUM	7.6	7.9
ZINC	25.6	19.6

BA105	0001
ALUMINUM	3920
ARSENIC	1.2
BARIUM	6.3 J
BERYLLIUM	0.15 J
CADMIUM	--
CHROMIUM	5.7
COBALT	2.2 J
COPPER	3.4
IRON	8450
LEAD	3.4 J
MANGANESE	123
MERCURY	--
NICKEL	6.4
SELENIUM	--
VANADIUM	6.1
ZINC	21.1

BA107	0001
ALUMINUM	3810
ARSENIC	0.88
BARIUM	7.3 J
BERYLLIUM	0.14 J
CADMIUM	--
CHROMIUM	4.8
COBALT	1.6 J
COPPER	2.9
IRON	7390
LEAD	2.9 J
MANGANESE	108
MERCURY	--
NICKEL	5.2
SELENIUM	--
VANADIUM	5.9
ZINC	18.2

BA108	0001
ALUMINUM	3870
ARSENIC	0.92
BARIUM	6.6 J
BERYLLIUM	0.15 J
CADMIUM	--
CHROMIUM	5.2
COBALT	1.7 J
COPPER	3.5
IRON	7180
LEAD	3 J
MANGANESE	106
MERCURY	--
NICKEL	5.6
SELENIUM	--
VANADIUM	5.5
ZINC	18.2

BA109	0001
ALUMINUM	4160
ARSENIC	0.94
BARIUM	6.5 J
BERYLLIUM	0.14 J
CADMIUM	--
CHROMIUM	7
COBALT	2 J
COPPER	5.5
IRON	7860
LEAD	2.7 J
MANGANESE	111
MERCURY	--
NICKEL	8.2
SELENIUM	--
VANADIUM	6.1
ZINC	19.6

BA110	0001
ALUMINUM	5290
ARSENIC	1.1
BARIUM	14.5
BERYLLIUM	0.16 J
CADMIUM	--
CHROMIUM	7
COBALT	2.5
COPPER	4.3
IRON	9920
LEAD	3 J
MANGANESE	131
MERCURY	--
NICKEL	7.5
SELENIUM	--
VANADIUM	7.8
ZINC	20

BA111	0001
ALUMINUM	4250
ARSENIC	0.97
BARIUM	6.7 J
BERYLLIUM	0.14 J
CADMIUM	--
CHROMIUM	5.9
COBALT	1.8 J
COPPER	2.8
IRON	8040
LEAD	2.9 J
MANGANESE	119
MERCURY	--
NICKEL	5.7
SELENIUM	--
VANADIUM	6
ZINC	18.9

BA112	0001
ALUMINUM	4230
ARSENIC	0.83
BARIUM	7.2 J
BERYLLIUM	0.15 J
CADMIUM	--
CHROMIUM	5.2
COBALT	1.7 J
COPPER	2.7
IRON	8000
LEAD	2.7 J
MANGANESE	114
MERCURY	--
NICKEL	5.2
SELENIUM	--
VANADIUM	5.8
ZINC	18.5

BA113	0001	0001(DUP)
ALUMINUM	3900	3520
ARSENIC	0.88	1.2
BARIUM	7 J	7 J
BERYLLIUM	0.14 J	0.19 J
CADMIUM	--	--
CHROMIUM	6.9	4.8
COBALT	1.7 J	2.2 J
COPPER	8.9	11.2
IRON	7590	8120
LEAD	5	4.5
MANGANESE	108	96.9
MERCURY	--	--
NICKEL	5.5	5.7
SELENIUM	--	--
VANADIUM	6.1	6
ZINC	35.7	34.8

LEGEND

SAMPLE LOCATION — SAMPLED INTERVAL (FEET)

COLOR DENOTES SOIL TYPE

BA101	0001
ALUMINUM	4760

METAL RESULT (mg/kg) (OUTLIERS ARE HIGHLIGHTED YELLOW)

J - QUANTITATION APPROXIMATE

-- - NOT DETECTED

NEWPORT SILT LOAM (NeA, NeB, NeC, NP)

BEACH SOIL (Ba)

MERRIMACK SANDY LOAM (MmA)

SOIL CLASSIFICATION EXTENT

SOIL SAMPLE LOCATION

SOURCE:
1997 AERIAL PHOTGRAPH, RHODE ISLAND DEPARTMENT OF ADMINISTRATION, DIVISION OF PLANNING

NOTES:
1) PLAN NOT TO BE USED FOR DESIGN
2) ALL LOCATIONS ARE TO BE CONSIDERED APPROXIMATE
3) SOIL CLASSIFICATIONS MAPPED BY USGS, PROVIDED BY RIGIS, 1995
4) CLASSIFICATION ABBREVIATIONS DEFINED IN TEXT

0 140 280 560 840 1,120 Feet

Tetra Tech NUS, Inc.

METALS DETECTED IN SURFACE AND/OR SUBSURFACE SOILS WITHIN AREA C: SOIL TYPES Ne, Mm AND Ba
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT
NEWPORT, RHODE ISLAND

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SCALE: AS NOTED

FIGURE NUMBER: FIGURE 4-3 | REV: 0 | DATE: 01/21/08

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APPENDICES

APPENDIX A

SOIL SAMPLE LIST

TABLE A-1
SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Mansfield mucky silt loam (Ma)	Propery located south of NUSC Disposal Area, NUWC	Surface	BWBK-SS-MA01-0001		
			BWBK-SS-MA02-0001		
			BWBK-SS-MA03-0001		
			BWBK-SS-MA04-0001		
			BWBK-SS-MA05-0001		
			BWBK-SS-MA06-0001		
			BWBK-SS-MA07-0001		
			BWBK-SS-MA08-0001		
			BWBK-SS-MA09-0001		
			BWBK-SS-MA10-0001		
			BWBK-SS-MA11-0001		
			BWBK-SS-MA12-0001		
			BWBK-SS-MA13-0001		
			BWBK-SS-MA14-0001		
			BWBK-SS-MA15-0001		
			BWBK-SS-MA16-0001		
			BWBK-SS-MA17-0001		
			BWBK-SS-MA18-0001		
			BWBK-SS-MA19-0001		
			BWBK-SS-MA20-0001	20	
		Subsurface	BWBK-SB-MA01-0105		
			BWBK-SB-MA02-0107		
			BWBK-SB-MA03-0108		
			BWBK-SB-MA04-0106		
			BWBK-SB-MA05-0108		
			BWBK-SB-MA06-0105		
			BWBK-SB-MA07-0108		D
			BWBK-SB-MA08-0108		D
			BWBK-SB-MA09-0108		
			BWBK-SB-MA10-0104		
			BWBK-SB-MA11-0108		
			BWBK-SB-MA12-0108		
			BWBK-SB-MA13-0105		
			BWBK-SB-MA14-0104		D
			BWBK-SB-MA15-0105		
			BWBK-SB-MA16-0104		
			BWBK-SB-MA17-0104		
			BWBK-SB-MA18-0104		
			BWBK-SB-MA19-0103		
			BWBK-SB-MA20-0103	20	

TABLE A-1
SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Merrimack sandy loam (MmA)	Area immediately north of Pine Hill on Prudence Island	Surface	BWBK-SS-MM101-0001		
			BWBK-SS-MM102-0001		
			BWBK-SS-MM103-0001		
			BWBK-SS-MM104-0001		
			BWBK-SS-MM105-0001		
			BWBK-SS-MM106-0001		
			BWBK-SS-MM107-0001		
			BWBK-SS-MM108-0001		
			BWBK-SS-MM109-0001		
			BWBK-SS-MM110-0001		
			BWBK-SS-MM111-0001		
			BWBK-SS-MM112-0001		
			BWBK-SS-MM113-0001		
			BWBK-SS-MM114-0001		
			BWBK-SS-MM115-0001		
			BWBK-SS-MM116-0001		
			BWBK-SS-MM117-0001		
			BWBK-SS-MM118-0001		
			BWBK-SS-MM119-0001		
			BWBK-SS-MM120-0001	20	
		Subsurface	BWBK-SB-MM101-0110		D
			BWBK-SB-MM102-0109		
			BWBK-SB-MM103-0107		
			BWBK-SB-MM104-0110		
			BWBK-SB-MM105-0110		
			BWBK-SB-MM106-0110		
			BWBK-SB-MM107-0110		
			BWBK-SB-MM108-0110		D
			BWBK-SB-MM109-0110		
			BWBK-SB-MM110-0109		
			BWBK-SB-MM111-0110		
			BWBK-SB-MM112-0110		D
			BWBK-SB-MM113-0110		
			BWBK-SB-MM114-0110		
			BWBK-SB-MM115-0110		
			BWBK-SB-MM116-0110		D
			BWBK-SB-MM117-0110		
			BWBK-SB-MM118-0110		
			BWBK-SB-MM119-0110		
			BWBK-SB-MM120-0110	20	

TABLE A-1
SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Newport silt loam (NeA, NeB, NeC, NP)	Area immediately west of the airfield on Prudence Island	Surface	BWBK-SS-NE101-0001		
			BWBK-SS-NE102-0001		
			BWBK-SS-NE103-0001		
			BWBK-SS-NE104-0001		
			BWBK-SS-NE105-0001		
			BWBK-SS-NE106-0001		
			BWBK-SS-NE107-0001		
			BWBK-SS-NE108-0001		
			BWBK-SS-NE109-0001		
			BWBK-SS-NE110-0001	10	
		Subsurface	BWBK-SB-NE101-0110		
			BWBK-SB-NE102-0110		
			BWBK-SB-NE103-0110		D
			BWBK-SB-NE104-0110		
			BWBK-SB-NE105-0110		
			BWBK-SB-NE106-0110		
			BWBK-SB-NE107-0510		
			BWBK-SB-NE108-0110		
			BWBK-SB-NE109-0110		
			BWBK-SB-NE110-0110	10	D
	Transmission line immediately north of the Rainbow Housing Area	Surface	BWBK-SS-NE01-0001		
			BWBK-SS-NE02-0001		
			BWBK-SS-NE03-0001		
			BWBK-SS-NE04-0001		
			BWBK-SS-NE05-0001		
			BWBK-SS-NE06-0001		
			BWBK-SS-NE07-0001		
			BWBK-SS-NE08-0001		
			BWBK-SS-NE09-0001		
			BWBK-SS-NE10-0001	10	
		Subsurface	BWBK-SB-NE01-0108		
			BWBK-SB-NE02-0109		
			BWBK-SB-NE03-0105		
			BWBK-SB-NE04-0110		
			BWBK-SB-NE05-0108		D
			BWBK-SB-NE06-0109		
			BWBK-SB-NE07-0107		
			BWBK-SB-NE08-0104		
			BWBK-SB-NE09-0110		D
			BWBK-SB-NE10-0107	10	
	Property located south of NUSC Disposal Area, NUWC	Subsurface	BWBK-SB-SO10-0107-NP	1	

TABLE A-1
SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Pittstown silt loam (PmA, PmB)	Property located south of NUSC Disposal Area, NUWC	Subsurface	BWBK-SB-PM01-0105		
			BWBK-SB-PM02-0104		
			BWBK-SB-PM03-0106		
			BWBK-SB-PM04-0105		
			BWBK-SB-PM05-0105		D
			BWBK-SB-PM06-0105		
			BWBK-SB-PM07-0105		
			BWBK-SB-PM08-0106		
			BWBK-SB-PM09-0106		
			BWBK-SB-PM10-0105		
			BWBK-SB-PM11-0104		
			BWBK-SB-PM12-0105		
			BWBK-SB-PM13-0106		
			BWBK-SB-PM14-0106		
			BWBK-SB-PM15-0105		
			BWBK-SB-PM16-0106		
			BWBK-SB-PM17-0105		D
			BWBK-SB-PM18-0105		
			BWBK-SB-PM19-0105		
			BWBK-SB-PM20-0106		D
			BWBK-SB-SO01-0107-PM		
			BWBK-SB-SO02-0109-PM		
			BWBK-SB-SO13-0104-PM		
			BWBK-SB-SO14-0105-PM	24	
Stissing silt loam (Se)	Property located south of NUSC Disposal Area, NUWC	Subsurface	BWBK-SB-SO03-0108		
			BWBK-SB-SO04-0108		
			BWBK-SB-SO05-0106		
			BWBK-SB-SO06-0108		D
			BWBK-SB-SO07-0106		
			BWBK-SB-SO08-0107		
			BWBK-SB-SO09-0106		
			BWBK-SB-SO11-0106		
			BWBK-SB-SO12-0106		D
			BWBK-SB-SO15-0103		
			BWBK-SB-SO16-0105		
			BWBK-SB-SO17-0106		
			BWBK-SB-SO18-0105		
			BWBK-SB-SO19-0104		
			BWBK-SB-SO20-0104	15	

TABLE A-1
SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Beach Soils (Ba)	Southern coastal area on Prudence Island	Surface	BWBK-SS-BA101-0001		
			BWBK-SS-BA102-0001		
			BWBK-SS-BA103-0001		
			BWBK-SS-BA104-0001		
			BWBK-SS-BA105-0001		
			BWBK-SS-BA106-0001		D
			BWBK-SS-BA107-0001		
			BWBK-SS-BA108-0001		
			BWBK-SS-BA109-0001		
			BWBK-SS-BA110-0001		
			BWBK-SS-BA111-0001		
			BWBK-SS-BA112-0001		
			BWBK-SS-BA113-0001	13	D
			Total	173	

Notes:
Samples identified with a fifth sequence indicate observed soil type as different from the predetermined sample identification.
Surface - the 0 to 1 foot interval, unless otherwise stated.
Subsurface - the portion of the 1 to 10 foot interval containing undisturbed soil of the soil type of interest.
D Duplicate sample collected
1 0 to 1.5 foot interval
2 Collected during MNLF Background Soil Investigation.
3 Collected during NUSC Disposal Area Background Soil Investigation.

TABLE A-2
PREVIOUS INVESTIGATION SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Newport silt loam (NeA, NeB, NeC, NP)	Area east and south of Melville Pond	Surface[1]	BKG-SS03-NEB-0016 [2]		
			BKG-SS09-NEB-0018 [2]	2	
Pittstown silt loam (PmA, PmB)	Property located south of NUSC Disposal Area, NUWC	Surface	DABK-S-SO21-0001 [3]		
			DABK-S-SO22-0001 [3]		
			DABK-S-SO23-0001 [3]		
			DABK-S-SO24-0001 [3]		
			DABK-S-SO25-0001 [3]		D
			DABK-S-SO26-0001 [3]		
			DABK-S-SO27-0001 [3]		
			DABK-S-SO28-0001 [3]		
			DABK-S-SO29-0001 [3]		
			DABK-S-SO30-0001 [3]		
			DABK-S-SO31-0001 [3]		
			DABK-S-SO32-0001 [3]		
			DABK-S-SO33-0001 [3]		
			DABK-S-SO34-0001 [3]		
			DABK-S-SO35-0001 [3]		D
			DABK-S-SO36-0001 [3]		
			DABK-S-SO37-0001 [3]		
			DABK-S-SO38-0001 [3]		
			DABK-S-SO39-0001 [3]		
			DABK-S-SO40-0001 [3]	20	

TABLE A-2
PREVIOUS INVESTIGATION SOIL SAMPLE COLLECTION DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Soil Type	Sample Area	Composite Sample Interval	Sample ID	Count	QC Sample
Stissing silt loam (Se)	Property located south of NUSC Disposal Area, NUWC	Surface	DABK-S-SO01-0001 [3]		
			DABK-S-SO02-0001 [3]		
			DABK-S-SO03-0001 [3]		
			DABK-S-SO04-0001 [3]		
			DABK-S-SO05-0001 [3]		
			DABK-S-SO06-0001 [3]		
			DABK-S-SO07-0001 [3]		D
			DABK-S-SO08-0001 [3]		
			DABK-S-SO09-0001 [3]		
			DABK-S-SO10-0001 [3]		
			DABK-S-SO11-0001 [3]		D
			DABK-S-SO12-0001 [3]		
			DABK-S-SO13-0001 [3]		
			DABK-S-SO14-0001 [3]		
			DABK-S-SO15-0001 [3]		
			DABK-S-SO16-0001 [3]		
			DABK-S-SO17-0001 [3]		
			DABK-S-SO18-0001 [3]		
			DABK-S-SO19-0001 [3]		
			DABK-S-SO20-0001 [3]	20	
			Total	42	

Notes:
Samples identified with a fifth sequence indicate observed soil type as different from the predetermined sample identification.
Surface - the 0 to 1 foot interval, unless otherwise stated.
Subsurface - the portion of the 1 to 10 foot interval containing undisturbed soil of the soil type of interest.
D Duplicate sample collected
1 0 to 1.5 foot interval
2 Collected during MNLF Background Soil Investigation.
3 Collected during NUSC Disposal Area Background Soil Investigation.

TABLE A-3
BEDROCK SAMPLE DETAILS
BASEWIDE BACKGROUND REPORT
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

Bedrock Type	Boring ID	Sample Area	Sample ID[1]	Count	QC Sample
Rhode Island Formation (RI)	RI1	Southern most extent of Coaster's Harbor Island	BWBK-BR-RI1-C1		
			BWBK-BR-RI1-C2		D
			BWBK-BR-RI1-C3		
			BWBK-BR-RI1-C4		
			BWBK-BR-RI1-C5		
			BWBK-BR-RI1-C6		
			BWBK-BR-RI1-C7		
			BWBK-BR-RI1-C8		
			BWBK-BR-RI1-C9		
			BWBK-BR-RI1-C10		
			BWBK-BR-RI1-C11		
			BWBK-BR-RI1-C12		
			BWBK-BR-RI1-C13		D
			BWBK-BR-RI1-C14		
			BWBK-BR-RI1-C15		
	PC1	Southern extent of Coaster's Harbor Island, immediately southwest of the intersection of Perry Road and Luce Avenue	BWBK-BR-PC1-C3-RI		
			BWBK-BR-PC1-C4-RI		
			BWBK-BR-PC1-C5-RI		
			BWBK-BR-PC1-C15-RI	19	D
Purgatory Conglomerate (PC)	PC1	Southern extent of Coaster's Harbor Island, immediately southwest of the intersection of Perry Road and Luce Avenue	BWBK-BR-PC1-C1		
			BWBK-BR-PC1-C2		
			BWBK-BR-PC1-C6		D
			BWBK-BR-PC1-C7		
			BWBK-BR-PC1-C8		
			BWBK-BR-PC1-C9		
			BWBK-BR-PC1-C10		
			BWBK-BR-PC1-C11		
			BWBK-BR-PC1-C12		
			BWBK-BR-PC1-C13		
			BWBK-BR-PC1-C14	11	
			Total	30	

Notes:
1 Samples identified with a fifth sequence indicate observed bedrock formation type as different from the predetermined sample identification.

APPENDIX B

FIELD DOCUMENTATION

APPENDIX B-1

MANSFIELD MUCKY SILT LOAM (MA)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-MAØ1
PROJECT NO.:	G00200-0211	START DATE:	9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.0	BWBK-SS-MAØ1-0001	0.6			Very Dark gray Sandy silt loam, root frag., some gravel, soft, wet		Picture Taken	-0-
1.0			1110	0.9			Lt. gray Sandy loam, wet, trace gravel	MA		
2.0				2.1			Gray silt loam, Rock frag., abundant yellow Brow iron staining, firm	MA		
3.0			BWBK-SB-MAØ1-0105 1112				Dark Gray Silt loam, rock frag, some yellow Brown iron staining in top 6-inches, damp hard to firm	MA	Picture Taken	
4.0		5.0/5.0								
5.0							Becomes wet in bottom 5-inches			
6.0				5.3			Dark gray loam, some rock fragments, very hard, brittle		TILL	
7.0										
8.0							End of Boring @ 8' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 8' BGS	BORING NO.: BWBK-MAØ1	PAGE: 1 OF 1

TINUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ2
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.0	BWBK-SS-MAØ2-0001 1200	0.8			Dark gray to Lt. gray silty Sandy loam, root frag, Trace rock frag. wet		Picture Taken	-0-
1.0										
							Gray silt loam, some rock frag, abundant yellow Brown iron staining, firm, friable			
2.0										
3.0				2.9						
		3.5/3.5	BWBK-SB-MAØ2-0107 1203	3.9			Gray fine-Med Sand, some silt, saturated, Loose		Picture Taken	
4.0							Dark gray silt loam, some rock frag, some yellow Brown to dark brown iron staining wet, firm.			
5.0										
6.0				5.9						
							Dark gray Sandy loam, yellow Brown iron staining, very firm, Brittle, moist.			
7.0				Refusal			End of Boring @ 6.5' BGS			
8.0										

TYPE OF DRILLING RIG:	Geoprobe
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	EOB @ 6.5' BGS (Refusal)

BORING NO.: BWBK-MAØ2

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ3
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.5/3.5	BWBK-SS-MAØ3-0001 1400	0.6			Dark gray silty loam, root frag, wet		MA	-0-
1.0							Gray Sandy Silt loam, abundant yellow Brown iron Staining rock fragments, firm, damp		MA	
2.0										
3.0										
				3.5						
4.0							Dark gray Silty to Sandy Loam, rock fragments, some yellow Brown iron Staining moist, firm.		MA	
		3.5/4.0	BWBK-SB-MAØ3-~~0102~~ 0105 1402							
5.0										
6.0										
7.0										
				7.5 Refusal						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MAØ3	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA04
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.5/3.5	BWBK-SS-MA04-0001 1505				Very Dark Gray, silty loam, abundant fine root frags, wet		Picture Taken	-0-
1.0				0.8			Gray to olive gray silt loam, abundant yellow & Brown iron staining, rock fragments, firm, brittle	MA		
2.0				1.85				MA		
3.0							Very Dark gray silt loam, some yellow brown iron staining, some phylite fragments firm, saturated	MA		
4.0			BWBK-SB-MA04-0106 1508						Picture Taken	
5.0		3.5/3.5								
6.0				6.1						
7.0				7.0			Very Dark Gray Sandy loam, abundant rock fragments, wet, firm	TILL		
7.0				Refusal			End of Boring @ 7' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7' BGS	BORING NO.: BWBK-MA04	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ5
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5	BWBK-SS-MAØ5-0001 0845	0.6			Very Dark gray silt loam, fine root frag, wet		Picture Taken	-0-
1.0				1.0			Gray silt Loam, Trace roots, rock frag, moist		Ma	
2.0							Gray silty fine Sandy loam, prominent yellow Brown iron staining, abundant rock frags, firm, damp		Ma	
3.0										
4.0		3.5/4.0	BWBK-SB-MAØ5-0108 0847						Picture Taken	
				4.5						
5.0				4.9			Brownish Gray fine to med Sand, Saturated			
6.0						5Y 3/1	Very dark gray silt loam, massive, Blocky, Saturated, firm		Ma	
7.0										
				7.5						
8.0				Refusal			End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MAØ5	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-MA06
PROJECT NO.:	G00200-0211	START DATE:	9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.5/3.5	BWBK-SS-MA06-0001 1540	0.75			Dark gray Silt loam, root fragments, moist		Ma Picture Taken	-0-
1.0										
							Gray Silt loam, abundant rock fragments, many yellow Brown iron stains		Ma	
2.0										
			BWBK-SB-MA06-0105 1543						Picture Taken	
3.0										
				3.35			Brown fine to med Sand, some rock frag, wet			
		3.5/4.0		3.75						
4.0										
							Very Dark Gray Silt loam, Trace yellow Brown iron staining, Trace rock frags, saturated, firm, Blocky		Ma	
5.0				5.0						
							Very Dark gray Sandy loam, rock frag, very firm, wet		Till	
6.0										
7.0										
				7.5						
8.0				Refusal			End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA06	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ7
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		2.6/3.5	BWBK-SS-MAØ7-0001 1630	0.5			Very Dark grayish Brown, root frag, Moist.		Ma	-0-
1.0							Dark gray gravelly fine to med Sandy loam, abundant yellow Brown iron staining wet, firm		Ma	
2.0										
3.0										
4.0		3.5/4.0								
5.0			BWBK-SB-MAØ7-0108 1633	4.3			Dark gray Silt loam some rock fragments, massive, Blocky, very firm, wet		Ma	
6.0										
7.0							-Collected Field Dupe BWBK-SO-DUPØ5, 1635 from second interval-			
8.0				7.5 Refusal			End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MAØ7	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ8
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
			BWBK-SS-MAØ8-0001 1115				Dark Gray Silt Loam, many root fragments, wet		Ma Picture Taken	-0-
1.0				0.9						
							Gray fine Sandy Loam, some rock fragments, Prominent yellow Brown iron staining, hard, friable			
2.0									Ma	
			BWBK-SB-MAØ8-0108 1118				Field Dupe BWBK-SO-DUPØ6 Collected from 01-08' BGS 1120		Picture Taken	
3.0										
				3.7						
4.0				4.0			Grayish Brown fine-Med Sand, Saturated			
							Dark gray silt loam, some rock fragments, very firm, blocky, wet		Ma	
5.0										
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MAØ8	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MAØ9
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.5/3.5	BWBK-SS-MAØ9-0001 1205				Dark Gray Silt loam, some root fragments, Trace rock		Picture Take	-0-
1.0				1.95			fragments, damp. dark brown iron Staining		MA	
							Dark Gray gravelly fine to med Sandy Loam, wet		MA	
2.0										
3.0										
			BWBK-SB-MAØ9-0108 1207						Picture Take	
4.0		3.5/4.0								
5.0				4.8			~~Gra~~ Dark gray silt loam, prominent yellow Brown iron Staining			
							some rock fragments, ~~Sandy~~ firm		MA	
6.0										
				DH ~~6.9~~						
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MAØ9	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA10
PROJECT NO.:	G00200-0211		START DATE: 9/25/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/25/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.5/3.5	BWBK-SS-MA10-0001 0945	0.6			Very dark gray silt loam, some fine roots, Trace gravel, wet		Picture Taken Ma	-0-
1.0							Dark gray gravelly fine Sandy loam, firm, some yellow ~~Brown iron concentrations~~ moist		Ma	
2.0										
			BWBK-SB-MA10-0104 0948						Picture Taken	
3.0										
4.0		4.0/4.0								
				4.3						
5.0							Very dark gray fine sandy silt loam, some small to med gravel, very firm.		TILL	
6.0										
7.0										
				7.5						
8.0							End of Boring			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA10	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: BWBK-MA11
START DATE: 9/21/06
COMPLETION: DATE: 9/21/06
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.2/3.5	BWBK-SS-MA11-0001 1300	0.3			Dark gray silt loam, roots, damp		Ma Picture Taken	-0-
1.0							Dark gray fine sandy loam, prominent ~~yo~~ Brown iron staining, abundant rock fragments, firm, damp		Ma	
2.0										
3.0										
4.0		3.5/4.0		3.3			very dark gray gravelly sandy loam, dark Brown iron staining, wet		Ma	
5.0			BWBK-SB-MA11-0108 1302	5.1					Picture Taken	
6.0							very dark gray silt loam, some dark brown iron staining, some rock fragments, very firm, damp		Ma	
7.0										
8.0				7.5						

TYPE OF DRILLING RIG: Geoprobe
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS: EOB @ 7.5' BGS

BORING NO.: BWBK-MA11

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA12
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		2.5/3.5	BWBK-SS-MA12-0001				Dark gray silt loam, root frags, trace rock frags, wet		Picture Taken	-0-
1.0			0930					Ma		
				1.3						
2.0							Gray fine sandy loam, prominent yellow brown iron staining, abundant rock fragments, damp	Ma		
3.0										
				3.5						
4.0		4.0/4.0					Very Dark gray silty sandy loam, abundant rock fragments, wet	Ma		
			BWBK-SB-MA12-0108						Picture Taken	
5.0			0933				Saturated from 4.5' down.			
				5.3						
6.0							Very Dark gray silt loam, some rock fragments, very firm, saturated	Ma		
7.0										
				7.5						
8.0				~~Refusal~~ DH						

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA12	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-MA13
PROJECT NO.:	G00200-0211	START DATE:	9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5	BWBK-SS-MA13-0001 1305	0.25			Very dark brown silt loam, many plant roots, moist.		Picture Taken	-0-
1.0				0.8			Dark gray silt loam, some plant roots, trace gravel, moist		Ma	
2.0				1.75			Dark gray very fine sandy loam, Trace roots, some yellow Brown iron concent., firm, moist.		Ma	
3.0							Gray fine sandy loam, Prominent yellow Brown iron concent, some gravel, firm, damp, many dark gray coarse iron depletions		Ma	
4.0		4.0/4.0	BWBK-SB-MA13-0105 1308	3.8					Picture Taken	
5.0							gray fine sandy loam, some yellow Brown iron stains, firm, wet		Ma	
				5.3						
6.0							Very dark gray fine sandy silt loam, abundant gravel, very firm, dry.		TILL	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA13	PAGE: 1 OF 1

TINUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK - MA14
PROJECT NO.:	G00200-0211		START DATE: 9/26/96
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/96
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.5/3.5	BWBK-SS-MA14-0001 1330	0.4			Very dark brown silt loam and organic material, damp		Ma Picture Taken	-0-
1.0							Very dark gray silt loam, some roots, wet			
				1.35						
2.0							gray silt loam, many yellow Brown iron stains, some gravel, firm, damp		Ma	
			BWBK-SB-MA14-0104 1335 *	2.5					Picture Taken	
3.0							Gray fine sandy loam, many yellow brown iron concentrations some very dark gray iron depletions trace gravel, wet		Ma	
4.0		4.0/4.0								
				4.4						
5.0							Very dark gray fine sandy silt loam, some gravel, very firm, dry.		TILL	
6.0										
							* Field Dupe BWBK-SO-DUP08, 1338			
7.0							Collect at 01-04 interval			
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA14	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA15
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
		3.5/3.5	BWBK-SS-MA15-0001 1155	0.2			Dark Brown organic mat		Picture Taken	-0-
1.0							Dark gray fine sandy silt loam, many plant roots, wet		Ma	
				1.4						
2.0							Gray silt loam, many yellow Brown iron concentrations, some gravel, fine, damp		Ma	
			BWBK-SB-MA15-0105 1158	2.7					Picture Taken	
3.0							Dark gray silt loam, some yellow brown iron concentrations, some gravel, fine, damp		Ma	
4.0		3.7/4.0								
				4.5						
5.0							Dark gray fine sandy silt loam, abundant gravel, very fine		Till	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA15	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-MA16
PROJECT NO.:	G00200-0211	START DATE:	9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5	BWBK-SS-MA16-0001 1405				Dark gray silty loam, some roots, trace gravel, wet		Ma Picture Taken	-0-
1.0				1.2						
							Gray fine sandy loam prominent yellow brown iron concent, wet		Ma	
2.0				1.75						
							Gray fine sandy loam, trace gravel, many yellow brown iron stains, firm, moist.		Ma	
3.0										
		4.0/4.0	BWBK-SB-MA16-0104 1409						Picture Taken	
4.0				4.3						
							Very dark gray fine sandy silt loam, some gravel, very firm, dry		TILL	
5.0										
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA16	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: BWBK-MA17
START DATE: 9/26/06
COMPLETION: DATE: 9/26/06
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.9/3.5	BWBK-SS-MA17-0001 1435				Dark gray silt loam, many plant roots, trace gravel, moist		Ma Picture Taken	-0-
1.0				0.75						
							Dark gray fine to med sandy loam, many dark brown iron concentrations, some gravel, fine, moist		Ma	
2.0										
				2.4						
3.0							Gray ~~fine~~ silt loam, some yellow Brown iron Concentrations, some gravel, fine, dark		Ma	
		4.0/4.0	BWBK-SB-MA17-0104 1440						Picture Taken	
4.0										
				4.2						
5.0							Very dark gray fine sandy silt loam, some gravel, very fine, dry		TILL	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG: Geoprobe
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS: EOB @ 7.5' BGS

BORING NO.: BWBK-MA17

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA18
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; eto.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		2.9/3.5	BWBK-SS-MA18-0001				Dark grayish brown silt loam, many roots, moist		Ma Picture Taken	-0-
1.0			1510	1.0						
							Dark gray very fine Sandy loam many dark brown to yellow Brown fine to Coarse iron concentrations, some gravel, firm, wet		Ma	
2.0										
			BWBK-SB-MA18-0104						Picture Taken	
3.0			1512							
4.0		4.0/4.0								
				4.15						
5.0							Very dark gray silt loam, abundant gravel, very firm, dry.		Till	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA18	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA19
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.2/3.5	BWBK-SS-MA19-0001				Dark gray silt loam, many roots, trace gravel, moist		Ma Picture Taken	-0-
1.0			1525	1.1						
							Gray fine sandy silt, some yellow brown iron stains, moist		Ma	
				1.6						
2.0							Dark gray silt loam, some gravel, very firm, dry			
			BWBK-SB-MA19-0103	2.3					Picture Taken	
3.0			1530				Gray very fine sandy loam, some yellow brown iron stains, wet.		Ma	
				3.2						
4.0		4.0/4.0					Very dark gray silt loam, some gravel, very firm, dry		TILL	
5.0										
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA19	PAGE: 1 OF 1

TINUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-MA20
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.3/3.5	BWBK-SS-MA20-0001	0.2			Brown organic mat		Picture Taken	-0-
1.0			1100	1.0			Grayish Brown silt loam, many Plant roots, trace gravel, wet	Ma		
2.0							Gray Silt loam, many yellow Brown iron concentrations, some gravel, Blocky, damp	Ma		
3.0			BWBK-SB-MA20-0103 1105	2.4 / 2.9			Gray silty fine sand, Saturated		Picture Taken	
4.0		3.9/4.0					Very dark gray fine Sandy Silt, Some gravel, Very firm, dry	TILL		
5.0										
6.0										
7.0										
				7.5'						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-MA20	PAGE: 1 OF 1

TtNUS Form 0018

APPENDIX B-2

MERRIMACK SANDY LOAM (MMA)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY: Tlapinski
ELEVATION FROM:

BORING NO.: MM101
START DATE: 03/26/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
0							Cow pasture			
1						TAN	• 0'–0.3' Organic material, roots			0.0
2						↓	• 0.3'–1.0' loamy material, SAND w/ gravel (c)			↓
3		2.45'/5.00'				SEP	• 1.0'–2.45' SAND (f-m).			↓
4			BWBK-SS MM101-0001			↓	Trace GRAVEL (f-m, SR)			↓
5			13:25 S-1			↓	↓			↓
6						↓	0'–2.0' SAND (f-m) & GRAVEL (f-m, SR)			0.0
7		3.9'/5.0'				GREY	2.0'–3.9' GRAVELY SANDS Gravels (f-c, SR), SAND (f-m)			↓
8						↓				↓
9			~~BWBK-SB~~ MM101-0110			↓	• Cobble at 2.7'			↓
10			13:30 S-2			↓	• 3.0'–3.2' SAND (more coarse)			↓
			BWBK-SB - DUP02-032607 13:35	E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM101

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz (TCapinsR)
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM102
START DATE: 3/26/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Cow pasture			
1					LOOSE		• 0'–0.55' Organic material, roots, grass			0.0
2						BR.	• 0.55'–1.2' loamy SAND (f–m) some ~~GRAVEL~~ (m, SR)			
3		3.2' / 5.0'	BWBK-SS-MM102-0001				• 1.4' Thin burn layer			
4							• 1.4'–2.7' SAND (f–m), some GRAVEL (f, SR)			
5			10:45 S-1			GREY	• 2.0'–2.9' SAND (f) ~~• 2.9'–3.2' GRAVEL (m–c, SR)~~			
6							• 3.0'–4.0' SANDY GRAVEL (m–c, BA)			0.0
7		4.1' / 5.0'					• 1.0'–1.9' SAND (f–m); some GRAVEL (f–m, SR)			
8							• 1.9'–2.4' Burn layer, charcoal			
9			BWBK-SB-MM102-~~0100~~0109	25 5/10/07			• 2.4'–4.1' GRAVELY SAND (f–c, SR) (m)			
10			10:55 S-2							
				E.O.B						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM102

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM103
PROJECT NO.:	G00200-0211	START DATE:	03/26/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (Tiupinski)	TRANSCRIBED BY:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	COMPLETION: DATE:	
GRD. SURFACE ELEVATION:		MON. WELL NO.:	N/A
		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							• old cow pastures			
1						BR	• 0'–0.4' Organic material, roots, grass			0.0
2						DK BRWN	• 0.4'–1.4' loam material transitioning into SAND (f-m), some GRAVEL (f-m, SR)			
3		3.5' / 5.0'	BLUBK-SS-MM103-0001				• 1.4'–2.5' GRAVELY SAND (f-c, SR-GRAVEL) SAND (f-m)			
4							• 2.5'–3.0' SAND (f-c)			
5			10:15 S-1				• 3.0'–3.5' SAND (mostly fine, some med.)			
6						GREY	• 0'–0.4' SAND (f-m), trace GRAVEL (f, SR)			0.0
		1.85' / 5.0'					• 0.4'–0.7' SANDY GRAVEL (m-c, fractures in parallel layer)			
						LGHT GREY	• 0.7'–1.2' COBBLE BURN LAYER at 1.3'			
			BLUBK-SB-MM103-01				• 1.2'–1.85' SANDY GRAVEL (f-m) (f-m, SR)		REFUSAL AT ~7'	
7			10 25 S-2							
				E.O.S						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: MM103	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM104
PROJECT NO.:	G00200-0211	START DATE:	03/20/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T Lapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0							old cow pastures			
1			BWBK-SS-MM104 0001 09:45		LOOSE		0'-0.4' Organic, with small twigs/grass, small gravel, SR		loam	0.0
2						DK BROWN	Organic material down to 0.95'			
3		3.1'/5.0'				Peppered	0.4'-1.5' sandy loam (m) w/some gravel (f, SR)			
4							1.5' → 3.1 SAND (f-m), w/some GRAVEL (f, SR)			
5			S-1				thin layer (0.2') of yellowish brown SAND			
6							0'-0.65' similar to above			0.0
7		3.8'/5.0'				DRK GREY	0.65'-1.85' GRAVELY SAND, sand (f-m), gravel (f-c, SR)			
8							1.9'-2.3' GRAVEL / CRUSHED ROCK			
9			BWBK-SB MM104-0110			TAN/BROWN	2.3'-3.8' SAND (f-c), some GRAVEL (f-m, SR)		R'	
10			09:55 S-2			LIGHT GREY				
				(E 0.5)						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: MM104

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TINUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM105
PROJECT NO.:	G00200-0211	START DATE:	03/20/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / T. Lupinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
0							old cow pastures			
1						DK. BRWN	0-0.5' Organic material, leaves, small roots			0.0
2						TAN YELLOWISH	0.5'-2.0' SAND (f, trace m)		Loam?	
3		3.5'	BW3K-SS-MM105-0001			GREY	2.1'-2.9' SAND (f, trace m); some GRAVEL (f, SR)			
4		5.0'				LIGHT GREY	3'-3.5' COBBLE fractures in thin dense layers.			
5			10:00 S-1				↓			↓
6					DENSE	GREY	0'-0.5' SANDY SILT (sand-f;) organic roots at .3'			0.0
7						S&P	0.5'-2.7' SAND (m)			
8		4.0' / 5.0'					(0.8'→1.1' YELLOW BROWN LAYER)			
9			BW3K-SB-MM105-0110				2.7'-4.0' SANDY GRAVEL (f-c, SR)			
10			10:05 S-2				3.6'→3.9' Charcoal / Burn material			↓
				E.O.B.						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: MM 105

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study		BORING NO.: MM10G
PROJECT NO.:	G00200-0211		START DATE: 03/26/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / T Lipiaski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
							- Cow Pasture -			
1						BRWN	• 0'-0.4' Organic material, grass, roots			0.0
							• 0.4'-1.2' ~~Tan SAND (f), trace GRAVEL (m)~~			
2						GREY	• 1.2'-2.7' SAND (f-m); ~~Some GRAVEL~~ (f-c, SR).			
3		2.7'								
4			RUBBLE-SS. Mm10G-001 12:30 S-1				• Burn layer at 1.9'			
5		5.0'				Tan-				
6						Grey	• 0 - 1.6' SAND (f-m); Some GRAVEL (f-m)			0.0
7							• Burn layer at 0.6'			
8		4.55'					• 1.6' - 2.1' SAND (f, trace m)			
9		5.0'	RUBBLE-SS - Mm10G-D10 12:35 S-2				• 2.1' - 4.55' SAND (f-m), GRAVEL (f-m, SA)			
10							• Burn layer at 2.5'			
				E.O.B.						

TYPE OF DRILLING RIG:		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: MM10G	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM107
PROJECT NO.:	G00200-0211	START DATE:	03/26/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / T Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							· Cow Pasture			
1		3.0'/5.0'				BRWN	• 0'–0.3' Organic material, grass, roots • 0.3'–1.0' loam-like material			0.0
2						GREY	• 1.0'–3.0' SAND (f-m) & GRAVEL (m-c, SR)			
3			BW3K-SS-MM107-0001							
4										
5			12:00 S-1							
6							• 0'–4.0' SAND (f-m) & GRAVEL (f-c, SR) • ~~COBBLE at 3'~~ • Burn layer at 1.5'			0.0
7		4.5'/5.0'								
8						DK GREY	• 4.0'–4.5' SAND (f), w/some SILT NO GRAVEL			
9			BW3K-SB-MM107-0110							
10			12:05 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: MM107	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM108
PROJECT NO.:	G00200-0211	START DATE:	03/26/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / T. Lapinski	TRANSCRIBED BY:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	COMPLETION: DATE:	
GRD. SURFACE ELEVATION:		MON. WELL NO.:	N/A
		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							soil posture			
1						BROWN	• 0'-0.4' organic material, grass, roots			0.0
							0.4-1.0 loamy SAND (f) some roots			
2							• 1.0'-2.3' SAND (f), some GRAVEL (f-m, SR)			
3						DK GREY	• 2.3'-3.5' SAND (f-m)			
4		3.5 / 5.0	BW3K-SS-MM108-0001			S&P	some GRAVEL (m-c, SA)			
5			11:30 S-1							
6							• 0'-1.3' similar to above			0.0
7							• 1.3'-2.0' COBBLE			
8		4.7' / 5.0'	BW3K-SB-MM108-0100 11:35				• 2.0'-4.1' SAND (f-m), GRAVEL (f-c, SR-SA)			
9			BW3K-SB-DUP01-~~MM108-0100~~ 032607				• 4.1'-4.7' ROCK, CRUSHED, fract. in parallel sheets			
10			11:40 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: MM108

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TINUS Form 0018

BORING FOR:	Basewide Background Study		BORING NO.: MM109
PROJECT NO.:	G00200-0211		START DATE: 03/20/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T Lapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							0-0.3 Cow Pasture			
1						GREY	• Organic Material, small roots • 0.3'-1.0' Sandy loamy material w/roots			0.0
2							• 1.0'-1.6' SAND (f)			
3		3.45/5.0'	BWBK-SS-MM109-0001				• 1.6'-2.1' SAND (f), some GRAVEL (f, SR)			
4							• 2.1'-2.65' SAND (f-m) • 2.65'-3.0' COBBLE			
5			11:10 S-1			DK. GREY	• 3.0'- SAND (f), some GRAVEL (f, SR)			
6							• 0'-0.7' SAND (f), some GRAVEL (f-m, SR) • 0.8'-1.7' SILTY SAND (f), trace Gravel			0.0
7		4.3/5.0'					• Burn layer at 2.0'			
8							• Cobble 2.25'-2.5'			
9			BWBK-SB-MM101-0110				• 2.5'-3.4' SAND (m), some GRAVEL (m-c, SR)			
10			11:15 S-2			TAN REDDISH BROWN	• 3.4'-3.9' - SAND (m) • 3.9'-4.3' COBBLE			
				E.O.B.						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

Tetra Tech NUS, Inc.

BORING NO.: MM109

TtNUS Form 0018

BORING FOR:	Basewide Background Study		BORING NO.: MM110
PROJECT NO.:	G00200-0211		START DATE: 03/28/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / Tkapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M. Dense	BRWN	·0'–0.45' Organic material, grass, roots ·0.45'–1.0' SAND(f-m), possible loam		Dry	0.0
2						TAN	·1.0'–1.7' SAND(f-m), poorly graded, w/GRAVEL			
3		3.3'/5.0'					·1.7'–2.15' Cobble			
4			BWBK-SS-MM110-0001			GREY	·2.15'–3.3' SAND(f-m), + GRAVEL (fm, SR)		MOIST	
5			09:30 S-1							
6					Dense	GREY	·3.0'–2.0' Similar to above		Dry	0.0
7		4.3'/4.5'					·2.0'–4.3' SANDY GRAVEL			
8							– SAND(f-m) GREY – LIGHT GREY, Brown – GRAVEL (f-c, SA) rock fragments			
9			BWBK-SB-MM110-0109							
10			09:35 S-2	E.O.B. Refusal at 9.5						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: MM110

Tetra Tech NUS, Inc.

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TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	MM111
PROJECT NO.:	G00200-0211	START DATE:	03/28/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz KT Lapinski	TRANSCRIBED BY:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	COMPLETION: DATE:	
GRD. SURFACE ELEVATION:		MON. WELL NO.:	N/A
		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M. Dense	BRWN	0'-0.55' organic material, grass, roots 0.55'-1.0' SAND (f-m), possible loam		DRY	0.0
2						TAN	1.0' Cobble (looks like black shale)			
3		2.8'/5.0'	BWBK-SS-MM111-0001				1.0'-2.8' SAND (f-m), trace GRAVEL (f-m, SA)			
4							2.0'-2.8' SAND (similar to above, but slightly more of SAND and more GREY in color			
5			09:45 S-1							
6					Dense	GREY	0'-1.3' SAND (f), trace silt, trace GRAVEL (f,R)		DRY	0.0
7		4.4'/5.0'					1.3'-4.4' SAND (f-m), mixed with GRAVEL (f-m, SA) and Rock fragments			
8										
9			BWBK-SB-MM111-0110							
10			09:50 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: MM111

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING . FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz / Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM112
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M. Dense	BRWN	.0'-0.4' organic material, grass, roots 0.4'-0.8' SAND (f-m), possible loam		DRY	0.0
2					↓		0.8'-1.5' SAND (f-m), trace GRAVEL (f, SR) poorly graded		↓	↓
3		3.0'/5.0'	BWBK-SS-MM112-0001		↓	TAN				
4					↓	Grey	.1.5'-2.7' SAND (f-m), + GRAVEL (f-m, SA)			
5			10:05 S-1		↓	↓	↓			
6					M. Dense	Grey	.0'-0.7' similar to above			0.0
7					↓	BRWN	.0.7'-1.9' SAND (f-m), poorly graded NO GRAVEL		Dry	↓
8		4.1'/5.0'				↓	.1.9'-2.4' cobble		↓	
9			BWBK-SB-MM112-0110		↓	Grey	.2.4'-4.1 SAND (f-c) mostly coarse trace GRAVEL (c, SR)			
10			10:10 S-2			↓	↓			
			BWBK-SB-DUP05-032807 10:15	E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM112

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING . FOR:	Basewide Background Study	BORING NO.:	MM113
PROJECT NO.:	G00200-0211	START DATE:	03/28/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0					M. Dense	Brown	0'–0.25' organic material, roots, grass.		Dry	0.0
1							0.25'–0.6' SAND (f-m), possible loam			
2							0.6'–1.1' SAND (f-m, mostly m), trace GRAVEL (f-m, SR)			
3		2.3'/5.0'				Grey	1.1'–1.9' SAND (f-c), trace GRAVEL (f-m, SA)			
4			BW3K-SS-MM113-0001			Dk. Grey	1.9'–2.3' SAND (f-m), trace GRAVEL (f-m, SA)			
5			10:30 S-1							
6					M. Dense	Grey	0'–1.0' SAND (f-c), mostly coarse trace GRAVEL (f-m, SR)		Dry	0.0
7		3.3'/5.0'								
8							1.1'–1.6' SAND (f-m) + Gravel (f-m, SA)			
9			BW3K-SB-MM113-0100				1.6'–1.9' cobble; 1.9'–2.3' SAND (f-c), trace GRAVEL (f-m, SR)			
10			10:35 S-2				2.3'–2.6' Cobble; 2.6'–3.3' SAND (f-c), (Beach Sand)			
				E.O.B						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: MM113	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz / T Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM114
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M. Dense	Brown	0'-0.3' Organic material, grass, roots		Dry	0.0
2						TAN	0.3'-0.7' SAND (f-m), possible loam) 0.7'-1.4' SAND (f-m) mostly m) poorly graded trace GRAVEL (m, SA)			
3		3.35'				Yellow Tan	1.4'-2.8' SAND (f), trace GRAVEL (f-m, SA)			
4		5.0'	BWBK-SS-MM114-0001			DK Gray	2.8'-3.35' SAND (f) trace GRAVEL (f, SA)			
5			10:50 5-1							
6					Dense	DK Gray	0'-1.3' SAND (f-m), trace GRAVEL (f-m, sr)		DRY	0.0
7		4.25'					1.3'-4.25' SAND (f-m) mixed with Rock fragments (schist)			
8		5.0'								
9			BWBK-SB-MM114-0116							
10			10:55 5-2							
				E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM114

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM115
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0										
1					M. Dense	BROWN	0'-0.3' organic material, grass, roots. 0.3'-0.7' SAND (f-m), possible loam		Dry	0.0
2						TAN	0.7'-1.5' SAND (f-m), poorly graded, no GRAVEL			
3		2.7'/5.0'	BWBK-SS-MM115-0001			LIGHT BROWN	1.5'-1.7' Burn layer/charcoal 1.7'-2.7' SAND (f-m), trace GRAVEL (f-m, SR)			
4										
5			11:36 S-1							
6					Dense	DK. GREY	0'-1.4' SAND (f-m), trace silt, + GRAVEL (f-m, SR)		DRY	0.0
7		4.0'/5.0'					1.4'-1.9' Cobble 1.9'-2.3' Similar material to above			
8							2.3'-2.5' cobble 2.5'-2.9' Similar material to above			
9			BWBK-SB-MM115-0110			LIGHT BROWN BRONZE	2.9'-3.2' Cobble 3.2'-4.0' SAND (F-C), NO GRAVEL (mica flakes) micaceous in appearance.			
10			11:40 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM115

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TINUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	MM116
PROJECT NO.:	G00200-0211	START DATE:	03/28/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T Lopinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M. Dense	BRWN	• 0'-0.3' Organic material, grass roots 0.3'-0.7' SAND (f-m), possible loam		Dry	0.0
2						TAN	•0.7'-1.5' SAND (f-m) poorly graded, trace GRAVEL (f-m, SR)			
3		2.9' / 5.0'	BWBK-SS-MM116-0001			Grey	•1.5'-2.1' SAND (f-m) + GRAVEL (f-m, SR)			
4							•2.1'-2.9' SAND mixed with Rock fragments. (f-m)			
5			11:50 S-1							
6							0'-0.5' SAND (f-c), trace GRAVEL (f-m, SR)			0.0
7		3.4' / 5.0'					0.5'-0.9' Burn layer, charcoal 0.9'-1.3' Cobble			
8							1.3'-2.1' SAND (f-c), NO GRAVEL 2.1'-2.6' Cobble			
9			BWBK-SB-MM116-0110			BRWN BROWN	•2.6'-3.4' SAND (f-c), trace GRAVEL (f, SR) & Mica flakes			
10			11:56 S-2							
			BWBK-SB-DUP00-032807 12:00	E.O.B.						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: MM 116	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz (T Lapinski)
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM117
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0										
1					M. DENSE	BRWN	• 0'-0.4' organic material grass, roots • 0.4'-0.9' SAND (f-m), possible loam		Dry	0.0
2							• 1.0'-2.7' SAND (f-m), poorly graded, NO GRAVEL			
3							• Small burn layer / charcoal at 1.5'			
4		2.9'/5.0'	BWBK-SS-MM117-0001				• 2.7'-2.9' cobble			
5			12:15 S-1							
6					DENSE	BRWN	• 0'-1.4' SAND (f-m), trace GRAVEL (MSA) mica flakes (phlogopite)		* mica flakes may be coming from crushed schist	0.0
7		3.3'/5.0'					• 1.4'-1.9' SAND (f-c) NO GRAVEL			
8							• 1.9'-3.0' SAND (f-m), poorly graded apparent bedding NO GRAVEL		Dry	
9			BWBK-SB-MM117-0110			Grey	• 3.0'-3.3' SAND (f), poorly graded NO GRAVEL			
10			12:20 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM117

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz (T. Lapinski)
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM118
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0										
1					M-Dense	Brown	0'-0.35' organic material, grass, roots ~~0.35'-0.65' SAND(f-m), possible loam~~		Dry	0.0
2						Tan	0.65'-1.50' SAND (f-m), trace GRAVEL (f-m, SR)			
3						Grey	1.5'-2.3' SAND (fm), ~~trace GRAVEL~~ (f-m, SR)			
4		3.25'/5.0'	BWBK-SS-MM118-0001			Light Grey	2.3'-3.25' SAND (f-c), mixed with Rock fragments.			
5			12:35 S-1							
6					M-Dense	Peppered	0'-0.3' cobble.		Dry	0.0
7		3.2'/5.0'					0.3'-1.4' SAND (f-c) with cobbles			
8						Grey	1.4'-1.7' SAND (f)			
9			BWBK-SB-MM118-0110			Peppered	1.7'-3.2' SAND (f-c), + GRAVEL (f-m, SR)			
10			12:40 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM118

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: MM119
PROJECT NO.:	G00200-0211		START DATE: 03/28/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / T Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
1					M. Dense	BRWN	0'-0.35' organic material 0.35'-1.2' SAND (f-m) possible loam		Dry	0.0
2						TAN	1.2'-1.9' SAND (f-m), poorly graded, NO GRAVEL			
3		3.0' / 5.0'	BWBK-SS-MM119-0001			DK. Grey	2.0'-3.0' SAND (f-m) + GRAVEL (f-m, SR)		somewhat moist	
4										
5			12:50 S-1							
6					M. Dense	Dk. Grey	0'-1.7' similar to above			0.0
7		4.0' / 5.0'				TAN Brwn	1.7'-2.2 SAND (f-c), No Gravel apparent backfill		moist	
8						Peppered	2.2'-4.0' SAND (f-c) + GRAVEL (f-m, SA)			
9			BWBK-SB-MM119-0110							
10			12:55 S2							
				E.O.B						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: MM119	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz, T. Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: MM120
START DATE: 03/28/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0					M.Dense	BRWN	0'-0.4' organic material		Dry	
1							0.4'-1.0' SAND (f-m) possible loam			0.0
2						TAN	1.0'-2.0' SAND (f), trace GRAVEL (f-m, SR)			
3		3.4'/5.0'	BWBK-SS-MM120-0001			BRWN GRY	2.0'-3.4' SAND (f), some silt, trace GRAVEL (f, SR)		Moist	
4										
5			13:10 S-1							
6					M.Dense	Grey	0'-1.6' Similar to material above			0.0
7		3.7'/5.0'				Peppered	1.6'-3.7' SAND (f-m), No GRAVEL apparent bedding		Moist	
8										
9			BWBK-SB-MM120-0110							
10			13:15 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: MM120

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

APPENDIX B-3

NEWPORT SILT LOAM (NEA, NEB, NEC, NP)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING FOR:	Basewide Background Study		BORING NO.: Ne 101
PROJECT NO.:	G00200-0211		START DATE: 03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (Kapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Runway			
1					M; DENSE	BRWN	•0'-0.3' Organic material, grass, roots. •0.3'-1.6' SAND (f-m), organic roots		DRY	0.0
2						GREY	•1.6'-3.4' SAND (f), possible loam			
3		3.4'/5.0'	BWBK-SS-Ne101-0001				trace GRAVEL (f, SR)		WET	
4										
5			09:10 S-1							
6							•0'-0.3' SAND (f-m), trace GRAVEL (f, SR)			0.0
7		4.8'/5.0'					•0.35'-4.6' SAND (f), possible loam trace GRAVEL (f, SR)		MOIST	
8										
9			BWBK-SB-Ne101-0110							
10			09:15 S-2				•4.6'-4.8' COBBLE			
				E.O.B						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ne 101	PAGE: 1 OF 1

TtNUS Form 0018

BORING . . FOR:	Basewide Background Study		BORING NO.: Ne102
PROJECT NO.:	G00200-0211		START DATE: 03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T Tapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM)) PIE
0							Runway			
1						BRWN.	• 0' – 0.4' Organic material, grass, roots		DRY	0.0
2						Yellowish Brown	• 0.4' – 1.9' SAND (f-m), mostly (m) some organics, small roots			
3		4.3'/5.0'	BWBK-SS-Ne102-0001			GREY	• 2.0' – 4.3' SAND (f), possible loam, trace GRAVEL (f-m, SR)		Moist	
4										
5			09:35 S-1							
6						GREY	• 0'-3.0' Similar to above			0.0
7		3.7'/5.0'					• at 0.55' – 0.70' similar material, but color is brown as opposed to grey.		Moist	
8							• 3.0' – 3.7' SAND (f-m), appreciable increase in amount of m. grained sand. trace GRAVEL (f-m, SR)			
9			BWBK-SS-Ne102-0110							
10			09:40 S-2							

TYPE OF DRILLING RIG:		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: Ne102	PAGE: 1 OF 1

TtNUS Form 0018

BORING , FOR:	Basewide Background Study		BORING NO.: Ne103
PROJECT NO.:	G00200-0211		START DATE: 03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz Rapmsh	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0							Runway			
1						BRWN	• 0'–0.45' Organic material, grass, roots • 0.5'–1.0' SAND (f-m), loamy, organics		DRY	0.0
2					M. DENSE		• 1.0'–1.65' SAND (m), poorly graded			
3		3.6'/5.0'	BWBK-SS-Ne103-0001				• 1.65'–2.0' cobble			
4					Dense	GREY	• 2.0'–3.6' SAND (f-m), trace GRAVEL (f, SR)		MOIST	
5			09:50 S-1						moist	
6					Dense		• 0'–1.2' SAND (m)			0.0
7		4.1'/5.0'					• 1.2'–2.1' SAND (f-m), mostly (f) ~~trace GRAVEL (c) SA~~			
8							• 2.1'–3.3' SAND (f-m, trace c at 3.1') trace GRAVEL (f, SR)			
9			BWBK-SB Ne103-0110							
10			09:55 S-2				• 3.3'–4.1' SAND (f-m), mostly (f)			
		BWBK-~~DUP~~SB-DUP03-03/27/07 10:00		E.O.B.						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ne103	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study		BORING NO.: Ne104
PROJECT NO.:	G00200-0211		START DATE: 03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz / Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Runway			
1						BROWN	• 0'-0.5' Organic material, grass, roots			0.0
2					M. Dense	Yellow-Tan	• 0.5'-2.3' SAND (m) poorly graded, trace GRAVEL (f, SR)		somewhat moist	
3		3.7'/5.0'	BLUBK-SS-Ne104-0001		Dense	GREY	• 2.3'-3.35' SAND (f-m), trace GRAVEL (f-m, SA)		Moist	
4							• 3.4' cobble			
5			10:25 S-1				• 3.45'-3.7' SAND (f-m).			
6					Dense	GREY	• 0'-0.3' SAND (f-m)			0.0
7		4.6'/5.0'					- 0.3'-0.4' layer of Brown organic material roots,			
8							- 0.4'-1.9' SAND (f-m), trace GRAVEL (f-m, SR)			
9			BLUBK-SS-Ne104-0110				• 1.9'-2.6' SAND (m)			
10			10:30 S-2				• 2.6'-4.6' SAND (f-m), no GRAVEL			
				E.O.B						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: Ne 104

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz / Tiapinsky
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ne105
START DATE:
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Runway			
1					M. Dense	BRWN	• 0'–0.4' Organic material, grass, roots			0.0
						TAN	• 0.4'–1.7' SAND (f-m), roots			
2						GREY	• 1.7'–2.65' SAND (f-m), trace GRAVEL (fm, SR)		MOIST	
3		3.6' / 5.0'	BWBK-SS-Ne105-0001 10:45 S-1				• 2.65'–3.15' cobble			
4							• 3.2'–3.6' SAND (f-m), trace GRAVEL (f, SR)			
5										
6					M Dense	Grey	• 0'–4.45' SAND (f-m), trace GRAVEL (f-c, SR)			0.0
7		4.45' / 5.0'								
8							• At 2.6' SAND laminae (m).			
9			BWBK-SB-Ne105-0100 10:50 S-2							
10										
				E.O.B						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ne105

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	Ne106
PROJECT NO.:	G00200-0211	START DATE:	03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz, T. Lapinski	TRANSCRIBED BY:	
		COMPLETION: DATE:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Runway			
1					M. Dense	BRWN	• 0'-0.35' Organic material, grass, roots		Dry	0.0
2							• 0.35'-0.75' SAND (f-m), loam possible			
3							• 0.75'-0.85' Dark Cobble			
4		2.4'/5.0'	BWBK-SS-Ne106-0001			Grey	• 0.85'-2.4' SAND (f-m), trace GRAVEL (f, SR)			
5			11:05 S-1							
6					M. Dense	GREY	• 0'-0.2' Similar to above • 0.2'-0.4' Brown organic material layer with roots, composed of SAND (f-m)		MOIST	0.0
7		4.05'/5.0'					• 0.4-4.65' SAND (f-m) mostly (f) trace GRAVEL (f, SR)			
8										
9			BWBK-SB-Ne106-0110							
10			11:10 S-2							
				E.O.B.						

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ne106	PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	Ne107
PROJECT NO.:	G00200-0211	START DATE:	03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz KTlapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID (FID, (PPM))
0							Runway			
1		1			M. Dense	BROWN	·0'-0.4' organic material, grass, roots ·0.4'-1.0' SAND (f), loam possible some roots.		DRY	0.0
2		3.9			↓	TAN	·1.0'-2.0' SAND (f-m), NO GRAVEL poorly graded			↓
3		5.0'	BWBK-SS-Ne107-0001						MOIST	
4						GREY	·2.0'-3.9' SAND (f-m), trace GRAVEL (f-m, SR)		↓	
5			12:25 S-1	~~Bedr~~	↓		↓			↓
6					M. Dense	grey	·0'-0.2' similar to above ·0.2'-0.3' organic material, grass, roots		MOIST	0.0
7		4.25'			↓	↓	·0.3'-2.2' SAND (f-m), trace GRAVEL (f-m, SR)		↓	↓
8		5.06				LGHT. GREY DK GREY	·2.2'-2.3' SAND (m) laminae ·2.3'-2.5' SAND (f-m), trace GRAVEL			
9			BWBK-SB-Ne107-0510			L. GREY	·2.5'-2.8' SAND (m-c)			
10			12:30 S-2		↓	DK GREY ↓	·2.8'-3.2' SAND (f-m), trace GRAVEL (f, SR) ·3.2'-4.25 SAND (m) poorly graded NO GRAVEL		↓	↓
				E.O.B						

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: Ne107

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz ~~Tlapinski~~
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ne108
START DATE: 03/27/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PK (FID, (PPM))
0							Runway			
1					M. Dense	BRWN	•0'-0.5' organic material, grass, roots		DRY	0.0
							•0.5'-1.3' SAND (f-m), possible loam some roots			
2						TAN	•1.3'-2.6' SAND (f-m), trace GRAVEL (f, SR)			
3		4.0'/5.0'				Grey	• 2.6'-4.0' SAND (f-m), mostly (f)		Moist	
4			BWBK-SS-Ne108-0001 12:45 S-1				trace GRAVEL (f, SR)			
5										
6					M. Dense	Grey	•0'-2.2' similar to above		Moist	0.0
7		3.9'/5.0'					•2.2'-2.6' Crushed rock, cobble			
8							•2.6'-3.9' SAND (f-m), trace GRAVEL (f, SR)			
9			BWBK-SS-Ne108-0110 12:50 S-2							
10										
				EOB						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ne108

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz (T. Lapinski)
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ne109
START DATE: 03/27/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0							Runway			
1					M-Dense	BRWN	• 0'-0.4' Organic material, grass, roots • 0.4'-1.0' SAND (f-m), possible loam		Dry	0.0
2					↓	TAN	• 1.0'-1.5' SAND (f-m), trace GRAVEL (m, SA)		↓	↓
3					↓	GRCU	• 1.5'-3.3' SAND (f-m, mostly f) trace GRAVEL (f-m, SR)		↓	↓
4		3.3'/5.0'	BWBK-SS-Ne109-0001 13:00 S-1		↓	↓	↓		↓	↓
5										
6					M-Dense	Grey	• 0'-2.9' similar to above		↓	0.0
7		4.65'/5.0'			↓	↓	• 2.9'-3.7' Crushed rock, cobble		↓	↓
8					↓	↓	• 3.7'-4.65' SAND (f-m), trace GRAVEL (f-m, SR)		MOIST	↓
9			BWBK-SB-Ne109-0110 13:05 S-2		↓	↓	↓		↓	↓
10					↓	↓	↓		↓	↓
				E.O.B						

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ne109

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING FOR:	Basewide Background Study	BORING NO.:	Ne110
PROJECT NO.:	G00200-0211	START DATE:	03/27/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T Lapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = PID [FID, (PPM)]
0							Runway			
1					M-Dense	Brown	•0'-0.4' organic material, roots, grass •0.4'-0.7' SAND (f-m), possible loam		Dry	0.0
2					↓	Tan	•0.7'-1.3' SAND (f-m), poorly graded		↓	↓
3		3.7' / 5.0'			↓	↓	•1.1' cobble.		↓	↓
4			BWBK-SS-Ne110-0001 13:20 S-1		↓	Grey	•1.4'-3.7' SAND (f-m), trace GRAVEL (f-m, SA)		↓	↓
5					↓	↓	↓		↓	↓
6					M-Dense	Tan	•0'-0.8' SAND (f-m) poorly graded.			0.0
7		4.0' / 5.0'			↓	↓	•0.8'-1.0' cobble.		Moist	↓
8					↓	Dk Grey	•1.0'-4.0' SAND (f-m), trace GRAVEL (f-m, SR)		↓	↓
9			BWBK-SB-Ne110-0110 13:25 S-2		↓	↓	↓		↓	↓
10					↓	↓	↓		↓	↓
			BWBK-SB-DUP04-032707 13:30	E.O.B.		↓				

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ne110	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NEØ1
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.0/5.0	BWBK-SS-NEØ1-0001 0840	0.7			Dark Brown silty loam, some rock fragments, damp		Picture Taken	-0-
1.0							Olive Brown silty loam, rock fragments, stiff, damp to dry			
2.0										
3.0										
			BWBK-SB-NEØ1-0103 0842						Picture Taken	
4.0										
				4.5						
5.0							olive gray silty loam, abundant rock fragments, stiff, damp to dry			
		3.0/3.0								
6.0										
7.0										
8.0							Refusal @ 3.0' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	End of Boring @ 5.0' BGS	BORING NO.: BWBK-NEØ1	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE02
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		5.0/5.0	BWBK-SS-NE02-0001	0.3			Top Soil, Plant material		Picture Taken	-0-
1.0							Dark Brown silty loam, some rock fragments, dry		No	
				1.5						
2.0							Olive Brown silty loam, rock fragments, dry		No	
3.0				2.8						
4.0			BWBK-SB-NE02-				Dark olive gray, abundant rock fragments, stiff, dry		No Picture Taken	
5.0										
6.0		5.0/5.0								
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NE02	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE02
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
				8.3			Lt. gray rock layer (8.0 - 8.3)			-0-
9.0							Dark gray silty sandy loam, abundant rock frag. very hard		Till	
				9.3						
10.0							weathered rock			
							END of Boring at 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: BWBK-NE02

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE03
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
				0.3			Top Soil, Plant material, TR gravel			
1.0			BWBK-SS-NE03-0001 0945	1.0			Dark Brown silty loam, some rock fragments, dry	Ne	Picture Taken	
				1.3			olive Brown silty loam, dry	Ne		
2.0							olive gray silty loam, abundant rock fragments, dry	Ne		
3.0										
4.0			BWBK-SB-NE03-0105 0947						Picture Taken	
5.0				5.0						
6.0							Tan silty fine grained sand, damp		Till	
				6.2						
7.0							Dark gray to Black silty loam, abundant small rock fragments, Till some large rock fragments, dry			
8.0							to end of Boring			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NE03	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NEØ4
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		5.0/5.0		0.5			Top Soil, Plant material, gravel			-0-
1.0							olive-Brown Silty loam, some rock fragments, dry		No	
			BWBK-SS-NEØ4-0001 1020						Picture Taken	
2.0										
3.0										
4.0										
			BWBK-SB-NEØ4-0110 1022						Picture Taken	
5.0				5.0						
		5.0/5.0		5.3			Tan, silty fine grained sand, damp			
6.0							Dark olive gray silty loam, abundant rock fragments, hard, dry to end of Boring		No	
7.0										
8.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.:	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE05
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.0/5.0		0.5			Top Soil, plant material, gravel, dry			-0-
1.0							olive brown silty loam, some rock fragments, damp		No Picture Taken	
			BWBK-SS-NE05-0001 1120							
2.0										
3.0										
4.0										
			BWBK-SB-NE05-0108 1122						Picture Taken	
5.0				5.0					No	
		5.0/5.0					olive gray, silty loam, abundant rock fragments, Hard, dry		BWBK-SO-(DUP02 1125 Collected @ Second Interval)	
6.0										
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NE05	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE05
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
				3.3						-0-
9.0							Dark gray Sandy Loam, rock frag., very hard		TILL	
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NE05	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE06
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.8/5.0	BWBK-SS-NE06-0001 1300	0.5			Top Soil, Plant material, rocks		No Picture Taken	-0-
1.0				1.0			Dark Brown silty loam, some rock fragments, dry			
2.0							olive Brown silty loam, some rock fragments, damp to dry		No	
3.0										
4.0				4.0						
5.0			BWBK-SB-NE06-0109 1305	5.0			olive gray, silty loam, abundant rock fragments, hard, dry Trace large rock fragments		Picture Taken No	
6.0		5.0/5.0		5.4			Lt. Gray rock layer, weathered 4.0-5.0' interval continued		No	
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NE06	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE06
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
										-0-
9.0										
				9.2			Pale green rock layer, weathered			
10.0				9.4			Dark gray sandy loam, rock frag., hard		TILL	
							END of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NE06	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NEØ7
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		5.0/5.0	BWBK-SS-NEØ7-0001 1340	0.5			Top Soil, Plant material, gravel dry		Picture Taken	-0-
1.0							Brown silty loam, some rock fragments		Ne	
2.0										
				2.2			olive gray silty loam, abundant rock fragments		Ne	
3.0										
4.0										
5.0			BWBK-SB-NEØ7-0007 1342 DH	DH					Picture Taken	
6.0		5.0/5.0					Darker gray from 5-6' BGS (Color change only)		Ne	
7.0				7.1						
				7.4			Lt. Gray Rock layer, weathered			
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NEØ7	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE07
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
				8.2			Lt. Gray rock layer			-0-
9.0							Gray Sandy loam, rock frags, hard		Till	
10.0										
							End of Boring at 10' BGS'			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NE07	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NEØ8
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.5/5.0	BWBK-SS-NEØ8-0001 1410	0.3			Top Soil, Plant material, gravel		Picture Taken	-0-
1.0							Brown silty loam, some rock fragments		No	
2.0				1.8			olive Brown silty loam, some rock fragments, dry			
			BWBK-SB-NEØ8-0104 1412						No Picture Taken	
3.0										
4.0				3.9						
							Dark gray to Black silty sand & rock fragments, Hard, dry to end of Boring.		till	
5.0										
		5.0/5.0								
6.0										
7.0										
8.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NEØ8	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE09
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3/5	BWBK-SS-NE09-0001 1435	0.5			Top Soil, Plant material, gravel		Picture Taken	-0-
1.0				1.0			Dark Brown silty loam, some rock frag, dry		No	
							olive Brown silty loam, some rock frag., damp to dry		No	
2.0										
3.0										
4.0										
5.0			BWBK-SB-NE09-0110 1437				Field Dupe BWBK-SO-DUP03 Collected @ 1440		Picture Taken	
6.0		5/5								
				6.5						
7.0							olive gray silty loam, abundant small to large rock frag, damp to dry to end of Boring		No	
8.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO. BWBK-NE09	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NE10
PROJECT NO.:	G00200-0211		START DATE: 9/13/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/13/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.0/5.0	BWBK-SS-NE10-0001 1515	0.5			Top Soil, Plant material, gravel		Picture Taken	-0-
1.0							Brown silty loam, some rock fragments, dry, loose		Ne	
				1.5						
2.0							Olive Brown silty loam, some rock fragments		Ne	
3.0										
4.0			BWBK-SB-NE10-0107 1518						Picture Taken	
5.0				5.0						
6.0		5.0/5.0					olive gray silty loam, some rock fragments,		Ne	
7.0										
8.0				7.5			Dark gray to Lt. gray sandy loam and sm. to Lg. gravel, hard ~~To end of Boring~~		Till	

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NE10	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP01
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.3'/5.0'		0.7'		2.5 BR	Top Soil, Plant material, roots			-0-
1.0						olive-Brown to orange	Clayey silt, some small rock fragments, moist			
2.0										
3.0										
4.0										
5.0										
		5.0/5.0		5.6						
6.0						olive Gray	Silty loam w/ abundant rock fragments, damp - NP Substratum		NP	
			BWBK-SB-NP01-5.6 3.2						Picture Taken	
7.0			1310							
8.0							EOB @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWK-NP01	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP01
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
				8.2						-0-
9.0							Dark gray silty sandy loam, abundant gravel, very hard, brittle.			
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWBK-NP01	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP02
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
				0.5			Top Soil			-0-
1.0				1.0			Dark Brown silty loam, some rock fragments, damp		NP-Surface layer	
			BWBK-SB-NP02-0102				Olive Brown silty loam, some rock fragments, damp		NP-Sub Soil	
2.0			1345						Picture Taken	
				2.5						
3.0							Weathered Bedrock,			
4.0										
5.0							END OF Boring @ ~5' BGS			
				Refusal						
							*Sample collected from 0.5-2.5' BGS.			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NP02	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP03
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.0/5.0		0.5			Top Soil			-0-
1.0							Dark Brown silty loam, some rock fragments, damp		NP - Surface layer	
			BWBK-SB-NP03-0102						Picture Taken	
2.0			1410	1.8						
				2.5			olive Brown silty loam, rock fragments, damp		NP - Subsoil	
3.0										
				3.4						
4.0							orange Clayey silt, trace rock fragments, moist, dense			
5.0				5.0						
		3.0/3.0					Weathered Bedrock to refusal			
6.0										
7.0										
8.0				Refusal			End of Boring @ 8.0' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NP03	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP04
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		5.0/5.0		0.5			Dark Brown silty loam, root fragments, rock fragments			0
1.0							orangish brown to Tan Clayey silty loam, some rock fragments, dry to damp		Fill	
2.0										
3.0										
4.0										
5.0				5.0						
6.0		5.0/5.0	BWBK-SB-NP04-0507 1610				olive gray silty loam, abundant phylite fragments, damp		NP Picture Taken	
7.0				7.0			Thin layer of weathered quartz (7.0-7.1)			
8.0			End of Boring @ 10' BGS				orange clayey silty loam & weathered bedrock to end of Boring			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NP04	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP05
PROJECT NO.:	G00200-0211		START DATE: 9/11/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/11/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		5.0/5.0		0.5			Top Soil			-0-
1.0							Brown to gray Clayey silt, some small to med gravel damp - Fill material		Fill	
2.0										
3.0										
4.0										
5.0										
6.0		5.0/5.0								
7.0										
8.0			BWBK-SB-NP05-0710 1625	7.5			Olive gray silty loam some rock fragments, dry to End of Boring		Picture Taken ND-Substratum	

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NP05	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP06
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
~~0.0~~		2.6/5.0		0.5			Top Soil, Plant material, gravel			-0-
1.0							Olive Brown Clayey Silt, abundant gravel, damp			
2.0										
3.0										
4.0				4.0						
5.0							orange-Brown Clayey Silt, Stiff, moist			
6.0		5.0/5.0								
7.0				6.8			Dark Olive gray silt loam w/ abundant rock fragments, very stiff, dry to end of Boring		NP-substratum	
8.0			BWBK-SB-NP06-0710 0840		DH				Picture Taken	

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NP06	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-NP07
PROJECT NO.:	G00200-0211	START DATE:	9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	
		COMPLETION: DATE:	9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.0/5.0		DH 0.7			Top soil, plant material, gravel dry			-0-
1.0				1.0						
							Brown clayey silt, trace gravel, firm, moist		disturbed	
2.0										
3.0				DH						
4.0				4.0						
							orange-brown clayey silt w/ some sand, trace small gravel, damp		disturbed	
5.0										
		5.0/5.0		5.5						
6.0							olive brown to olive gray, abundant rock fragments, stiff, dry		NP	
			BWBK-SB-NP07-0603 1315						Picture Taken	
7.0							small chunk of Black weathered rock from 6.3 to 6.4'			
8.0				8.0						

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS Dupe Collected at 1320	BORING NO.:	PAGE: 1 OF 2

Dupe ID = BWBK-SO-DUP01

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP07
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
							Dark gray silty sandy loam, abundant phyllite fragments, some schist fragments, very hard		Till	-0-
9.0										
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NP07	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP07A
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.6/5.0		0.5			Top Soil, Plant material			-0-
1.0							Brown silt w/ some clay + some small gravel, damp			
				1.5			large chunk of weathered phyllite (~2" long) at 1.5'			
2.0										
							Dark gray silt loam, abundant rock fragments, trace brick fragments, trace wood (painted) fragments			
3.0										
4.0										
5.0										
		4.0/5.0								
6.0			SB	6.0						
			BWBK/NP07A-0610				Dark olive gray, some rock fragments, very stiff, damp		NP-Substratum	
7.0			0915						Hydrocarbon odor	4.1
8.0										

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	EOB @ 10' BGS

BORING NO.: BWBK-NP07

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-NP08
PROJECT NO.:	G00200-0211	START DATE:	9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		5.0/5.0		0.5			Top Soil, plant material, rocks (gravel)			0
1.0							Dark brown silty loam, some rock fragments		NP	
				1.5						
2.0							olive brown silty loam trace rock fragments. damp		NP	
3.0										
			BWBK-SB-NP08-0106						Picture Taken	
4.0			1350							
5.0										
		5.0/5.0		5.7						
6.0							olive gray silty loam, abundant rock fragments, damp		NP	
				6.4						
7.0							weathered Bedrock to end of Boring			
8.0										

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NP08	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP09
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.0/5.0					Top Soil, gravel, plant material, damp			-0-
1.0				1.0						
							olive gray silty loam, abundant rock fragments, stiff, damp-dry.		NA	
2.0										
3.0										
			BWBK-SB-NP09-0109 1420						Picture Taken	
4.0										
5.0										
		5.0/5.0								
6.0										
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NP09	PAGE: 1 OF 2

TtNUS Form 0018

3.9-10

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP09
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
9.0				8.7			Weathered Bedrock to end of Boring			
10.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-NP09	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-NP10
PROJECT NO.:	G00200-0211		START DATE: 9/12/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/12/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.5/5.0					Top Soil, gravel, plant material			-0-
1.0				1.0						
							olive gray silty loam, abundant rock fragments, stiff, damp to dry		NP	
2.0										
3.0										
			BWBK-SB-NP10-0106 1535						Picture Taken	
4.0										
5.0										
		5.0/5.0								
6.0										
							weathered rock w/ some gray to brown silty loam, loose dry to end of Boring			
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-NP10	PAGE: 1 OF 1

TINUS Form 0018

APPENDIX B-4

PITTSTOWN SILT LOAM (PMA, PMB)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM01
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
		3.5/3.5		0.5			Dark gray brown silt loam, some roots, moist		Pm	-0-
1.0				1.0			olive brown very fine sandy loam, few dark brown iron accum.		moist,	
2.0							olive gray fine sandy loam, some dark brown iron accum. some gravel, firm, moist		Pm	
3.0			BWBK-SB-PM01-0105 1611	2.2			olive brown fine sandy loam many dark yellow brown iron accum, few dark gray iron depletions some gravel, very firm.		Pm	Picture Taken
4.0		2.5/2.5								
5.0				4.9						
6.0				6.0			Very dark gray silt loam, some gravel, very firm, dry		TILL	
7.0				Refusal			EOB @ 6.0' BGS			
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO. BWBK-PM01	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PMØ2
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.1/3.5					Dark grayish brown silt loam, some roots, trace gravel		Pm	-0-
1.0				1.0						
			BWBK-SB-PMØ2-0104 1640				Olive gray fine sandy loam, some gravel, dark brown iron accumulations		Pm Picture Taken	
2.0										
				2.2						
3.0							Olive fine sandy loam, some gravel, some dark yellow brown iron accumulations, very fine.		Pm	
				3.5 Refusal						
4.0							EOB @ 3.5' BGS			
5.0										
6.0										
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWBK-PMØ2	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PM Ø3
PROJECT NO.:	G00200-0211	START DATE:	9/27/03
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/27/03
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.4/3.5					Dark grayish brown silt loam, many roots, moist		Pm	-0-
				0.7						
1.0							Olive brown fine sandy loam, few fine roots, few yellow brown iron accum., moist			
2.0				1.9						
			BWBK-SB-PM Ø3-0106				Olive gray silt loam, many yellow brown iron accum. some gravel, firm, dry		Pm Picture Taken	
3.0			0350							
4.0		3.1/4.0		3.9						
				4.6			Lt yellow brown fine sandy loam saturated.			
5.0							Olive gray to olive fine sandy silt loam, some gravel, few yellow brown iron accum. very firm, dry		Pm	
6.0										
				6.4						
7.0							Very dark gray silty loam, abundant gravel, very firm, dry		TILL	
				7.5						
8.0							EOB @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWBK-PMØ3	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: BWBK-PM04
START DATE: 9/27/06
COMPLETION: DATE: 9/27/06
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.3/3.5					Dark grayish brown silt loam, many fine roots, moist		Pm	-0-
1.0				0.9						
							olive brown fine sandy silt loam, some gravel, few dark brown iron accum, firm, damp		Pm	
2.0				1.9						
			BWBK-SB-PM04-0105 0929				olive gray fine sandy loam, some gravel, some yellow brown iron accum.		Pm Picture Taken	
3.0										
4.0		2.3/2.5		4.0						
							olive, silt loam, some gravel, few dark brown iron accum. very firm, massive, dry		Pm	
5.0										
				5.5						
6.0				6.0 Refusal			very dark gray silt loam, abundant gravel, very firm, dry		TILL	
7.0							EOB @ 6.0' BGS			
8.0										

TYPE OF DRILLING RIG: Geoprobe
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: BWBK-PM04

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PM05
PROJECT NO.:	G00200-0211	START DATE:	9/27/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/27/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.4/3.5					dark gray brown silt loam, many fine roots, trace gravel, moist		Pm	-0-
1.0				0.9						
							olive brown very fine sandy silt loam, some gravel, many yellow brown iron accum, firm, damp		Pm	
2.0										
			BWBK-SB-PM05-0105 1005 *				*Field Dupe BWBK-SO-DUP11, 1007 collected here.		Picture Taken	
3.0				2.8						
							yellowish brown fine sandy silt loam, some gravel, firm, wet		Pm	
4.0		3.3/4.0								
				4.4						
5.0										
				5.3						
6.0							olive fine sandy silt loam, some gravel, very firm, dry		Pm	
7.0							very dark gray silt loam, abundant gravel, very firm, dry.		FILL	
				7.5						
8.0							EOB @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWBK-PM05	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM06
PROJECT NO.:	G00200-0211		START DATE: 9/27/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/27/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.3/3.5		0.6			Dark grayish brown silt loam, many roots, moist		Pm	-0-
1.0				1.2			Olive gray fine sandy silt loam some yellow brown non accum, moist			
2.0				2.5			Olive brown fine sandy silt loam, some gravel, many dark brown non accum., firm		Pm	
3.0							Olive Brown fine Sandy Loam, many yellow brown non accum, some gravel, firm, wet		Pm	
4.0		3.4/4.0	BWBK-SB-PM06-0105 1040						Picture Taken	
5.0				4.7						
6.0							Very dark gray silt loam, abundant gravel, very firm.		Till	
7.0										
8.0				7.5			EOB @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: BWBK-PM06	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM07
PROJECT NO.:	G00200-0211		START DATE: 9/27/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/27/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.5/3.5					Dark grayish brown silt loam, many roots, moist		Pm	-0-
1.0				1.0						
			BWBK-SB-PM07-0105 1108				Olive brown fine sandy silt loam, many dark brown iron accum, trace gravel, wet		Pm Picture Taken	
2.0				1.9						
							Olive gray fine sandy silt loam, some brown iron stains, some gravel, very firm		Pm	
3.0				2.7						
							Olive brown fine sandy loam, some yellow brown iron accum, few dark gray iron depletions, some gravel, very firm.		Pm	
4.0		1.0/1.0								
				4.5 Refusal						
5.0							EOB @ 4.5' BGS			
6.0										
7.0										
8.0										

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-PM07	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PMØ8
PROJECT NO.:	G00200-0211	START DATE:	9/27/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	
		COMPLETION: DATE:	9/27/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.3/3.5					Dark grayish brown silt loam, some roots, damp		Pm	-0-
1.0				0.7						
							Olive Brown fine sandy loam some yellow brown iron accum, some gravel fin, damp		Pm	
2.0				2.1						
			BWBK-SB-PMØ8-0106 1123				yellowish Brown to olive fine sandy silt loam, some iron accum, some gravel, very fin		Pm Picture Taken	
3.0										
		3.8/4.0								
4.0				3.9						
							Olive very fine sandy silt, some gravel, some brown iron accum, very fin.		Pm	
5.0										
				5.7						
6.0										
							very dark gray silt loam, abundant gravel, very fin, dry		TILL	
7.0										
				7.5						
8.0							EOB @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: BWBK-PMØ8

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM09
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5					Brownish-gray silt loam, some roots, trace gravel, moist		PM	-0-
				0.7						
1.0										
							Olive gray very fine sandy loam, ~~some rock fragments~~, some yellow brown & dark brown iron staining, moist		PM	
2.0										
				2.45						
							olive brown fine sandy loam, yellow brown iron concentrations, some gravels, fir, moist		PM	
3.0										
			BWBK-SB-PM09-0106						Picture Taken	
		4.0/4.0								
4.0			0834							
				4.7						
5.0							Olive brown to yellow brown fine sandy loam, trace gravel, wet		PM	
				5.8						
6.0										
							very dark gray silt loam, some gravel, very fir, dry		TILL	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM09
		PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM10
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5		DH ~~0.4~~			Dark grayish brown silt loam, trace fine roots, trace gravel, moist		Pm	-0-
1.0				1.0						
				1.7			Olive gray fine sandy loam, some dark brown iron concent, trace gravel, wet		Pm	
2.0										
			BWBK-SB-PM10-0105	2.56			Olive gray to yellow Brown fine sandy loam, some iron staining, trace gravel, wet		Pm Picture Taken	
3.0			0904							
							Olive brown fine sandy silt loam, some iron staining, trace gravel, very firm, moist		Pm	
4.0		3.5/4.0								
5.0				5.0						
							Very dark silt loam, some gravel, very firm, dry		Till	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM10	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM11
PROJECT NO.:	G00200-0211		START DATE: 9/26/96
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5		0.3			Dark gray Brown, many roots, moist olive brown loam, some dark		Pm	-0-
1.0							brown iron concentrations, trace gravel, wet		Pm	
				1.25						
2.0							Mottled yellow brown & olive gray, some dark brown & yellow brown iron concentrations.		Pm	
			BWBK-SB-PM11-0104 0941						Picture Taken	
3.0										
				3.5						
4.0		3.7/4.0					olive fine sandy loam, some rock fragments, some yellow		Pm	
				4.3			brown iron concentrations, firm, wet			
5.0							very dark gray silt loam, abundant gravel, very firm, dry		Till	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM11	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM12
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.9/3.5		0.3			Dark gray brown silt loam, many roots, moist.		PM	-0-
1.0				1.1			olive Brown fine Sandy loam, moist, some pockets of yellow Brown, TR. Gravel		PM	
2.0							olive brown fine sandy silt loam, mottled, some dark brown iron accumulations, some dark gray iron depletions, trace gravel, firm, damp		PM	
3.0			BWBK-SB-PM12-0105 1220							
				3.5						
4.0		3.2/4.0					olive fine to very fine sandy loam, some dark yellow brown iron accumulations, some gravel very firm, moist		PM	
5.0				5.1			Becomes wet from 4.6 - 5.1' BGS			
6.0							Very dark gray silt loam, abundant gravel, very firm, dry.		TILL	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM12	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PM13
PROJECT NO.:	G00200-0211	START DATE:	9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.1/3.5		0.5			Dark gray brown silt loam, many roots, some gravel, moist		Pm	-0-
1.0							olive gray very fine sandy loam, many yellow brown iron accum, some gravel, wet		Pm	
2.0				1.8			olive brown fine sandy loam, some dark brown iron accumulations, trace gravel,		Pm	
3.0							Gray med to coarse sand layer from 2.3 to 2.5' BGS			
4.0		3.3/4.0	BWBK-SB-PM13-0106 1245	DH ~~3.5~~					Picture Taken	
				4.5						
5.0							olive silt loam, some dark brown iron accumulations, some gravel, very firm, dry		Pm	
6.0				5.7			Very dark gray silt loam, some gravel very firm, dry		Till	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:		BORING NO.: BWBK-PM13	
OTHER OBSERVATIONS:	EOB @ 7.5' BGS		PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PM14
PROJECT NO.:	G00200-0211	START DATE:	9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	
		COMPLETION: DATE:	9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.9/3.5					Dark gray brown silt loam, many roots, trace gravel, moist.		Pm	-0-
1.0				0.9						
							Olive gray very fine sandy loam, many dark brown iron accumulations, firm, damp		Pm	
2.0				2.1						
							olive gray fine sandy silt loam, prominent dark yellow brown iron accumulations, some gravel, very firm, damp		Pm	
3.0										
			BWBK-SB-PM14-0106						Picture Taken	
4.0		4.0/4.0	1319							
5.0										
				5.5						
6.0							Very dark gray silt loam, abundant gravel, very firm, dry		Till	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM14	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM15
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5		0.6			Dark gray brown silt loam, many roots, moist.		Pm	-0-
1.0				1.3			olive gray very fine sandy loam, some dark brown iron accumulations, wet		Pm	
2.0							Dark olive fine sandy silt loam, many dark brown iron acc., some gravel, fine, dry		Pm	
			BWBK-SB-PM15-0105	2.5					Picture Taken	
3.0			1340				olive fine sandy loam, some dark yellow brown iron acc., some gravel, very fine		Pm	
4.0		4.0/4.0								
				4.7						
5.0							very dark gray silt loam, abundant gravel, very fine, dry		Till	
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM15	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM16
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.3/3.5		0.5			Dark gray brown silt loam, some roots, moist		Pm	-0-
1.0							Olive brown very fine sandy loam, trace gravel, moist			
				1.2			Olive brown fine sandy loam, many dark brown iron concent. some gravel, some gravel, very fin.		Pm	
2.0				2.2						
3.0							Olive gray fine sandy loam, some dark brown iron accum. trace gravel, very fin.		Pm	
4.0		4.0/4.0	BWBK-SB-PM16-0106 1420							
5.0										
				5.5						
6.0							Very dark gray silt loam, abundant gravel, very fin.		TILL	
7.0										
				7.5						
8.0							End of Bor at 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM16	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-PM17
PROJECT NO.:	G00200-0211	START DATE:	9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
		3.1/3.5		0.5			Dark gray brown silt loam, many fine roots, moist.		Pm	-0-
1.0				1.2			Olive brown very fine sandy loam, Trace gravel.			
2.0							Olive fine sandy loam, some dark brown iron accum, trace gravel, very fine		Pm	
3.0			BWBK-SB-PM17-0105 1455 *				*Field Dupe BWBK-SO-DUP10, 1457 Collected here.		Picture Taken	
4.0		3.6/4.0		3.9						
5.0				4.8			Olive fine sandy loam, some yellow Brown iron acc, gravel		Pm	
6.0							Very dark gray silt loam, some gravel, very fine, dry		TILL	
7.0										
				7.5						
8.0							End of Bor @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM17	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM18
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5					Dark gray brown silt loam, many roots, moist		Pm	-0-
1.0				0.8						
							Olive gray fine sandy silt loam, many dark yellow brown iron accumulations, some gravel, firm, damp		Pm	
2.0										
			BWBK-SB-PM18-0105 1516						Picture Taken	
3.0										
4.0		3.9/4.0		3.8						
							Olive silt loam, some gravel, very firm, dry		Pm	
5.0										
				5.4						
6.0							Very dark gray silt loam, abundant gravel, very firm, dry.		TILL	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM18	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM19
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5		0.5			Dark grayish brown silt loam, some roots, moist		PM	-0-
1.0							Olive brown fine sandy loam, few dark brown iron accum.			
				1.2			trace gravel, moist.			
2.0							Olive brown fine sandy silt loam, some gravel, many dark		PM	
				2.5			brown iron accum. firm			
3.0							Olive fine sandy ~~silt~~ loam, some dark yellow brown iron		PM	
			BWBK-SB-PM19-0105				accum, some gravel, firm		Picture Taken	
4.0		3.6/4.0	1534							
5.0										
				5.3						
6.0							Very dark gray silt loam, some gravel, very firm, dry		TILL	
7.0										
				7.5						
8.0							EOB @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-PM19	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-PM20
PROJECT NO.:	G00200-0211		START DATE: 9/26/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/26/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.1/3.5					Dark grayish brown silt loam, many roots, trace gravel, moist		Pm	-0-
				0.75						
1.0							olive gray to olive brown, fine to med sandy loam, some phyllite fragments, some yellow brown iron concent., moist		Pm	
				1.8						
2.0										
			BWBK-SB-PM20-0106	DH ~~2.2~~			*Field Dupe BWBK-SO-DUP09.1622 Collected here.		Picture Taken	
3.0			1620*	3.1						
							Dark olive to olive gray fine sandy loam to silt loam, many rock fragments, very fim, damp		Pm	
4.0		4.0/4.0								
5.0										
				5.5						
6.0							very dark gray silt loam, abundant gravel, very fim, dry		Till	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-PM20	PAGE: 1 OF 1

TtNUS Form 0018

APPENDIX B-5

STISSING SILT LOAM (SE)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SE01
PROJECT NO.:	G00200-0211		START DATE: 9/15/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/15/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.0/5.0		0.4			Top Soil, dark Brown, Plant material, gravel			-0-
1.0				1.0			Dark grayish Brown silt loam, moist.		Pm	
2.0							Olive Brown to yellow Brown silt loam, rock fragments, mottled, damp		Pm	
3.0			BWBK-SB-~~DHP~~-0107 SO01 1205						Picture Taken	
4.0										
5.0				5.0						
6.0		5.0/5.0					Dark olive gray silt loam, mottled, abundant flat rock fragments, damp		Pm	
7.0				7.0						
8.0							Dark gray very weathered Phyllite, & Sandy silty loam.		TILL	

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-SE01	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SE01
PROJECT NO.:	G00200-0211		START DATE: 9/15/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/15/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
										-0-
9.0				9.0						
							Gray weathered bedrock			
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-SE01	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S002
PROJECT NO.:	G00200-0211		START DATE: 9/15/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/15/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
				0.5			Top Soil, Plant material, gravel, damp			-0-
1.0				1.2			Lt. gray Brown silty loam, some rock fragments, loose, dry		Pm	
2.0							Olive Brown silty loam, some rock (Phyllite) fragments, friable, damp to dry		Pm	
3.0										
4.0			BWBK-SB-~~S0~~-0109 S002 1300						Picture Taken	
5.0										
6.0										
7.0										
8.0				8.0'						

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-S002	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO02
PROJECT NO.:	G00200-0211		START DATE: 9/15/04
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/15/04
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
							Dark olive gray, some rock (Phyllite) fragments, massive, very fine		Dm	-0-
9.0				9.0						
							Dark gray weathered rock (Phyllites),			
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-SO02	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-SOØ3
PROJECT NO.:	G00200-0211	START DATE:	9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5		0.6			very dark grayish Brown, root frags. Trace rock frags, damp		Se	-0-
1.0							Dark gray fine Sandy Silt loam, prominent yellow to reddish Brown iron staining some rock fragments, very firm, damp		Se	
2.0										
3.0										
4.0		4.0/4.0	BWBK-SB-SOØ3-0108 1400						Picture Taken	
5.0				4.8						
6.0							very dark brownish gray, silt loam, prominent dark Brown iron concentrations, abundant rock fragments, very hard		Se	
7.0										
8.0				7.5			End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SOØ3	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S004
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.8/3.5		0.5			Very dark gray Silt loam, roots, Trace gravel, damp			-0-
1.0				1.1			dark gray Silt loam, Trace rock frags, moist.			
2.0							Very dark gray Silt loam, prominent dark brown iron, staining, some rock fragments, very firm			
3.0										
4.0		4.0/4.0	BWBK-SB-S004-0108 1425						Picture Taken	
5.0				5.1						
6.0				5.7			Pocket of Dark yellow Brown Coarse iron Concentration			
7.0							Dark gray fine Sandy Silt loam, Some rock fragments, very hard.			
				7.5						
8.0							End of Bori @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-S004	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO05
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.0/3.5					very dark grayish brown silt loam, many roots, moist		Se	-0-
1.0				1.1						
							Gray Silt loam, firm, friable, prominent dark reddish Brown iron concentrations, some rock fragments		Se	
2.0										
3.0										
			BWBK-SB-SO05-0106 1455						Picture Taken	
4.0		3.5/4.0								
				4.3						
5.0							Gray Silt loam, many dark Brown iron concentrations, massive, very firm, some rock fragments		Se	
6.0										
				6.25						
7.0							Weathered Bedrock (Phyllite)			
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SO05	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SØ6
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.0/3.5		0.5			Dark Brownish Gray silt loam root fragments			-0-
1.0							Dark gray silt loam, prominent Brown iron, some rock fragments fine, damp		Se	
2.0									Se	
3.0				3.0						
4.0		3.5/4.0					very dark gray fine sandy silt loam, some dark brown iron concentrations, some rock fragments, very firm		Se	
5.0										
6.0			*BWBK-SB-SØ6-0108 1540				*Collect Field Dupe BWBK-SO-DUPØ7, 1543		Picture Taken	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SØ6	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S007
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.0/3.5					Very dark grayish Brown silt loam, many root fragments, moist.		Sc	-0-
1.0										
				1.25						
2.0							Gray silt loam, prominent dark brown iron concentrations, some rock fragments, very firm		Sc	
3.0										
			BWBK-SB-S007-0106						Picture Taken	
4.0		3.5/4.0	1615							
5.0										
6.0				5.9						
7.0							Very Dark gray Sandy Silty loam, many rock fragments, very Hard.		Till	
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-S007	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S008
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.0/3.5					Very dark gray to Brown silt loam, root frags, moist		Se	-0-
1.0										
				1.2						
2.0							Dark Gray Silt loam, many dark brown iron concentrations, Some gravel, very firm		Se	
3.0										
			BWBK-SB-S008-0107						Picture Taken	
4.0		3.8/4.0	1645							
5.0				5.0						
6.0							Very dark gray Silt loam, some dark brown iron concentrations, Some gravel, very hard		Se	
				6.5						
7.0							Very dark gray Sandy Silty loam, many rock frags, very hard		TILL	
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-S008	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S049
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		5.0/5.0		0.5			Dark gray brown, abundant, loose plant roots, silty loam, trace rock frag.			-0-
1.0							Becomes gray in color, fewer plant roots, friable		Se	
				1.45						
2.0							Gray silt loam, massive, friable, abundant reddish-brown iron staining, trace phylite fragments		Se	
3.0										
4.0			BWBK-S8-~~DP-S8~~-0106 S049 0940						Picture Taken	
5.0				4.8						
6.0		5.0/5.0					Gray silt loam, very firm, platy abundant dark brown iron staining, some phylite fragments		Se	
7.0				6.5			Gray, silty sandy loam, abundant phylite fragments, some pebble sized rock fragments, very stiff, moist		Till	
8.0										

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-S049	PAGE: 1 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO09
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
										-0-
				8.7						
9.0							Brown sandy loam, abundant rock fragments, very stiff, damp		TILL	
10.0										
							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: BWBK-SO09	PAGE: 2 OF 2

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S01Ø
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.0/5.0		0.5			Very dark brown silty loam, high organic content (roots, leaves etc.), loose			-0-
1.0							Brownish gray, some root fragments, some gravel, friable, damp		NP	
				1.3						
2.0							Olive brown silty loam, trace root fragments, gravel, blocky, friable, damp		NP	
			BWBK-SB-0107						~~Bitum~~ DH ~~Tetra~~	
3.0			DH ~~50~~ 50Ø 1000	2.7						
							Olive gray silty loam, some dark orange brown pockets, some rock fragments, very firm, brittle damp		NP	
4.0										
5.0										
		4.5/5.0								
6.0										
7.0				7.0						
							Dark gray silty sandy loam, some brown med sand pockets, some small to pebble size rock fragments very firm, brittle, damp		Till	
8.0			End of Boring @ 10' BGS						To End of Boring	

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-S01Ø	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S011
PROJECT NO.:	G00200-0211		START DATE: 9/21/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/21/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.4/3.5		0.4			Dark gray/dk Brown silt loam, root frags, trace rock frags, moist		Se	-0-
1.0				1.1			Gray silt loam, trace rock frags + root frags, moist.		Se	
2.0							Gray Silty Sandy loam, abundant Broken iron staining & rock fragments, hard in place, friable when removed, damp		Se	
3.0			BWBK-SB-S011-0106 1010						Picture Taken	
4.0		4.0/4.0		3.6			Dark Gray Silt to fine Sand loam, abundant dark brown iron concentrations, very firm, damp		Se	
5.0										
6.0				6.0						
7.0							Very Dark Gray Silty Sandy loam, many rock fragments, very firm		Till	
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-S011	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO12
PROJECT NO.:	G00200-0211		START DATE: 9/20/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/20/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
		3.0/3.0					Very dark gray silty loam, moist abundant rock frag, some rock frag.		Se	-0-
1.0				0.75			Gray silty loam, some fine roots blocky, some rock frag, yellow Brown iron stains.			
			BWBK-SB-SO12-0106 1015	1.5					Se Picture Taken	
2.0							Dark Gray Silt loam, very firm, rock frag., brown iron stains			
									Se	
3.0							NOTE: Field Dupe collected at this location - BWBK-SO-DUP09 1020			
		5.0/5.0								
4.0										
5.0										
				5.5						
6.0							Very dark gray silty loam, some gravel, very hard, brittle		TILL	
7.0										
8.0							End of Boring @ 8' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 8' BGS	BORING NO.: BWBK-SO12	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S013
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		5.0/5.0					Dark gray Brown silty loam, some root fragments, friable			-0-
				0.6						
1.0					-0.75		Dark gray schist, weathered		Pm	
							Olive brown silty to fine sandy loam, some phylite fragments		Pm	
2.0										
			BWBK-SB-0104						Picture Taken	
			DU 013							
3.0			1053							
				3.3						
							olive silty loam, massive, firm, brittle, phylite fragments,			
4.0				4.0					Pm	
				4.4			dark orange brown Dark gray weathered schist			
5.0							very dark gray silty loam, massive, abundant rock fragments, very stiff, brittle to end of Boring			
		5.0/5.0							Till	
6.0										
7.0										
8.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-S013	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO14
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		4.0/5.0		0.5			Dark Brown silty loam, many root fragments,			-0-
1.0				1.0			Brown gray silt loam, rock and root fragments		Pm	
							Olive Brown loam, some phylite fragments, some orange brown iron accumulations friable			
2.0				1.8					Pm	
			BWBK-SB-0105 SO14 1140						Picture Taken	
3.0										
				3.4						
4.0							Olive loam, massive, schist? phylite fragments, hard, brittle		Pm	
5.0				5.0						
		5.0/5.0					Very dark gray silty loam, abundant rock fragments, very hard, brittle to end of Boring.		Till	
6.0										
7.0										
8.0							End of Boring @ 10' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 10' BGS	BORING NO.: BWBK-SO14	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO15
PROJECT NO.:	G00200-0211		START DATE: 9/19/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/19/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		4.0/5.0		0.5			dark gray brown silty loam, root fragments, friable, damp			-0-
1.0							Lt. gray to brown gray silt loam, massive, firm in place, friable, where removed, iron staining		rock frags, moist.	
				1.8						
2.0							Gray silty loam, massive, very firm, rock frags, dark brown iron staining, damp			
			BWBK-SB-SO15-0103 1230						Picture Taken	
3.0				2.7						
							Dark gray Brown silty sandy loam, abundant rock frags, Hard, brittle, dry		till	
4.0										
5.0										
		5.0/5.0								
6.0										
7.0										
				7.5						
8.0			End of Boring @ 10' BGS				Tan to gray weathered rock to bottom of Boring			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	BOB @ 10' BGS	BORING NO.: BWBK-SO15	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO16
PROJECT NO.:	G00200-0211		START DATE: 9/25/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/25/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.5/3.5		DH ~~0.5~~ 0.75			Very dark grayish brown silt loam, many plant roots, trace small gravel, friable, moist		Se	-0-
1.0										
							Gray silt loam, massive, firm in place, friable when removed from sleeve, trace gravel, some reddish brown iron concentrations, damp		Se	
2.0										
			BWBK-SB-SO16-0105 0926						Picture Taken	
3.0										
				3.5						
4.0		4.0/4.0					Gray fine sandy loam, trace small gravel, wet		Se	
				4.15						
5.0				4.8			~~Gray silt loam, some yellow brown iron concentrations, trace gravel, firm~~		TILL	
				5.7			Very dark gray fine sandy silt loam, some gravel, very firm			
6.0				6.0			Gray brown fine-med sand w/ silt, Saturated			
							Same as 4.8'-5.7'		TILL	
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SO16	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-S017
PROJECT NO.:	G00200-0211		START DATE: 9/22/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/22/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
		3.0/3.5					Dark gray Silt Loam, many root frags, trace rock frags, moist		Se	-0-
1.0				0.7						
							Gray Silt Loam, many dark reddish brown iron Concent, some rock frags, firm moist.		Se	
2.0										
			BWBK-SB-S017-0106						Picture Taken	
3.0			0920							
4.0		3.5/4.0								
				4.65						
5.0							Gray Silty ~~Sand~~ Sandy AH loam, some dark brown iron Concent, some rock frag, firm, damp		Se	
6.0				6.0						
							Dark Gray Silty Sandy gravel, wet			
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-S017	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO18
PROJECT NO.:	G00200-0211		START DATE: 9/22/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/22/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
		3.0/3.5		~~0.1~~	DH		Very dark grayish brown silt loam, many root fragments, moist		Se	-0-
1.0				0.7						
2.0							Gray silt loam, prominent dark reddish brown iron concentrations, some rock fragments, firm, wet		Se	
3.0			BWBK-SB-SO18-0105 0840	2.7					Picture Taken	
4.0		4.0/4.0					Brownish gray fine sandy silt loam, some dark brown iron concentrations, some rock fragments, firm, wet		Se	
5.0				4.8			Dark gray mottled (yellow Brown) fine to med sandy gravel, some silt, wet			
6.0										
7.0				6.7			Dark gray very fine Sand, trace silt, Saturated			
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SO18	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: BWBK-SO19
PROJECT NO.:	G00200-0211		START DATE: 9/25/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/25/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		2.8/3.5		0.5			Very dark grayish brown silt loam, many plant roots, trace gravel, moist		Se	-0-
1.0							Gray silt loam, many red brown iron concentrations, some gravel firm, damp		Se	
2.0										
3.0			BWBK-SB-SO19-0104 0955						Picture Taken	
4.0		3.0/4.0								
5.0				4.5			Dark gray gravelly fine to med sand w/ some silt, wet		TILL	
6.0										
7.0										
8.0				7.5			End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SO19	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	BWBK-SO2Ø
PROJECT NO.:	G00200-0211	START DATE:	9/25/06
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz	TRANSCRIBED BY:	COMPLETION: DATE: 9/25/06
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
		3.2/3.5					Gray silt loam, some plant roots in top 4 inches, many dark reddish brown mon concentrations, trace rock, moist.		Se	-0-
1.0				1.2						
							Gray silt loam, many yellow Brown mon concentrations, some gravel, firm in sleeve & friable out, damp		Se	
2.0										
			BWBK-SB-SO2Ø-0104 1030						Picture Taken	
3.0										
		3.3/4.0								
4.0				4.0						
							Very dark gray fine sandy silt, some gravel, very firm, dry		TILL	
5.0										
6.0										
7.0										
				7.5						
8.0							End of Boring @ 7.5' BGS			

TYPE OF DRILLING RIG:	Geoprobe		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:	EOB @ 7.5' BGS	BORING NO.: BWBK-SO2Ø	PAGE: 1 OF 1

TINUS Form 0018

APPENDIX B-6

BEACH SOILS (BA)
SAMPLE COLLECTION FIELD DOCUMENTATION

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ba101
START DATE: 03/29/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
			BWBK-SS-Ba101-0001 0145				SAND (F-C), shell fragments.			

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ba101

Tetra Tech NUS, Inc.

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BORING LOG FOR:	Basewide Background Study	BORING NO.:	Ba102
PROJECT NO.:	G00200-0211	START DATE:	03/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	COMPLETION: DATE:	
GRD. SURFACE ELEVATION:		MON. WELL NO.:	N/A
		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
			BW3K-SS-Ba102-0001 (QA)				SAND (f-c), shell fragments			
1										

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba102	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: Ba 103
PROJECT NO.:	G00200-0211		START DATE: 03/28/09
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
0										
			Bwsk-SS-Ba103-0001 (9:05)				Beach SAND (f-c). shell fragments			
1										

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba 103	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: Ba 104
PROJECT NO.:	G00200-0211		START DATE: 08/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION Beach	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = (FID, (PPM))
			BWBK-SS-Ba104-0001				SAND (f-c), shell fragments			
1			09:00							

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: Ba 104

Tetra Tech NUS, Inc.

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: Ba 105
PROJECT NO.:	G00200-0211		START DATE: 03/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T. Lapinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0							Beach			
			BUBK-SS-Ba105-000, 0:15				• SAND (f-c), some shell fragments			
1										

TYPE OF DRILLING RIG:		• Note	Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	~15' from RACK line	
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba 105	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: Ba106
PROJECT NO.:	G00200-0211		START DATE: 05/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
0										
			BaBK-SS-Ba106-000, 11:00				SAND (f-c), some GRAVEL (m,SR)			
1										
			BaBK-SS-BaPO7-05/29/07 11:00							

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba106	PAGE: 1 OF 1

(DUP07)

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	Ba107
PROJECT NO.:	G00200-0211	START DATE:	03/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:	
		COMPLETION: DATE:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0							Beach			
			BW3K-SS-Ba107-0001, 11:20 S-1				• SAND (f-c), trace GRAVEL (f-c) SR			
1										

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba107	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study		BORING NO.: Ba108
PROJECT NO.:	G00200-0211		START DATE: 03/24/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz (T. Lopinski)	TRANSCRIBED BY:	COMPLETION: DATE:
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.		MON. WELL NO.: N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:	CHECKED BY:

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = {FID, (PPM)}
			Ba108-SS-Ba108-0001 @1.25				• SAND (f-c), trace GRAVEL (f-m, SR) ~~Shell fragments.~~			
1										

TYPE OF DRILLING RIG:		Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT	
METHOD OF SOIL SAMPLING:	Grab	
METHOD OF ROCK CORING:	N/A	
GROUNDWATER LEVELS:		
OTHER OBSERVATIONS:	BORING NO.: Ba108	PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ba109
START DATE: 03/29/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0			BU03K-SS-Ba109-0001, @1.30				• SAND (f-c), trace GRAVEL (f-m, SR) Shell fragments			
1										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ba 109

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ba110
START DATE: 03/29/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
			BW3K-SS-Ba110-0001 11:35				SAND (f-c), trace GRAVEL (f-c, SR) Shell fragments.			
1										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ba110

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study			BORING NO.:	Ba 111
PROJECT NO.:	G00200-0211			START DATE:	03/21/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski	TRANSCRIBED BY:		COMPLETION: DATE:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.			MON. WELL NO.:	N/A
GRD. SURFACE ELEVATION:		ELEVATION FROM:		CHECKED BY:	

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA *METHOD* = [FID, (PPM)]
0			BWBK-SS-Ba111-0001 11:40				• SAND (f-c), trace GRAVEL (f-m, SR) shell fragment			
1										

TYPE OF DRILLING RIG:	
METHOD OF ADVANCING BORING:	DPT
METHOD OF SOIL SAMPLING:	Grab
METHOD OF ROCK CORING:	N/A
GROUNDWATER LEVELS:	
OTHER OBSERVATIONS:	

BORING NO.: Ba 111

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR: Basewide Background Study
PROJECT NO.: G00200-0211
LOGGED BY: D. Hickey, K. O'Neill, L. Seydewitz T. Lapinski
DRILLED BY (Company/Driller): Aquifer Drilling & Testing, Inc.
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: Ba112
START DATE: 03/29/07
COMPLETION: DATE:
MON. WELL NO.: N/A
CHECKED BY:

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
			Bu-Bk-SS-Ba112-0001 11:45				· SAND (f-c), trace GRAVEL (fn, SR). Shell fragments.			

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING: DPT
METHOD OF SOIL SAMPLING: Grab
METHOD OF ROCK CORING: N/A
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: Ba112

Tetra Tech NUS, Inc.

PAGE: 1 OF 1

TtNUS Form 0018

BORING LOG FOR:	Basewide Background Study	BORING NO.:	Ba113
PROJECT NO.:	G00200-0211	START DATE:	03/29/07
LOGGED BY:	D. Hickey, K. O'Neill, L. Seydewitz, T. Lapinski	TRANSCRIBED BY:	
DRILLED BY (Company/Driller):	Aquifer Drilling & Testing, Inc.	COMPLETION: DATE:	
GRD. SURFACE ELEVATION:		MON. WELL NO.:	N/A
		ELEVATION FROM:	
		CHECKED BY:	

DEPTH (FEET) 0	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
			BW3K-SS-Ba113-0001 11:50				SAND(f-c), trace GRAVEL(f-c, SR) shell fragments			
			BW3K-SS-DUP05-032707 12:00							

TYPE OF DRILLING RIG:			Tetra Tech NUS, Inc.
METHOD OF ADVANCING BORING:	DPT		
METHOD OF SOIL SAMPLING:	Grab		
METHOD OF ROCK CORING:	N/A		
GROUNDWATER LEVELS:			
OTHER OBSERVATIONS:		BORING NO.: Ba113	PAGE: 1 OF 1

TtNUS Form 0018

APPENDIX B-7

BEDROCK BORING LOGS

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200-0211
LOGGED BY: J. Traut
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: PC-1
START DATE: 8/29/06
COMPLETION: DATE: 8/29/06
MON. WELL NO.:
CHECKED BY: CDR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
0										
2										
4										
6										
8										
10										
12										
14										
16										
18										
20			Top of Rock							
		Run 1 20.3-25.8	BWBK-BR-PC1-C1		Dk grey		PHYLLITE Iron stained to [illegible] ~~CONGLOMERATE~~		[illegible]	
22	50/4/5ft				Lt grey	21-21.5	F and C quartzite [illegible] to subangular [illegible]	PC	[illegible]	
		80% recovery	BWBK-BR-PC1-C2		Grey		F grained sand matrix with F and C [illegible] to [illegible] quartzite clasts		Large of c [illegible] [illegible]	
24								Very [illegible]	[illegible]	
			BWBK BR-PC1-C3		Black		Phyllite - iron staining		[illegible]	
26		Run 2 25.3-30.3								

TYPE OF DRILLING RIG: CME55
METHOD OF ADVANCING BORING: Drive & Wash
METHOD OF SOIL SAMPLING: NA
METHOD OF ROCK CORING: 2 8/3 Diamond Bit
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: PC-1

Tetra Tech NUS, Inc.

PAGE: OF

Ttnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200-0211
LOGGED BY: J. Trout
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: PC-1
START DATE: 8/29/06
COMPLETION: DATE: 8/29/06
MON. WELL NO.:
CHECKED BY: CDR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
26	30 min/ 5ft	100% recovery				DK Gray/	Low to heavily fracured & weathered [illegible]	RI		
28						Black	Phyllite		Low to moderate fracture	
									moderate weathering	
30									2 high fracture 2 [illegible] 1 low fracture	
	15 min/ 5ft	Run 3 30.3 - 35.3					Similar to Above [illegible]			
32										
		100% recovery	BNBK - BR - RC - C4				32.3 → high fracture	RI		
34							33.7 → moderate fracture			
							34.5 → moderate fracture			
36	30 min/ 5ft	Run 4 35.3 - 40.3				Black	Similar to Above	RI		
			BNBK - BR - RC - C5				35.8 → high fracture Low fractures & some weathering			
38							37.2 - 37.6 Phyllite → [illegible] 37.6 - moderate fracture			
							38 - healed fracture CONGLOMERATE			
40						Lt gray	[illegible] & clay [illegible] to [illegible] quartz [illegible] clasts	MC		
	40 min/ 5ft	Run 5 40.3 - 45.3	BNBK - BR - RC - C6				Similar to Above			
42			DUP03							

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: PC-1

Tetra Tech NUS, Inc.

Tnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200-0211
LOGGED BY: J. Trawt
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:

ELEVATION FROM:

BORING NO.: PC-1
START DATE: 8/29/06
COMPLETION: DATE: 8/29/06
MON. WELL NO.:
CHECKED BY: CPR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
42										
			BWBK - BR - PC1 - C7			Black	41.8 - 42.8 → Phyllite w/ F & C grains & elongated quartzite	PC	some pyrite?	
44			BWBK - BR - PC1 - C8			Grey	42.8 - 44 CONGLOMERATE [illegible] to 40-45 %	PC		
						DK Grey / Grey	44 - 44.5 PHYLLITE similar to 41-42.8 / CONGLOMERATE similar to 40-45 %	RI / PC		
46	30 min / 5ft	Run 6 45.3 -				Grey	Similar to above			
		50.3 100% recovery	BWBK - BR - PC1 - C9				Low to fractures at 45.5, 45.8, 46.1 - very hard weathering			
48										
			BWBK - BR - PC1 - C10				Similar to above - Tr. c grains quartzite clasts & pyrite (Tr.)			
50										
	30 min / 5ft	Run 7 50.3 - 55.3				Grey	Similar to above - [illegible]			
52							50.9 moderate to fracture			
		100% recovery	BWBK - BR - PC1 - C11			DK Grey	52.8 [illegible] CONGLOMERATE [illegible] w/ f quartzite			
54							clasts - some c. grains & subrounded clasts		multiple jts & fractures [illegible]	PC
						DK Grey	54.5 - 56 Phyllite	RI		
56	30 min / 5ft	Run 8 55.3 - 60.3					55.5 - 60 → multiple moderate & fractures some weathering			
-			BWBK - BR - PC1 - C12			Grey	Conglomerate sandstone w/ F & C subangular - [illegible] quartzite clasts	PC		
58										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: PC-1

Tetra Tech NUS, Inc.

PAGE: 1 OF 4

Tnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200 0211
LOGGED BY: J. Trout
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: PC-1
START DATE: 8/29/06
COMPLETION: DATE: 8/29/06
MON. WELL NO.:
CHECKED BY: GR

DEPTH (FEET) 58	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
								PC	57.5, 58 8 59 Low & fracture some weathering	
60							59.5-60 Similar to above & fractured clasts decrease w/ depth		58.5 high & fracture	
	20 min 5 ft	Run 9 60.3-65.3								
62							60-63.8 conglomerate (along clasts) w/ quartz veins/sandstone layers	PC	61.5 low & fracture	
		100% Recovery	BWBK-BR-PC-C13						63.5 & 63.8 low & fractures some weathering	
64							63.8-66.3 CONGLOMERATE fine grained sand matrix w/ subrounded f & c quartzite clasts	PC		
			BWBK-BR-PC1-C14						65.5 low & fracture 66.3 moderate & fracture	
66	40 min 5 ft	65.3-70.3 100% Recovery								
							66.3-67.3 PHYLLITE - similar to 60-63.8	RI		
68							67.3-67.8 CONGLOMERATE w/ 63.8-66.3	PC	68' high & fracture	
						DK Gray	67.8-69.9 PHYLLITE similar to 64.6-66	RI	68.5-70.3 [illegible]	
70			BWBK-BR-PC1-C15			LT Gray	69.9-70.3 Phyllite		[illegible]	
71										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: PC-1

Tetra Tech NUS, Inc.

Tnus Form 0018

BORING LOG FOR: NAVSTA - Newport
PROJECT NO.: 112600200 - 0211
LOGGED BY: J. Tkaut
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: RI - 1
START DATE: 8/30/06
COMPLETION: DATE: 8/31/06
MON. WELL NO.:
CHECKED BY: CDR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
2										
4										
6										
8										
10										
12										
14										
16										
18										
20										
22										
24		Rock	Top of Rock 23.5'					RI		
26		23.5-28.5 3.5/5'	BUBK - BR - RI - C1			DK Grey	Phyllite - Heavily fractured (Gn) x fractures & heavily weathered throughout 24.5 Meta-conglomerate		graphite	

TYPE OF DRILLING RIG: ME 55
METHOD OF ADVANCING BORING: Drive & Wash
METHOD OF SOIL SAMPLING: NA
METHOD OF ROCK CORING: 2 3/3 Roller Bit
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: RI-1

Tetra Tech NUS, Inc.

PAGE: 1 OF

Tnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200 - 0211
LOGGED BY: J. Trout
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: RI-1
START DATE: 8/30/06
COMPLETION: DATE: 8/31/06
MON. WELL NO.:
CHECKED BY: CDR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
26					2	Dk gray	Phyllite w/graphite V. weathered	RI	heavily fractured	
28			Bulk, GR RI-C2							
		Run 2 28.5-34.2								
30						Grey	29 - Large quartz filled fractures 29.5' - Meta-sandstone - quartz filled fractures		abundant fracturing & weathering	
		3.9/5'	Bulk, GR - RI-C3		5				Note: Losing material formation	
32										
						Dk gray			abundant fractures, hammerstrike & heavily weathered	
34			Bulk-GR-RI-C4							
		Run 3 34.2-39.2								
36							35-37' Meta sandstone w/ quartz veins			
		100%								
38		Recovery						Very is of soil		
			Bulk-GR-RI-C5				37-38.7 Phyllite w/graphite - quartz veins 38.7 - Meta-sandstone		heavily fractured & weathered	
40							Pervasive quartz veins			
		Run 4 39.2-44.2	Bulk-GR RI-C6							
42										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: RI-1

Tetra Tech NUS, Inc.

PAGE: 2 OF 4

Tttnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00800-0211
LOGGED BY: J. Trout
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: RI-1
START DATE: 8/30/06
COMPLETION: DATE: 8/31/06
MON. WELL NO.:
CHECKED BY: CR

DEPTH (FEET)	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG/ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
42		100% Recovery				Grey	Metasandstone [illegible] RQS	RI	Multiple [illegible] fractures [illegible] weathering	
44										
		Run 5 44.2-49.2								
46			BWBK-BR-RI1-C7			WHT	45-46.2 Quartzite w/ 1" layer of phyllite-Quartz vein	RI		
		5.7/5.0				Gray	46.2-49.2 Metasandstone w/ quartz veins			
48										
			BWBK-BR-RI1-C8							
50		Run 6					49.2-53.2 Metasandstone w/ Quartz veins	RI	Lows & fractures @ [illegible] 49.5, 50.5-50.5	
		49.2-54.2							Multiple fractures from 50.5-[illegible]	
52			BWBK-BR-RI1-C9							
		4.0/5.0								
54					2		53.2 Phyllite with graphite			
		Run 7 54.2-59.2	BWBK-BR-RI1-C10		4		Quartzite veins from 54.5-55		Multiple lows [illegible] throughout	
56			BWBK-BR-RI1-C11							
		3.1/5.0			2					
58										

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: RI-1

Tetra Tech NUS, Inc.

Ttnus Form 0018

BORING LOG FOR: NAVSTA Newport
PROJECT NO.: 112G00200.0211
LOGGED BY: J. Trout
DRILLED BY (Company/Driller): ADT
GRD. SURFACE ELEVATION:

TRANSCRIBED BY:
ELEVATION FROM:

BORING NO.: RI-1
START DATE: 8/30/06
COMPLETION: DATE: 8/31/06
MON. WELL NO.:
CHECKED BY: DR

DEPTH (FEET) 58	BLOWS PER 6"	SAMP REC. / SAMP LENG.	SAMPLING TIME & SAMPLE NO. (QA/QC STATUS)	DEPTH MAT'L CHG./ WELL PROF'L	SOIL DENSITY/ CONSIS. or ROCK HARD.	CLR	MATERIAL CLASSIFICATION	USCS or ROCK BRKN	REMARKS (moisture condition; odors; geological classification; rock weathering; etc.)	FIELD SCREENING DATA METHOD = [FID, (PPM)]
					4	DK Gray	Pyrite w/graphite	RI	Multiple low & fractures 2 high fractures at 61 & 62.5	
60		Run 2 59.2-64.2								
		100% recovery							Moderately weathered (accentuated through shale)	
62										
64			BWBK-BR-RI2-C12							
		Run 9 64.2-69.2					Similar to above quartz veins		multiple low to moderate fractures & moderate weathering throughout	
66			BWBK-BR-RI2 C13							
		100% recovery								
68							67.5 some f&c grained quartz veins increasing with depth			
70		Run 10 69.2-								
		74.2 100% recovery	BWBK-BR-RI2-70							
72							pyrite crystals		Fracture @ 70 w/ deposit staining	
							pyrite w/ graphite			
74	*50ft/5.5hrs		BWBK-BR-RI2-74							

E.O.B.

TYPE OF DRILLING RIG:
METHOD OF ADVANCING BORING:
METHOD OF SOIL SAMPLING:
METHOD OF ROCK CORING:
GROUNDWATER LEVELS:
OTHER OBSERVATIONS:

BORING NO.: RI-1

Tetra Tech NUS, Inc.

Tttus Form 0018

APPENDIX C

SAMPLE LOCATION PHOTOGRAPHS

AREA A PHOTOGRAPHS

AREA A LOCATION

SEP 20 2006

BRADCO
SEP 15 2006

779366
United Rentals
United Rentals
TL130
1-800-UR-RENTS
1-800-UR-RENTS
SEP 18 2006

SEP 18 2006

United Rentals
779366
United Rentals
SEP 18 2006

SEP 20 2006

SEP 20 2006

SEP 27 2006

SEP 27 2006

SEP 27 2006

MANSFIELD MUCKY SILT LOAM

BWBK-55-MAØ1-0001
9/20/06
1110
SEP 20 2006

BWBK-SB-MAØ1-0105
9/20/06
1112
SEP 20 2006

BWBK-55-MA02-001
9/20/06
1200
SEP 20 2006

BLWBK-58-MAØ2-0107
9/20/06
1203
3F
3-.1
3-.2
3-.3
3-.4
3-.5
3-.6
3-.7
3-.8
3-.9
4F
4-.1
4-.2
SEP 20 2006

BWBK-55-MAØ4-0001
9/20/06
1400
SEP 20 2006

BWBK-5B-MA04-0108
9/20/06
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SEP 20 2006

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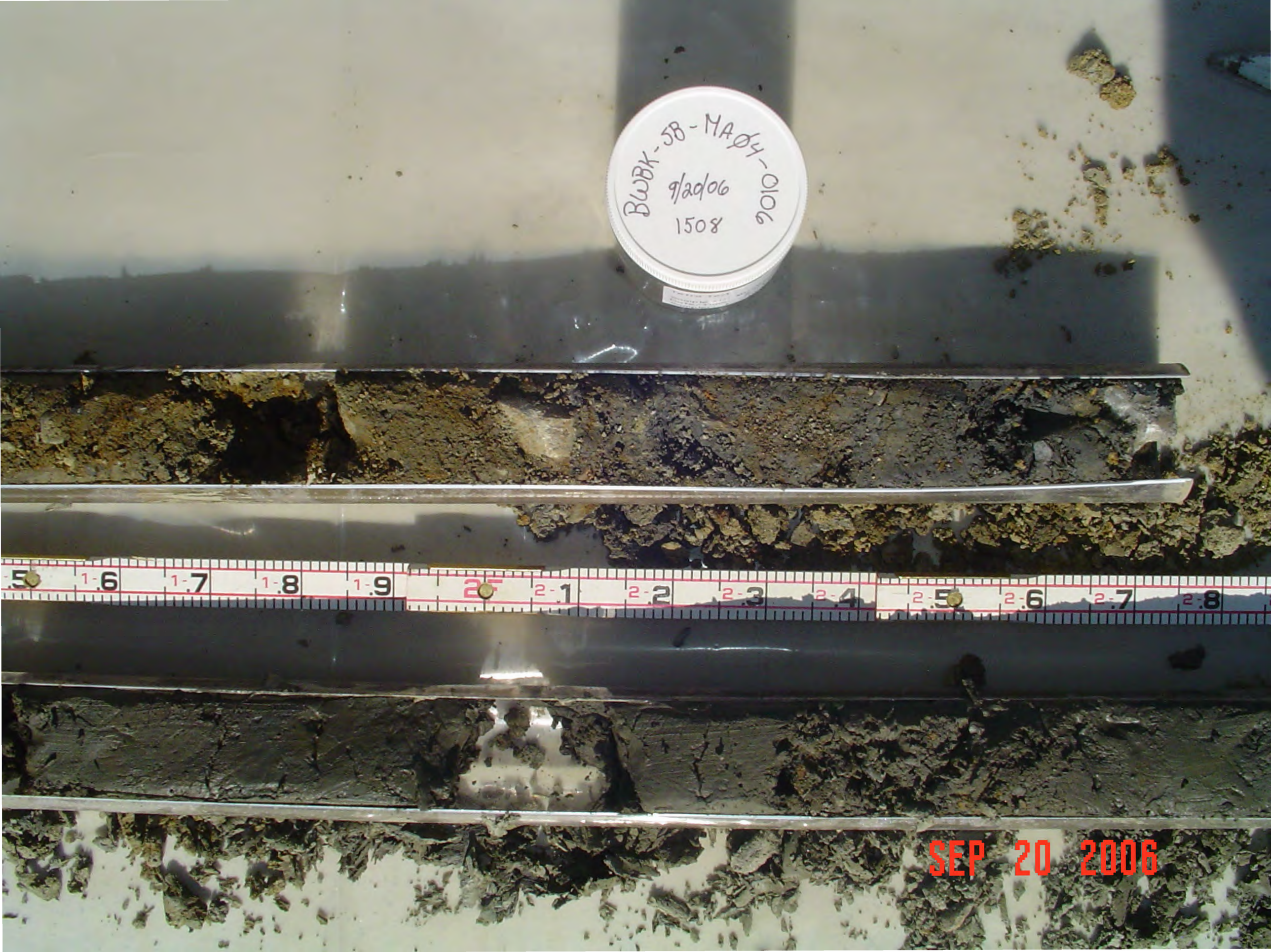
9/20/06
1505
SEP 20 2006


BWBK-58-MA04-0106
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1508
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BWBK-55-MAØ5-0001
9/21/06
0845
SEP 21 2006

BWBK-SB-MAØ5-0108
9/21/06
0847
SEP 21 2006

BWBK-55-MA06-0001
9/20/06
1540
SEP 20 2006

BWBK-58-MA06-0105
9/20/06
1543
SEP 20 2006

BLUBK-SB-MA07-0104
9/20/06
1633
SEP 20 2006

BUBK-55-MAØ8-0001
9/21/06
1115
SEP 21 2006

BLUBK-58-MA08-0108
9/21/06
1118
Tetra Tech
Sample ID
Date/Time
SEP 21 2006

BUBK-55-MAØ9-0001
9/21/06
1205
SEP 21 2006

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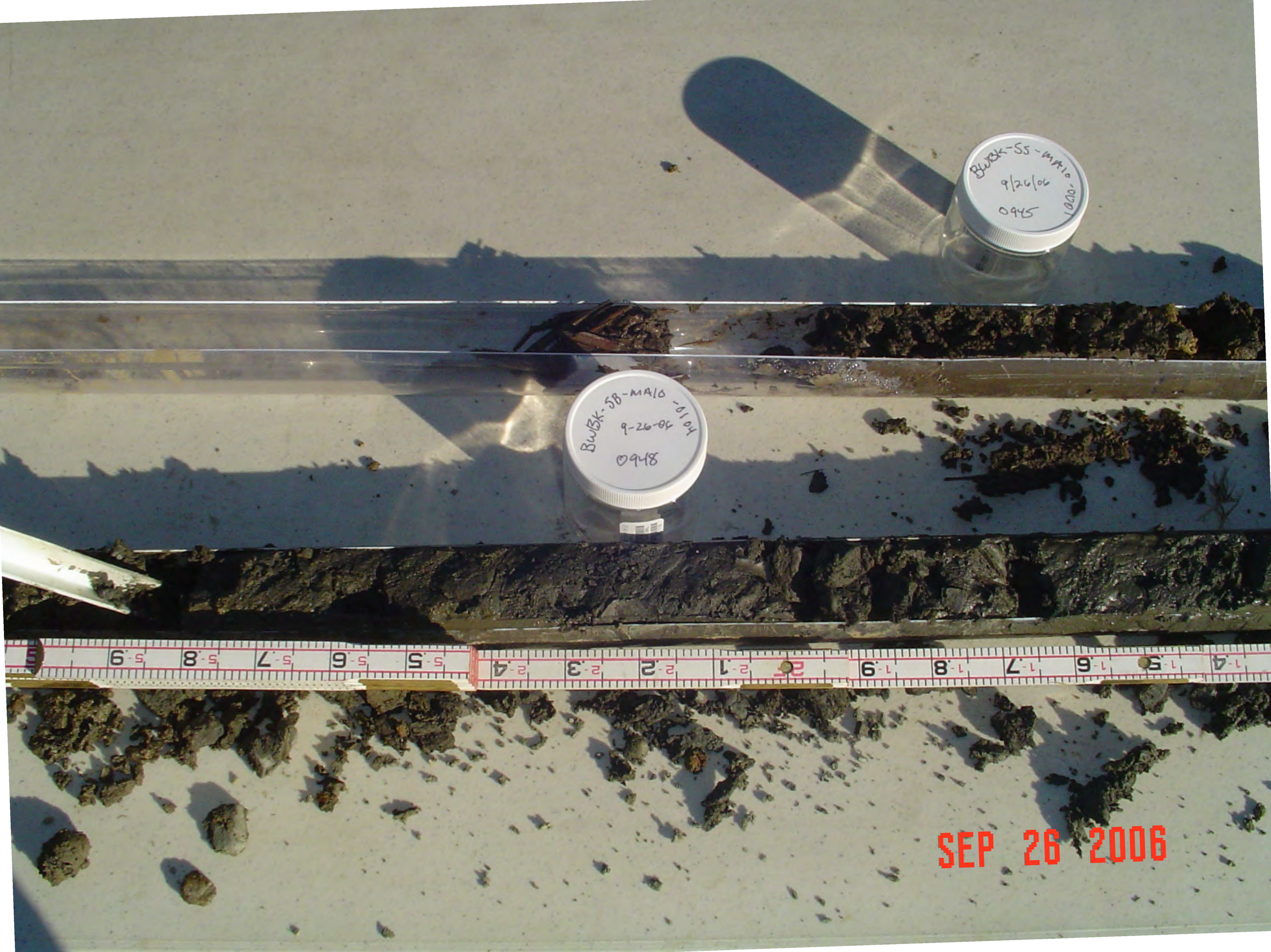
9/21/06
1207
SEP 21 2006

BWBK-SS-MA10
9/26/06
0945
1000-001
SEP 26 2006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9/26/06
0945
-0101
BWBK-SB-MA10
9-26-06
0948
-0104
SEP 26 2006

BWBK-55-MA11-000
9/21/06
1300
1000
SEP 21 2006

BWBK-SB-MA11-010
9/21/06
1302
SEP 21 2006

BlwBK-55-MA12-0001
9/21/06
0930
SEP 21 2006

BWBK-SS
-MA13-0001
9-26-06
1305
SEP 26 2006

SEP 26 2006

EWBK-SS-
MA14
-0001
9-26-06
1330
SEP 26 2006

BWBK-SB
-MA14-0104
9-26-06
1335
BWBK-SO
-DUP08
9-26-06
1338
SEP 26 2006

BWBK-55-MRS-0001
9-26-06
1155
SEP 26 2006

BWBK-SB-
MA15-0105
9-26-06
[redacted]
1158
SEP 26 2006

BWBK-SS
-MA16-0001
9-26-06
1405
SEP 26 2006

BWBIC-SB
-MA16-0104
9-26-06
1409
SEP 26 2006

BWBK-SS
-MA17-0001
9-26-06
1435
SEP 26 2006

BWBK-SS
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9-26-06
1435
SEP 26 2006

BWBK-SB
-MA17-0104
9-26-06
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9-26-06

BWBK-SS-
MA18-0001
9-26-06
1510
SEP 26 2006

BWBK-SB
-MA18-0104
9-26-06
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9-26-06
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1100
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9/26/06
1105
SEP 26 2006

MA SAMPLE LOCATIONS

SEP 28 2006

SEP 28 2006

SEP 27 2006

SEP 27 2006

27.2006

SEP 27 2006
MA01

MA02
SEP 27 2006

MA02
SEP 27 2006

MA03
SEP 27 2006

MA04
SEP 27 2006

MA05
SEP
27 2006

SEP 27 2006
MA06

SEP 27 2006
AA07

SEP 27 2006
MA08

SEP 27 2006

MA10
SEP 27 2006

MA11

MA12
SEP 27 2006

MA12
SEP 27 2006

M113
SEP 28 2006

SEP 28 2006
MA14

MA15
SEP 28 2006

SEP 28 2016
MA16

SEP 28 2006
MAIZ

MA17
SEP 28 2006

MA18
SEP 28 2006

MA19
SEP 28 2006

PITTSTOWN SILT LOAM

BWBK-SB-
-PM01-0105
9-27-05
1611

BWBK-SB-
-PM01-0105
9-27-05
1611

BWBK-SB-
-PM02-0104
9-27-06
1640

BWBK-SB-PM10-0105
9-27-06
0904

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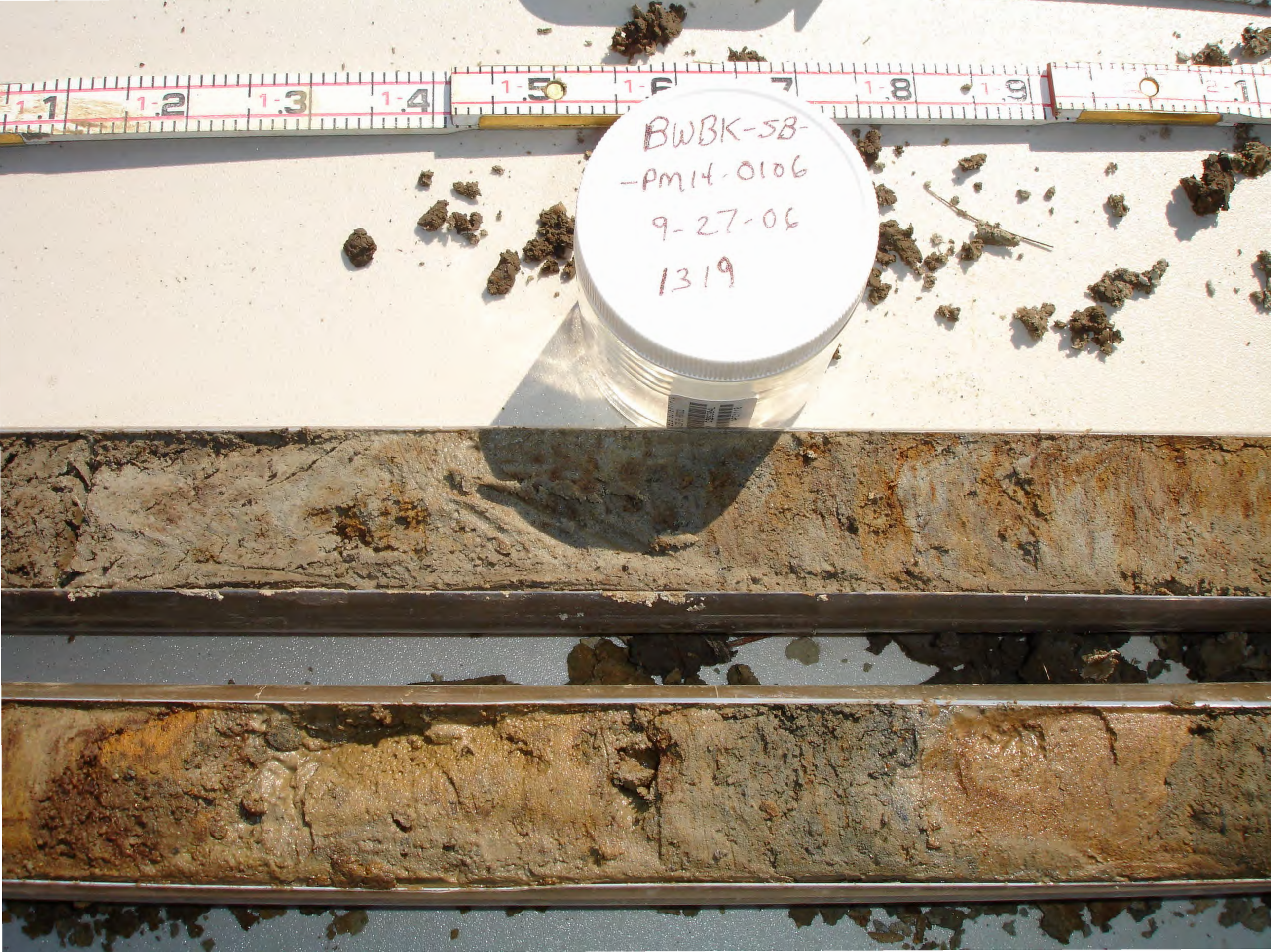
-PM11-0104
9-27-06
0941

BWBK-SB-
PM13-0106
9-27-06
1245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9-27-06
1319

BWBK-SB-
PM15-0105
9-27-06
1340

BWBK-SB-
-PM16-0106
9-27-06
1420

BWBK-SB-
-PM17-0105
9-27-06
1455
BWBK-SO.
-DUP10
9-27-06
1457

BWBK-5B
-PM18-0105
9-27-06
1516

BWBK-SB-
-PM19-0105
9-27-06
1534

PM SAMPLE LOCATIONS

PM01
SEP 28 2006

PM02
SEP 28 2006

PM03
SEP 28 2006

PM04
SEP 28 2006

PM06
SEP 28 2006

PM07
SEP 28 2006

RM08
SEP 28 2006

PM09
SEP 28 2006

PM10
SEP 28 2006

PM11
SEP 28 2006

PM13
SEP 28 2008

HWG
SEP 28 2006

SEP 28 2006
PM15

PM16

PM17
SEP 28 2006

PM18
SEP 28 2006

PM19
SEP 28 2006

SEP 28 2009

STISSING SILT LOAM

BWBK-SB-5081-0107
9/18/06
1205
SEP 18 2006

BWBK-SB-5020-0104
9/26/06
1030
SEP 26 2006

BWBK-SB-SO02-0109
9/18/06
1300
SEP 18 2006

BWBK-SB-SO03-0106
9/21/06
1400
SEP 21 2006

BWBK-SB-50Ø4-0108
9/21/06
1425
SEP 21 2006

BWBK-SB-50Ø5-0106
9/21/06
1455
SEP 21 2006

BWBK-SB-5006-010
9/21/06
1540
SEP 21 2006

BWBK-5B-5005-0106
9/21/06
1615
SEP 21 2006

BWBK-SB-5088
9/21/06
1645
C010-
SEP 21 2006

BWBK-SB-5011
9/21/06
1010
9010-11
SEP 21 2006

BWBK-SB-5012-0106
9/20/06
1015
SEP 20 2006

BWBK-SB-MA12-0102
9/21/06
0933
SEP 21 2006

SEP 19 2006
BWBK-58-50-0104
9/19/06
1053
1-.3
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1-.5
1-.6
1-.7
1-.8
1-.9
2
2-.1
2-.2
2-.3
2-.4

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9/19/06
1140
SEP 19 2006

BWBK-SB-50-0103
9/19/06
1230
SEP 19 2006

BWBK-SB-9016-0105
9-26-06
0926
SEP 26 2006

BWBK-SB-5017-0106
9/22/06
0920
SEP 22 2006

BWBK-SB-5018-0105
9/22/06
0840
SEP 22 2006

BWBK-SB-5019-0104
9/26/06
0955
SEP 26 2006

SE SAMPLE LOCATIONS

S001
SEP 27 2006

S003
SEP 27 2006

S004
SEP 27 2006

SOU
SEP 27 2006

SOUG
SEP 27 2006

SEP 27 2006
S007

S008
SEP 27 2008

5009
SEP 27 2006

S010
SEP 27 2006

S011
SEP 27 2006

SEP 27 2006
S012

S013
SEP 27 2006

S014
SEP 27 2006

S015
SEP 27 2008

S016
SEP 27 2006

SEP 27 2006
S017

SEP 27 2006
S018

SEP 27 2006
S019

SEP 27 2006
S020

AREA B PHOTOGRAPHS

AREA B LOCATION

SEP 13 2006

SEP 13 2006

SEP 13 2006

Enterprise
van
SEP 13 2006

SEP 13 2006

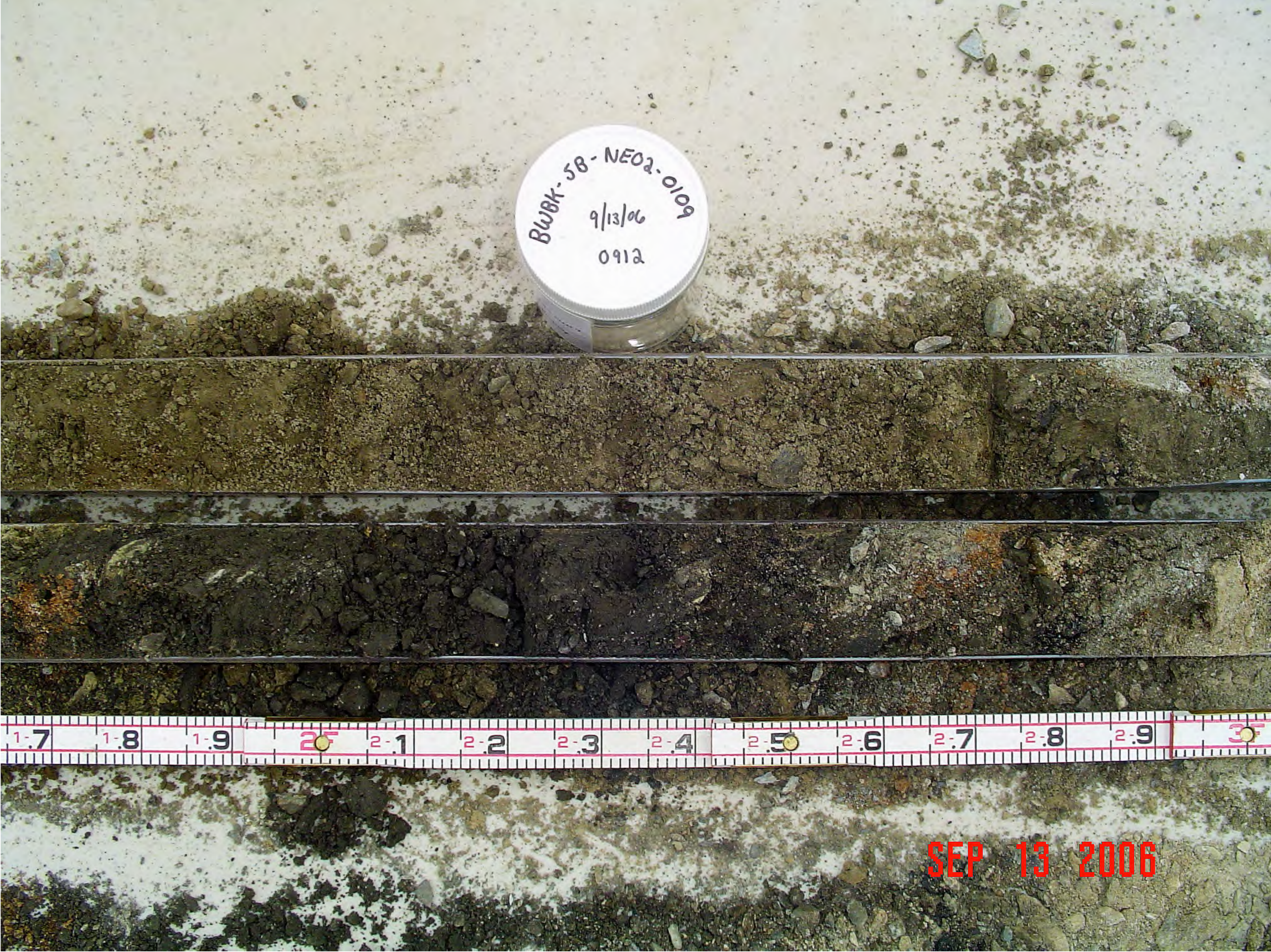
SEP 13 2006

NEWPORT SILT LOAM

BWBK-55-NE01-0001
9/13/06
0840
SEP 13 2006

BWBK-SB-NE01
9/13/06
0842
-0010
SEP 13 2006

BWBK-55-NE02-0001
9/13/06
0910
SEP 13 2006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9/13/06
0912
SEP 13 2006

BW8K-55-NE03-0001
9/13/06
0945
Tetra Tech
SEP 13 2006

BWBK-5B-NE03-0105
9/13/06
0947
SEP 13 2006

BWBK-SS-NE04-0001
9/13/06
1020
Tetra Tech
Sample ID:
Date/Time:
Sampler:
Analysis: TAL Metals
Preservation: Cool to
SEP 13 2006

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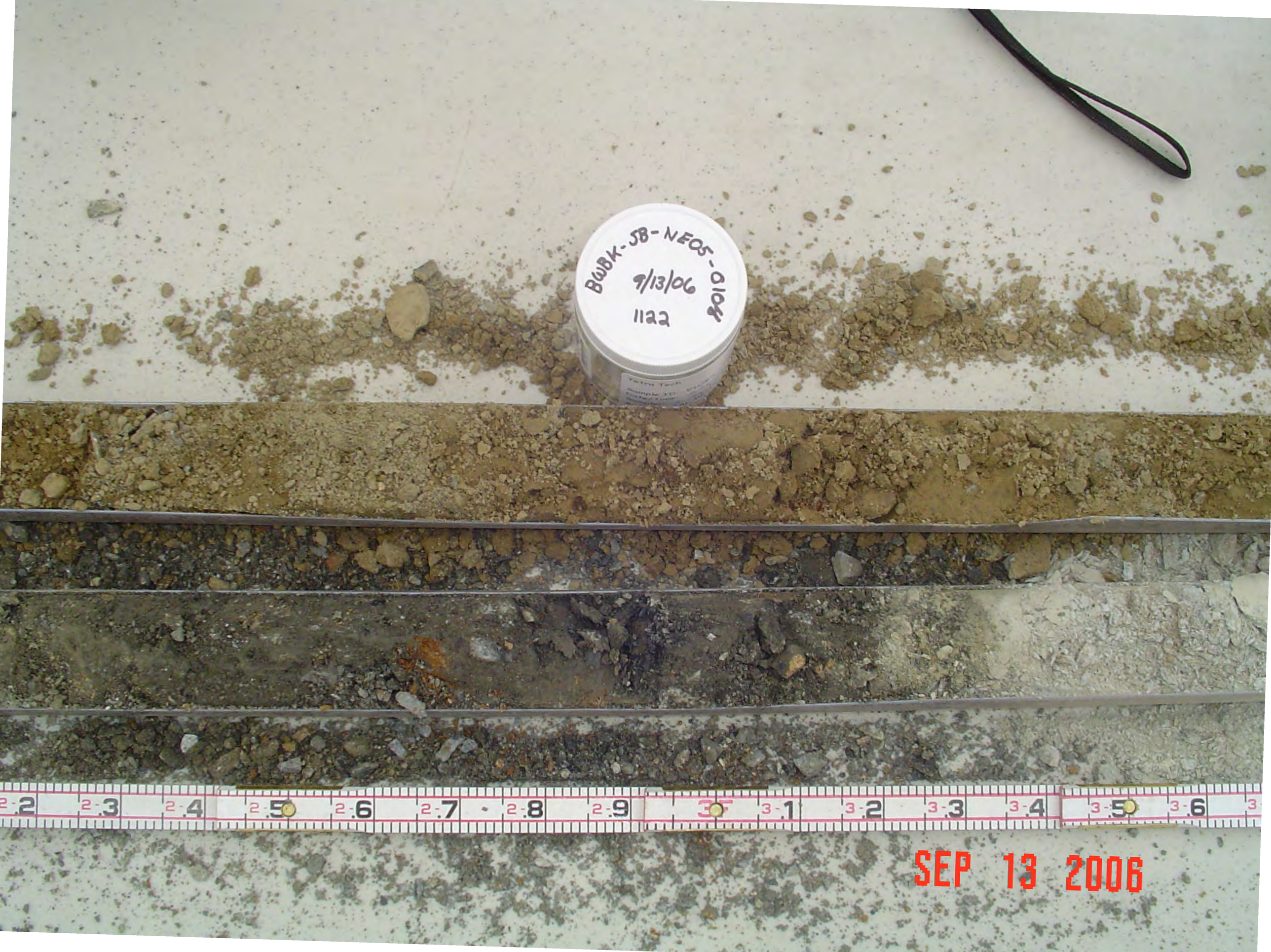
9/13/06
1022
SEP 13 2006

BWBK-55-NE05-001
9/13/06
1120
SEP 13 2006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9/13/06
1122
SEP 13 2006

BWBK-SS-NE06-0001
9/13/06
SEP 13 2006

BWBK-SB-NE06-0109
9/13/06
SEP 13 2006

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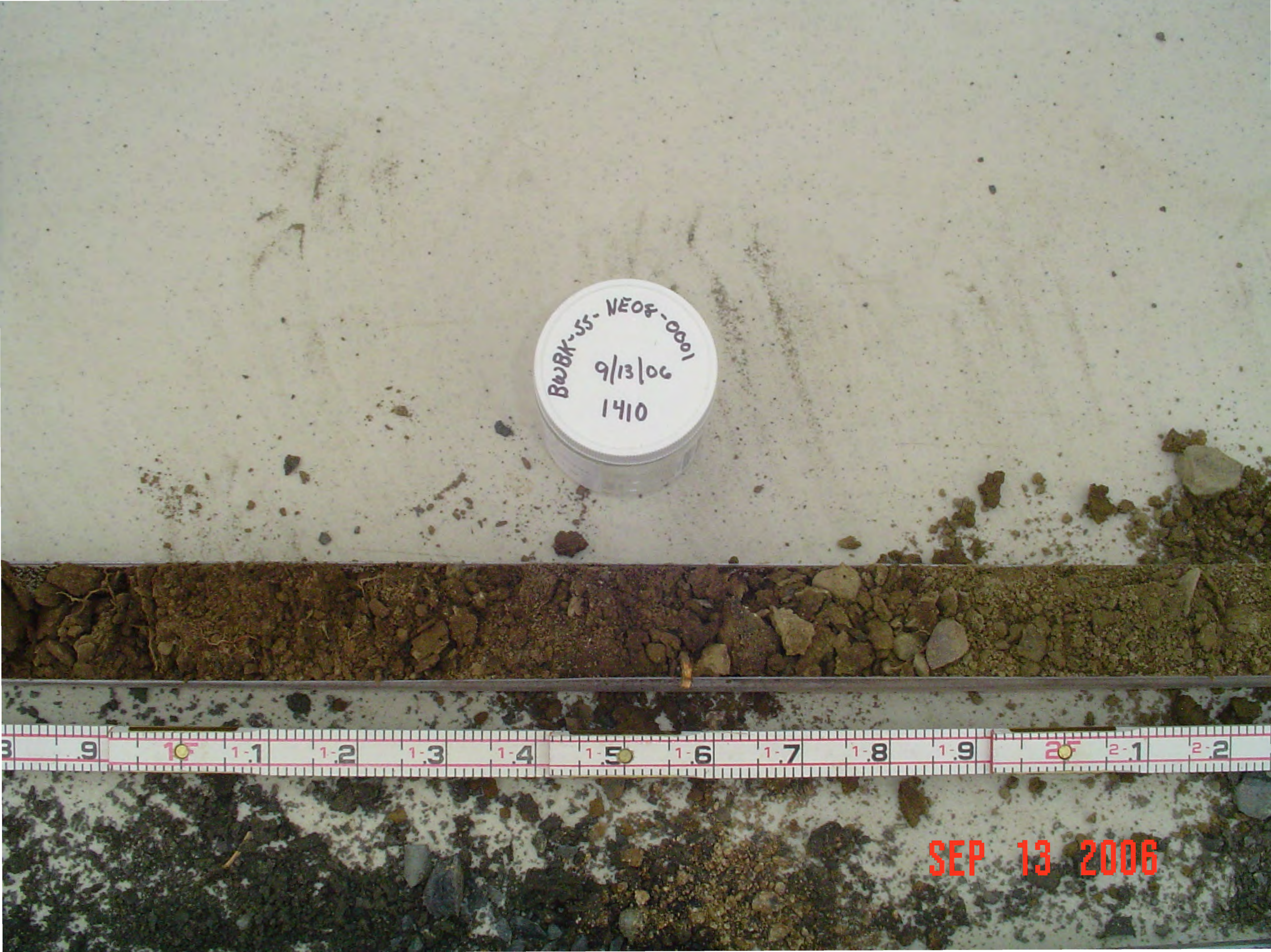
9/13/06
1340
SEP 13 2006

BWBK-SB-NE07-0107
9/17/06
1342
SEP 13 2006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9/13/06
1410
SEP 13 2006

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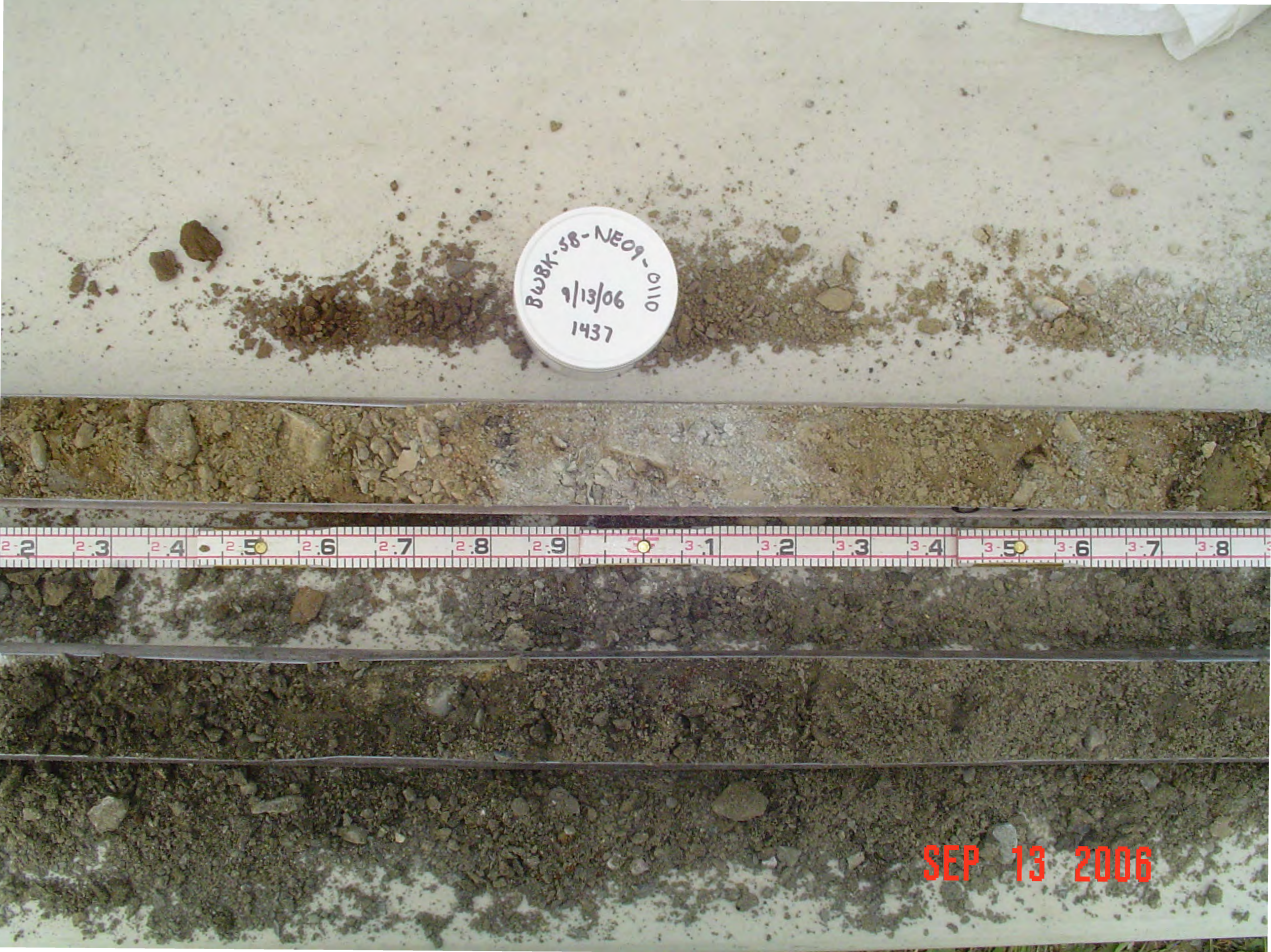
9/13/06
1412
SEP 13 2006

BW8K-55-NE09-0001
9/13/06
1435
SEP 13 2006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9/13/06
1437
SEP 13 2006

BWBK-55-NE10-0001
9/13/06
1515
SEP 13 2006

BWBK-SB-NP10-010c
9/12/06
1535
SEP 12 2006

BWBK-38-NE10-0107
9/13/06
1518
SEP 13 2006

NE AND MA SAMPLE LOCATIONS

MA20
SEP 28 2006

NE01
SEP 13 2006

NEO1
SEP 13 2006

NEO1
SEP 13 2006

NEO2
SEP 13 2006

NE03
SEP 13 2006

NE03
SEP 13 2006

NEOH
SEP 13 2006

NE04
SEP 13 2006

NE05
SEP 13 2006

NE06
SEP 13 2006

NE06
SEP 13 2006

NEO7
SEP 13 2006

NEO7
SEP 13 2006

NE08
SEP 13 2006

NE09
SEP 13 2006

NE09
SEP 13 2006

NE010
SEP 13 2006

NE010
SEP 13 2006

BWBK-SB-NP01-5.68.2
9/11/06
SEP 15 2006

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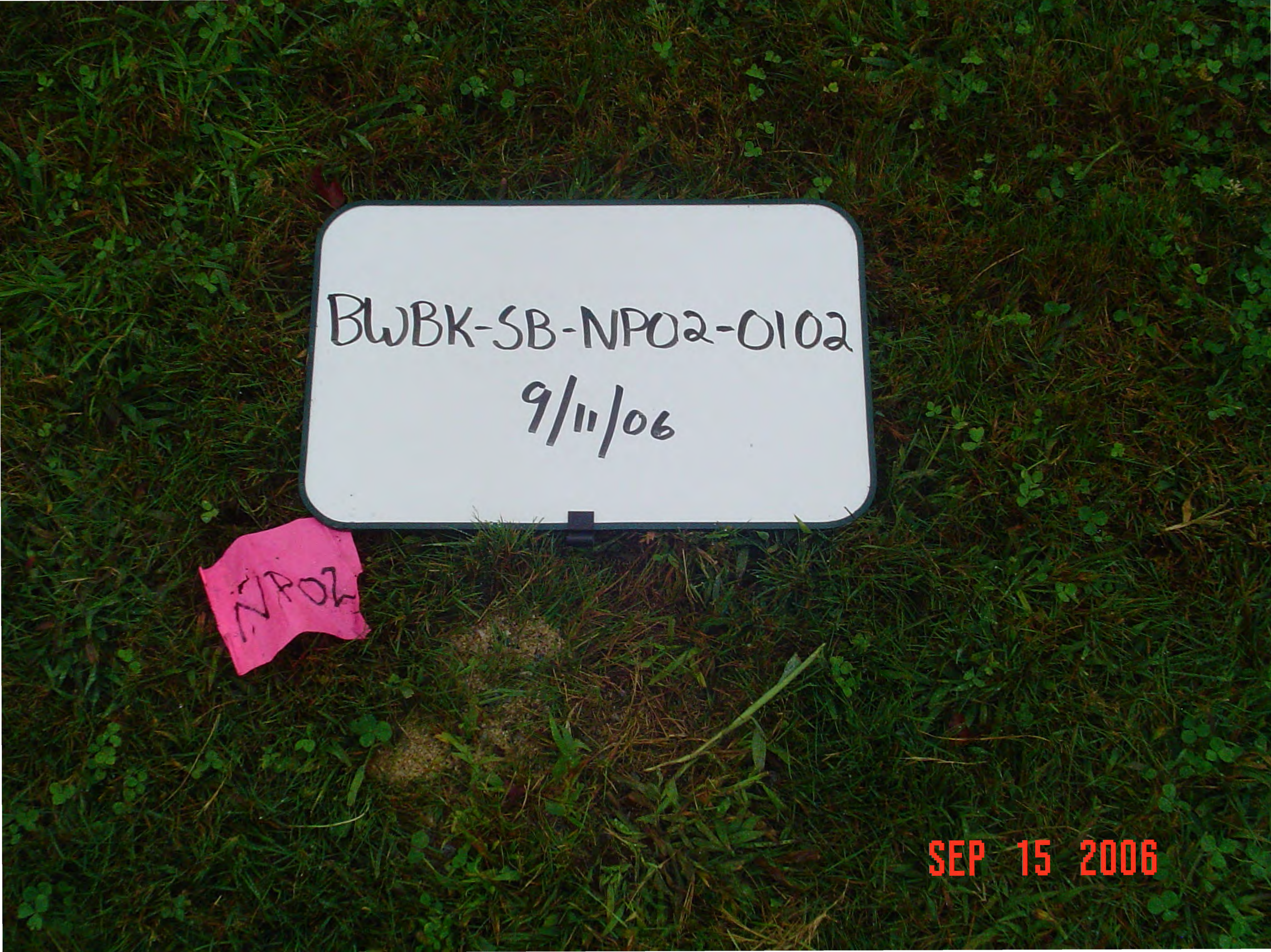
9/11/06
SEP 15 2006

BWBK-SB-NP02-0102
9/11/06
SEP 15 2006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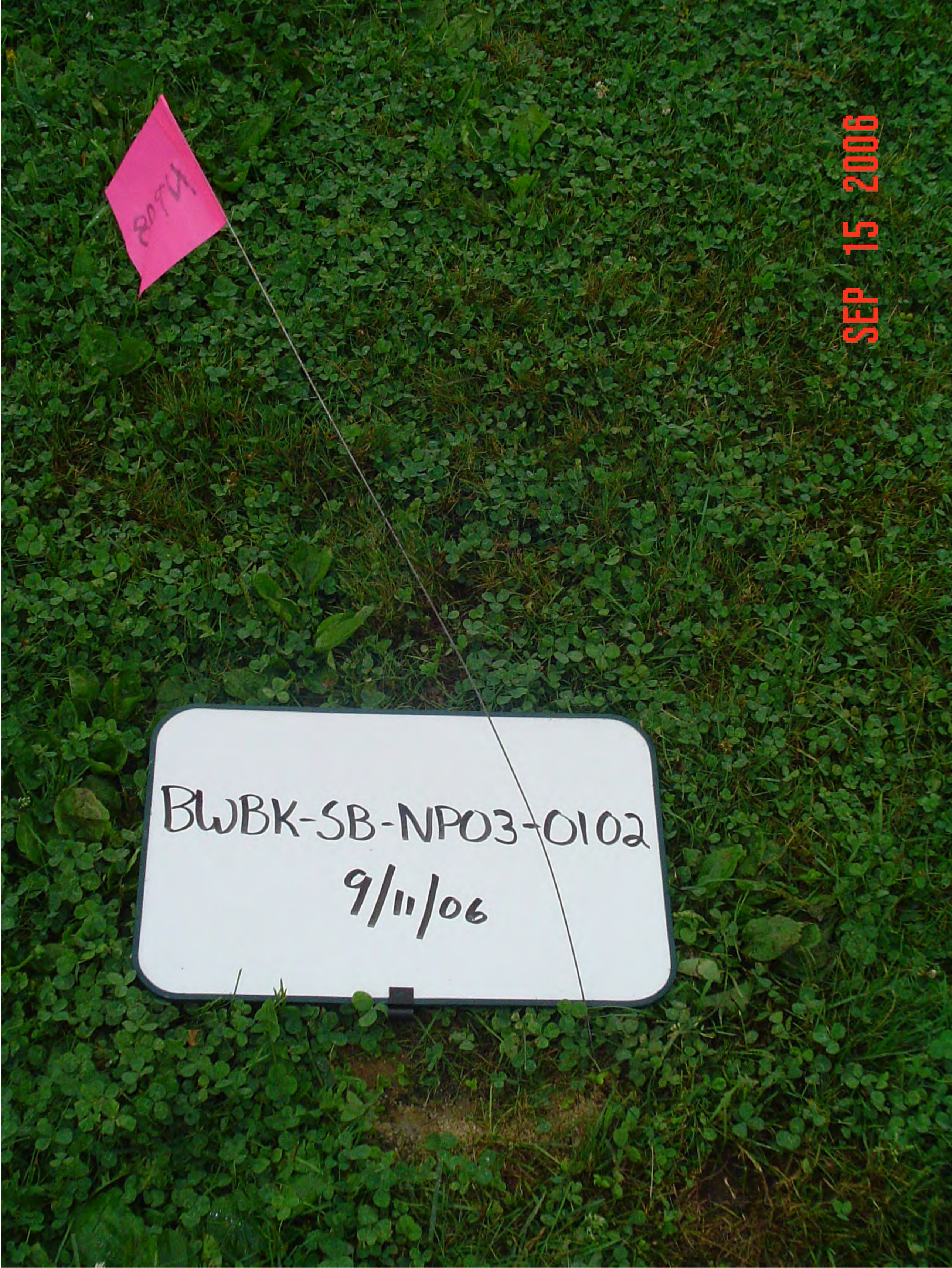
NP02
SEP 15 2006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9/11/06
SEP 15 2006

BWBK-SB-NP03-0102
9/11/06
SEP 15 2006

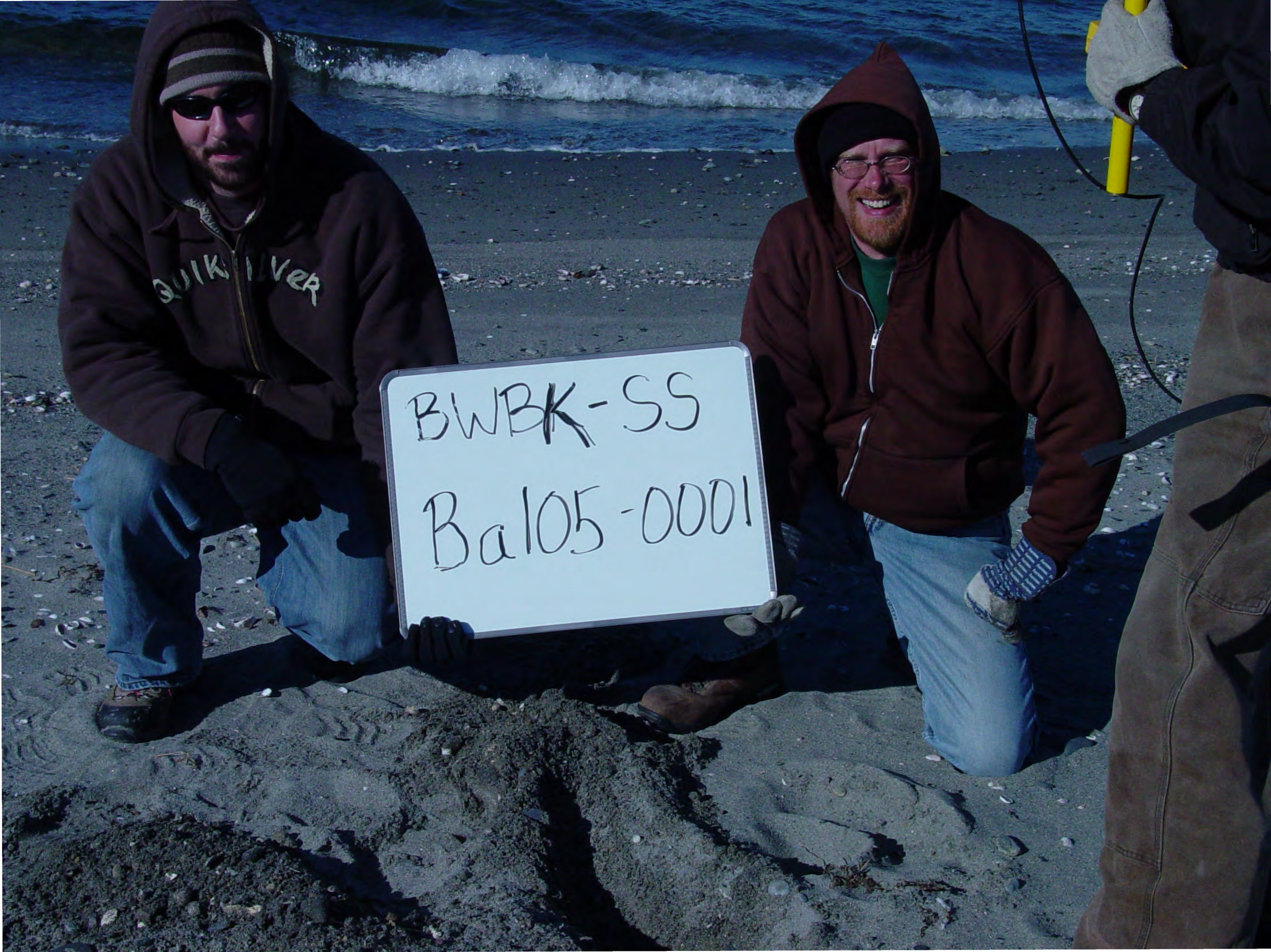
AREA C PHOTOGRAPHS

AREA C LOCATION

BEACH SOILS

BWBK-SS
Ba103-0001

BWBK-SS
Ba104-0001


BWBK-SS
Ba105-0001

MERRIMACK SANDY LOAM

BWBK-SS/SD
-Mm101

BWBK-SS/SD
Mm102

102

BWBK-SS/SD
Mm 102

BWBK-SS/SD
-Mm103

BWBK-SS/SD
Mm103

BWBK-SS/SD
Mm104

BWBK-SS/SD
-Mm105

BWBK-SS/SD
Mm106

BWBK-SS/SD
Mm107

BWBK-SS/SD
Mm108

BWBK-SS/SD
Mm109

BWPK-350
Mn 110

BWBK-SS/SD
-Mm110

BWBK-SS/SD
-Mm111

BWBK-SS/SD
Mm 12

BWBK-SS/SD
Mm113
Mm113

BWBK-SS/SD
#113

BWBK-SS/SD
Mm 114

BWBK-SS/SD
Mm 115

BWBK-SS/SD
-Mm116

M 116

BWBK-SS/SD
-Mm117

BWBK-SS/SD
Mm 118

BWBK-SS/SD
Mm 118

BWBK-SS/SD
-MW119

BWBK-SS/SD
Mn 119

BWBK-SS/SD
Mm120

BWBK-SS
Am 120

NEWPORT SILT LOAM

BWBK-55/50
Ne 101

BWBK-SS/SD
Ne 102

BWBK-SS/SD
Ne 103

Ne 104

Ne 105

BWBK-55/50
Ne 105

BWBK- 55/50
Ne 106

BWBK-SS/SD
Ne 107

BWBK-55/50
Ne 107

BWBK-55/50
Ne 108

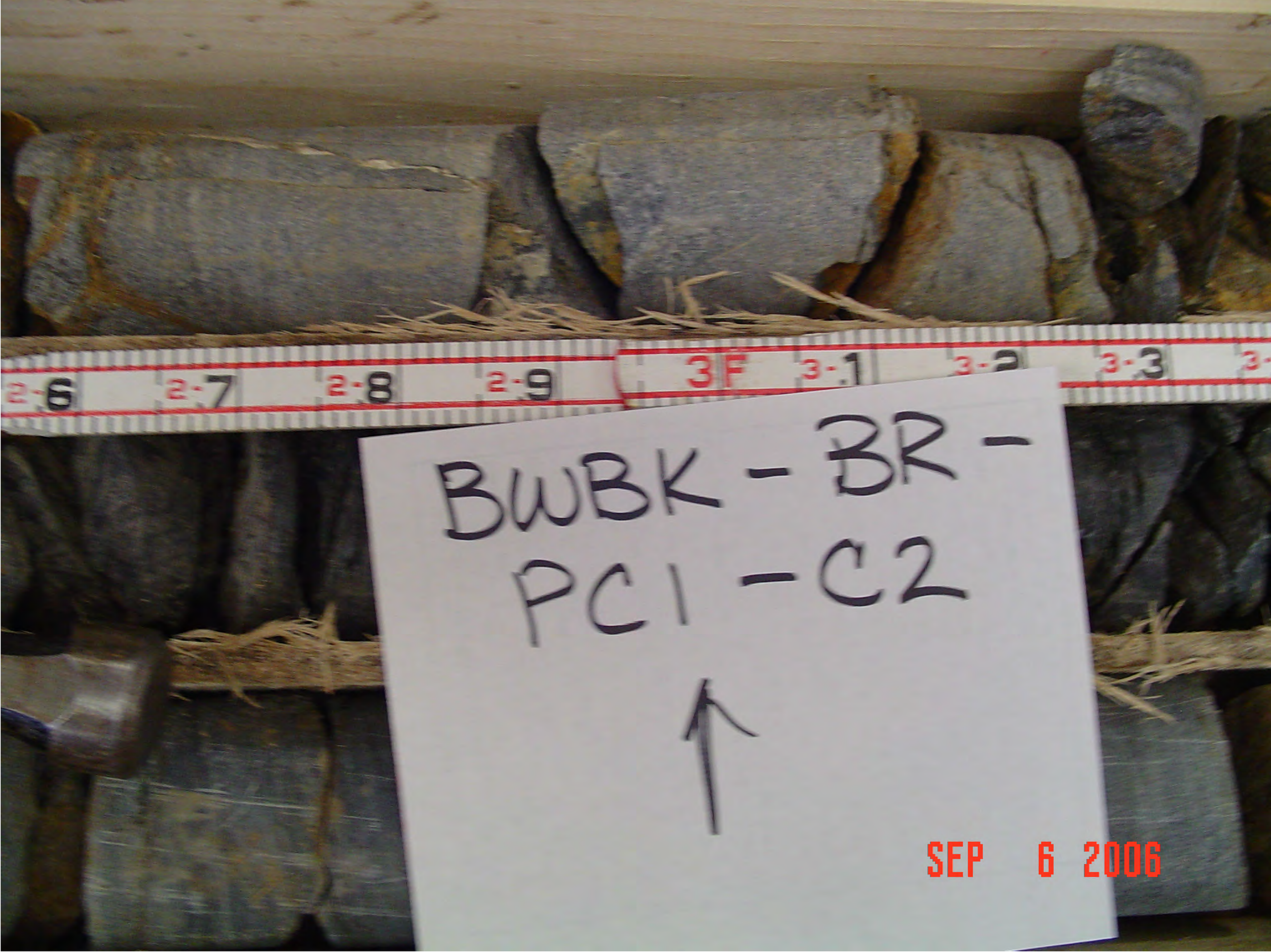
BWBK-SS/SD
Ne 109

BWBK-55/50
Ne 110

AREA D PHOTOGRAPHS

BR-PC1

BWBK - BR -
PC1 - C1
SEP 6 2006


BWBK - BR -
PC1 - C2
SEP 6 2006

BWBR - BR -
PC1 - C6

SEP 6 2006

BWBK- BR-
PC1 - C7
SEP 6 2006

3-8
3-9
5F
5-1
5-2
5-3
5-4
BWBK - BR -
PC1 - C8
SEP 6 2006

BWBK - BR -
PC1 - C9

SEP 6 2006

BWBK - BR -
PC1 - C10

SEP 6 2006

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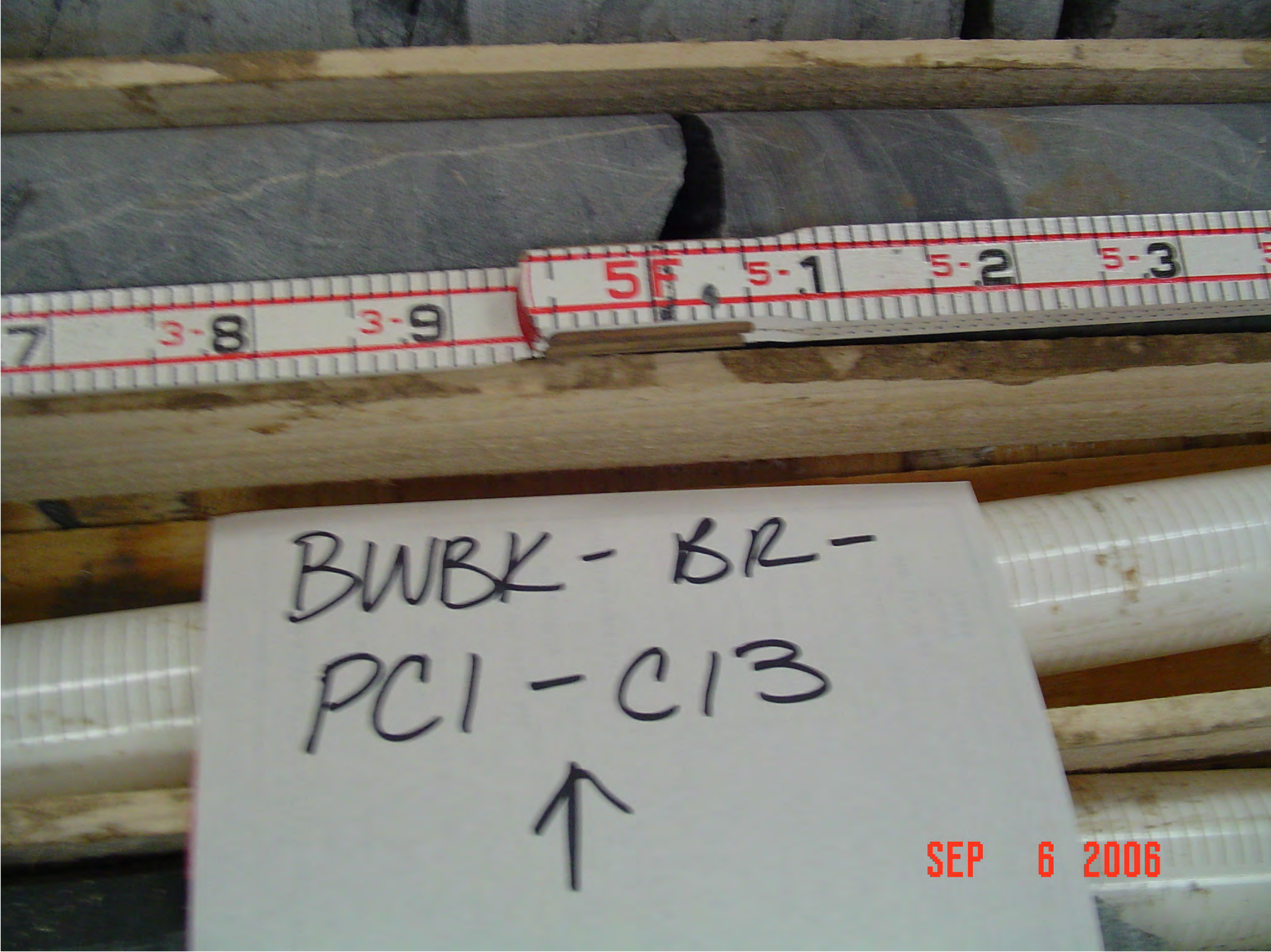
PC1 - C11

↑

SEP 6 2006

BWBK - BK -
PC1 - C12

SEP 6 2006


BWBK - BR -
PC1 - C13
SEP 6 2006

BWBK - BR -
PC1 - C14

SEP 6 2006

453
SEP 5 2006

SEP 5 2006

SEP 5 2006

PC 2"	from	to	RECOVERY
RUN 2"	30.3	25.3	100
RUN 2	35.3	30.3	100
RUN 3	30.3	35.3	100
/			

RQD

(24/50)100 = 48%

(0/50)100 = 0%

(5/50)100 = 10%

PC 1	from	To	RECOVERY	RQD
Run 1	20.3	25.3	100	
Run 2	25.3	30.3	100	
Run 3	30.3	35.3	100	

PC 1*	from	to	RECOVERY	RQ
Run 1*	20.3	25.3	100	
Run 2	25.3	30.3	100	
Run 3	30.3	35.3	100	

Run-4	35.3		40.3	100 %
Run-5	40.3		45.3	100 %
Run-6	45.3		50.3	100 %
Run-7	50.3	52.8	55.3	

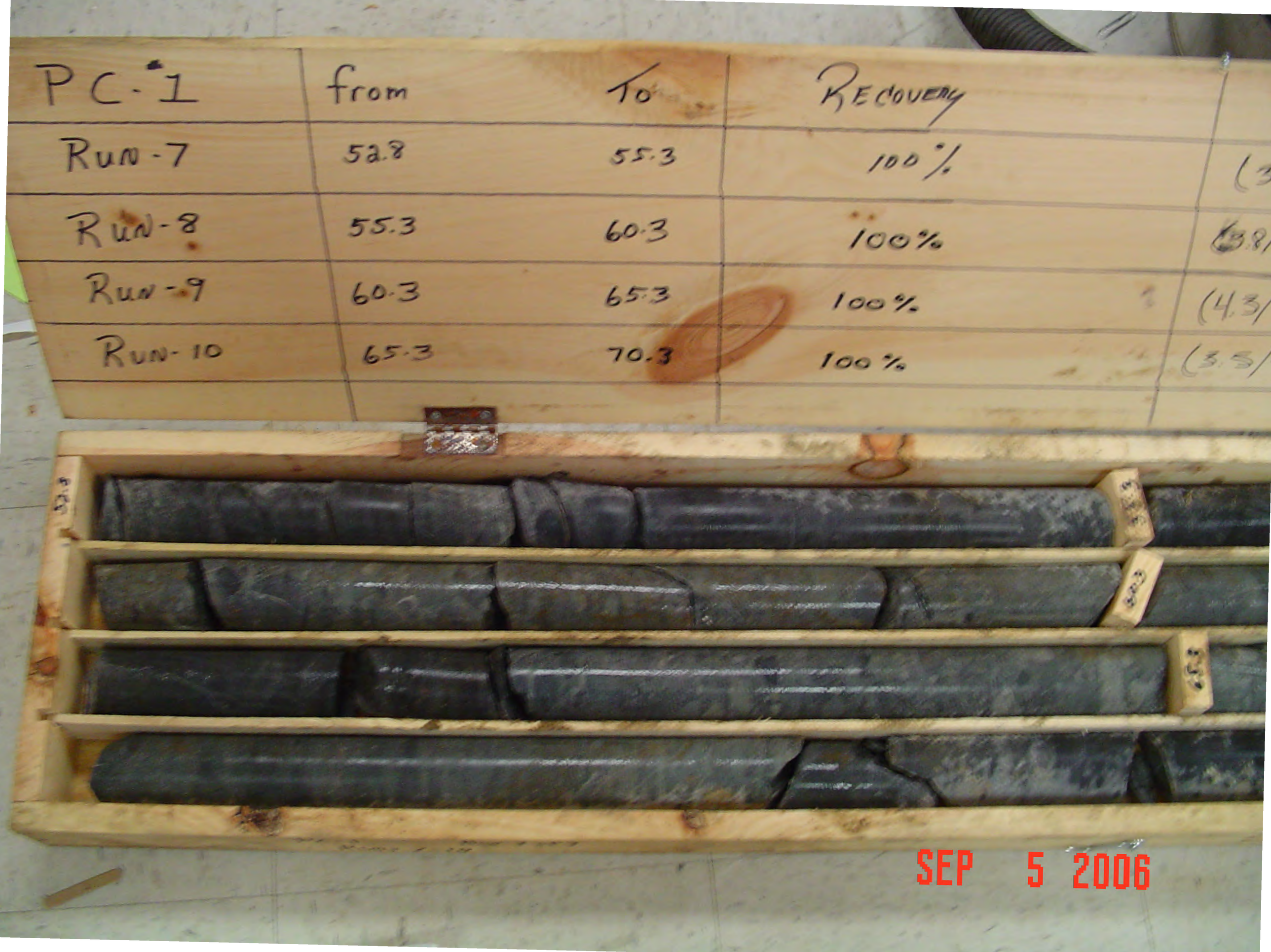
RECOVERY	RQD
100 %	(2.5/5.0) 100 = 50%
100 %	(3.9/5.0) 100 = 78%
100 %	(4.1/5.0) 100 = 82%

PC1
Run-4
Run-5
Run-6
Run-7
from
to
Recovery
RQD
35.3
40.3
100%
40.3
45.3
100%
45.3
50.3
100%
50.3
52.8
55.3
100%
55.3
50.3

PC 1	from		to	RECOVERY	RQD
Run-4	35.3		40.3	100 %	
Run-5	40.3		45.3	100 %	
Run-6	45.3		50.3	100 %	
Run-7	50.3	52.8	55.3 not run		

To	Recovery	RQD
40.3	100 %	
45.3	100 %	
50.3	100 %	
3 52.8 55.3 Mor Box		

PC-1	from	To	RECOVERY	
Run-7	52.8	55.3	100%	(3
Run-8	55.3	60.3	100%	(3.8/
Run-9	60.3	65.3	100%	(4.3/
Run-10	65.3	70.3	100%	(3.5/



RQD
(3.8/5)100 = 76%
(3.8/5)100 = 76%
(4.3/5)100 = 86%
(3.5/5)100 = 70%
SEP 5 2006

PC-1
from
to
Recovery
RQD
Run-7
52.8
55.3
100%
Run-8
55.3
60.3
100%
Run-9
60.3
65.3
100%
Run-10
65.3
70.3
100%
55.3
60.3
65.3

PC-1	from	To	RECOVERY
RUN-7	52.8	55.3	100%
RUN-8	55.3	60.3	100%
RUN-9	60.3	65.3	100%
RUN-10	65.3	70.3	100%

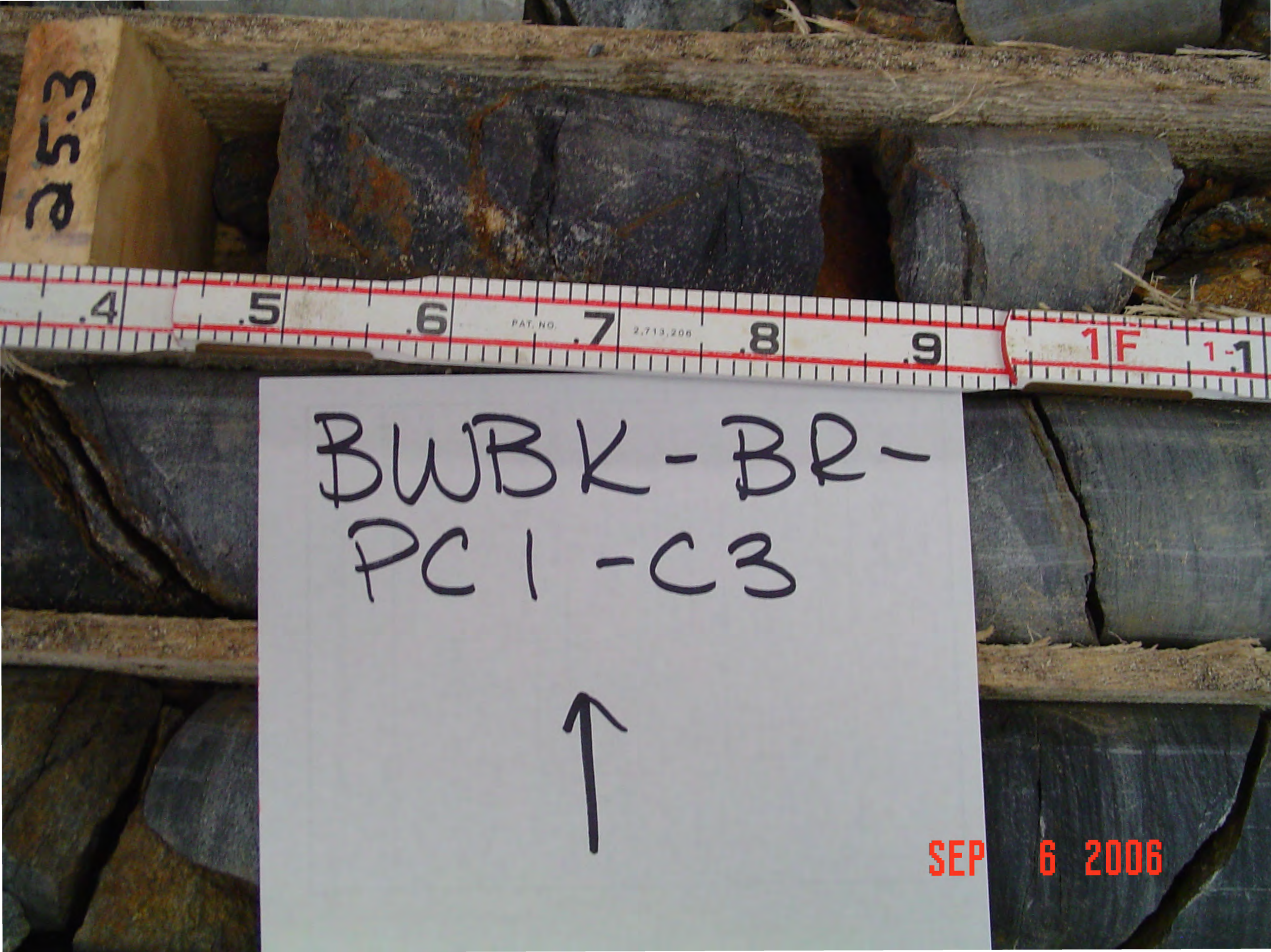
RQD
55.3
60.3
65.3

BR-PC1 SITE

OFFICERS'
CLUB
PERRY RD

OFFICERS' CLUB
PERRY RD
STOP

BR-RI1


253
.4
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PAT. NO.
.7
2,713,206
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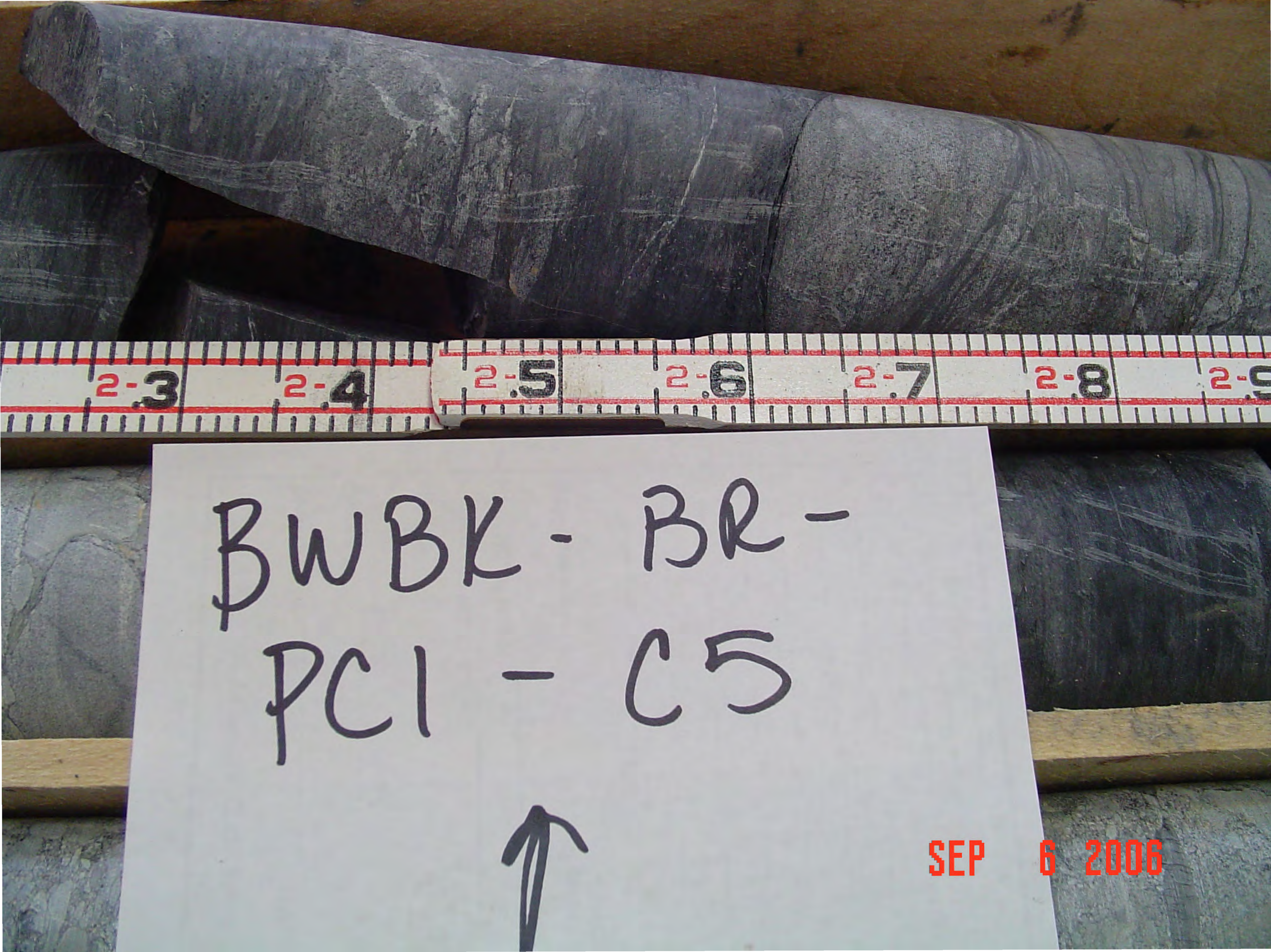
1F
1-1
BWBK-BR-
PC1-C3
SEP 6 2006

BWBK - BR -
PC1 - C4
SEP 6 2006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BWBK- BR-
PC1 - C5
SEP 6 2006

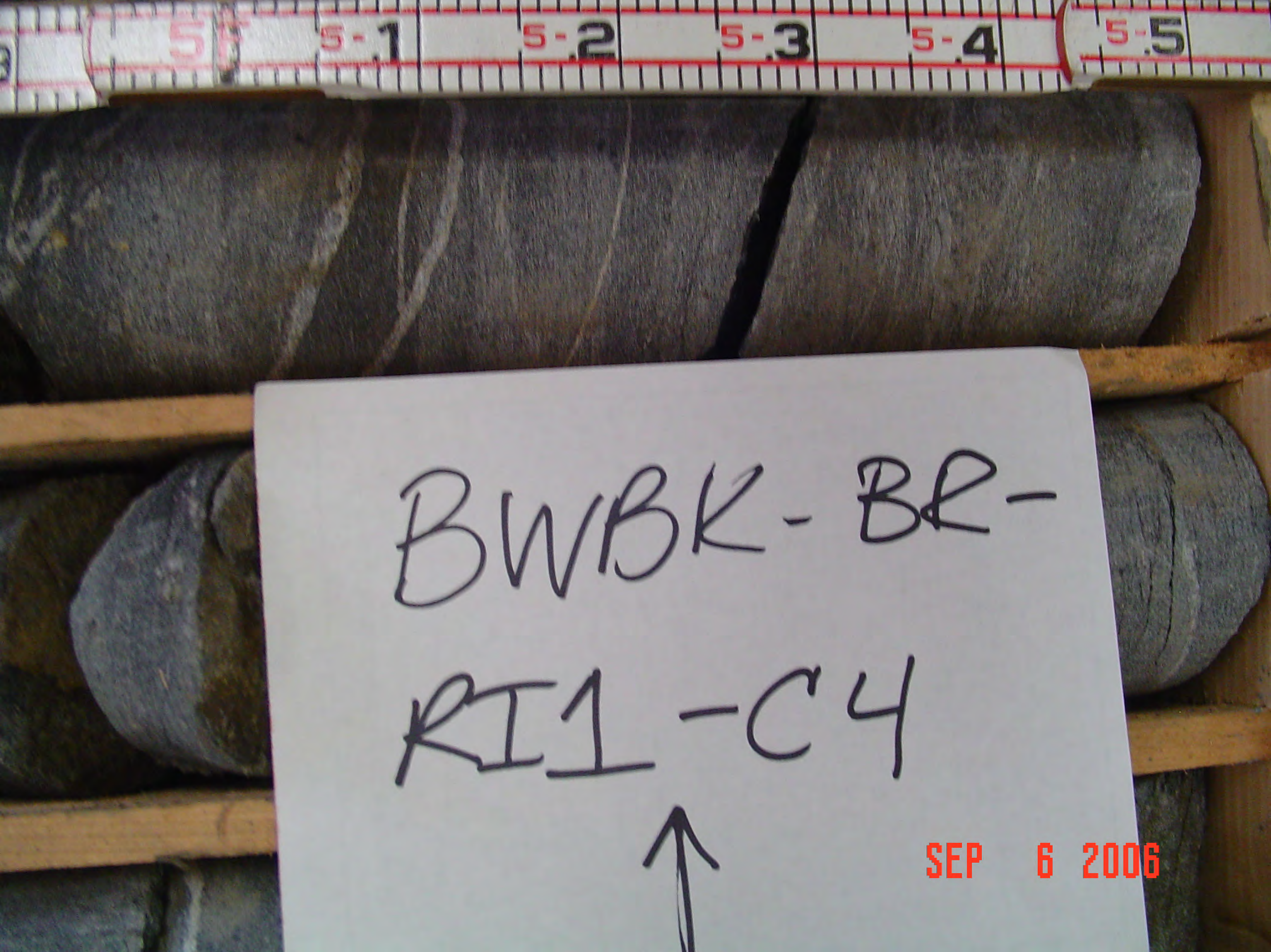
BWBK - BR -
PC1 - C15

SEP 6 2006

BWBK -BR-
RI1 -C1
SEP 6 2006

3-7
3-8
4F
4-1
4-2
4-3
4-4
BWBL-BR-
RI1-C2
SEP 6 2006

2.2
2.3
2.4
2.5
2.6
2.7
2.8
BWBK-BR-
RI1-C3
SEP 6 2006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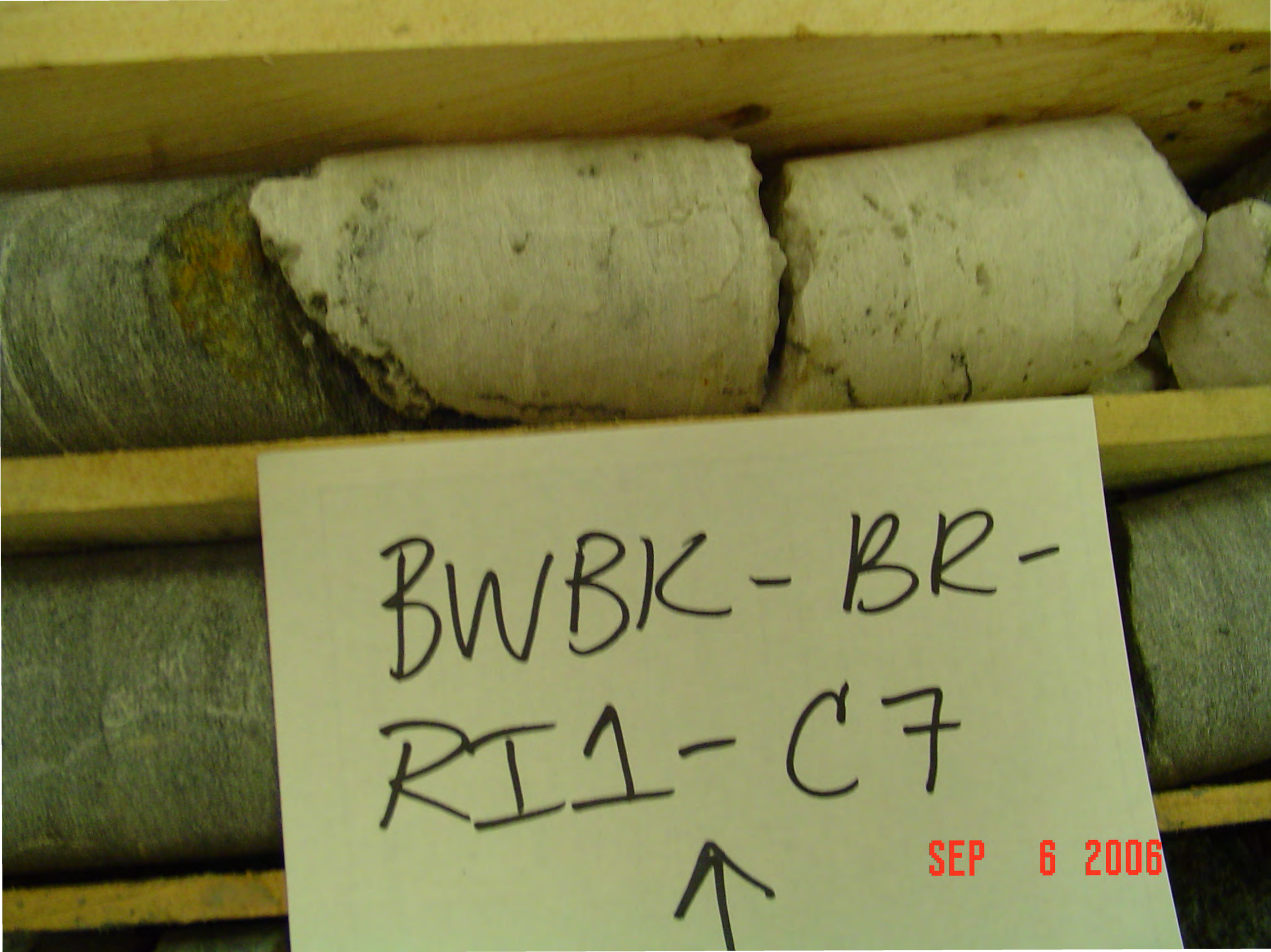
5-.2
5-.3
5-.4
5-.5
BWBK-BR-
RI1-C4
SEP 6 2006

3-.8
3-.9
4F
4-.1
4-.2
4-.3
BWBK - BR-
RI1 - C5
SEP 6 2006

BWBK-BR-
RI1-C6
SEP 6 2006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RI1-C7
SEP 6 2006

BWBK- BR-
RI1-C8
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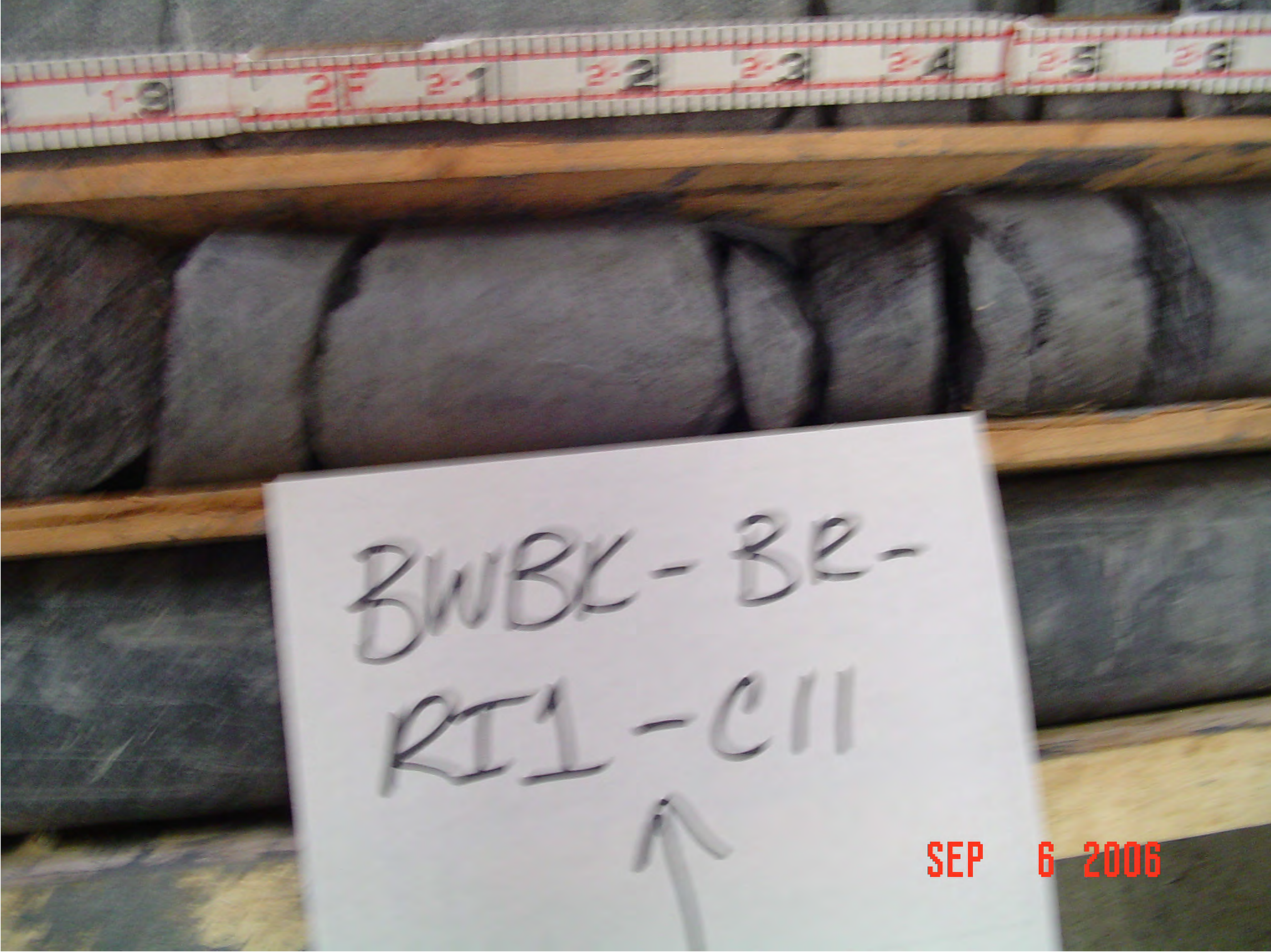
SEP 6 2006

BWBK-BR-
RI1-C9

SEP 6 2006

BWBK - BR-
RI1 - C10
SEP 6 2006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RI1-C11
SEP 6 2006

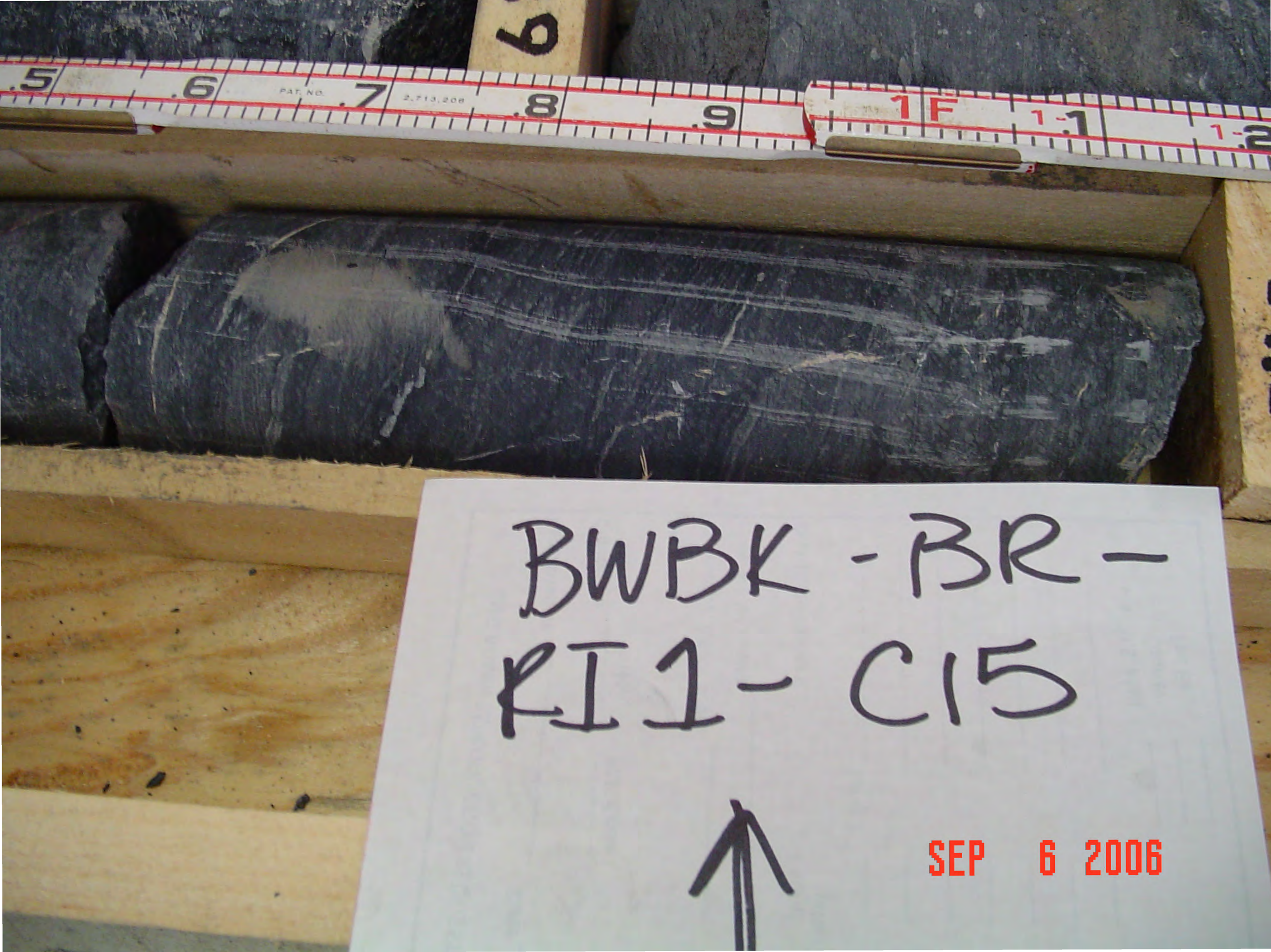
BWBK - BR -
RI1 - C12

SEP 6 2006

BWBK-BR-
RI1-C13
SEP 6 2006

BWBK-BR-
RI1-C14

SEP 6 2006


BWBK - BR -
RI1 - C15
SEP 6 2006

SEP 5 2006

SEP 5 2006

SEP 5 2006

SEP 5 2006

RI-1	From	To	Recovery
Run-1	23.5	28.5	3.5'
Run-2	28.5	32.2	3.9
Run-3	32.2	39.2	100%
Run-4	39.2	42.8 (cont'd to Box 2)	100%

SEP 5 2006

Recovery	RQD
3.5'	0
3.9	0
100%	(0.8/5)100 =
100%	

SEP 5 2006

RUN 4	42.5 (cont'd from previous box)	44.2	100%
RUN 5	44.2	49.2	3.7/5.0
RUN 6	49.2	54.2	4.0/5.0
RUN 7	54.2	59.2	3.1/5.0
RUN 8	59.2	64.2 Cont'd to Box 3	100%

$(1.0/5)100 = 20\%$

$(1.0/3.7)100 = \cancel{20\%}\ 27\%$

$(1.8/4.0)100 = 45\%$

$(0/3.1)100 = 0$

(see Box 3)

1	From	To	Recovery	
-8	contd from Box 2	64.2	100%	(1.0)
un-9	64.2	67.2	100%	(14/5)
Run-10	67.2	74.2	100%	(34/5)

ery
0%
100%
100%
RQD
(1.0/5')100 = 20%
(1.4/5')100 = 28%
(3.4/5)100 = 68%
SEP 5 2006

RI-1	From	To	Recovery	RQD
Run-1	23.5	28.5	3.5'	0
Run-2	28.5	3?.2	3.9	0
Run-3	3?.2	39.2	100%	(0.8/5)100 = 16%
Run-4	39.2	42.8 (cont'd to Box 2)	100%	(Box 2)

	Recovery	RQD
	3.5'	0
	3.9	0
	100%	(0.8/5)100 = 16%
	100%	(Box 2)

SEP 6 2006

BR-RI1 SITE

EEE

WM

APPENDIX D

SAMPLE ANALYTICAL RESULTS

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	BEACH SOIL (Ba)										
	SAMPLE_ID	BWBK-SS-BA101-0001	BWBK-SS-BA102-0001	BWBK-SS-BA103-0001	BWBK-SS-BA104-0001	BWBK-SS-BA105-0001	BWBK-SS-BA106-0001	BWBK-SS-BA106-0001-D	BWBK-SS-BA107-0001	BWBK-SS-BA108-0001	BWBK-SS-BA109-0001	BWBK-SS-BA110-0001
	LOCATION_ID	BWBK-BA101	BWBK-BA102	BWBK-BA103	BWBK-BA104	BWBK-BA105	BWBK-BA106	BWBK-BA106	BWBK-BA107	BWBK-BA108	BWBK-BA109	BWBK-BA110
	TOP_DEPTH (FT BGS)	0	0	0	0	0	0	0	0	0	0	0
	BOTTOM_DEPTH (FT BGS)	1	1	1	1	1	1	1	1	1	1	1
	SAMPLE_DATE	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07	03/29/07
	QC REFERENCE							DUPLICATE				
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		4760	3730	4130	4790	3920	5310	4290	3810	3870	4160	5290
ANTIMONY	10	0.5 UJ	0.49 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.5 UJ	0.51 UJ	0.52 UJ	0.5 UJ
ARSENIC	7	1.2	0.89	0.96	1.3	1.2	1.3	0.96	0.88	0.92	0.94	1.1
BARIUM	5500	7.5 J	6.4 J	8 J	8.9 J	6.3 J	7.7 J	6.5 J	7.3 J	6.6 J	6.5 J	14.5
BERYLLIUM	0.4	0.17 J	0.14 J	0.15 J	0.15 J	0.15 J	0.16 J	0.16 J	0.14 J	0.15 J	0.14 J	0.16 J
CADMIUM	39	0.05 U	0.049 U	0.06 UJ	0.05 UJ	0.07 UJ	0.11 UJ	0.09 UJ	0.05 U	0.051 U	0.052 U	0.06 UJ
CALCIUM		917	619	1290	648	4830	892	826	663	1120	666	588
CHROMIUM	1400	5.6	4.8	5	6.4	5.7	7.1	7.8	4.8	5.2	7	7
COBALT		1.9 J	1.6 J	1.8 J	2.4 J	2.2 J	2.4 J	2.1 J	1.6 J	1.7 J	2 J	2.5
COPPER	3100	3.7	3.2	3.2	3.8	3.4	4.6	4.6	2.9	3.5	5.5	4.3
IRON		9130	7400	7780	8800	8450	10200	7750	7390	7180	7860	9920
LEAD	150	3 J	2.6 J	2.7 J	3.4 J	3.4 J	3.7 J	3.9	2.9 J	3 J	2.7 J	3 J
MAGNESIUM		2170 J	1660 J	1800 J	2300 J	1760 J	2420 J	2150 J	1670 J	1740 J	2290 J	2370 J
MANGANESE	390	135	103	110	113	123	165	103	108	106	111	131
MERCURY	23	0.012 U	0.013 U	0.012 U	0.013 U	0.012 U	0.012 U	0.014 U	0.012 U	0.011 U	0.013 U	0.011 U
NICKEL	1000	5.9	5.2	5.7	7.1	6.4	8.6	7.1	5.2	5.6	8.2	7.5
POTASSIUM		527	459	560	667	475	586	553	517	494	496	877
SELENIUM	390	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ	0.15 UJ
SILVER	200	0.1 U	0.049 U	0.05 U	0.1 U	0.05 U	0.1 U	0.05 U	0.05 U	0.051 U	0.1 U	0.1 U
SODIUM		218 J	131 J	254	347	349	305	283	228 J	173 J	243 J	178 J
THALLIUM	5.5	0.4 U	0.29 U	0.45 U	0.35 U	0.4 U	0.35 U	0.3 U	0.3 U	0.41 U	0.47 U	0.25 U
VANADIUM	550	6.3	5.2	6	8.3	6.1	7.6	7.9	5.9	5.5	6.1	7.8
ZINC	6000	21.6	18.1	18.7	20.5	21.1	25.6	19.6	18.2	18.2	19.6	20

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	BEACH SOIL (Ba)				MANSFIELD MUCKY SILT LOAM (Ma)						
	SAMPLE_ID	BWBK-SS-BA111-0001	BWBK-SS-BA112-0001	BWBK-SS-BA113-0001	BWBK-SS-BA113-0001-D	BWBK-SS-MA01-0001	BWBK-SB-MA01-0105	BWBK-SS-MA02-0001	BWBK-SB-MA02-0107	BWBK-SS-MA03-0001	BWBK-SB-MA03-0108	BWBK-SS-MA04-0001
	LOCATION_ID	BWBK-BA111	BWBK-BA112	BWBK-BA113	BWBK-BA113	BWBK-MA01	BWBK-MA01	BWBK-MA02	BWBK-MA02	BWBK-MA03	BWBK-MA03	BWBK-MA04
	TOP_DEPTH (FT BGS)	0	0	0	0	0	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	1	1	1	1	1	5	1	7	1	8	1
	SAMPLE_DATE	03/29/07	03/29/07	03/29/07	03/29/07	09/20/06	09/20/06	09/20/06	09/20/06	09/20/06	09/20/06	09/20/06
	QC REFERENCE				DUPLICATE							
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		4250	4230	3900	3520	8580	10600	12700	11400	9270	9390	10400
ANTIMONY	10	0.51 UJ	0.52 UJ	0.52 UJ	0.51 UJ	0.66 UJ	0.58 UJ	0.66 UJ	0.59 UJ	0.62 UJ	1.1 UJ	0.68 UJ
ARSENIC	7	0.97	0.83	0.88	1.2	2.4	12.7	2.4	10.5	5.6	16.3	3.5
BARIUM	5500	6.7 J	7.2 J	7 J	7 J	32.5	21.2 J	50.8	25.9 J	35.7	27.1 J	36.9
BERYLLIUM	0.4	0.14 J	0.15 J	0.14 J	0.19 J	0.25	0.45	0.44	0.39	0.36	0.38	0.32
CADMIUM	39	0.051 U	0.052 U	0.052 U	0.09 UJ	0.066 U	0.058 U	0.066 U	0.059 U	0.062 U	0.19	0.068 U
CALCIUM		887	3000	2070	2720	582 J	1660 J	1260 J	1850 J	1090 J	1610 J	1700 J
CHROMIUM	1400	5.9	5.2	6.9	4.8	8.1	14.7	11.7	15.9	10.6	13.4	11.2
COBALT		1.8 J	1.7 J	1.7 J	2.2 J	2.1	12.2	2.9	12	2.9	19.9	3.7
COPPER	3100	2.8	2.7	8.9	11.2	1.6	18.3	3.6	17.5	4.3	20.8	4.9
IRON		8040	8000	7590	8120	7090	27000	8420	29000	11800	29300	11900
LEAD	150	2.9 J	2.7 J	5	4.5	10.8	9.1	11	8.4	11.2	8.4	11.6
MAGNESIUM		1910 J	1940 J	1750 J	1560 J	1110 J	3040	1430 J	3540	1630 J	2890	1960 J
MANGANESE	390	119	114	108	96.9	48.3 J	1750	63.7 J	583	83.5 J	981	117 J
MERCURY	23	0.011 U	0.012 U	0.013 U	0.012 U	0.044	0.013 U	0.077	0.015 U	0.042	0.013 U	0.052
NICKEL	1000	5.7	5.2	5.5	5.7	5.3	21.9	8.7	23.5	8	25.4	10.3
POTASSIUM		507	507	533	518	298 J	703 J	462 J	698 J	335 J	538 J	349 J
SELENIUM	390	0.15 UJ	0.16 UJ	0.15 UJ	0.15 UJ	0.23 J	0.17 UJ	0.38 J	0.35 UJ	0.19 UJ	0.33 UJ	0.29 J
SILVER	200	0.051 U	0.052 U	0.052 U	0.051 U	0.066 U	0.17 U	0.066 U	0.18 U	0.12 U	0.17 U	0.068 U
SODIUM		267	318	296	302	66 U	59.4 J	65.8 U	59 U	62.3 J	55.1 U	67.6 U
THALLIUM	5.5	0.41 U	0.36 U	0.36 U	0.36 U	0.33 UJ	0.29 UJ	0.33 UJ	0.3 UJ	0.31 UJ	0.55 UJ	0.34 UJ
VANADIUM	550	6	5.8	6.1	6	13.6	17.1	14.2	16.7	14.8	15.4	13.9
ZINC	6000	18.9	18.5	35.7	34.8	20.4	53.2	30	55.4	25.6	63.2	30.8

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MANSFIELD MUCKY SILT LOAM (Ma)										
	SAMPLE_ID	BWBK-SB-MA04-0106	BWBK-SS-MA05-0001	BWBK-SB-MA05-0108	BWBK-SS-MA06-0001	BWBK-SB-MA06-0105	BWBK-SS-MA07-0001	BWBK-SB-MA07-0108	BWBK-SB-MA07-0108-D	BWBK-SS-MA08-0001	BWBK-SB-MA08-0108	BWBK-SB-MA08-0108-D
	LOCATION_ID	BWBK-MA04	BWBK-MA05	BWBK-MA05	BWBK-MA06	BWBK-MA06	BWBK-MA07	BWBK-MA07	BWBK-MA07	BWBK-MA08	BWBK-MA08	BWBK-MA08
	TOP_DEPTH (FT BGS)	1	0	1	0	1	0	1	1	0	1	1
	BOTTOM_DEPTH (FT BGS)	6	1	8	1	5	1	8	8	1	8	8
	SAMPLE_DATE	09/20/06	09/21/06	09/21/06	09/20/06	09/20/06	09/20/06	09/20/06	09/20/06	09/21/06	09/21/06	09/21/06
	QC REFERENCE								DUPLICATE			DUPLICATE
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		11400	12200	10500	13800	10700	5470	10300	10300	11000	15000	13300
ANTIMONY	10	0.57 UJ	0.63 UJ	0.55 UJ	0.66 UJ	0.56 UJ	0.68 UJ	0.55 UJ	1.2 UJ	0.7 UJ	2.8 UJ	1.1 UJ
ARSENIC	7	12.2	4.7	28.9	22.5	8.7	3.6	16.2	17.3	9.9	49.4	37.9
BARIUM	5500	28.3 J	33.5	24.9 J	61	23.9 J	15	17.8 J	18.6 J	34.6	19.5 J	15.6 J
BERYLLIUM	0.4	0.45	0.45	0.46	0.52	0.43	0.12 J	0.36	0.35	0.32	0.63	0.54
CADMIUM	39	0.057 U	0.063 U	0.055 U	0.066 U	0.056 U	0.068 U	0.055 U	0.12 U	0.07 U	0.28 U	0.14 J
CALCIUM		1870 J	1570 J	1690 J	2620 J	1590 J	304 J	1440 J	1350 J	984 J	1550 J	1460 J
CHROMIUM	1400	16.3	13.8	15.5	15.8	15.1	4.8	12.6	12.1	10.4	19	18.4
COBALT		11.6	5.6	10.4	4.7	10.2	0.85	8.2	8	4.8	14.4	11.5
COPPER	3100	18	9.4	17.3	9	17.5	1.8	12	11	6.3	20.8	14.8
IRON		27800	17700	27200	20400	25800	5940	26900	29100	18900	57100	46300
LEAD	150	7.7	13.4	8.1	15.4	8.2	12.1	7.4	8.6	30.8	12.2	12.2
MAGNESIUM		4200	2570 J	3340	2700 J	3290	555 J	3260	2950	1580 J	4110	4080
MANGANESE	390	763	126 J	449	198 J	418	27.9 J	280	260	149 J	559	452
MERCURY	23	0.014 U	0.019 J	0.013 U	0.04	0.015 U	0.03 J	0.013 U	0.013 U	0.06	0.015 U	0.012 U
NICKEL	1000	24.5	13.9	22.1	13.3	21.8	2.8	19.3	18.9	9.5	27.4	23.3
POTASSIUM		672 J	409 J	672 J	426 J	697 J	264 J	545 J	486 J	367 J	530 J	481 J
SELENIUM	390	0.17 UJ	0.19 UJ	0.38 UJ	0.2 UJ	0.17 UJ	0.27	0.22 UJ	0.35 UJ	0.4 J	0.84 UJ	0.33 UJ
SILVER	200	0.17 U	0.063 U	0.16 U	0.066 U	0.17 U	0.14 U	0.16 U	0.17 U	0.07 U	0.11 U	0.11 U
SODIUM		57.2 U	70.7 J	54.7 U	76.2 J	56.1 U	68.3 U	54.7 U	57.7 U	79.3 J	56.1 U	54.5 U
THALLIUM	5.5	0.29 UJ	0.31 UJ	0.33 UJ	0.33 UJ	0.28 UJ	0.48 UJ	0.27 UJ	0.58 UJ	0.42 UJ	1.4 UJ	0.55 UJ
VANADIUM	550	18.8	19.9	17.5	20.9	17.8	11.6	15.2	16	22.1	26.3	23.8
ZINC	6000	61.5	42.1	53.3	37.5	53.3	10.5	48.5	49.6	35.4	76.2	66.6

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MANSFIELD MUCKY SILT LOAM (Ma)										
	SAMPLE_ID	BWBK-SS-MA09-0001	BWBK-SB-MA09-0108	BWBK-SS-MA10-0001	BWBK-SB-MA10-0104	BWBK-SS-MA11-0001	BWBK-SB-MA11-0108	BWBK-SS-MA12-0001	BWBK-SB-MA12-0108	BWBK-SS-MA13-0001	BWBK-SB-MA13-0105	BWBK-SS-MA14-0001
	LOCATION_ID	BWBK-MA09	BWBK-MA09	BWBK-MA10	BWBK-MA10	BWBK-MA11	BWBK-MA11	BWBK-MA12	BWBK-MA12	BWBK-MA13	BWBK-MA13	BWBK-MA14
	TOP_DEPTH (FT BGS)	0	1	0	1	0	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	1	8	1	4	1	8	1	8	1	5	1
	SAMPLE_DATE	09/21/06	09/21/06	09/26/06	09/26/06	09/21/06	09/21/06	09/21/06	09/21/06	09/26/06	09/26/06	09/26/06
	QC REFERENCE											
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		16800	11000	14300	8630	14300	11300	10500	10900	12500	9000	9980
ANTIMONY	10	0.75 UJ	1.2 UJ	0.73 UJ	0.55 UJ	0.67 UJ	1.2 UJ	0.64 UJ	1.1 UJ	0.69 UJ	0.66 UJ	0.91 UJ
ARSENIC	7	10.8	42.6	12	12.8	13	15.7	3.3	38.7	5.3	5.7	3.2
BARIUM	5500	53.7	21.6 J	39.9	13.6	50.3	23.2 J	30.2	23.9 J	55.3	34.4	42.6
BERYLLIUM	0.4	0.62	0.46	0.53	0.36	0.49	0.57	0.28	0.42	0.43	0.58	0.31
CADMIUM	39	0.15	0.12 U	0.077 J	0.055 U	0.097 J	0.12 U	0.064 U	0.18 J	0.069 U	0.066 U	0.091 U
CALCIUM		1190 J	1230 J	1360 J	827 J	964 J	1580 J	877 J	1690 J	558 J	1350 J	723 J
CHROMIUM	1400	17.4	13	15.3	11.6	16	15.8	11.8	15.3	13.6	14.2	10.1
COBALT		7.5	11.7	7.1	8.6	7.4	11.2	3	13.9	3.7	6.5	2.6
COPPER	3100	10.6	24.4	6.7	11.3	6.7	20.5	4.2	19.8	4.6	10.5	6.5
IRON		20800	35000	21600	26900	26600	32500	14900	33600	15300	15800	9440
LEAD	150	34.2	10.5	29.3	8.7	20.8	13.4	12.1	8.8	14.2	6.4	23
MAGNESIUM		2300 J	3030	2250	2430	2400 J	3300	2080 J	3460	1740	2070	1120
MANGANESE	390	244 J	523	261 J	235 J	286 J	424	96.6 J	533	101 J	157 J	87.5 J
MERCURY	23	0.1	0.014 U	0.075	0.012 U	0.034	0.013 U	0.018 J	0.012 U	0.037	0.014 U	0.067
NICKEL	1000	15	21.5	13.6	15.8	13	22.7	11.8	24.6	8.7	12.3	6.8
POTASSIUM		547 J	406 J	438	288	456 J	589 J	330 J	721 J	319	410	346
SELENIUM	390	0.52 J	0.36 UJ	0.73 J	0.17 UJ	0.27 J	0.35 UJ	0.19 UJ	0.33 UJ	0.42 J	0.2 UJ	0.67 J
SILVER	200	0.075 U	0.12 U	0.073 U	0.11 U	0.067 U	0.12 U	0.064 U	0.17 U	0.069 U	0.13 U	0.091 U
SODIUM		111 J	59.7 U	96.8 J	55.4 U	70.8 J	58.9 U	63.6 U	55.4 U	85.1 J	73.6 J	91.1 U
THALLIUM	5.5	0.37 UJ	0.6 UJ	0.36 U	0.28 U	0.34 UJ	0.59 UJ	0.38 UJ	0.55 UJ	0.35 U	0.33 U	0.46 U
VANADIUM	550	29.5	17.2	27.5	15.3	30.4	19.9	15.6	16.7	24.3	19.9	24
ZINC	6000	57.8	60.1	51.2	44.3	45.1	61.6	37	60.2	30.8	30.5	26.6

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MANSFIELD MUCKY SILT LOAM (Ma)										
	SAMPLE_ID	BWBK-SB-MA14-0104	BWBK-SB-MA14-0104-D	BWBK-SS-MA15-0001	BWBK-SB-MA15-0105	BWBK-SS-MA16-0001	BWBK-SB-MA16-0104	BWBK-SS-MA17-0001	BWBK-SB-MA17-0104	BWBK-SS-MA18-0001	BWBK-SB-MA18-0104	BWBK-SS-MA19-0001
	LOCATION_ID	BWBK-MA14	BWBK-MA14	BWBK-MA15	BWBK-MA15	BWBK-MA16	BWBK-MA16	BWBK-MA17	BWBK-MA17	BWBK-MA18	BWBK-MA18	BWBK-MA19
	TOP_DEPTH (FT BGS)	1	1	0	1	0	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	4	4	1	5	1	4	1	4	1	4	1
	SAMPLE_DATE	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06	09/26/06
	QC REFERENCE		DUPLICATE									
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		13100	10700	11500	12000	9940	8820	11300	10900	10400	10700	11100
ANTIMONY	10	0.71 UJ	0.62 UJ	0.69 UJ	0.67 UJ	0.69 UJ	0.57 UJ	0.69 UJ	0.63 UJ	0.67 UJ	0.61 UJ	0.66 UJ
ARSENIC	7	19.2	18.8	3.7	13.5	6.8	8.1	6.4	8.1	7.5	7.6	7.1
BARIUM	5500	45.5	36.8	44.2	39.7	33.7	29.7	33.8	34	31.9	27.5	37.2
BERYLLIUM	0.4	0.7	0.59	0.31	0.78	0.4	0.56	0.39	0.54	0.34	0.58	0.44
CADMIUM	39	0.071 U	0.062 U	0.069 U	0.067 U	0.069 U	0.057 U	0.069 U	0.063 U	0.067 U	0.061 U	0.066 U
CALCIUM		794 J	558 J	394 J	727 J	506 J	1220 J	540 J	686 J	579 J	1730 J	866 J
CHROMIUM	1400	17.5	15.3	11.4	15.2	11.7	12.7	12.2	12.4	10.4	16.7	12.2
COBALT		10.4	10.7	2.6	8.3	3.1	8.6	4.7	8	2.8	6.1	4.6
COPPER	3100	15.6	15.9	3.7	13.2	7.1	12.5	5.8	6.1	4.2	10	5.6
IRON		31900	30800	10500	24400	15000	21300	14900	20800	13000	17200	15200
LEAD	150	11	9.1	17.9	8.3	15.6	8.9	15.1	7.9	18.7	7	17.9
MAGNESIUM		2460	2210	1300	2160	1580	2190	1510	1920	1250	2540	1470
MANGANESE	390	403 J	455 J	57.6 J	381 J	80.5 J	438 J	153 J	331 J	66 J	191 J	136 J
MERCURY	23	0.018 J	0.023 J	0.049	0.018 U	0.04	0.013 U	0.051	0.022 J	0.043	0.013 U	0.043
NICKEL	1000	16.4	18.2	7	15.1	8.7	14.3	9	11.8	7.9	13.4	9.2
POTASSIUM		459	416	332	465	237	421	286	289	216	493	291
SELENIUM	390	0.35 J	0.19 UJ	0.52 J	0.2 UJ	0.27 J	0.17 UJ	0.71 J	0.36 J	0.51 J	0.18 UJ	0.54 J
SILVER	200	0.14 U	0.12 U	0.069 U	0.13 U	0.069 U	0.17 U	0.069 U	0.063 U	0.067 U	0.12 U	0.13 U
SODIUM		71 U	61.9 U	69 U	70.6 J	69 U	59.3 J	68.8 U	63.5 U	76.7 J	93.7 J	152
THALLIUM	5.5	0.36 U	0.37 U	0.35 U	0.47 U	0.35 U	0.29 U	0.34 U	0.32 U	0.34 U	0.31 U	0.33 U
VANADIUM	550	24.6	18.5	22.3	23.6	23.2	19.1	22.5	18.6	25.9	25.5	24.8
ZINC	6000	43.7	44.8	25.5	36.2	28.5	37.4	31.1	38.4	28.3	33.5	31.5

Notes:

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2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
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TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MANSFIELD MUCKY SILT LOAM (Ma)			MERRIMACK SANDY LOAM (MmA)							
	SAMPLE_ID	BWBK-SB-MA19-0103	BWBK-SS-MA20-0001	BWBK-SB-MA20-0103	BWBK-SS-MM101-0001	BWBK-SB-MM101-0110	BWBK-SB-MM101-0110-D	BWBK-SS-MM102-0001	BWBK-SB-MM102-0109	BWBK-SS-MM103-0001	BWBK-SB-MM103-0107	BWBK-SS-MM104-0001
	LOCATION_ID	BWBK-MA19	BWBK-MA20	BWBK-MA20	BWBK-MM101	BWBK-MM101	BWBK-MM101	BWBK-MM102	BWBK-MM102	BWBK-MM103	BWBK-MM103	BWBK-MM104
	TOP_DEPTH (FT BGS)	1	0	1	0	1	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	3	1	3	1	10	10	1	9	1	7	1
	SAMPLE_DATE	09/26/06	09/26/06	09/26/06	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07
	QC REFERENCE						DUPLICATE					
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		9000	10100	9610	15200	7370	8100	11400	9150	14200	8050	14100
ANTIMONY	10	0.6 UJ	0.69 UJ	0.58 UJ	0.64 UJ	0.57 UJ	0.52 UJ	0.64 UJ	0.56 UJ	0.65 UJ	0.6 UJ	0.65 UJ
ARSENIC	7	7.2	7.3	7.1	5.8	4.3	4.6	3.7	3.9	6	5.3	6
BARIUM	5500	30.3	35.5	24.9	31	18.3	27.5	19	22.2	25	20.9	31.7
BERYLLIUM	0.4	0.47	0.43	0.48	0.58	0.33	0.42	0.46	0.38	0.52	0.33	0.55
CADMIUM	39	0.06 U	0.069 U	0.058 U	0.064 U	0.057 U	0.09 UJ	0.064 U	0.056 U	0.065 U	0.06 U	0.065 U
CALCIUM		1460 J	958 J	1500 J	380	456	523	357	678	315 J	487	360
CHROMIUM	1400	12	12.2	13.5	12.1	10 J	9.2 J	9.6	12.1 J	12.2	11.8 J	12.4
COBALT		5.9	5	10.8	3.4	6.9	7.1	2.6 J	7.2	3.2 J	11.3	4.2
COPPER	3100	6.9	9.7	16.9	9.1	13.1	13.9	5.5	14.7	8.4	13.5	11.3
IRON		15100	17400	24600	17800	15100	18500	14100	15800	17400	14900	18000
LEAD	150	6.8	15.9	8.1	14	8.1	13.1	7.8	7.5	15.2	8.2	15.2
MAGNESIUM		1940	1880	2760	1970 J	2550	2740	1500 J	3430	1760 J	2660	2190 J
MANGANESE	390	367 J	186 J	285 J	163	255	343	164	263	154	330	190
MERCURY	23	0.014 U	0.036	0.014 U	0.038 J	0.015 U	0.014 U	0.021 J	0.015 U	0.041	0.017 U	0.028 J
NICKEL	1000	12.1	12.4	21	9.6	11.9	12.1	8.2	17.7	9.2	13	10.6
POTASSIUM		413	309	485	528	847 J	994 J	496	1110 J	502	1060 J	576
SELENIUM	390	0.18 UJ	0.29 J	0.18 UJ	0.47 J	0.17 UJ	0.16 UJ	0.42 J	0.17 UJ	0.55 J	0.18 UJ	0.32 J
SILVER	200	0.18 U	0.14 U	0.18 U	0.13 U	0.11 U	0.16 U	0.13 U	0.17 U	0.065 U	0.18 U	0.13 U
SODIUM		107 J	195	106 J	64 U	57.4 U	51.9 U	63.9 U	55.7 U	64.8 U	59.5 U	65.4 U
THALLIUM	5.5	0.3 U	0.34 U	0.35 U	0.51 U	0.29 U	0.31 U	0.32 U	0.28 U	0.46 U	0.3 U	0.46 U
VANADIUM	550	18.6	21.1	17.2	21.7	10.6	11.7	16.7	13.2	22.2	11	20.6
ZINC	6000	31	36	49	29	27.5 J	30.1 J	21.6	29.8 J	26.1	28.3 J	28.3

Notes:

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2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MERRIMACK SANDY LOAM (MmA)										
	SAMPLE_ID	BWBK-SB-MM104-0110	BWBK-SS-MM105-0001	BWBK-SB-MM105-0110	BWBK-SS-MM106-0001	BWBK-SB-MM106-0110	BWBK-SS-MM107-0001	BWBK-SB-MM107-0110	BWBK-SS-MM108-0001	BWBK-SB-MM108-0110	BWBK-SB-MM108-0110-D	BWBK-SS-MM109-0001
	LOCATION_ID	BWBK-MM104	BWBK-MM105	BWBK-MM105	BWBK-MM106	BWBK-MM106	BWBK-MM107	BWBK-MM107	BWBK-MM108	BWBK-MM108	BWBK-MM108	BWBK-MM109
	TOP_DEPTH (FT BGS)	1	0	1	0	1	0	1	0	1	1	0
	BOTTOM_DEPTH (FT BGS)	10	1	10	1	10	1	10	1	10	10	1
	SAMPLE_DATE	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07	03/26/07
	QC REFERENCE										DUPLICATE	
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		11300	10400	6760	14000	12000	15100	7650	15500	8910	8640	14300
ANTIMONY	10	0.57 UJ	0.7 UJ	0.59 UJ	0.57 UJ	0.51 UJ	0.7 UJ	0.57 UJ	0.63 UJ	0.53 UJ	0.53 UJ	0.73 UJ
ARSENIC	7	6.7	4.3	4.5	5.4	4	4.6	4	4.5	3.5	3.8	4.5
BARIUM	5500	24.3	18.5	16.5	29.6	32.6	29.7	21.7	27.5	22.1	20.3	20.2
BERYLLIUM	0.4	0.42	0.38	0.71	0.52	0.48	0.55	0.37	0.58	0.38	0.45	0.51
CADMIUM	39	0.11 U	0.14 U	0.059 U	0.08 UJ	0.17 UJ	0.07 U	0.13 UJ	0.12 UJ	0.06 UJ	0.053 U	0.073 U
CALCIUM		511	250 J	509	473	893	403	594	351	555	640	283 J
CHROMIUM	1400	13.7 J	8.5	7.7 J	15.1	15.1 J	12.6	16 J	11.9	9.9 J	9.8 J	11.5
COBALT		8.8	2.7 J	5.1	4.6	8.5	3.6	6.6	2.7 J	6.6	6.1	2.8 J
COPPER	3100	43.7	6.5	10.5	10.3	16.7	8.6	13.3	7.7	12.3	11.1	5.7
IRON		24000	12000	12000	17900	21600	17800	14700	15400	15600	15500	15500
LEAD	150	9.1 J	11.1	7.7	11	8.3 J	11	6.8 J	12.4	6.4 J	7.9	9
MAGNESIUM		4580	1130 J	1960	2140 J	4510	2290 J	2650	1470 J	2890	2830	1720 J
MANGANESE	390	335	136	210	194	450	176	245	113	244	226	127
MERCURY	23	0.014 U	0.039 J	0.015 U	0.028 J	0.013 U	0.056	0.014 U	0.034 J	0.013 U	0.012 U	0.025 J
NICKEL	1000	12.9	6.7	10.3	10.1	15.9	10.3	11.4	8.5	11.4	10.6	8.2
POTASSIUM		1810 J	436	610 J	840	1670 J	678	1260 J	530	1250 J	1110 J	474
SELENIUM	390	0.17 UJ	0.31 J	0.18 UJ	0.41 J	0.15 UJ	0.32 J	0.17 UJ	0.37 J	0.16 UJ	0.16 UJ	0.22 UJ
SILVER	200	0.17 U	0.07 U	0.12 U	0.17 U	0.15 U	0.14 U	0.11 U	0.13 U	0.16 U	0.16 U	0.15 U
SODIUM		57 U	70 U	58.6 U	63.3 J	67.8 J	70.4 U	57.3 U	62.7 U	52.5 U	52.5 U	72.5 U
THALLIUM	5.5	0.28 U	0.42 U	0.29 U	0.4 U	0.31 U	0.42 U	0.29 U	0.31 U	0.26 U	0.42 U	0.51 U
VANADIUM	550	15.6	16.7	9.9	21.1	19	20.4	12.4	22.7	13.5	13.2	20.3
ZINC	6000	38.9 J	19.7	23.1 J	28.1	42.8 J	29.4	27.5 J	24	29.4 J	28 J	22.2

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
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J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MERRIMACK SANDY LOAM (MmA)										
	SAMPLE_ID	BWBK-SB-MM109-0110	BWBK-SS-MM110-0001	BWBK-SB-MM110-0109	BWBK-SS-MM111-0001	BWBK-SB-MM111-0110	BWBK-SS-MM112-0001	BWBK-SB-MM112-0110	BWBK-SB-MM112-0110-D	BWBK-SS-MM113-0001	BWBK-SB-MM113-0110	BWBK-SS-MM114-0001
	LOCATION_ID	BWBK-MM109	BWBK-MM110	BWBK-MM110	BWBK-MM111	BWBK-MM111	BWBK-MM112	BWBK-MM112	BWBK-MM112	BWBK-MM113	BWBK-MM113	BWBK-MM114
	TOP_DEPTH (FT BGS)	1	0	1	0	1	0	1	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	10	1	9	1	10	1	10	10	1	10	1
	SAMPLE_DATE	03/26/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07
	QC REFERENCE								DUPLICATE			
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		10800	9610	9490	10900	10000	9430	10700	10000	13500	8890	8540
ANTIMONY	10	0.54 UJ	0.61 UJ	0.54 UJ	0.58 UJ	0.55 UJ	0.59 UJ	0.54 UJ	0.53 UJ	0.61 UJ	0.51 UJ	0.56 UJ
ARSENIC	7	3.6	2.7	4.4	2.6	4	3	3.6	3.1	3.9	3.3	2.4
BARIUM	5500	33.9	18.9	23.8	17.8	29.6	16.5	29.3	26.1	25.7	21.6	16
BERYLLIUM	0.4	0.56	0.26 J	0.34	0.28 J	0.4	0.27 J	0.4	0.35	0.38	0.33	0.3
CADMIUM	39	0.054 U	0.061 U	0.054 U	0.058 U	0.055 U	0.059 U	0.054 U	0.053 U	0.061 U	0.051 U	0.056 U
CALCIUM		393	249 J	576	239 J	651	222 J	612	599	343	605	251 J
CHROMIUM	1400	13 J	7.1	14.3 J	7.8	11.6 J	6.4	11.8 J	12.3 J	10.2	18.8 J	5.8
COBALT		7.5	1.5 J	6.2	1.9 J	6.8	1.3 J	7	6.2	2.3 J	6.8	1.5 J
COPPER	3100	13.8	4.2	14	3.7	13	4.3	10.4	8	7	14.8	3.6
IRON		17800	9880	16900	10400	19200	9120	21000	18100	14100	16100	8240
LEAD	150	9	11.9	8	10.3	9.4	11.7	6.9 J	6 J	18.4	6.6 J	7.2
MAGNESIUM		2840	791 J	2800	1040 J	3270	875 J	3330	3220	1450 J	3220	767 J
MANGANESE	390	290	82.4	240	97.5	280	80.4	768	571	120	268	94
MERCURY	23	0.012 U	0.033 J	0.014 U	0.017 J	0.013 U	0.028 J	0.013 U	0.013 U	0.04	0.012 U	0.019 J
NICKEL	1000	13.4	4.7	12	5.3	13.3	4.8	14.4	13.9	7.3	14.6	4.5
POTASSIUM		1540 J	311	1200 J	353	1700 J	319	1520 J	1360 J	538	1190 J	276 J
SELENIUM	390	0.16 UJ	0.29 J	0.27 UJ	0.18 J	0.27 UJ	0.21 J	0.27 UJ	0.32 UJ	0.36 J	0.3 UJ	0.19 J
SILVER	200	0.22 U	0.061 U	0.16 U	0.12 U	0.22 U	0.059 U	0.22 U	0.16 U	0.061 U	0.15 U	0.056 U
SODIUM		54.9 J	61.2 U	54.3 U	57.8 U	54.9 U	58.8 U	54.1 U	53.3 U	60.9 U	50.8 U	56.2 U
THALLIUM	5.5	0.32 U	0.31 U	0.27 U	0.29 U	0.27 U	0.29 U	0.27 U	0.27 U	0.43 U	0.25 U	0.28 U
VANADIUM	550	16.7	15.2	14.8	13.9	14.4	12.8	18.5	18.4	21.5	13.3	10.8
ZINC	6000	31.9 J	15.1	29 J	16.3	31.7 J	16.7	33.2 J	27.9 J	23.1	31 J	15.6

Notes:

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2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MERRIMACK SANDY LOAM (MmA)										
	SAMPLE_ID	BWBK-SB-MM114-0110	BWBK-SS-MM115-0001	BWBK-SB-MM115-0110	BWBK-SS-MM116-0001	BWBK-SB-MM116-0110	BWBK-SB-MM116-0110-D	BWBK-SS-MM117-0001	BWBK-SB-MM117-0110	BWBK-SS-MM118-0001	BWBK-SB-MM118-0110	BWBK-SS-MM119-0001
	LOCATION_ID	BWBK-MM114	BWBK-MM115	BWBK-MM115	BWBK-MM116	BWBK-MM116	BWBK-MM116	BWBK-MM117	BWBK-MM117	BWBK-MM118	BWBK-MM118	BWBK-MM119
	TOP_DEPTH (FT BGS)	1	0	1	0	1	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	10	1	10	1	10	10	1	10	1	10	1
	SAMPLE_DATE	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07	03/28/07
	QC REFERENCE						DUPLICATE					
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		8040	10200	10700	9520	8140	8810	12800	7070	9250	7890	8300
ANTIMONY	10	0.54 UJ	0.59 UJ	0.52 UJ	0.55 UJ	0.53 UJ	0.52 UJ	0.57 UJ	0.52 UJ	0.55 UJ	0.52 UJ	0.55 UJ
ARSENIC	7	5.2	2.8	3	3	3.4	3.8	3.8	3.6	4.5	3.7	3.4
BARIUM	5500	23.1	21.3	42.9	18.2	24.8	26.7	27.7	18.9	19.4	21.3	19
BERYLLIUM	0.4	0.32	0.38	0.33	0.31	0.31	0.31	0.4	0.28	0.32	0.36	0.34
CADMIUM	39	0.054 U	0.059 U	0.1 U	0.11 U	0.16 U	0.16 U	0.11 U	0.052 U	0.14 UJ	0.2 UJ	0.1 UJ
CALCIUM		891	277 J	923	274 J	689	721	261 J	399	330	538	480
CHROMIUM	1400	8.8 J	7.1	9.8 J	7	11.9 J	11.4 J	10.3	6.9 J	9.4	9.5 J	7.6
COBALT		5.5	1.5 J	6.1	1.8 J	6	7.5	3	6.7	4.6	8.4	4
COPPER	3100	10	4.5	9.4	3.8	12.6	13.3	7.8	12.1	8.2	19.2	7.4
IRON		12700	11000	16300	10200	14900	16300	15000	13500	13100	14900	11400
LEAD	150	6.5	8.7	5.7 J	10.3	7.4	8.6	13.1	6.7	6.1	9.2	5.3
MAGNESIUM		2300	918 J	3450	967 J	2780	3170	1670 J	2320	2260 J	3050	1890 J
MANGANESE	390	289	141	313	113	306	333	138	254	178	539	182
MERCURY	23	0.013 U	0.025 J	0.013 U	0.022 J	0.013 U	0.013 U	0.018 J	0.012 U	0.015 U	0.014 U	0.014 U
NICKEL	1000	11.2	5.5	9.7	5	12.9	13.1	8.4	10.6	9	22.6	9.1
POTASSIUM		1080 J	296	2440 J	295	1300 J	1310 J	465	993 J	830	1110 J	678
SELENIUM	390	0.22 UJ	0.18 UJ	0.31 UJ	0.17 UJ	0.32 UJ	0.31 UJ	0.17 UJ	0.21 UJ	0.16 UJ	0.16 UJ	0.16 UJ
SILVER	200	0.16 U	0.059 U	0.16 U	0.11 U	0.21 U	0.16 U	0.11 U	0.15 U	0.11 U	0.16 U	0.16 U
SODIUM		54 U	58.7 U	52.1 U	55.3 U	53.4 U	52.3 U	57.3 U	51.6 U	54.9 U	51.8 U	54.6 U
THALLIUM	5.5	0.27 U	0.29 U	0.26 U	0.28 U	0.27 U	0.31 U	0.29 U	0.26 U	0.33 U	0.26 U	0.44 U
VANADIUM	550	10.6	13.5	16.7	14.3	10.6	11.5	17.8	9.5	12.7	12.1	11.2
ZINC	6000	23.7 J	18.4	31.4 J	16.5	31 J	32 J	23.8	25 J	21.1	30.9 J	19.4

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	MERRIMACK SANDY LOAM (MmA)			NEWPORT SILT LOAM (NeA, NeB, NeC, NP)							
	SAMPLE_ID	BWBK-SB-MM119-0110	BWBK-SS-MM120-0001	BWBK-SB-MM120-0110	BKG-SS03-NEB-0016	BKG-SS09-NEB-0018	BWBK-SS-NE01-0001	BWBK-SB-NE01-0108	BWBK-SS-NE02-0001	BWBK-SB-NE02-0109	BWBK-SS-NE03-0001	BWBK-SB-NE03-0105
	LOCATION_ID	BWBK-MM119	BWBK-MM120	BWBK-MM120	BKG-SS03-NEB	BKG-SS09-NEB	BWBK-NE01	BWBK-NE01	BWBK-NE02	BWBK-NE02	BWBK-NE03	BWBK-NE03
	TOP_DEPTH (FT BGS)	1	0	1	0	0	0	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	10	1	10	1.6	1.8	1	8	1	9	1	5
	SAMPLE_DATE	03/28/07	03/28/07	03/28/07	01/01/99	01/01/99	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06
	QC REFERENCE											
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		7940	8900	5520	15300	12900	17100	12300	15500	11100	16100	11100
ANTIMONY	10	0.53 UJ	0.55 UJ	0.52 UJ	0.87 U	0.8 U	0.58 UJ	0.56 UJ	0.59 UJ	0.55 UJ	0.57 UJ	0.66 UJ
ARSENIC	7	4	3.6	2.5	6.2 J	10.8 J	14.5	5.2	17.1	5.8	8.6	5.5
BARIUM	5500	21.4	15.6	14.6	32.6	21.1	34.6	18.5	25.2	36.6	26.8	19.1
BERYLLIUM	0.4	0.31	0.49	0.28	0.51	0.36	0.64	0.4	0.53	0.35	0.59	0.42
CADMIUM	39	0.14 UJ	0.15 UJ	0.06 UJ	0.53	0.38 U	0.1 J	0.075 J	0.14	0.067 J	0.071 J	0.066 U
CALCIUM		707	371	348	541	366	559 J	690	433 J	657	319 J	530
CHROMIUM	1400	10.2 J	12.8	6.2 J	12	11.4	17.1	14.9	17	13.6	14.5	12.4
COBALT		6.1	4.2	4.6	5.4	3.6	7	9.6	6.5	9.3	4.5	7.9
COPPER	3100	10.9	9.1	9.6	14	9.1	17.6	16.5	19.4	15.3	10.7	14.4
IRON		15800	17600	10600	17700	13700	23000	23700	22600	22200	19700	22300
LEAD	150	6.9 J	7 J	5.3	44 J	15.2 J	19.7	7.4	16.5	7.5	12.3	6.9
MAGNESIUM		3170	1560 J	1880	2000	1570	2510 J	3890	2780 J	3490	2000 J	3020
MANGANESE	390	302	171	193	204	179	290	359	222	634	192	301
MERCURY	23	0.011 U	0.016 J	0.013 U	0.1	0.13	0.24	0.012 U	0.11	0.014 U	0.13	0.018 U
NICKEL	1000	11.9	8.9	7.6	11.5	7.4	14.3	19	16.5	17.8	11.8	15.6
POTASSIUM		1390 J	450	934 J	392	366	403	487	319	444	308	554
SELENIUM	390	0.16 UJ	0.17 UJ	0.16 UJ	0.89	0.58	0.48	0.34 U	0.28 J	0.22 U	0.32 J	0.2 U
SILVER	200	0.16 U	0.11 U	0.1 U	0.17 U	0.15 U	0.12 U	0.22 U	0.12 U	0.16 U	0.11 U	0.2 U
SODIUM		52.6 U	55.1 U	52.3 U	66.5 U	63 U	58.2 U	55.6 U	58.6 U	54.6 U	56.6 U	66 U
THALLIUM	5.5	0.32 U	0.39 U	0.26 U	0.85 U	0.78 U	0.29 U	0.39 U	0.29 U	0.5 U	0.28 U	0.4 U
VANADIUM	550	12.8	14.4	8.6	23.1	18.9	23	14.1	19.6	12.4	19.5	12.8
ZINC	6000	29.4 J	24.8	18.7 J	40.3	24.9	55.8	41.9	67.4	40.7	35.3	34.7

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	NEWPORT SILT LOAM (NeA, NeB, NeC, NP)										
	SAMPLE_ID	BWBK-SS-NE04-0001	BWBK-SB-NE04-0110	BWBK-SS-NE05-0001	BWBK-SB-NE05-0108	BWBK-SB-NE05-0108-D	BWBK-SS-NE06-0001	BWBK-SB-NE06-0109	BWBK-SS-NE07-0001	BWBK-SB-NE07-0107	BWBK-SS-NE08-0001	BWBK-SB-NE08-0104
	LOCATION_ID	BWBK-NE04	BWBK-NE04	BWBK-NE05	BWBK-NE05	BWBK-NE05	BWBK-NE06	BWBK-NE06	BWBK-NE07	BWBK-NE07	BWBK-NE08	BWBK-NE08
	TOP_DEPTH (FT BGS)	0	1	0	1	1	0	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	1	10	1	8	8	1	9	1	7	1	4
	SAMPLE_DATE	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06
	QC REFERENCE					DUPLICATE						
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		16000	10700	14600	11700	11400	14900	10500	15000	12300	15300	10300
ANTIMONY	10	0.58 UJ	0.61 UJ	0.57 UJ	0.54 UJ	0.56 UJ	0.54 UJ	0.55 UJ	0.56 UJ	0.52 UJ	0.57 UJ	0.6 UJ
ARSENIC	7	6.7	4.6	9.4	5	4.9	5.6	4.9	11.7	5.2	6.4	4.4
BARIUM	5500	27	20.4	26.9	16.7	16.7	23.6	17.4	29.3	20.2	27.2	16.4
BERYLLIUM	0.4	0.56	0.42	0.58	0.39	0.41	0.61	0.43	0.6	0.42	0.61	0.44
CADMIUM	39	0.068 J	0.061 U	0.094 J	0.054 U	0.056 U	0.054 U	0.055 U	0.056 U	0.052 U	0.057 U	0.06 U
CALCIUM		427 J	588	407 J	766	654	473 J	701	480 J	603	446 J	753
CHROMIUM	1400	15.7	11.9	16.7	13.6	13.6	15.2	12	14.4	14.6	14.2	11.8
COBALT		7.4	8.3	5	8.9	9	6.3	8.7	4.6	9	4.9	8.2
COPPER	3100	13.6	14.4	14.5	16.8	15	12.4	15	20.2	16.3	11.2	13
IRON		20800	20000	18600	22900	22900	19100	21100	19200	23100	19000	18200
LEAD	150	11.6	7.3	17.4	6.9 J	7.5	9.8	7	24.2	7.8	11.3	6.5
MAGNESIUM		2700 J	3260	2160 J	3520	3520	2610 J	3220	2030 J	3550	2180 J	2790
MANGANESE	390	253	344	208	325	359	184	319	177	300	185	255
MERCURY	23	0.084	0.014 U	0.14	0.014 U	0.013 U	0.081	0.013 U	0.16	0.017	0.062	0.013
NICKEL	1000	14.1	15.6	12.1	17.9	17.6	14.5	16.9	11.6	18.8	13	15.5
POTASSIUM		407	494	357	457	448	380	458	390	450	362	441
SELENIUM	390	0.41	0.18 U	0.32 J	0.22 U	0.28 U	0.16 U	0.22 U	0.27 J	0.16 U	0.17 U	0.18 U
SILVER	200	0.17 U	0.18 U	0.11 U	0.16 U	0.17 U	0.16 U	0.17 U	0.11 U	0.16 U	0.11 U	0.18 U
SODIUM		57.6 U	60.6 U	56.7 U	53.5 U	56.3 U	53.7 U	55.2 U	56.1 U	52.2 U	56.8 U	59.9 U
THALLIUM	5.5	0.29 U	0.61 U	0.34 U	0.38 U	0.5 U	0.27 U	0.33 U	0.34 U	0.42 U	0.28 U	0.48 U
VANADIUM	550	20.6	12.9	19.6	14	14.4	19.5	13.3	23	13.6	19.1	13.8
ZINC	6000	35	35.9	39.6	40.9	40.1	33	36.8	39.8	41.6	33.2	32.9

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	NEWPORT SILT LOAM (NeA, NeB, NeC, NP)										
	SAMPLE_ID	BWBK-SS-NE09-0001	BWBK-SB-NE09-0110	BWBK-SB-NE09-0110-D	BWBK-SS-NE10-0001	BWBK-SB-NE10-0107	BWBK-SS-NE101-0001	BWBK-SB-NE101-0110	BWBK-SS-NE102-0001	BWBK-SB-NE102-0110	BWBK-SS-NE103-0001	BWBK-SB-NE103-0110
	LOCATION_ID	BWBK-NE09	BWBK-NE09	BWBK-NE09	BWBK-NE10	BWBK-NE10	BWBK-NE101	BWBK-NE101	BWBK-NE102	BWBK-NE102	BWBK-NE103	BWBK-NE103
	TOP_DEPTH (FT BGS)	0	1	1	0	1	0	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	1	10	10	1	7	1	10	1	10	1	10
	SAMPLE_DATE	09/13/06	09/13/06	09/13/06	09/13/06	09/13/06	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07
	QC REFERENCE			DUPLICATE								
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		17900	10400	10300	13600	11300	14000	11800	10700	10800	9330	9270
ANTIMONY	10	0.78 UJ	0.51 UJ	0.52 UJ	0.56 UJ	0.54 UJ	0.67 UJ	0.56 UJ	0.6 UJ	0.56 UJ	0.59 UJ	0.54 UJ
ARSENIC	7	8.3	4.3	4.7	8.2	3.8	3.1	3.2	2.4	2.6	2.8	2.4
BARIUM	5500	36.3	16.4	18.1	28.4	23.1	27	37.5	22.5	39.6	20.2	30
BERYLLIUM	0.4	0.79	0.37	0.4	0.56	0.51	0.46	0.48	0.36	0.39	0.28 J	0.31
CADMIUM	39	0.078 U	0.051 U	0.052 U	0.056 U	0.054 U	0.067 U	0.056 U	0.06 U	0.056 U	0.059 U	0.054 U
CALCIUM		423 J	815	770	507 J	486	319 J	424	276 J	372	231 J	383
CHROMIUM	1400	13.9	12.6	12.2	12.8	13.4	10.3	11.7 J	7.9	10 J	8.3	8.7 J
COBALT		4.2	8.1	8.4	4.5	6.4	3.4	6.7	2.3 J	5.6	2 J	4.9
COPPER	3100	12.5	14.4	13.5	20.3	12.5	5.7	11.9	4.7	10.1	4.7	9.1
IRON		17700	20600	20400	17400	18200	13200	17600	10700	14400	9870	12900
LEAD	150	17.4	6.4	6.6	26.3	7.5	8.2	7.4 J	12.7	6.6 J	11.6	5.6 J
MAGNESIUM		1750 J	3190	3120	2110 J	2830	1530 J	2940	1240 J	2630	1180 J	2280
MANGANESE	390	219	306	340	193	249	146	243	128	229	104	209
MERCURY	23	0.18	0.014 U	0.013 U	0.12	0.014 U	0.021 J	0.012 U	0.038 J	0.015 U	0.041	0.011 U
NICKEL	1000	10.8	15.7	15.7	11.8	12.9	8.1	12.5	6.4	11	6.3	9.5
POTASSIUM		445	434	482	388	553	666	1770 J	461	1650 J	401	1390 J
SELENIUM	390	0.42 J	0.2 U	0.16 U	0.23 J	0.16 U	0.2 UJ	0.33 UJ	0.18 UJ	0.34 UJ	0.28 J	0.16 UJ
SILVER	200	0.078 U	0.2 U	0.16 U	0.056 U	0.16 U	0.13 U	0.17 U	0.06 U	0.17 U	0.059 U	0.16 U
SODIUM		77.7 U	51.2 U	52.5 U	56.2 U	54.3 U	67.4 U	55.6 U	59.8 U	56 U	58.6 U	54.2 U
THALLIUM	5.5	0.47 U	0.36 U	0.36 U	0.28 U	0.32 U	0.4 U	0.34 U	0.3 U	0.28 U	0.29 U	0.27 U
VANADIUM	550	20.9	12.4	12.8	21.5	18.5	17.3	16.5	15.8	14.6	15	12.9
ZINC	6000	33.4	36.4	36.4	37.2	33.4	21	30 J	19.3	27.5 J	17.1	23.7 J

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	NEWPORT SILT LOAM (NeA, NeB, NeC, NP)										
	SAMPLE_ID	BWBK-SB-NE103-0110-D	BWBK-SS-NE104-0001	BWBK-SB-NE104-0110	BWBK-SS-NE105-0001	BWBK-SB-NE105-0110	BWBK-SS-NE106-0001	BWBK-SB-NE106-0110	BWBK-SS-NE107-0001	BWBK-SB-NE107-0510	BWBK-SS-NE108-0001	BWBK-SB-NE108-0110
	LOCATION_ID	BWBK-NE103	BWBK-NE104	BWBK-NE104	BWBK-NE105	BWBK-NE105	BWBK-NE106	BWBK-NE106	BWBK-NE107	BWBK-NE107	BWBK-NE108	BWBK-NE108
	TOP_DEPTH (FT BGS)	1	0	1	0	1	0	1	0	5	0	1
	BOTTOM_DEPTH (FT BGS)	10	1	10	1	10	1	10	1	10	1	10
	SAMPLE_DATE	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07
	QC REFERENCE	DUPLICATE										
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		9410	11000	8090	9580	10800	10300	10200	10700	8220	10500	10500
ANTIMONY	10	0.55 UJ	0.59 UJ	0.56 UJ	0.59 UJ	0.54 UJ	0.61 UJ	0.54 UJ	0.59 UJ	0.56 UJ	0.62 UJ	0.54 UJ
ARSENIC	7	2.3	2.4	2.1	2.2	3.7	2.3	2.6	2.3	1.9	2.4	2.2
BARIUM	5500	32.7	18.2	26.2	19.6	38.7	20	34.7	21.5	25	26.1	30.7
BERYLLIUM	0.4	0.34	0.29	0.31	0.4	0.46	0.37	0.38	0.46	0.3	0.42	0.34
CADMIUM	39	0.055 U	0.059 U	0.056 U	0.059 U	0.054 U	0.061 U	0.054 U	0.06 UJ	0.056 U	0.062 U	0.054 U
CALCIUM		480	291 J	432	293 J	324	245 J	421	255 J	609	292 J	481
CHROMIUM	1400	8.7 J	7.9	7.7 J	6.6	11 J	7.1	10 J	6.6	7.6 J	7.1	9.8 J
COBALT		5	2.3 J	4.8	1.7 J	6	1.9 J	6.1	1.5 J	4.8	2 J	6
COPPER	3100	10.3	3.9	8.5	3.3	11.4	4.3	11.4	4.7	11	5.7	13.9
IRON		13300	12300	11800	9200	17300	10100	15200	9320	13600	10100	15200
LEAD	150	6.1 J	21.9	5.5	8.5	7.1 J	24.4	6.5 J	12.2	5.7 J	13.8	6.2 J
MAGNESIUM		2310	1530 J	2050	977 J	2930	1250 J	2720	932 J	2570	1260 J	2630
MANGANESE	390	199	133	176	119	322	130	247	164	200	129	207
MERCURY	23	0.012 U	0.022 J	0.015 U	0.025 J	0.014 U	0.027 J	0.015 U	0.041	0.013 U	0.041	0.012 U
NICKEL	1000	10.2	7.3	9	5.2	11.7	5.4	11.8	4.7	8.8	5.6	10.1
POTASSIUM		1500 J	415	1300 J	373	2040 J	421	1680 J	369	1340 J	443	1460 J
SELENIUM	390	0.16 UJ	0.18 UJ	0.22 UJ	0.2 J	0.27 UJ	0.18 UJ	0.22 UJ	0.33 J	0.22 UJ	0.26 J	0.22 UJ
SILVER	200	0.16 U	0.12 U	0.17 U	0.059 U	0.22 U	0.061 U	0.22 U	0.059 U	0.17 U	0.062 U	0.16 U
SODIUM		54.5 U	58.7 U	56.4 U	59.1 U	54.9 J	61.5 U	54.4 U	59.5 U	56.4 U	61.6 U	54.5 U
THALLIUM	5.5	0.27 U	0.47 U	0.28 U	0.35 U	0.32 U	0.37 U	0.27 U	0.3 U	0.28 U	0.31 U	0.32 U
VANADIUM	550	13	15.4	11.7	12.5	16.2	14.5	14.4	14.8	11.8	15.3	16
ZINC	6000	24.6 J	20.1	22.1 J	17.1	30.3 J	17.8	28.2 J	17.9	24.7 J	19.6	26.4 J

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	NEWPORT SILT LOAM (NeA, NeB, NeC, NP)						PITTSTOWN SILT LOAM (PmA, PmB)				
	SAMPLE_ID	BWBK-SS-NE109-0001	BWBK-SB-NE109-0110	BWBK-SS-NE110-0001	BWBK-SB-NE110-0110	BWBK-SB-NE110-0110-D	BWBK-SB-SO10-0107-NP	DABK-S-SO21-0001	BWBK-SB-PM01-0105	DABK-S-SO22-0001	BWBK-SB-PM02-0104	DABK-S-SO23-0001
	LOCATION_ID	BWBK-NE109	BWBK-NE109	BWBK-NE110	BWBK-NE110	BWBK-NE110	BWBK-SO10	DABK-S-SO21	BWBK-PM01	DABK-S-SO22	BWBK-PM02	DABK-S-SO23
	TOP_DEPTH (FT BGS)	0	1	0	1	1	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	1	10	1	10	10	7	1	5	1	4	1
	SAMPLE_DATE	03/27/07	03/27/07	03/27/07	03/27/07	03/27/07	09/19/06	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04
	QC REFERENCE					DUPLICATE						
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		9720	10400	9260	10100	10500	11100	9290	12300	12100	13200	12100
ANTIMONY	10	0.58 UJ	0.53 UJ	0.61 UJ	0.55 UJ	0.55 UJ	1.2 UJ	7.8 UJ	0.57 UJ	8.1 UJ	1.1 UJ	7.8 UJ
ARSENIC	7	1.7	2.2	3	2.6	2.4	17.7	13.3 J	9.9	12.9 J	20.5	8.8 J
BARIUM	5500	21	33.4	19.6	27.6	26.4	24.7 J	37.4	32.4	40.8	30.7	39.4
BERYLLIUM	0.4	0.4	0.36	0.3 J	0.36	0.35	0.57	0.65 U	0.5	0.68 U	0.76	0.65 U
CADMIUM	39	0.058 U	0.053 U	0.061 U	0.055 U	0.055 U	0.12 U	0.65 UJ	0.11 U	0.68 UJ	0.12 U	0.65 UJ
CALCIUM		266 J	440	287 J	396	314	816 J	631 UJ	1030 J	836 U	685 J	709 U
CHROMIUM	1400	6.3	9.6 J	6.6	9.8 J	10.3 J	14	12.5	13.9	15	21.3	13.6
COBALT		1.5 J	5.7	1.7 J	6.4	5.8	9.5	6.1 J	12.8	8.4	14.1	6.9
COPPER	3100	3.8	11.6	5.9	11.3	11.7	16.9	13.3 U	10.5	15.4 U	15.3	14.6 U
IRON		9020	14900	9580	14600	15000	31400	20400 J	21000	23500 J	38700	18200 J
LEAD	150	8.4	6.4 J	17.8	6.9	6 J	11.6	35.8 J	7.6	42.1 J	10.1	32.3 J
MAGNESIUM		999 J	2600	960 J	2620	2810	2500	1390	2720	1540	2990	1960
MANGANESE	390	119	214	85.5	244	205	263	197 J	561 J	300 J	652 J	197 J
MERCURY	23	0.024 J	0.014 U	0.04 J	0.014 U	0.015 U	0.013 U	0.04 UJ	0.013 U	0.063 UJ	0.012 U	0.081 UJ
NICKEL	1000	4.6	10.2	4.7	10	9.8	19.6	11.3	21.3	12.2	18.9	13.6
POTASSIUM		387	1550 J	390	1490 J	1530 J	448 J	195 UJ	459	322 UJ	428	308 UJ
SELENIUM	390	0.33 J	0.27 UJ	0.36 J	0.28 UJ	0.17 UJ	0.56 J	4.5 U	0.17 UJ	4.7 U	0.34 UJ	4.6 U
SILVER	200	0.058 U	0.16 U	0.061 U	0.22 U	0.22 U	0.12 U	1.3 UJ	0.17 U	1.4 UJ	0.17 U	1.3 UJ
SODIUM		57.7 U	53.4 U	61 U	55.3 U	55.3 U	58.4 U	R	94.5 J	R	85.6 J	R
THALLIUM	5.5	0.29 U	0.27 U	0.3 U	0.28 U	0.28 U	0.58 UJ	3.2 U	0.29 U	3.4 U	0.57 U	3.3 U
VANADIUM	550	12.5	14	17.3	14.1	14.4	19.5	27.6	18.6	34.9	26.6	30.4
ZINC	6000	16.6	26.3 J	15.6	25.8 J	26.9 J	48.7	65	39.5	93.7	45.7	43.8

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	PITTSTOWN SILT LOAM (PmA, PmB)										
	SAMPLE_ID	BWBK-SB-PM03-0106	DABK-S-SO24-0001	BWBK-SB-PM04-0105	DABK-S-SO25-0001	DABK-S-SO25-0001-D	BWBK-SB-PM05-0105	BWBK-SB-PM05-0105-D	DABK-S-SO26-0001	BWBK-SB-PM06-0105	DABK-S-SO27-0001	BWBK-SB-PM07-0105
	LOCATION_ID	BWBK-PM03	DABK-S-SO24	BWBK-PM04	DABK-S-SO25	DABK-S-SO25	BWBK-PM05	BWBK-PM05	DABK-S-SO26	BWBK-PM06	DABK-S-SO27	BWBK-PM07
	TOP_DEPTH (FT BGS)	1	0	1	0	0	1	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	6	1	5	1	1	5	5	1	5	1	5
	SAMPLE_DATE	09/28/06	10/25/04	09/28/06	10/25/04	10/25/04	09/28/06	09/28/06	10/25/04	09/28/06	10/25/04	09/28/06
	QC REFERENCE					DUPLICATE		DUPLICATE				
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		11400	11700	11100	13700	12400	11200	10600	12400	11200	11000	9280
ANTIMONY	10	1.1 UJ	8 UJ	0.57 UJ	7.8 UJ	7.2 UJ	1.1 UJ	0.58 UJ	8 UJ	1.1 UJ	0.96 UJ	0.59 UJ
ARSENIC	7	17.6	11.9 J	21.8	10.3 J	32.3 J	12.8	15.7	15 J	16.3	7.8 J	16.5
BARIUM	5500	18.8	41.9	23.3	37.1	44.7	25.9	24.8	45.3	27.6	37.9	29.4
BERYLLIUM	0.4	0.48	0.67 U	0.54	0.65 U	0.38 J	0.49	0.51	0.66 U	0.46	0.65 U	0.64
CADMIUM	39	0.11 U	0.67 UJ	0.17 U	0.65 UJ	0.6 UJ	0.11 U	0.058 U	0.66 UJ	0.12 U	0.65 UJ	0.059 U
CALCIUM		1210 J	646 UJ	1650 J	381 UJ	496 UJ	1350 J	1430 J	824 U	1210 J	633 UJ	1110 J
CHROMIUM	1400	15.7	14.2	15	15.1	14.1	16	13.7	15.2	14.1	12	13
COBALT		17.1	7.1	11.5	7.4	8.2	11.3	14.1	7	11	5.4 J	13.8
COPPER	3100	17.8	9.7 U	16.7	7.2 U	10.9 U	15.2	14.4	17.9 U	12.8	11 U	10.2
IRON		35100	25700 J	27700	23300 J	63300 J*	28800	26600	24600 J	30300	16000 J	26600
LEAD	150	7.2	27.8 J	10.3	19.7 J	44.8 J	8.2	8.4	44.5 J	6.6	43.6 J	6.5
MAGNESIUM		3360	1360	3350	1920	1450	3310	3080	1960	3250	1680	2180
MANGANESE	390	420 J	252 J	516 J	292 J	615 J	631 J	677 J	253 J	1520 J	159 J	850 J
MERCURY	23	0.013 U	0.073 UJ	0.014 U	0.053 UJ	0.094 UJ	0.015 U	0.014 U	0.061 UJ	0.015 U	0.065 UJ	0.013 U
NICKEL	1000	23.4	10	21.2	12.1	9.4	20	18.6	14.4	19	11.4	15
POTASSIUM		414	205 UJ	590	268 UJ	187 UJ	496	520	252 UJ	411	234 UJ	441
SELENIUM	390	0.33 UJ	4.7 U	0.29 UJ	4.5 U	4.2 U	0.33 UJ	0.29 UJ	4.6 U	0.34 UJ	R	0.18 UJ
SILVER	200	0.17 U	1.3 UJ	0.057 U	1.3 UJ	1.2 UJ	0.17 U	0.17 U	1.3 UJ	0.17 U	1.3 UJ	0.18 U
SODIUM		58.1 J	R	70 J	R	R	81.9 J	81 J	R	81.8 J	646 U	88.1 J
THALLIUM	5.5	0.55 U	3.3 U	0.29 U	3.2 U	3 U	0.56 U	0.29 U	3.3 U	0.57 U	3.2 U	0.41 U
VANADIUM	550	20.7	30.9	19.3	29	42.6	19.6	19.6	35.2	18.4	30.3	19.7
ZINC	6000	52.7	55.8	46.5	42.8	52	46.7	43.3	84.4	43.4	46.6	33.2

Notes:

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2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	PITTSTOWN SILT LOAM (PmA, PmB)										
	SAMPLE_ID	DABK-S-SO28-0001	BWBK-SB-PM08-0106	DABK-S-SO29-0001	BWBK-SB-PM09-0106	DABK-S-SO30-0001	BWBK-SB-PM10-0105	DABK-S-SO31-0001	BWBK-SB-PM11-0104	DABK-S-SO32-0001	BWBK-SB-PM12-0105	DABK-S-SO33-0001
	LOCATION_ID	DABK-S-SO28	BWBK-PM08	DABK-S-SO29	BWBK-PM09	DABK-S-SO30	BWBK-PM10	DABK-S-SO31	BWBK-PM11	DABK-S-SO32	BWBK-PM12	DABK-S-SO33
	TOP_DEPTH (FT BGS)	0	1	0	1	0	1	0	1	0	1	0
	BOTTOM_DEPTH (FT BGS)	1	6	1	6	1	5	1	4	1	5	1
	SAMPLE_DATE	10/25/04	09/28/06	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04
	QC REFERENCE											
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		10800	10500	14600	8390	14000	9830	9780	9700	11700	8620	11200
ANTIMONY	10	8.1 UJ	0.58 UJ	8.4 UJ	0.57 UJ	8 UJ	0.58 UJ	7.1 UJ	0.6 UJ	8.1 UJ	0.59 UJ	9.2 UJ
ARSENIC	7	9.8 J	18	10.6 J	14.7	8.4 J	14.4	5.7 J	13.7	13 J	5.3	4.7 J
BARIUM	5500	43.9	25.2	48.5	18.2	53.1	25.6	28.2	33.2	48.7	20.9	48.4
BERYLLIUM	0.4	0.68 U	0.53	0.7 U	0.39	0.67 U	0.68	0.59 U	0.54	0.67 U	0.44	0.77 U
CADMIUM	39	0.68 UJ	0.058 U	0.7 UJ	0.11 U	0.67 UJ	0.18 U	0.59 UJ	0.12 U	0.67 UJ	0.12 U	0.77 UJ
CALCIUM		816 U	1180 J	693 UJ	1240 J	749 U	1040 J	355 UJ	1030 J	807 U	1550 J	999 U
CHROMIUM	1400	14	13.7	16	11.9	15.2	17.2	11.6	13.3	15.1	14.4	13.4
COBALT		9.8	13.8	7.2	10.6	8.1	11.9	6.6	14.1	13.8	6.9	6.7 J
COPPER	3100	12.6 U	12.3	10 U	10.7	8.5 U	15.2	4.4 U	14.3	15.1 U	9.2	6.5 U
IRON		18300 J	24800	21800 J	20300	18000 J	25700	16500 J	28600	23200 J	14900	12700 J
LEAD	150	36.5 J	7.7	32.8 J	5.2	26.5 J	7.9	18.3 J	7.3	49.5 J	6.1	30.3 J
MAGNESIUM		1590	2730	1810	2420	1590	2290	1380	2430	1660	2330	1680
MANGANESE	390	319 J	602 J	141 J	434 J	257 J	554 J	419 J	1370 J	477 J	357 J	141 J
MERCURY	23	0.26	0.016 U	0.1 J	0.016 U	0.14	0.016 U	0.041 UJ	0.015 U	0.68	0.013 U	0.073 UJ
NICKEL	1000	11.1	18.3	11.6	16.6	11.1	15.1	7.5	21.1	11.5	12.7	9.5
POTASSIUM		250 UJ	468	321 UJ	412	338 UJ	448	204 UJ	502	293 UJ	437	255 UJ
SELENIUM	390	4.7 U	0.17 UJ	4.9 U	0.23 UJ	4.7 U	0.23 UJ	4.1 U	0.18 UJ	4.7 U	0.18 UJ	R
SILVER	200	1.4 UJ	0.17 U	1.4 UJ	0.11 U	1.3 UJ	0.18 U	1.2 UJ	0.18 U	1.3 UJ	0.12 U	1.5 UJ
SODIUM		145 UJ	74.4 J	R	65.6 J	146 UJ	88.3 J	R	83.7 J	R	88.5 J	R
THALLIUM	5.5	3.4 U	0.35 U	3.5 U	0.46 U	3.3 U	0.29 U	3 U	0.36 U	3.4 U	0.29 U	3.9 U
VANADIUM	550	31.5	19.2	33.8	15.2	28.8	28.5	27	18.8	34.1	16.3	30.8
ZINC	6000	70.5	40.1	58	33.7	63.3	38.6	35.5	40.2	71.6	30.1	50.4

Notes:

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2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	PITTSTOWN SILT LOAM (PmA, PmB)										
	SAMPLE_ID	BWBK-SB-PM13-0106	DABK-S-SO34-0001	BWBK-SB-PM14-0106	DABK-S-SO35-0001	DABK-S-SO35-0001-D	BWBK-SB-PM15-0105	DABK-S-SO36-0001	BWBK-SB-PM16-0106	DABK-S-SO37-0001	BWBK-SB-PM17-0105	BWBK-SB-PM17-0105-D
	LOCATION_ID	BWBK-PM13	DABK-S-SO34	BWBK-PM14	DABK-S-SO35	DABK-S-SO35	BWBK-PM15	DABK-S-SO36	BWBK-PM16	DABK-S-SO37	BWBK-PM17	BWBK-PM17
	TOP_DEPTH (FT BGS)	1	0	1	0	0	1	0	1	0	1	1
	BOTTOM_DEPTH (FT BGS)	6	1	6	1	1	5	1	6	1	5	5
	SAMPLE_DATE	09/27/06	10/25/04	09/27/06	10/25/04	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04	09/27/06	09/27/06
	QC REFERENCE					DUPLICATE						DUPLICATE
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		10600	9110	8860	9710	9960	10300	10600	9740	11400	10200	10900
ANTIMONY	10	0.57 UJ	7.3 UJ	0.58 UJ	0.95 UJ	7.5 UJ	0.56 UJ	0.72 UJ	0.58 UJ	0.75 UJ	0.55 UJ	0.57 UJ
ARSENIC	7	10	5.9 J	7.1	7.5 J	R	9.5	5.8 J	7.6	10.6 J	11.1	11.4
BARIUM	5500	33.4	36.4	24.9	39.8	36.6	27.8	32.1	23.7	32.5	25.5	24.6
BERYLLIUM	0.4	0.66	0.61 U	0.49	0.65 U	0.62 U	0.52	0.66 U	0.55	0.65 U	0.6	0.6
CADMIUM	39	0.23 U	0.61 UJ	0.17 U	0.65 UJ	0.62 UJ	0.17 U	0.66 UJ	0.17 U	0.65 UJ	0.16 U	0.17 U
CALCIUM		833 J	591 UJ	1350 J	772 U	742 U	1180 J	506 UJ	1150 J	582 UJ	1360 J	1190 J
CHROMIUM	1400	15.3	12	11.9	13.6	13.1	14.2	12.4	12	13.9	13	14.3
COBALT		6.5	7.7	6.9	7.4	6.7	8.5	4.5 J	6.6	6.6	14.5	16.7
COPPER	3100	6.5	5.8 U	8.9	8.4 U	7.1 U	13.1	4.9 U	11.6	5.5 U	14.6	19.7
IRON		24300	15400 J	16400	16700 J	19000 J	23000	14200 J	18700	20100 J	23400	27000
LEAD	150	7	23 J	6.5	39.7 J	28.2 J	8	33.2 J	6.8	19.6 J	8.1	10.7
MAGNESIUM		2110	1410	2080	1780	1800	2580	1680	2370	1550	2850	3100
MANGANESE	390	596 J	433 J	571 J	261 J	258 J	396 J	101 J	433 J	311 J	443 J	494 J
MERCURY	23	0.016 U	0.036 UJ	0.016 U	0.045 UJ	0.045 UJ	0.016 U	0.062 UJ	0.013 U	0.031 UJ	0.014 U	0.013 U
NICKEL	1000	11.4	8.4	11.8	9.9	10	15.2	8	13.6	8.5	15.5	18
POTASSIUM		431	211 UJ	446	235 UJ	245 UJ	442	260 UJ	448	213 UJ	569	528
SELENIUM	390	0.17 UJ	4.3 U	0.17 UJ	4.6 U	4.4 U	0.17 UJ	4.6 U	0.23 UJ	4.6 U	0.22 UJ	0.23 UJ
SILVER	200	0.11 U	1.2 UJ	0.17 U	1.3 UJ	1.2 UJ	0.17 U	1.3 UJ	0.17 U	1.3 UJ	0.16 U	0.17 U
SODIUM		83.7 J	R	89.6 J	R	R	70.4 J	R	77.1 J	R	71.2 J	62.8 J
THALLIUM	5.5	0.28 U	3.1 U	0.29 U	3.3 U	3.1 U	0.28 U	3.3 U	0.35 U	3.3 U	0.27 U	0.28 U
VANADIUM	550	22.2	26.5	17.9	31.4	28.5	18.7	28.1	17.3	30.9	21.8	22
ZINC	6000	31.3	30.4	29.7	41.3	35.5	38.1	27.2	33.3	36.2	38.6	44.1

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	PITTSTOWN SILT LOAM (PmA, PmB)										
	SAMPLE_ID	DABK-S-SO38-0001	BWBK-SB-PM18-0105	DABK-S-SO39-0001	BWBK-SB-PM19-0105	DABK-S-SO40-0001	BWBK-SB-PM20-0106	BWBK-SB-PM20-0106-D	BWBK-SB-SO01-0107-PM	BWBK-SB-SO02-0109-PM	BWBK-SB-SO13-0104-PM	BWBK-SB-SO14-0105-PM
	LOCATION_ID	DABK-S-SO38	BWBK-PM18	DABK-S-SO39	BWBK-PM19	DABK-S-SO40	BWBK-PM20	BWBK-PM20	BWBK-SO01	BWBK-SO02	BWBK-SO13	BWBK-SO14
	TOP_DEPTH (FT BGS)	0	1	0	1	0	1	1	1	1	1	1
	BOTTOM_DEPTH (FT BGS)	1	5	0.5	5	0.5	6	6	7	9	4	5
	SAMPLE_DATE	10/25/04	09/27/06	10/25/04	09/27/06	10/25/04	09/26/06	09/26/06	09/18/06	09/18/06	09/19/06	09/19/06
	QC REFERENCE							DUPLICATE				
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		9430	11300	9890	10900	10300	10700	10100	11500	11800	9910	11300
ANTIMONY	10	7.8 UJ	1.1 UJ	7.5 U	0.56 UJ	7.6 U	0.57 UJ	0.58 UJ	1.1 UJ	1.1 UJ	1.1 UJ	1.1 UJ
ARSENIC	7	5.4 J	16.9	7 J	11.4	6.3 J	9	11.9	12.9	20.4	18.8	23.5
BARIUM	5500	28.1	23.4	37.2 J	29.1	35.3 J	25.4	26.5	22.4 J	19.8 J	25.8 J	26.8 J
BERYLLIUM	0.4	0.65 U	0.51	0.63 U	0.48	0.63 U	0.48	0.5	0.54	0.44	0.5	0.45
CADMIUM	39	0.65 UJ	0.11 U	0.63 UJ	0.17 U	0.63 UJ	0.11 U	0.12 U	0.15 J	0.11 U	0.11 U	0.13 J
CALCIUM		453 UJ	1150 J	704 U	917 J	483 UJ	1270 J	1110 J	767 J	691 J	693 J	646 J
CHROMIUM	1400	11.2	15	12.3	13.9	12.2	13.9	13	13.1	14.6	14.4	14.7
COBALT		6.2 J	10.1	6.1 J	8.8	5.9 J	9.1	8.3	12.3	10.6	15.9	14.9
COPPER	3100	5.1 U	19.1	5.4 U	17.2	6.5 U	15.5	12.6	19.7	15.5	25.8	22.2
IRON		13700 J	34100	18800	25900	14500	22600	22500	29300	34900	33900	36100
LEAD	150	23.4 J	8.9	17.9	8.6	20.8	7.6	7.9	10.6	11.3	10.8	10.8
MAGNESIUM		1430	3280	1560	2830	1540	2880	2480	2850	2960	2770	3200
MANGANESE	390	342 J	372 J	373 J	456 J	402 J	343 J	391 J	243	293	214	282
MERCURY	23	0.046 UJ	0.014 U	0.13 U	0.015 U	0.11 UJ	0.013 U	0.016 U	0.014 U	0.016 J	0.015 U	0.014 U
NICKEL	1000	7.7	21.2	8.8	18.2	8.3	18.1	15.4	23.6	21.2	25.6	27.1
POTASSIUM		179 UJ	488	189 UJ	444	237 UJ	496	449	480 J	359 J	497 J	512 J
SELENIUM	390	4.6 U	0.33 UJ	4.4 U	0.23 UJ	4.4 U	0.23 UJ	0.17 UJ	0.34 UJ	0.71 J	0.32 UJ	0.33 UJ
SILVER	200	1.3 UJ	0.17 U	1.3 U	0.17 U	1.3 U	0.17 U	0.17 U	0.17 U	0.11 U	0.16 U	0.22 U
SODIUM		97.6 UJ	55.1 U	144 UJ	58.4 J	103 UJ	78.5 J	78.2 J	56.1 U	54.5 U	54.1 J	55.6 U
THALLIUM	5.5	3.3 U	0.55 U	3.1 U	0.28 U	3.2 U	0.28 U	0.29 U	0.56 UJ	0.54 UJ	0.54 UJ	0.56 UJ
VANADIUM	550	28.6	16.6	26.1 J	18	29 J	17.7	18.4	17.4	18.7	19.1	17
ZINC	6000	25.9	51	28.7 J	44.2	31.5 J	43.1	37.7	56.5	55.7	51.8	61.4

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	STISSING SILT LOAM (Se)										
	SAMPLE_ID	DABK-S-SO01-0001	DABK-S-SO02-0001	DABK-S-SO03-0001	BWBK-SB-SO03-0108	DABK-S-SO04-0001	BWBK-SB-SO04-0108	DABK-S-SO05-0001	BWBK-SB-SO05-0106	DABK-S-SO06-0001	BWBK-SB-SO06-0108	BWBK-SB-SO06-0108-D
	LOCATION_ID	DABK-S-SO01	DABK-S-SO02	DABK-S-SO03	BWBK-SO03	DABK-S-SO04	BWBK-SO04	DABK-S-SO05	BWBK-SO05	DABK-S-SO06	BWBK-SO06	BWBK-SO06
	TOP_DEPTH (FT BGS)	0	0	0	1	0	1	0	1	0	1	1
	BOTTOM_DEPTH (FT BGS)	0.5	0.5	0.5	8	0.5	8	0.5	6	0.5	8	8
	SAMPLE_DATE	10/27/04	10/27/04	10/27/04	09/21/06	10/27/04	09/21/06	10/27/04	09/21/06	10/27/04	09/21/06	09/21/06
	QC REFERENCE											DUPLICATE
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		14300	12500	12300	14000	16700	10600	13100	12400	14800	13600	13300
ANTIMONY	10	R	R	R	1.1 UJ	R	1.1 UJ	R	1.2 UJ	R	1.1 UJ	1.2 UJ
ARSENIC	7	7.8 J	16.3 J	8.6 J	24.6	7.7 J	23.3	9.5 J	20.9	71.7 J	27.3	37.1
BARIUM	5500	21.1 J	60.6	28.4 J	29.9 J	32.7	26.9 J	23.8 J	28.7 J	48.5	19.3 J	27.6 J
BERYLLIUM	0.4	0.62 U	0.57 U	0.81 U	0.6	0.78 U	0.5	0.72 U	0.61	0.37 J	0.62	0.52
CADMIUM	39	0.62 UJ	0.57 UJ	0.81 UJ	0.11 U	0.78 UJ	0.16 J	0.72 UJ	0.15 J	0.68 UJ	0.28	0.2 J
CALCIUM		291 UJ	1890 U	333 UJ	1090 J	300 UJ	826 J	1680 U	992 J	1470 U	1350 J	1310 J
CHROMIUM	1400	13	28.2	11.9	16.6	14.4	14.9	11.9	15.8	15.8	17.1	16.6
COBALT		4.7 J	11.4	3.7 J	17.7	5.2 J	14.8	4.3 J	11.2	11.9	17.1	16.4
COPPER	3100	7.2 U	18.2 U	6.5 U	30.5	6.9 U	23.4	8.4 U	20.5	7.9 U	25.9	21.3
IRON		18600	24100	19100	40900	18400	33600	19300	31600	53900	46600	38700
LEAD	150	15.8	33.6	28.7	12.9	22.3	10.8	25.8	10.4	25.6	15.4	11.4
MAGNESIUM		1770	2780	1730	3850	1590	2940	1570	3010	2380	3750	3390
MANGANESE	390	93.4	296	68.7	451	68	265	164	328	373	254	259
MERCURY	23	0.075 UJ	0.054 UJ	0.083 UJ	0.015 U	0.084 UJ	0.013 U	0.099 UJ	0.013 U	0.21 U	0.012 U	0.013 U
NICKEL	1000	10.7	19.1	8.7	37.1	12.3	26.8	9.8	24.6	14.7	32.5	28.3
POTASSIUM		237 UJ	615 UJ	242 UJ	529 J	240 UJ	632 J	361 UJ	541 J	355 UJ	376 J	449 J
SELENIUM	390	4.4 UJ	4 UJ	5.7 UJ	0.32 UJ	5.5 UJ	0.34 UJ	5 UJ	0.35 UJ	4.8 UJ	0.33 UJ	0.5 J
SILVER	200	1.2 U	1.1 U	1.6 U	0.054 U	1.6 U	0.17 U	1.4 U	0.17 U	1.4 U	0.17 U	0.12 U
SODIUM		R	244 UJ	814 U	53.7 U	R	56.8 U	R	58.1 U	R	55.4 U	58.3 U
THALLIUM	5.5	3.1 UJ	2.8 UJ	4.1 UJ	0.54 UJ	3.9 UJ	0.57 UJ	3.6 UJ	0.58 UJ	3.4 U	0.55 UJ	0.58 UJ
VANADIUM	550	23.5	18.9	34.2	18.7	30.4	17.5	29.5	19	34	21.1	21.2
ZINC	6000	44.8	81.7	40.2	74.5	54.9	61.5	43.2	58.6	60.9	73.1	65.9

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	STISSING SILT LOAM (Se)										
	SAMPLE_ID	DABK-S-SO07-0001	DABK-S-SO07-0001-D	BWBK-SB-SO07-0106	DABK-S-SO08-0001	BWBK-SB-SO08-0107	DABK-S-SO09-0001	BWBK-SB-SO09-0106	DABK-S-SO10-0001	DABK-S-SO11-0001	DABK-S-SO11-0001-D	BWBK-SB-SO11-0106
	LOCATION_ID	DABK-S-SO07	DABK-S-SO07	BWBK-SO07	DABK-S-SO08	BWBK-SO08	DABK-S-SO09	BWBK-SO09	DABK-S-SO10	DABK-S-SO11	DABK-S-SO11	BWBK-SO11
	TOP_DEPTH (FT BGS)	0	0	1	0	1	0	1	0	0	0	1
	BOTTOM_DEPTH (FT BGS)	0.5	0.5	6	0.5	7	0.5	6	0.5	0.5	0.5	6
	SAMPLE_DATE	10/27/04	10/27/04	09/21/06	10/27/04	09/21/06	10/27/04	09/19/06	10/27/04	10/28/04	10/28/04	09/21/06
	QC REFERENCE		DUPLICATE								DUPLICATE	
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		14400	11900	10400	12300	13100	11200	11600	12500	7580	8900	12600
ANTIMONY	10	R	R	1.1 UJ	R	1.5 UJ	R	1.1 UJ	R	R	R	1.1 UJ
ARSENIC	7	10.7 J	9.1 J	15.4	13.2 J	25	12.6 J	20.5	11.2 J	3.3 J	3.9 UJ	23.6
BARIUM	5500	51.1	42.7	20.7 J	42.2	28.5 J	23.6 J	30.2 J	27.7 J	28.9	34.2	24.7 J
BERYLLIUM	0.4	0.85 U	0.78 U	0.517	0.63 U	0.6	0.75 U	0.53	0.76 U	0.58 U	0.73 U	0.49
CADMIUM	39	0.85 UJ	0.78 UJ	0.25	0.63 UJ	0.18 J	0.75 UJ	0.11 U	0.76 UJ	0.58 UJ	0.73 UJ	0.24
CALCIUM		1870 U	1930 U	1290 J	731 U	1540 J	314 UJ	728 J	271 UJ	398 UJ	440 UJ	1420 J
CHROMIUM	1400	14.7	12.5	14.5	12.7	17.3	11.2	15.3	11	7.6	9	15.8
COBALT		6.2 J	5.4 J	17.3	6.1 J	16.8	4.2 J	11.7	3.9 J	3.3 J	4.1 J	14.8
COPPER	3100	7.5 U	6.6 U	23.3	6.6 U	26.8	9.4 U	18.7	8.6 U	3.9 U	4 U	19.8
IRON		16900	15100	29100	20500	39900	23000	29000	23800	8290	9390	34800
LEAD	150	24.9	21.7	13	27.1	13.5	24.1	10	19.7	15.7	17.9	10.7
MAGNESIUM		2460	2220	2840	2090	3600	1650	3100	1380 U	1100 U	1310 U	3630
MANGANESE	390	94.8	86.4	1040	206	534	92.8	196	85.2	46.6	54.4	1330
MERCURY	23	0.14 UJ	0.1 UJ	0.013 U	0.1 UJ	0.02 U	0.076 UJ	0.014 U	0.22 U	0.17 U	0.07 UJ	0.013 U
NICKEL	1000	15.2	13.5	29.1	12.9	31	10.7	23.6	8.9	6.5	7.7	27.2
POTASSIUM		375 UJ	286 UJ	496 J	300 UJ	677 J	308 UJ	493 J	226 UJ	193 UJ	228 UJ	611 J
SELENIUM	390	6 UJ	5.4 UJ	0.33 UJ	4.4 UJ	0.45 UJ	5.2 UJ	0.34 UJ	5.3 UJ	4.1 UJ	5.1 UJ	0.34 UJ
SILVER	200	1.7 U	1.6 U	0.11 U	1.3 U	0.22 U	1.5 U	0.17 U	1.5 U	1.2 U	1.5 U	0.17 U
SODIUM		R	R	55.7 U	R	74.3 U	R	56.3 U	755 U	29 UJ	R	57.3 U
THALLIUM	5.5	4.3 U	3.9 U	0.56 UJ	3.2 U	0.74 UJ	3.7 U	0.56 UJ	3.8 U	2.9 U	3.6 U	0.57 UJ
VANADIUM	550	25.6	22.7	19.8	25.2	21.1	30.8	18.4	23.1	16.1	19.8	19.5
ZINC	6000	54.2	49.4	60.9	45.7	72.1	38.5	54.2	35	24.1	30.5	60.3

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	STISSING SILT LOAM (Se)										
	SAMPLE_ID	DABK-S-SO12-0001	BWBK-SB-SO12-0106	BWBK-SB-SO12-0106-D	DABK-S-SO13-0001	DABK-S-SO14-0001	DABK-S-SO15-0001	BWBK-SB-SO15-0103	DABK-S-SO16-0001	BWBK-SB-SO16-0105	DABK-S-SO17-0001	BWBK-SB-SO17-0106
	LOCATION_ID	DABK-S-SO12	BWBK-SO12	BWBK-SO12	DABK-S-SO13	DABK-S-SO14	DABK-S-SO15	BWBK-SO15	DABK-S-SO16	BWBK-SO16	DABK-S-SO17	BWBK-SO17
	TOP_DEPTH (FT BGS)	0	1	1	0	0	0	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	0.5	6	6	0.5	1	1	3	1	5	1	6
	SAMPLE_DATE	10/28/04	09/20/06	09/20/06	10/28/04	10/28/04	10/28/04	09/19/06	10/28/04	09/26/06	10/28/04	09/22/06
	QC REFERENCE			DUPLICATE								
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA											
METALS (MG/KG)												
ALUMINUM		11900	10600	10900	9840	9250	11700	11000	9020	9090	11000	9140
ANTIMONY	10	R	1.1 UJ	1.1 UJ	R	R	R	0.58 UJ	R	0.57 UJ	R	0.59 UJ
ARSENIC	7	6.4 J	20.9	24.4	12.2 J	11.2 J	11 J	10.4	3.9 J	9.5	5.8 J	5.2
BARIUM	5500	42.9	20.3 J	21.2 J	26.8	15.1 J	25.2 J	25.4 J	30.1	21.6	47.3	24.8 J
BERYLLIUM	0.4	0.71 U	0.45	0.46	0.65 U	0.7 U	0.69 U	0.52	0.66 U	0.47	0.71 U	0.51
CADMIUM	39	0.71 UJ	0.15 J	0.17 J	0.65 UJ	0.7 UJ	0.69 UJ	0.058 U	0.66 UJ	0.1 J	0.71 UJ	0.12
CALCIUM		461 UJ	1230 J	1170 J	404 UJ	194 UJ	240 UJ	703 J	315 UJ	1210 J	512 UJ	1420 J
CHROMIUM	1400	11.3	14.7	15.4	10.9	9.8	12.8	13.4	8.3	13.3	9.1	13.1
COBALT		4.6 J	14.5	14.2	4.5 J	4.2 J	4.6 J	9	3.6 J	10.7	4.6 J	9.8
COPPER	3100	4.1 U	23	26.4	9.2 U	8.8 U	6.3 U	11.2	2.4 UJ	13.5	3.6 U	12.7
IRON		14500	33700	36100	18700	18000	17500	22700	9330	24900	14800	18100
LEAD	150	18.3	10.3	11.8	13.8	20.5	22.8	8.6	13.4	7.6	21.5	7.5
MAGNESIUM		1690	2840	3110	1670	1680	1330 U	2410	1090 U	2520	964 U	2430
MANGANESE	390	82.7	469	395	86.7	69	110	422	50	317 J	115	191
MERCURY	23	0.12 UJ	0.014 U	0.013 U	0.052 UJ	0.063 UJ	0.08 UJ	0.014 U	0.057 UJ	0.014 U	0.11 UJ	0.016 U
NICKEL	1000	8.7	26.8	26.4	12.9	10.9	9.9	15.7	5.7	20.5	5.3 J	17.8
POTASSIUM		312 UJ	523 J	535 J	236 UJ	267 UJ	246 UJ	412 J	259 UJ	538	405 UJ	648 J
SELENIUM	390	5 UJ	0.33 UJ	0.33 UJ	4.5 UJ	4.9 U	4.8 U	0.17 UJ	4.6 U	0.17 UJ	5 U	0.18 UJ
SILVER	200	1.4 U	0.16 U	0.22 U	1.3 U	1.4 U	1.4 U	0.17 U	1.3 U	0.11 U	1.4 U	0.18 U
SODIUM		R	54.7 U	55.6 U	R	R	R	57.9 U	R	57 U	710 U	60.5 J
THALLIUM	5.5	3.6 U	0.55 UJ	0.56 UJ	3.2 U	3.5 U	3.5 U	0.29 UJ	3.3 U	0.29 U	3.5 U	0.29 UJ
VANADIUM	550	22.2	18.4	18.8	20.7	24.3	29.4	20.9	14	17.9	22.4	16.4
ZINC	6000	38.3	63.9	63.4	50.8	31.7	35.4	38.5	21.4	45.4	22.1	39.4

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.
2) FT BGS - Feet Below Ground Surface

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J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-1

SOIL ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

PARAMETER	SOIL SAMPLE TYPE	STISSING SILT LOAM (Se)					
	SAMPLE_ID	DABK-S-SO18-0001	BWBK-SB-SO18-0105	DABK-S-SO19-0001	BWBK-SB-SO19-0104	DABK-S-SO20-0001	BWBK-SB-SO20-0104
	LOCATION_ID	DABK-S-SO18	BWBK-SO18	DABK-S-SO19	BWBK-SO19	DABK-S-SO20	BWBK-SO20
	TOP_DEPTH (FT BGS)	0	1	0	1	0	1
	BOTTOM_DEPTH (FT BGS)	1	5	1	4	1	4
	SAMPLE_DATE	10/28/04	09/22/06	10/28/04	09/26/06	10/28/04	09/26/06
	QC REFERENCE						
	RIDEM RESIDENTIAL SOIL DIRECT EXPOSURE CRITERIA						
METALS (MG/KG)							
ALUMINUM		9140	9300	13000	9060	15200	9300
ANTIMONY	10	R	0.57 UJ	R	0.56 UJ	R	1.1 UJ
ARSENIC	7	5.8 J	4.4	9.2 J	4.5	23.5 J	10.1
BARIUM	5500	34.4	24.2 J	44.7	26	45.8	22.6
BERYLLIUM	0.4	0.65 U	0.44	0.69 U	0.56	0.7 U	0.49
CADMIUM	39	0.65 UJ	0.14	0.69 UJ	0.084 J	0.7 UJ	0.11 U
CALCIUM		1270 U	1320 J	1490 U	1270 J	1470 U	1180 J
CHROMIUM	1400	9.9	12.6	14.1	13.1	16	13.7
COBALT		5.1 J	10.2	7.5	17.7	6.7 J	12.4
COPPER	3100	4.2 U	11.1	11.1 U	13	9.1 U	21.1
IRON		13100	15000	17300	16400	23500	29700
LEAD	150	19.5	7.1	38	8	33.1	9.4
MAGNESIUM		1910	2380	2460	2530	2930	2690
MANGANESE	390	73.7	248	248	334 J	184	563 J
MERCURY	23	0.071 UJ	0.015 U	0.1 J	0.014 U	0.12 J	0.012 U
NICKEL	1000	9.3	15.1	13.9	16.5	14.8	21
POTASSIUM		208 UJ	564 J	540 UJ	620	431 UJ	514
SELENIUM	390	4.5 U	0.17 UJ	4.8 U	0.17 UJ	4.9 U	0.33 UJ
SILVER	200	1.3 U	0.17 U	1.4 U	0.17 U	1.4 U	0.11 U
SODIUM		R	58.8 J	688 U	60.8 J	R	55.3 U
THALLIUM	5.5	3.2 U	0.28 UJ	3.4 U	0.28 U	3.5 U	0.55 U
VANADIUM	550	22.4	15.5	23.9	18.5	30.6	16.9
ZINC	6000	34.5	34.1	54.5	42.2	52.7	55.6

Notes:

1) RIDEM Residential Soil Direct Exposure Criteria is applicable to soil 0-2 foot interval. Subsurface soil comparisons are provided for informational purposes.

2) FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-2

BEDROCK SAMPLE ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

	BEDROCK FORMATION	PURGATORY CONGLOMERATE													
	SAMPLE_ID	BWBK-BR-PC1-C1	BWBK-BR-PC1-C2	BWBK-BR-PC1-C3-RI	BWBK-BR-PC1-C4-RI	BWBK-BR-PC1-C5-RI	BWBK-BR-PC1-C6	BWBK-BR-PC1-C6-D	BWBK-BR-PC1-C7	BWBK-BR-PC1-C8	BWBK-BR-PC1-C9	BWBK-BR-PC1-C10	BWBK-BR-PC1-C11	BWBK-BR-PC1-C12	BWBK-BR-PC1-C13
	LOCATION_ID	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1
	TOP_DEPTH (FT BGS)	20	22	24	32	36	40	40	42	43	46	48	52	56	62
	BOTTOM_DEPTH (FT BGS)	22	24	26	34	38	42	42	43	44	48	50	54	58	64
	SAMPLE_DATE	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06
PARAMETER	QC REFERENCE							DUPLICATE							
METALS (MG/KG)															
ALUMINUM		6780 J	4460 J	3630 J	13500 J	9970 J	8200 J	2930 J	9510 J	12600 J	2860 J	12300 J	9930 J	5070 J	11400 J
ANTIMONY		0.5 UJ	0.96 UJ	0.5 UJ	0.97 UJ	0.97 UJ	0.5 UJ	0.49 UJ	0.52 J	1 UJ	0.51 UJ	2.5 UJ	0.5 UJ	0.5 UJ	0.97 UJ
ARSENIC		12 J	14.2 J	14.5 J	9.6 J	8.1 J	7.7 J	2.5 J	20.4 J	27.1 J	8.8 J	5.2 J	0.23 J	0.48 J	4.7 J
BARIUM		0.96	1.6	2.2	3.7	3.9	2.7	0.8	20.1	2.3	1.4	5.3	2.8	2.2	3.5
BERYLLIUM		0.086 J	0.065 J	0.116	0.438	0.638	0.197	0.06 J	0.75	0.213	0.118	0.609	0.221	0.12	0.263
CADMIUM		0.05 U	0.14 UJ	0.05 UJ	0.1 U	0.1 U	0.16 UJ	0.12 UJ	0.14 UJ	0.55 UJ	0.31 UJ	0.62 UJ	0.22 UJ	0.11 UJ	0.1 U
CALCIUM		3670 J	1710 J	3020 J	2210 J	6630 J	4080 J	6020 J	687 J	15100 J	21300 J	39500 J	5590 J	3940 J	5610 J
CHROMIUM		7.4 J	4.9 J	4.7 J	11.2 J	9 J	10.6 J	5 J	10.7 J	18.1 J	4.9 J	11.9 J	9.5 J	6.1 J	14.2 J
COBALT		14.5 J	15.3 J	13.4 J	14.1 J	11.3 J	14 J	4.5 J	31.7 J	37.3 J	10.6 J	15.7 J	7.1 J	3.8 J	12.7 J
COPPER		24 J	6.1 J	21.2 J	19.8 J	28.3 J	9.4 J	13.5 J	60 J	15.7 J	13.9 J	16.6 J	13.1 J	6 J	22.3 J
IRON		17800 J	36500 J	22400 J	34700 J	34700 J	20700 J	10800 J	22600 J	46900 J	21000 J	61600 J	24500 J	12800 J	27800 J
LEAD		17.9 J	4.3 J	6.7 J	7.3 J	7.4 J	4.8 J	14.1 J	10.1 J	26.2 J	31 J	4.8 J	9.3 J	2.5 J	5.2 J
MAGNESIUM		2420 J	4500 J	2560 J	4970 J	5090 J	2740 J	1980 J	3160 J	6460 J	3800 J	7830 J	2640 J	2200 J	4520 J
MANGANESE		71.4 J	633 J	210 J	386 J	1180 J	306 J	463 J	85.7 J	1660 J	1350 J	3680 J	460 J	214 J	377 J
MERCURY		0.012 U	0.013 U	0.013 U	0.012 U	0.013 U	0.011 U	0.013 U	0.013 U	0.012 U	0.013 U	0.013 U	0.012 U	0.013 U	0.013 U
NICKEL		10.7	12.2	17.9	19.9	23.3	13.1	4.5	34.1	26	9.1	26.7	12.5	8.5	21.4
POTASSIUM		57.1 J	97.4	135	210	264	83.4 J	48.8 U	537	100 J	50.5 U	158	79.8 J	69.7 J	152
SELENIUM		0.15 UJ	0.38 UJ	0.2 UJ	0.29 UJ	0.29 UJ	0.25 UJ	0.15 UJ	0.15 UJ	1.3 J	0.15 UJ	0.75 UJ	0.4 UJ	0.35 UJ	0.29 UJ
SILVER		0.05 U	0.048 U	0.05 U	0.048 U	0.049 U	0.05 U	0.049 U	0.05 U	0.085 J	0.051 U	0.25 U	0.05 U	0.05 U	0.049 U
SODIUM		148	125	207	282	264	123	65.7 J	354	198	75.4 J	128	98.4 J	84.6 J	144
THALLIUM		0.35 UJ	0.38 UJ	0.3 UJ	0.29 UJ	0.29 UJ	0.4 UJ	0.39 UJ	0.3 UJ	0.71 UJ	0.51 UJ	0.75 UJ	0.55 UJ	0.45 UJ	0.29 UJ
VANADIUM		7	6.6	3.2	13.5	7.2	12.2	5.5	7.5	35.9	4.8	18.7	16	6.7	15
ZINC		48.5 J	40.5 J	62.7 J	61 J	82.9 J	51.7 J	33.1 J	42.1 J	56.6 J	21.5 J	65.1 J	33.8 J	25 J	45.5 J

Notes:

FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-2

BEDROCK SAMPLE ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

	BEDROCK FORMATION	PURGATORY CONGLOMERATE			RHODE ISLAND FORMATION										
	SAMPLE_ID	BWBK-BR-PC1-C14	BWBK-BR-PC1-C15-RI	BWBK-BR-PC1-C15-RI-D	BWBK-BR-RI1-C1	BWBK-BR-RI1-C2	BWBK-BR-RI1-C2-D	BWBK-BR-RI1-C3	BWBK-BR-RI1-C4	BWBK-BR-RI1-C5	BWBK-BR-RI1-C6	BWBK-BR-RI1-C7	BWBK-BR-RI1-C8	BWBK-BR-RI1-C9	BWBK-BR-RI1-C10
	LOCATION_ID	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-PC1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1
	TOP_DEPTH (FT BGS)	64	68	68	24	26	26	30	32	38	40	44	48	50	54
	BOTTOM_DEPTH (FT BGS)	66	70	70	26	28	28	32	34	40	42	46	50	52	55
	SAMPLE_DATE	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06
PARAMETER	QC REFERENCE			DUPLICATE			DUPLICATE								
METALS (MG/KG)															
ALUMINUM		6650 J	16300 J	11700 J	2610	10600	12000	7760	8400	10700	13300	943	13800	10600	12100
ANTIMONY		0.49 UJ	1 UJ	0.99 UJ	0.55 J	0.98 UJ	0.97 UJ	0.49 UJ	0.96 UJ	0.96 UJ	1 UJ	0.49 UJ	0.96 UJ	1 UJ	1 UJ
ARSENIC		7.4 J	2.3 J	3.9 J	42.2 J	41.9 J	39.4 J	23.3 J	36.1 J	31.6 J	43.9 J	1.3 J	60.7 J	52.2 J	54.8 J
BARIUM		4.2	9.2	4.8	5	6.5	10	1.3	2.1	1.8	2.5	1.7	1.9	1.9	1.7
BERYLLIUM		0.148	0.578	0.593	0.209	0.562	0.691	0.375	0.364	0.518	0.495	0.07 J	0.563	0.678	0.448
CADMIUM		0.27 UJ	0.1 U	0.1 U	0.049 U	0.1 U	0.1 U	0.049 U	0.15 UJ	0.1 U	0.13 UJ	0.049 U	0.1 U	0.15 UJ	0.1 U
CALCIUM		4270 J	1610 J	1080 J	244 J	609 J	740 J	813 J	10400 J	1580 J	1390 J	72.5 J	1400 J	11800 J	1480 J
CHROMIUM		7 J	19.2 J	14.2 J	3.7	5.7	7.8	4.5	5.6	6.6	8.3	0.35 U	10.3	7.8	5.3
COBALT		8.2 J	15.3 J	12.3 J	9.3 J	2.5 J	2.8 J	8.5 J	19.6 J	7.9 J	14.5 J	0.35 J	16.6 J	16.9 J	15.7 J
COPPER		7 J	22.8 J	20.1 J	53.3 J	16.2 J	18.9 J	10.7 J	10.2 J	6.9 J	11.1 J	0.68 J	7 J	9.4 J	5.5 J
IRON		15700 J	37000 J	26300 J	9690	26600	30900	18300	36700	26100	33700	2040	34300	34200	28300
LEAD		15.6 J	13.3 J	12.3 J	13.2 J	2 J	2 J	5.7 J	3.4 J	24.3 J	5 J	0.965 J	2.3 J	6.9 J	3 J
MAGNESIUM		2620 J	5320 J	3810 J	600 J	3780 J	4440 J	4360 J	6250 J	5520 J	7030 J	591 J	7940 J	7610 J	6890 J
MANGANESE		322 J	317 J	219 J	15 J	72.9 J	80.5 J	144 J	3830 J	194 J	546 J	13.9 J	247 J	1950 J	267 J
MERCURY		0.013 U	0.013 U	0.012 U	0.013 U	0.013 U	0.012 U	0.012 U	0.013 U	0.013 U	0.012 U	0.013 U	0.013 U	0.013 U	0.013 U
NICKEL		11.7	38.8	29.1	17.3	16.5	18.5	18.6	27.4	20.9	31.1	0.91	35.5	30.7	28.1
POTASSIUM		81.8 J	370	321	359	400	378	66.3 J	115	97.7	139	48.8 U	85.6 J	83.7 J	112
SELENIUM		0.15 UJ	0.3 UJ	0.3 UJ	0.15 UJ	0.49 UJ	0.49 UJ	0.15 UJ	1.4 UJ	0.38 UJ	0.6 UJ	0.15 UJ	0.67 UJ	0.4 UJ	0.5 UJ
SILVER		0.049 U	0.05 U	0.049 U	0.095 J	0.049 U	0.049 U	0.049 U	0.48 U	0.048 U	0.05 U	0.049 U	0.048 U	0.1 U	0.05 U
SODIUM		111	340	346	220	244	242	62.4 J	63.8 J	153	108	48.8 U	152	95.4 J	94.8 J
THALLIUM		0.29 UJ	0.5 UJ	0.3 UJ	0.2 UJ	0.59 UJ	0.39 UJ	0.2 UJ	1.4 UJ	0.29 UJ	0.3 UJ	0.24 UJ	0.48 UJ	0.75 UJ	0.4 UJ
VANADIUM		5.8	13.3	9.3	3.5	10.3	12.2	7.4	5.5	11.4	11.5	0.62	17.8	10.6	11.7
ZINC		43.6 J	68.1 J	50.9 J	12.6 J	29.3 J	32.5 J	54.9 J	84 J	37.2 J	65.4 J	2.9 J	32.2 J	80.4 J	31.5 J

Notes:

FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

TABLE D-2

BEDROCK SAMPLE ANALYTICAL RESULTS
NAVAL STATION NEWPORT, NEWPORT, RHODE ISLAND

	BEDROCK FORMATION	RHODE ISLAND FORMATION					
	SAMPLE_ID	BWBK-BR-RI1-C11	BWBK-BR-RI1-C12	BWBK-BR-RI1-C13	BWBK-BR-RI1-C13-D	BWBK-BR-RI1-C14	BWBK-BR-RI1-C15
	LOCATION_ID	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1	BWBK-BR-RI1
	TOP_DEPTH (FT BGS)	55	62	64	64	70	72
	BOTTOM_DEPTH (FT BGS)	56	64	66	66	72	74
	SAMPLE_DATE	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06	09/06/06
PARAMETER	QC REFERENCE				DUPLICATE		
METALS (MG/KG)							
ALUMINUM		10300	13300	12900	14600	5750	9490
ANTIMONY		0.97 UJ	1 UJ	0.96 UJ	2.5 UJ	0.98 UJ	0.97 UJ
ARSENIC		53.6 J	68.8 J	78.5 J	79 J	46.1 J	48 J
BARIUM		8.9	9.1	7.4	7.8	12.2	6.4
BERYLLIUM		0.623	0.73	0.587	0.64	0.869	0.502
CADMIUM		0.1 U	0.11 UJ	0.12 UJ	0.25 U	0.1 U	0.16 UJ
CALCIUM		1640 J	2540 J	1600 J	3520 J	4510 J	7620 J
CHROMIUM		9.7	12.8	11	12.2	4.8	10.4
COBALT		15.3 J	17.2 J	30.4 J	31.9 J	17.8 J	12.1 J
COPPER		33.4 J	37.9 J	51.6 J	44.8 J	23.8 J	25.1 J
IRON		30200	39700	43800	50100	32000	34000
LEAD		7.7 J	11.7 J	26.3 J	26.2 J	21.3 J	7.1 J
MAGNESIUM		5460 J	7350 J	6280 J	7680 J	6430 J	6700 J
MANGANESE		290 J	388 J	213 J	372 J	427 J	1540 J
MERCURY		0.013 U	0.013 U	0.012 U	0.013 U	0.012 U	0.013 U
NICKEL		39.3	47.2	55.5	58.4	39.4	36.5
POTASSIUM		258	255	244	254	197	185
SELENIUM		0.48 UJ	0.51 UJ	0.38 UJ	0.75 UJ	0.29 UJ	0.29 UJ
SILVER		0.048 U	0.051 U	0.073 J	0.088 J	0.049 U	0.097 U
SODIUM		48.3 U	50.5 U	48.1 U	50.3 U	49 U	48.3 U
THALLIUM		0.29 UJ	0.3 UJ	0.29 UJ	0.75 UJ	0.49 UJ	0.68 UJ
VANADIUM		5.9	8.3	7.4	8.4	3.6	6
ZINC		62.5 J	125 J	90.4 J	83 J	60.9 J	87 J

Notes:

FT BGS - Feet Below Ground Surface

BLACK BACKGROUND - CRITERIA EXCEEDED; GREY BACKGROUND - DETECTED; U - NOT DETECTED; UJ - DETECTION LIMIT APPROXIMATE;
J - QUANTITATION LIMIT APPROXIMATE; R - REJECTED

APPENDIX E

REFERENCE STATISTICS AND CALCULATIONS

APPENDIX E, PART 1

TABULAR DESCRIPTIVE STATISTICS FOR EACH SOIL TYPE

APPENDIX E, TABLE E1-1
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Range of Positive Detection Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	13/13	3520	-	5310	4270	BWBK-SS-BA106-0001	940	497	228000	0.776	-0.360	4240
Arsenic	13/13	0.83	-	1.3	1.03	BWBK-SS-BA104-0001	0.265	0.146	0.0197	0.501	-0.912	1.02
Barium	13/13	6.3 J	-	14.5	7.69	BWBK-SS-BA110-0001	1.2	2.17	4.34	2.977	9.578	7.49
Beryllium	13/13	0.14 J	-	0.19 J	0.151	BWBK-SS-BA113-0001-D	0.02	0.01	0.0000929	0.505	-0.700	0.151
Calcium	13/13	588	-	4830	1420	BWBK-SS-BA105-0001	1184	1260	1470000	2.036	3.917	1105
Chromium	13/13	4.8	-	7.8	5.84	BWBK-SS-BA106-0001-D	1.6	0.883	0.72	0.590	-0.840	5.78
Cobalt	13/13	1.6 J	-	2.5	1.95	BWBK-SS-BA110-0001	0.53	0.3	0.0829	0.600	-0.835	1.93
Copper	13/13	2.7	-	11.2	4.13	BWBK-SS-BA113-0001-D	1.4	1.95	3.5	2.686	8.046	3.85
Iron	13/13	7180	-	10200	8210	BWBK-SS-BA106-0001	1300	799	589000	0.773	0.051	8179
Lead	13/13	2.6 J	-	5	3.14	BWBK-SS-BA113-0001	0.7	0.592	0.324	1.905	4.013	3.10
Magnesium	13/13	1560 J	-	2420 J	1970	BWBK-SS-BA106-0001	580	278	71200	0.322	-1.766	1948
Manganese	13/13	96.9	-	165	116	BWBK-SS-BA106-0001	20	11.4	120	0.622	-0.964	116
Nickel	13/13	5.2	-	8.6	6.24	BWBK-SS-BA106-0001	1.9	1.06	1.04	0.821	-0.847	6.16
Potassium	13/13	459	-	877	552	BWBK-SS-BA110-0001	70	111	11300	2.457	6.581	544
Sodium	13/13	131 J	-	349	254	BWBK-SS-BA105-0001	111	67.8	4240	-0.246	-0.749	245
Vanadium	13/13	5.2	-	8.3	6.37	BWBK-SS-BA104-0001	1.18	0.952	0.836	1.147	0.166	6.31
Zinc	13/13	18.1	-	35.7	20.9	BWBK-SS-BA113-0001	3	4.56	19.2	3.010	9.859	20.5

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-2
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	5470	-	16800	11300	BWBK-SS-MA09-0001	2700	2420	5580000	0.015	1.395	11038
Arsenic	20/20	2.4	-	22.5	7.05	BWBK-SS-MA06-0001	5.77	4.81	22	1.909	4.663	5.89
Barium	20/20	15	-	61	39.4	BWBK-SS-MA06-0001	15.2	10.6	108	0.144	0.551	37.9
Beryllium	20/20	0.12 J	-	0.62	0.388	BWBK-SS-MA09-0001	0.135	0.113	0.0121	-0.208	0.708	0.368
Cadmium	3/20	0.077 J	-	0.15	0.0453	BWBK-SS-MA09-0001	0.073	0.0298	0.000845	2.850	8.230	0.0403
Calcium	20/20	304 J	-	2620 J	981	BWBK-SS-MA06-0001	677	545	282000	1.493	3.126	859
Chromium	20/20	4.8	-	17.4	12	BWBK-SS-MA09-0001	3.3	2.86	7.77	-0.363	1.236	11.7
Cobalt	20/20	0.85	-	7.5	4.08	BWBK-SS-MA09-0001	2.12	1.81	3.11	0.527	-0.226	3.67
Copper	20/20	1.6	-	10.6	5.82	BWBK-SS-MA09-0001	2.8	2.49	5.9	0.287	-0.422	5.24
Iron	20/20	5940	-	26600	14800	BWBK-SS-MA11-0001	7800	5290	26600000	0.274	-0.148	13881
Lead	20/20	10.8	-	34.2	17.6	BWBK-SS-MA09-0001	8.2	6.89	45.1	1.294	0.847	16.48
Magnesium	20/20	555 J	-	2700 J	1720	BWBK-SS-MA06-0001	880	548	285000	0.003	-0.269	1626
Manganese	20/20	27.9 J	-	286 J	128	BWBK-SS-MA11-0001	108.4	73.5	5130	0.828	-0.181	109.1
Mercury	20/20	0.018 J	-	0.1	0.0479	BWBK-SS-MA09-0001	0.0217	0.0199	0.000378	0.974	1.245	0.044
Nickel	20/20	2.8	-	15	9.75	BWBK-SS-MA09-0001	4.97	3.16	9.47	-0.192	-0.271	9.15
Potassium	20/20	216	-	547 J	351	BWBK-SS-MA09-0001	129	83.3	6590	0.609	0.142	342
Selenium	16/20	0.23 J	-	0.73 J	0.37	BWBK-SS-MA10-0001	0.26	0.204	0.0397	0.261	-0.907	0.307
Sodium	11/20	62.3 J	-	195	69.5	BWBK-SS-MA20-0001	40.2	43.8	1820	1.569	2.594	59.3
Vanadium	20/20	11.6	-	30.4	21.1	BWBK-SS-MA11-0001	9.7	5.52	29	-0.179	-0.913	20.4
Zinc	20/20	10.5	-	57.8	33.1	BWBK-SS-MA09-0001	10.4	10.5	106	0.436	1.172	31.3

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-3
DESCRIPTIVE STATISTICS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	8630	-	15000	10600	BWBK-SB-MA08-0108	1950	1320	1650000	0.660	1.387	10534
Arsenic	20/20	5.7	-	49.4	16.8	BWBK-SB-MA08-0108	10.3	12	137	1.442	0.904	13.8
Barium	20/20	13.6	-	45.5	26.6	BWBK-SB-MA14-0104	8.2	7.01	46.7	0.430	0.158	25.7
Beryllium	20/20	0.35	-	0.78	0.497	BWBK-SB-MA15-0105	0.155	0.107	0.0109	0.905	1.002	0.487
Cadmium	3/20	0.14 J	-	0.19	0.0547	BWBK-SB-MA03-0108	0.05	0.0513	0.0025	2.097	3.122	0.0423
Calcium	20/20	558 J	-	1870 J	1390	BWBK-SB-MA04-0106	460	383	139000	-0.899	-0.351	1330
Chromium	20/20	11.6	-	19	14.5	BWBK-SB-MA08-0108	3.1	1.88	3.35	0.231	-0.453	14.423
Cobalt	20/20	5.9	-	19.9	10.4	BWBK-SB-MA03-0108	3.75	3.2	9.73	1.193	3.006	9.95
Copper	20/20	6.1	-	24.4	15.3	BWBK-SB-MA09-0108	6.8	4.86	22.4	-0.291	-0.526	14.5
Iron	20/20	15100	-	57100	27200	BWBK-SB-MA08-0108	8700	8030	61200000	1.226	3.716	26175
Lead	20/20	6.4	-	13.4	8.75	BWBK-SB-MA11-0108	1.12	1.7	2.74	1.442	2.363	8.61
Magnesium	20/20	1920	-	4200	2880	BWBK-SB-MA04-0106	1100	678	437000	0.290	-0.695	2806
Manganese	20/20	157 J	-	1750	501	BWBK-SB-MA01-0105	234	351	117000	2.651	8.521	427
Mercury	2/20	0.018 J	-	0.023 J	0.00829	BWBK-SB-MA14-0104-D	0.0066	0.00449	0.0000191	2.798	6.758	0.0076
Nickel	20/20	11.8	-	27.4	19.3	BWBK-SB-MA08-0108	8.8	4.8	21.9	-0.340	-1.445	19
Potassium	20/20	288	-	721 J	521	BWBK-SB-MA12-0108	257	136	17700	0.028	-1.003	503
Selenium	2/20	0.35 J	-	0.36 J	0.148	BWBK-SB-MA17-0104	0.193	0.0764	0.00554	1.447	2.008	0.133
Sodium	7/20	59.3 J	-	107 J	47.3	BWBK-SB-MA19-0103	46.6	28.2	755	1.219	0.071	41.1
Vanadium	20/20	15.2	-	26.3	18.9	BWBK-SB-MA08-0108	3.1	3	8.53	1.088	0.465	18.6
Zinc	20/20	30.5	-	76.2	49.3	BWBK-SB-MA08-0108	22.5	12	136	-0.082	-1.022	47.9

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-4
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	8300	-	15500	11800	BWBK-SS-MM108-0001	4750	2520	6050000	0.137	-1.676	11499
Arsenic	20/20	2.4	-	6	4.03	BWBK-SS-MM103-0001	1.58	1.14	1.23	0.405	-0.844	3.87
Barium	20/20	15.6	-	31.7	22.4	BWBK-SS-MM104-0001	9.4	5.45	28.2	0.485	-1.359	21.8
Beryllium	20/20	0.26 J	-	0.58	0.419	BWBK-SS-MM101-0001	0.207	0.111	0.0118	0.061	-1.550	0.405
Calcium	20/20	222 J	-	480	323	BWBK-SS-MM119-0001	114	74.7	5310	0.661	-0.222	316
Chromium	20/20	5.8	-	15.1	9.87	BWBK-SS-MM106-0001	4.97	2.63	6.55	0.138	-1.034	9.53
Cobalt	20/20	1.3 J	-	4.6	2.87	BWBK-SS-MM106-0001	2.07	1.09	1.12	0.144	-1.190	2.663
Copper	20/20	3.6	-	11.3	6.84	BWBK-SS-MM104-0001	4.2	2.33	5.16	0.109	-1.015	6.44
Iron	20/20	8240	-	18000	13800	BWBK-SS-MM104-0001	7000	3330	10500000	-0.122	-1.443	13394
Lead	20/20	5.3	-	18.4	10.8	BWBK-SS-MM113-0001	4.87	3.35	10.7	0.347	-0.062	10.3
Magnesium	20/20	767 J	-	2290 J	1520	BWBK-SS-MM107-0001	965	513	250000	-0.018	-1.310	1429
Manganese	20/20	80.4	-	194	141	BWBK-SS-MM106-0001	62	36.3	1250	-0.200	-1.196	136
Mercury	18/20	0.016 J	-	0.056	0.0271	BWBK-SS-MM107-0001	0.0178	0.0121	0.000139	0.417	0.354	0.024
Nickel	20/20	4.5	-	10.6	7.7	BWBK-SS-MM104-0001	3.83	2.05	4.01	-0.367	-1.336	7.41
Potassium	20/20	276 J	-	840	494	BWBK-SS-MM106-0001	239	167	26400	0.664	-0.050	468
Selenium	13/20	0.18 J	-	0.55 J	0.251	BWBK-SS-MM103-0001	0.165	0.15	0.0215	0.326	-1.095	0.204
Sodium	1/20	63.3 J	-	63.3 J	32.3	BWBK-SS-MM106-0001	31.6	7.79	57.6	3.629	14.718	31.7
Vanadium	20/20	10.8	-	22.7	17	BWBK-SS-MM108-0001	7.4	3.99	15.1	-0.012	-1.540	16.6
Zinc	20/20	15.1	-	29.4	22	BWBK-SS-MM107-0001	8.7	4.7	21	0.120	-1.208	21.5

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-5
DESCRIPTIVE STATISTICS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Range of Positive Detection Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	5520	-	12000	8830	BWBK-SB-MM106-0110	2530	1650	2590000	0.138	-0.356	8680
Arsenic	20/20	2.5	-	6.7	4.04	BWBK-SB-MM104-0110	0.84	0.914	0.793	1.291	2.894	3.95
Barium	20/20	14.6	-	42.9	24.3	BWBK-SB-MM115-0110	6.0	6.46	39.7	1.357	2.536	23.6
Beryllium	20/20	0.28	-	0.71	0.384	BWBK-SB-MM105-0110	0.088	0.102	0.00986	2.062	4.982	0.37
Calcium	20/20	348	-	923	605	BWBK-SB-MM115-0110	204	162	24900	0.572	-0.093	585.0
Chromium	20/20	6.2 J	-	18.8 J	11.4	BWBK-SB-MM113-0110	3.97	3.15	9.4	0.477	0.236	11.0
Cobalt	20/20	4.6	-	11.3	6.95	BWBK-SB-MM103-0107	1.3	1.47	2.05	1.325	3.118	6.81
Copper	20/20	8	-	43.7	14.3	BWBK-SB-MM104-0110	3.9	7.36	51.4	3.654	14.876	13.35
Iron	20/20	10600	-	24000	16200	BWBK-SB-MM104-0110	2800	3150	9450000	0.694	1.029	15933.50
Lead	20/20	5.3	-	13.1	7.66	BWBK-SB-MM101-0110-D	2.2	1.35	1.74	0.318	-0.285	7.54
Magnesium	20/20	1880	-	4580	2990	BWBK-SB-MM104-0110	620	693	456000	0.790	1.123	2919.3
Manganese	20/20	193	-	768	316	BWBK-SB-MM112-0110	80	115	12500	2.047	4.385	301
Nickel	20/20	7.6	-	22.6	12.9	BWBK-SB-MM118-0110	2.9	3.19	9.64	1.486	3.782	12.6
Potassium	20/20	610 J	-	2440 J	1300	BWBK-SB-MM115-0110	450	398	150000	1.179	2.526	1243.906
Sodium	2/20	54.9 J	-	67.8 J	30.5	BWBK-SB-MM106-0110	26.6	10.8	111	3.020	8.550	29.4
Vanadium	20/20	8.6	-	19	13.2	BWBK-SB-MM106-0110	4.4	2.93	8.18	0.458	-0.547	12.9
Zinc	20/20	18.7 J	-	42.8 J	29.6	BWBK-SB-MM106-0110	3.8	5.16	25.3	0.513	2.079	29.2

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-6
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	22/22	9260	-	17900	13100	BWBK-SS-NE09-0001	4900	2810	7520000	-0.037	-1.492	12856
Arsenic	22/22	1.7	-	17.1	6.28	BWBK-SS-NE02-0001	6.4	4.39	18.4	0.963	0.259	4.94
Barium	22/22	18.2	-	36.3	25.2	BWBK-SS-NE09-0001	6.7	5.03	24.2	0.631	-0.229	24.8
Beryllium	22/22	0.28 J	-	0.79	0.485	BWBK-SS-NE09-0001	0.225	0.133	0.017	0.235	-0.422	0.47
Cadmium	6/22	0.068 J	-	0.53	0.0748	BKG-SS03-NEB-0016	0.1677	0.11	0.0116	3.695	14.983	0.048
Calcium	22/22	231 J	-	559 J	370	BWBK-SS-NE01-0001	169	103	10100	0.365	-1.221	356.5
Chromium	22/22	6.3	-	17.1	11.3	BWBK-SS-NE01-0001	7.6	3.95	14.9	0.047	-1.651	10.7
Cobalt	22/22	1.5 J	-	7.4	3.83	BWBK-SS-NE04-0001	3.12	1.93	3.54	0.356	-1.134	3.35
Copper	22/22	3.3	-	20.3	10.1	BWBK-SS-NE10-0001	9.4	5.82	32.3	0.483	-1.124	8.49
Iron	22/22	9020	-	23000	15100	BWBK-SS-NE01-0001	9100	4870	22600000	0.091	-1.594	14314
Lead	22/22	8.2	-	44 J	16.6	BKG-SS03-NEB-0016	8.8	8.15	63.4	1.930	5.138	15.1
Magnesium	22/22	932 J	-	2780 J	1740	BWBK-SS-NE02-0001	940	602	346000	0.242	-1.189	1637
Manganese	22/22	85.5	-	290	171	BWBK-SS-NE01-0001	76	50.8	2470	0.431	-0.051	163.8
Mercury	22/22	0.021 J	-	0.24	0.0844	BWBK-SS-NE01-0001	0.0947	0.0606	0.00351	0.926	0.323	0.065
Nickel	22/22	4.6	-	16.5	9.44	BWBK-SS-NE02-0001	6.75	3.84	14.1	0.188	-1.416	8.67
Potassium	22/22	308	-	666	402	BWBK-SS-NE101-0001	49	69.4	4600	2.679	10.230	397
Selenium	16/22	0.2 J	-	0.89	0.295	BKG-SS03-NEB-0016	0.145	0.192	0.0353	1.399	3.215	0.24
Vanadium	22/22	12.5	-	23.1	18.1	BKG-SS03-NEB-0016	5.5	3.28	10.3	-0.123	-1.016	17.8
Zinc	22/22	15.6	-	67.4	29.9	BWBK-SS-NE02-0001	19.9	13.7	179	1.170	1.354	27.3

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-7
DESCRIPTIVE STATISTICS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Range of Positive Detection Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	8090	-	12300	10600	BWBK-SB-NE01-0108	1000	1110	1160000	-0.790	1.014	10539
Arsenic	20/20	1.9	-	5.8	3.71	BWBK-SB-NE02-0109	2.55	1.32	1.67	0.062	-1.630	3.47
Barium	20/20	16.4	-	39.6	26.5	BWBK-SB-NE102-0110	15.7	8.19	63.8	0.274	-1.482	25.3
Beryllium	20/20	0.3	-	0.51	0.394	BWBK-SB-NE10-0107	0.077	0.0558	0.00296	0.212	-0.344	0.39
Cadmium	2/20	0.067 J	-	0.075 J	0.0322	BWBK-SB-NE01-0108	0.0247	0.0134	0.000172	2.860	7.179	0.031
Calcium	20/20	314	-	815	540	BWBK-SB-NE09-0110	256	143	19400	0.245	-1.235	522
Chromium	20/20	7.6 J	-	14.9	11.3	BWBK-SB-NE01-0108	3.35	2.13	4.3	-0.119	-0.758	11.1
Cobalt	20/20	4.8	-	9.6	7.07	BWBK-SB-NE01-0108	2.82	1.62	2.49	0.111	-1.520	6.89
Copper	20/20	8.5	-	16.8	12.9	BWBK-SB-NE05-0108	3.5	2.3	5.03	-0.088	-0.913	12.71
Iron	20/20	11800	-	23700	18000	BWBK-SB-NE01-0108	7100	3770	13500000	0.048	-1.376	17623
Lead	20/20	5.5	-	7.8	6.77	BWBK-SB-NE07-0107	0.97	0.648	0.399	-0.347	-0.721	6.73
Magnesium	20/20	2050	-	3890	2940	BWBK-SB-NE01-0108	620	455	197000	0.223	-0.113	2907
Manganese	20/20	176	-	634	285	BWBK-SB-NE02-0109	106	99.3	9370	2.375	7.804	272
Mercury	2/20	0.013	-	0.017	0.0077	BWBK-SB-NE07-0107	0.00725	0.00268	0.0000068	2.822	8.156	0.0074
Nickel	20/20	8.8	-	19	13.5	BWBK-SB-NE01-0108	6.5	3.47	11.4	0.197	-1.485	13.1
Potassium	20/20	434	-	2040 J	1030	BWBK-SB-NE105-0110	1082	583	323000	0.226	-1.766	863
Sodium	1/20	54.9 J	-	54.9 J	29.3	BWBK-SB-NE105-0110	27.4	6.23	36.9	4.034	17.097	28.9
Vanadium	20/20	11.7	-	18.5	14	BWBK-SB-NE10-0107	1.8	1.7	2.75	1.025	1.150	13.9
Zinc	20/20	22.1 J	-	41.9	32	BWBK-SB-NE01-0108	10.3	6.31	37.8	0.180	-1.255	31.4

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-8
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Range of Positive Detection Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	9110	-	14600	11200	DABK-S-SO29-0001	2250	1530	2230000	0.633	-0.100	11118
Arsenic	20/20	4.7 J	-	32.3 J	9.59	DABK-S-SO25-0001-D	6.7	4.12	16.1	1.246	1.963	8.86
Barium	20/20	28.1	-	53.1	39.7	DABK-S-SO30-0001	9.4	6.86	44.7	0.120	-0.471	39.1
Beryllium	1/20	0.38 J	-	0.38 J	0.33	DABK-S-SO25-0001-D	0.177	0.0189	0.000339	0.998	2.968	0.330
Chromium	20/20	11.2	-	16	13.5	DABK-S-SO29-0001	2.7	1.41	1.89	0.087	-1.196	13.4
Cobalt	20/20	4.5 J	-	13.8	7.25	DABK-S-SO32-0001	1.65	1.92	3.5	2.204	6.949	7.05
Iron	20/20	12700 J	-	63300 J	19800	DABK-S-SO25-0001-D	7300	6670	42200000	2.406	7.860	19037
Lead	20/20	17.9	-	49.5 J	31.2	DABK-S-SO32-0001	13.2	9.17	79.9	0.272	-0.681	29.9
Magnesium	20/20	1360	-	1960	1610	DABK-S-SO23-0001	220	177	29700	0.465	-0.267	1603
Manganese	20/20	101 J	-	615 J	289	DABK-S-SO25-0001-D	198	113	12100	0.049	-1.058	266
Mercury	4/20	0.1 J	-	0.68	0.0848	DABK-S-SO32-0001	0.465	0.151	0.0218	3.606	13.901	0.045
Nickel	20/20	7.5	-	14.4	10.3	DABK-S-SO26-0001	3.07	1.95	3.6	0.373	-0.487	10.1
Vanadium	20/20	26.1 J	-	42.6	30.5	DABK-S-SO25-0001-D	5	2.95	8.28	0.386	-0.839	30.4
Zinc	20/20	25.9	-	93.7	50.2	DABK-S-SO22-0001	32.1	19.7	368	0.673	-0.340	46.7

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-9
DESCRIPTIVE STATISTICS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	24/24	8390	-	13200	10600	BWBK-SB-PM02-0104	1540	1150	1280000	0.042	0.104	10505
Arsenic	24/24	5.3	-	23.5	14.3	BWBK-SB-SO14-0105-PM	7.8	4.89	22.9	0.048	-0.786	13.40
Barium	24/24	18.2	-	33.4	25.8	BWBK-SB-PM13-0106	5.5	4.22	17	0.111	-0.403	25.4
Beryllium	24/24	0.39	-	0.76	0.529	BWBK-SB-PM02-0104	0.068	0.0856	0.00702	1.099	1.230	0.523
Cadmium	2/24	0.13 J	-	0.15 J	0.0717	BWBK-SB-SO01-0107-PM	0.0525	0.0292	0.000819	1.069	1.270	0.066
Calcium	24/24	646 J	-	1650 J	1090	BWBK-SB-PM04-0105	376	271	70400	-0.010	-0.400	1056
Chromium	24/24	11.9	-	21.3	14.4	BWBK-SB-PM02-0104	1.7	1.92	3.53	2.094	7.011	14.2
Cobalt	24/24	6.5	-	17.1	11.5	BWBK-SB-PM03-0106	5.27	3.14	9.43	-0.106	-0.975	11.0
Copper	24/24	6.5	-	25.8	14.6	BWBK-SB-SO13-0104-PM	6.3	4.46	19.1	0.533	0.492	14.0
Iron	24/24	14900	-	38700	26900	BWBK-SB-PM02-0104	10300	6350	38700000	0.025	-0.604	26152
Lead	24/24	5.2	-	11.3	8.22	BWBK-SB-SO02-0109-PM	3.08	1.71	2.79	0.348	-0.897	8.05
Magnesium	24/24	2080	-	3360	2750	BWBK-SB-PM03-0106	760	406	158000	-0.059	-1.171	2718
Manganese	24/24	214	-	1520 J	549	BWBK-SB-PM06-0105	233	314	94200	2.101	4.658	489
Mercury	1/24	0.016 J	-	0.016 J	0.00757	BWBK-SB-SO02-0109-PM	0.008					0.0074
Nickel	24/24	11.4	-	27.1	18.5	BWBK-SB-SO14-0105-PM	6.1	4.22	17.1	0.140	-0.545	18.0
Potassium	24/24	359 J	-	590	462	BWBK-SB-PM04-0105	62	48.9	2290	0.622	1.244	459
Selenium	1/24	0.71 J	-	0.71 J	0.148	BWBK-SB-SO02-0109-PM	0.355	0.124	0.0148	4.327	20.143	0.128
Sodium	20/24	54.1 J	-	94.5 J	68.7	BWBK-SB-PM01-0105	19.7	21.6	446	-1.021	-0.108	64.2
Vanadium	24/24	15.2	-	28.5	19.3	BWBK-SB-PM10-0105	2.2	3.01	8.7	1.815	3.765	19.1
Zinc	24/24	29.7	-	61.4	42.6	BWBK-SB-SO14-0105-PM	15.1	8.79	74.1	0.401	-0.558	41.8

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-10
DESCRIPTIVE STATISTICS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	20/20	7580	-	16700	12100	DABK-S-SO04-0001	3000	2230	4740000	0.122	-0.329	11857
Arsenic	20/20	3.3 J	-	71.7 J	13	DABK-S-SO06-0001	5.77	14.6	201	3.790	15.614	9.86
Barium	20/20	15.1 J	-	60.6	35	DABK-S-SO02-0001	19.9	11.7	130	0.375	-0.526	33.1
Beryllium	1/20	0.37 J	-	0.37 J	0.35	DABK-S-SO06-0001	0.185	0.0318	0.000963	0.046	-0.229	0.349
Chromium	20/20	7.6	-	28.2	12.7	DABK-S-SO02-0001	3.8	4.27	17.3	2.638	9.283	12.2
Cobalt	20/20	3.3 J	-	11.9	5.52	DABK-S-SO06-0001	1.83	2.33	5.17	2.027	3.608	5.18
Iron	20/20	8290	-	53900	19600	DABK-S-SO06-0001	7300	9130	79200000	2.893	11.138	18225
Lead	20/20	13.4	-	38	23.2	DABK-S-SO19-0001	8.2	6.59	41.3	0.604	0.036	22.3
Magnesium	15/20	1570	-	2930	1660	DABK-S-SO20-0001	710	742	522000	-0.199	-0.744	1460
Manganese	20/20	46.6	-	373	130	DABK-S-SO06-0001	108.8	88.4	7430	1.581	1.903	110
Mercury	2/20	0.1 J	-	0.12 J	0.0559	DABK-S-SO20-0001	0.045	0.0293	0.000816	1.189	0.190	0.050
Nickel	20/20	5.3 J	-	19.1	11	DABK-S-SO02-0001	4.95	3.39	10.9	0.387	0.305	10.5
Vanadium	20/20	14	-	34.2	25.1	DABK-S-SO03-0001	7.9	5.41	27.8	0.008	-0.457	24.5
Zinc	20/20	21.4	-	81.7	43.3	DABK-S-SO02-0001	17.9	14.2	193	0.801	1.473	41.1

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-11
DESCRIPTIVE STATISTICS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	15/15	9060	-	14000	11100	BWBK-SB-SO03-0108	3300	1720	2770000	0.334	-1.288	10930
Arsenic	15/15	4.4	-	37.1	16.8	BWBK-SB-SO06-0108-D	14.1	8.86	73.3	-0.089	-1.251	14.1
Barium	15/15	19.3 J	-	30.2 J	25.2	BWBK-SB-SO09-0106	5.9	3.14	9.2	0.138	-1.044	25.0
Beryllium	15/15	0.44	-	0.62	0.524	BWBK-SB-SO06-0108	0.08	0.0536	0.00269	0.250	-0.963	0.522
Cadmium	11/15	0.084 J	-	0.28	0.135	BWBK-SB-SO06-0108	0.12	0.0724	0.00489	0.252	-1.032	0.114
Calcium	15/15	703 J	-	1540 J	1170	BWBK-SB-SO08-0107	338	255	60500	-0.686	-0.426	1138
Chromium	15/15	12.6	-	17.3	14.8	BWBK-SB-SO08-0107	2.5	1.51	2.14	0.208	-1.242	14.7
Cobalt	15/15	9	-	17.7	13.7	BWBK-SB-SO03-0108	6.1	3.13	9.15	-0.040	-1.631	13.3
Copper	15/15	11.1	-	30.5	19.6	BWBK-SB-SO03-0108	10.6	6.07	34.4	-0.024	-1.027	18.7
Iron	15/15	15000	-	46600	29600	BWBK-SB-SO06-0108	12200	8740	71300000	-0.258	-0.868	28197
Lead	15/15	7.1	-	15.4	10.3	BWBK-SB-SO06-0108	4.9	2.23	4.62	0.118	-1.282	10.0
Magnesium	15/15	2380	-	3850	2970	BWBK-SB-SO03-0108	1050	495	229000	0.509	-1.059	2928
Manganese	15/15	191	-	1330	461	BWBK-SB-SO11-0106	277	320	95500	1.972	3.594	391
Nickel	15/15	15.1	-	37.1	24.2	BWBK-SB-SO03-0108	11.3	6.42	38.4	0.220	-0.553	23.4
Potassium	15/15	376 J	-	677 J	548	BWBK-SB-SO08-0107	124	79.2	5850	-0.156	-0.506	542
Selenium	1/15	0.5 J	-	0.5 J	0.155	BWBK-SB-SO06-0108-D	0.167	0.0663	0.00411	1.207	2.627	0.143
Sodium	3/15	58.8 J	-	60.8 J	35.2	BWBK-SB-SO19-0104	2	13.1	160	1.562	0.657	33.4
Vanadium	15/15	15.5	-	21.2	18.7	BWBK-SB-SO06-0108-D	2.3	1.68	2.63	-0.119	-0.475	18.6
Zinc	15/15	34.1	-	74.5	55.4	BWBK-SB-SO03-0108	21.5	12.8	152	-0.242	-1.082	53.9

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-12
DESCRIPTIVE STATISTICS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	19/19	943	-	16300 J	9750	BWBK-BR-PC1-C15-RI	5540	4000	15100000	-0.954	-0.017	8344
Antimony	1/19	0.55 J	-	0.55 J	0.474	BWBK-BR-RI1-C1-RI	0.275	0.133	0.0167	0.657	4.236	0.455
Arsenic	19/19	1.3 J	-	79 J	37.8	BWBK-BR-RI1-C13-D	39.1	22.6	482	-0.159	-0.817	26.4
Barium	19/19	1.3	-	12.2	4.69	BWBK-BR-RI1-C14	5.7	3.3	10.3	0.806	-0.467	3.68
Beryllium	19/19	0.07 J	-	0.869	0.498	BWBK-BR-RI1-C14	0.252	0.205	0.0396	-0.610	0.259	0.434
Calcium	19/19	72.5 J	-	11800 J	3260	BWBK-BR-RI1-C9	3160	3410	11000000	1.539	1.452	1849
Chromium	18/19	3.7	-	19.2 J	7.89	BWBK-BR-PC1-C15-RI	5.42	3.85	14	0.283	0.413	6.28
Cobalt	19/19	0.35 J	-	31.9 J	13.6	BWBK-BR-RI1-C13-D	7.6	6.6	41.2	0.389	2.345	10.7
Copper	19/19	0.68 J	-	53.3 J	20.6	BWBK-BR-RI1-C1-RI	18.9	14.6	201	0.865	0.173	14.8
Iron	19/19	2040	-	50100	29400	BWBK-BR-RI1-C13-D	8600	10400	100000000	-1.228	2.016	25628
Lead	19/19	0.965 J	-	26.3 J	9.21	BWBK-BR-RI1-C13	9.4	7.43	52.3	1.270	0.767	6.68
Magnesium	19/19	591 J	-	7940 J	5320	BWBK-BR-RI1-C8	2620	2160	4410000	-1.097	0.631	4472
Manganese	19/19	13.9 J	-	3830 J	646	BWBK-BR-RI1-C4	352	930	820000	2.628	7.524	291
Nickel	19/19	0.91	-	58.4	28.5	BWBK-BR-RI1-C13-D	17.9	12.8	154	0.169	0.692	23.6
Potassium	18/19	66.3 J	-	400	188	BWBK-BR-RI1-C2	152	106	10600	0.430	-0.779	155
Silver	2/19	0.073 J	-	0.095 J	0.0451	BWBK-BR-RI1-C1-RI	0.0346	0.0515	0.00251	3.391	12.488	0.034
Sodium	13/19	62.4 J	-	346	128	BWBK-BR-PC1-C15-RI-D	158.9	104	10100	0.647	-0.837	85.9
Vanadium	19/19	0.62	-	17.8	8.32	BWBK-BR-RI1-C8	5.9	4.24	17	0.238	-0.037	6.89
Zinc	19/19	2.9 J	-	125 J	59	BWBK-BR-RI1-C12	50.7	29.5	826	0.056	0.265	47.4

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, TABLE E1-13
DESCRIPTIVE STATISTICS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Freq. of Detection	Range of Positive Detection Min.		Max.	Mean of All Data	Location of Maximum	Interquartile Range (Detects)	Standard Deviation	Variance	Skewness	Kurtosis	Geometric Mean
Aluminum	11/11	2860 J	-	12600 J	7920	BWBK-BR-PC1-C8	6330	3380	10400000	0.095	-1.459	7203
Antimony	1/11	0.52 J	-	0.52 J	0.43	BWBK-BR-PC1-C7	0.26	0.298	0.0806	2.394	6.526	0.371
Arsenic	11/11	0.23 J	-	27.1 J	9.6	BWBK-BR-PC1-C8	9.5	8.31	62.7	1.033	0.605	5.26
Barium	11/11	0.8	-	20.1	4.19	BWBK-BR-PC1-C7	2.6	5.43	26.8	2.989	9.369	2.80
Beryllium	11/11	0.06 J	-	0.75	0.247	BWBK-BR-PC1-C7	0.145	0.224	0.0456	1.707	1.915	0.185
Calcium	11/11	687 J	-	39500 J	9680	BWBK-BR-PC1-C10	11430	11600	120000000	2.041	4.121	5523
Chromium	11/11	4.9 J	-	18.1 J	9.32	BWBK-BR-PC1-C8	5.8	4.13	15.5	1.017	0.561	8.57
Cobalt	11/11	3.8 J	-	37.3 J	15.1	BWBK-BR-PC1-C8	7.5	10.3	97.2	1.428	1.337	12.5
Copper	11/11	6 J	-	60 J	17.8	BWBK-BR-PC1-C7	15.3	15.2	211	2.439	6.836	14.1
Iron	11/11	10800 J	-	61600 J	27500	BWBK-BR-PC1-C10	20700	15100	210000000	1.404	1.427	24513
Lead	11/11	2.5 J	-	31 J	12.4	BWBK-BR-PC1-C9	13.1	9.35	79.4	1.031	0.090	9.46
Magnesium	11/11	1980 J	-	7830 J	3860	BWBK-BR-PC1-C10	2100	1840	3090000	1.274	0.840	3534
Manganese	11/11	71.4 J	-	3680 J	840	BWBK-BR-PC1-C10	1136	1070	1040000	2.209	5.184	448
Nickel	11/11	4.5	-	34.1	16.5	BWBK-BR-PC1-C7	16.9	8.93	72.5	0.965	-0.476	14.6
Potassium	10/11	57.1 J	-	537	128	BWBK-BR-PC1-C7	87.4	141	18100	2.862	8.779	92.9
Selenium	1/11	1.3 J	-	1.3 J	0.253	BWBK-BR-PC1-C8	0.65	0.359	0.117	2.971	9.206	0.158
Silver	1/11	0.085 J	-	0.085 J	0.0394	BWBK-BR-PC1-C8	0.0425	0.0337	0.00103	2.227	4.190	0.032
Sodium	11/11	65.7 J	-	354	142	BWBK-BR-PC1-C7	53.6	78.4	5590	2.286	5.898	128
Vanadium	11/11	4.8	-	35.9	12.1	BWBK-BR-PC1-C8	9.4	9.19	76.7	2.000	4.374	9.93
Zinc	11/11	21.5 J	-	65.1 J	42.2	BWBK-BR-PC1-C10	14.7	12.6	144	0.034	0.197	40.4

Notes:

Units are mg/kg.
Number of sample results excludes rejected data or blank-qualified data. Duplicates are considered as one result.
Mean of all data includes positive detections and non-detected results. Detection limits are divided by two.
Frequency of detection refers to number of times compound was detected among all samples versus total number of samples.
Number of samples may vary based on the number of usable results.
Skewness = (n*SUM(x-xbar)3)/((n-1)(n-2)s3) = a measure of asymmetry of a distribution. 0 indicates perfect symmetry. Positive or negative values indicate asymmetry.
Kurtosis = ((n+1)*n*SUM(x-xbar)4)/((n-1)*(n-2)*(n-3)*s4) - (3*(n-1)2)/((n-2)(n-3)) = measures sharpness of the peak of a distribution (+ or -) relative to normal distribution.

APPENDIX E, PART 2

DIXON'S OUTLIER TEST FOR EACH SOIL TYPE

APPENDIX E, TABLE E2-1
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	13/13	N	5290		0.321	0.521				N	4800		0.037	0.546				N	4790		0.509	0.576			
Arsenic	13/13	N	1.3		0.238	0.521				N	1.2		0.219	0.546				N	1.2		0.313	0.576			
Barium	13/13	Y	14.5	BWBK-SS-BA110-0001	0.802	0.521	Log over norm	0.923	0.859	Y	8.9	BWBK-SS-BA104-0001	0.560	0.546	Log over norm	0.962	0.850	N	8		0.438	0.576			
Beryllium	13/13	N	0.17		0.333	0.521				N	0.165		0.200	0.546				N	0.16		0.500	0.576			
Calcium	13/13	N	4830				Nonparametric	0.713	0.859	N	3000				Not norm;?Log	0.851	0.850	Y	2395	BWBK-SS-BA113-0001	0.718	0.576	Log over norm	0.906	0.842
Chromium	13/13	N	7.45		0.170	0.521				N	7		0.273	0.546				N	7		0.500	0.576			
Cobalt	13/13	N	2.5		0.278	0.521				N	2.4		0.250	0.546				N	2.25		0.385	0.576			
Copper	13/13	Y	10.05	BWBK-SS-BA113-0001	0.752	0.521	Log over norm	0.954	0.859	N	5.5		0.444	0.546				N	4.6		0.444	0.576			
Iron	13/13	N	9920		0.374	0.521				N	9130		0.190	0.546				N	8975		0.331	0.576			
Lead	13/13	Y	4.75	BWBK-SS-BA113-0001	0.659	0.521	Log over norm	0.903	0.859	N	3.8		0.364	0.546				N	3.4		0.571	0.576			
Magnesium	13/13	N	2370		0.113	0.521				N	2300		0.023	0.546				N	2290		0.190	0.576			
Manganese	13/13	N	135		0.125	0.521				N	134		0.355	0.546				N	131		0.429	0.576			
Nickel	13/13	N	8.2		0.233	0.521				N	7.85		0.283	0.546				N	7.5		0.478	0.576			
Potassium	13/13	N	877				Not norm;?Log	0.895	0.859	Y	667	BWBK-SS-BA104-0001	0.557	0.546	Log over norm	0.972	0.850	N	570		0.450	0.576			
Sodium	13/13	N	349		0.176	0.521				N	347		0.276	0.546				N	318		0.166	0.576			
Vanadium	13/13	N	8.3		0.196	0.521				N	7.8				Nonparametric	0.784	0.850	Y	7.75	BWBK-SS-BA106-0001	0.733	0.576	Norm over log	0.880	0.842
Zinc	13/13	Y	35.25	BWBK-SS-BA113-0001	0.801	0.521	Log over norm	0.911	0.859	N	22.6		0.341	0.546				N	21.6		0.324	0.576			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-2
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	16800		0.332	0.450				N	14300		0.099	0.462				N	14300		0.318	0.475			
Arsenic	20/20	Y	22.5	BWBK-SS-MA06-0001	0.544	0.450	Log over norm	0.953	0.901	N	13		0.224	0.462				N	12		0.239	0.475			
Barium	20/20	N	61		0.251	0.450				N	55.3		0.192	0.462				N	53.7		0.156	0.475			
Beryllium	20/20	N	0.62		0.294	0.450				N	0.53		0.160	0.462				N	0.52		0.292	0.475			
Cadmium	3/20	>50%ND	0.15							>50%ND	0.097							>50%ND	0.077						
Calcium	20/20	Y	2620	BWBK-SS-MA06-0001	0.497	0.450	Log over norm	0.968	0.901	N	1700		0.285	0.462				N	1570		0.291	0.475			
Chromium	20/20	N	17.4		0.219	0.450				N	16		0.119	0.462				N	15.8		0.351	0.475			
Cobalt	20/20	N	7.5		0.082	0.450				N	7.4		0.375	0.462				N	7.1		0.467	0.475			
Copper	20/20	N	10.6		0.171	0.450				N	9.7		0.115	0.462				N	9.4		0.397	0.475			
Iron	20/20	N	26600		0.319	0.450				N	21600		0.091	0.462				N	20800		0.153	0.475			
Lead	20/20	N	34.2		0.213	0.450				N	30.8		0.398	0.462				N	29.3		0.470	0.475			
Magnesium	20/20	N	2700		0.190	0.450				N	2570		0.186	0.462				N	2400		0.117	0.475			
Manganese	20/20	N	286		0.184	0.450				N	261		0.310	0.462				N	244		0.311	0.475			
Mercury	20/20	N	0.1		0.357	0.450				N	0.077		0.213	0.462				N	0.075		0.333	0.475			
Nickel	20/20	N	15		0.171	0.450				N	13.9		0.085	0.462				N	13.6		0.088	0.475			
Potassium	20/20	N	547		0.322	0.450				N	462		0.121	0.462				N	456		0.156	0.475			
Selenium	16/20	N	0.73		0.094	0.450				N	0.71		0.276	0.462				N	0.67		0.261	0.475			
Sodium	11/20	N	195				Nonparametric	0.848	0.901	N	152				Nonparametric	0.855	0.897	N	111		0.332	0.475			
Vanadium	20/20	N	30.4		0.176	0.450				N	29.5		0.231	0.462				N	27.5		0.199	0.475			
Zinc	20/20	N	57.8		0.393	0.450				N	51.2		0.354	0.462				N	45.1		0.388	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA --- Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND --- Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal --- The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log --- The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric --- The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-3
DIXON'S OUTLIER TEST FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	14150		0.437	0.450				N	12000		0.200	0.462				N	11900		0.172	0.475			
Arsenic	20/20	N	43.65		0.136	0.450				N	42.6		0.387	0.462				N	38.7				Not norm;?Log	0.964	0.892
Barium	20/20	N	41.15		0.294	0.450				N	39.7		0.265	0.462				N	34.4		0.253	0.475			
Beryllium	20/20	Y	0.78	BWBK-SB-MA15-0105	0.488	0.450	Log over norm	0.947	0.901	N	0.645		0.245	0.462				N	0.585		0.024	0.475			
Cadmium	3/20	>50%ND	0.19							>50%ND	0.18							>50%ND	0.14						
Calcium	20/20	N	1870		0.122	0.450				N	1850		0.142	0.462				N	1730		0.040	0.475			
Chromium	20/20	N	18.7		0.362	0.450				N	16.7		0.092	0.462				N	16.4		0.123	0.475			
Cobalt	20/20	Y	19.9	BWBK-SB-MA03-0108	0.519	0.450	Norm over log	0.956	0.901	N	13.9		0.230	0.462				N	12.95		0.147	0.475			
Copper	20/20	N	24.4		0.271	0.450				N	20.8		0.093	0.462				N	20.5		0.210	0.475			
Iron	20/20	Y	51700	BWBK-SB-MA08-0108	0.525	0.450	Norm over log	0.949	0.901	N	35000		0.140	0.462				N	33600		0.137	0.475			
Lead	20/20	Y	13.4	BWBK-SB-MA11-0108	0.453	0.450	Log over norm	0.949	0.901	N	12.2		0.413	0.462				N	10.5		0.400	0.475			
Magnesium	20/20	N	4200		0.310	0.450				N	4095		0.314	0.462				N	3540		0.136	0.475			
Manganese	20/20	Y	1750	BWBK-SB-MA01-0105	0.651	0.450	Log over norm	0.978	0.901	Y	981	BWBK-SB-MA03-0108	0.534	0.462	Norm over log	0.973	0.897	N	763		0.436	0.475			
Mercury	2/20	>50%ND	0.022							>50%ND	0.0205							ND-NA	0.018						
Nickel	20/20	N	25.4		0.061	0.450				N	25.35		0.065	0.462				N	24.6		0.089	0.475			
Potassium	20/20	N	721		0.073	0.450				N	703		0.020	0.462				N	698		0.089	0.475			
Selenium	2/20	>50%ND	0.36							ND-NA	0.585							>50%ND	0.2225						
Sodium	7/20	>50%ND	107							>50%ND	106							>50%ND	93.7						
Vanadium	20/20	N	25.5		0.192	0.450				N	25.05		0.370	0.462				N	23.6		0.463	0.475			
Zinc	20/20	N	71.4		0.259	0.450				N	63.2		0.057	0.462				N	61.6		0.050	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-4
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	15500		0.061	0.450				N	15200		0.143	0.462				N	15100		0.145	0.475			
Arsenic	20/20	N	6		0.061	0.450				N	6		0.182	0.462				N	5.8		0.387	0.475			
Barium	20/20	N	31.7		0.132	0.450				N	31		0.097	0.462				N	29.7		0.152	0.475			
Beryllium	20/20	N	0.58		0.100	0.450				N	0.58		0.100	0.462				N	0.55		0.111	0.475			
Calcium	20/20	N	480		0.333	0.450				N	473		0.415	0.462				N	403		0.208	0.475			
Chromium	20/20	N	15.1		0.309	0.450				N	12.8		0.069	0.462				N	12.6		0.071	0.475			
Cobalt	20/20	N	4.6		0.129	0.450				N	4.6		0.129	0.462				N	4.2		0.074	0.475			
Copper	20/20	N	11.3		0.293	0.450				N	10.3		0.185	0.462				N	9.1		0.094	0.475			
Iron	20/20	N	18000		0.025	0.450				N	17900		0.012	0.462				N	17800		0.025	0.475			
Lead	20/20	N	18.4		0.281	0.450				N	15.2		0.146	0.462				N	15.2		0.256	0.475			
Magnesium	20/20	N	2290		0.071	0.450				N	2260		0.087	0.462				N	2190		0.167	0.475			
Manganese	20/20	N	194		0.120	0.450				N	190		0.125	0.462				N	182		0.068	0.475			
Mercury	18/20	N	0.056		0.400	0.450				N	0.041		0.080	0.462				N	0.04		0.083	0.475			
Nickel	20/20	N	10.6		0.086	0.450				N	10.3		0.127	0.462				N	10.1		0.170	0.475			
Potassium	20/20	N	840		0.298	0.450				N	830		0.285	0.462				N	678		0.267	0.475			
Selenium	13/20	N	0.55		0.280	0.450				N	0.47		0.156	0.462				N	0.42		0.149	0.475			
Sodium	1/20	>50%ND	63.3							ND-NA	72.5							ND-NA	70.4						
Vanadium	20/20	N	22.7		0.100	0.450				N	22.2		0.074	0.462				N	21.7		0.067	0.475			
Zinc	20/20	N	29.4		0.084	0.450				N	29		0.071	0.462				N	28.3		0.183	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-5
DIXON'S OUTLIER TEST FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	12000		0.243	0.450				N	11300		0.142	0.462				N	10800		0.121	0.475			
Arsenic	20/20	N	6.7		0.441	0.450				N	5.3		0.400	0.462				N	5.2		0.395	0.475			
Barium	20/20	N	42.9		0.429	0.450				N	33.9		0.287	0.462				N	32.6		0.358	0.475			
Beryllium	20/20	N	0.71				Not norm;?Log	0.946	0.901	Y	0.56	BWBK-SB-MM109-0110	0.560	0.462	Log over norm	0.972	0.897	N	0.48		0.382	0.475			
Calcium	20/20	N	923		0.061	0.450				N	893		0.377	0.462				N	891		0.378	0.475			
Chromium	20/20	N	18.8		0.333	0.450				N	16		0.205	0.462				N	15.1		0.189	0.475			
Cobalt	20/20	Y	11.3	BWBK-SB-MM103-0107	0.483	0.450	Log over norm	0.957	0.901	N	8.8		0.121	0.462				N	8.5		0.333	0.475			
Copper	20/20	Y	43.7	BWBK-SB-MM104-0110	0.792	0.450	Log over norm	0.960	0.901	N	19.2		0.458	0.462				N	16.7		0.282	0.475			
Iron	20/20	N	24000		0.394	0.450				N	21600		0.270	0.462				N	19550		0.255	0.475			
Lead	20/20	N	10.6		0.337	0.450				N	9.4		0.102	0.462				N	9.2		0.073	0.475			
Magnesium	20/20	Y	4580	BWBK-SB-MM104-0110	0.496	0.450	Log over norm	0.959	0.901	Y	4510	BWBK-SB-MM106-0110	0.489	0.462	Norm over log	0.939	0.897	N	3450		0.152	0.475			
Manganese	20/20	N	669.5				Not norm;?Log	0.932	0.901	Y	539	BWBK-SB-MM118-0110	0.671	0.462	Log over norm	0.970	0.897	Y	450	BWBK-SB-MM106-0110	0.558	0.475	Norm over log	0.971	0.892
Nickel	20/20	Y	22.6	BWBK-SB-MM118-0110	0.545	0.450	Norm over log	0.980	0.901	N	17.7		0.419	0.462				N	15.9		0.313	0.475			
Potassium	20/20	Y	2440	BWBK-SB-MM115-0110	0.491	0.450	Norm over log	0.973	0.901	N	1810		0.160	0.462				N	1700		0.209	0.475			
Sodium	2/20	>50%ND	67.8							>50%ND	54.9							ND-NA	59.5						
Vanadium	20/20	N	19		0.253	0.450				N	18.45		0.205	0.462				N	16.7		0.162	0.475			
Zinc	20/20	Y	42.8	BWBK-SB-MM106-0110	0.571	0.450	Normal	0.920	0.901	N	38.9				Nonparametric	0.844	0.897	N	31.9		0.049	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-6
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	22/22	N	17900		0.216	0.430				N	17100		0.146	0.440				N	16100		0.092	0.450			
Arsenic	22/22	N	17.1		0.365	0.430				N	14.5		0.303	0.440				N	11.7		0.245	0.450			
Barium	22/22	N	36.3		0.222	0.430				N	34.6		0.353	0.440				N	32.6		0.323	0.450			
Beryllium	22/22	N	0.79		0.367	0.430				N	0.64		0.088	0.440				N	0.61		0.032	0.450			
Cadmium	6/22	>50%ND	0.53							ND-NA	0.38							>50%ND	0.14						
Calcium	22/22	N	559		0.171	0.430				N	541		0.213	0.440				N	507		0.135	0.450			
Chromium	22/22	N	17.1		0.038	0.430				N	17		0.125	0.440				N	16.7		0.149	0.450			
Cobalt	22/22	N	7.4		0.158	0.430				N	7		0.132	0.440				N	6.5		0.229	0.450			
Copper	22/22	N	20.3		0.055	0.430				N	20.2		0.160	0.440				N	19.4		0.316	0.450			
Iron	22/22	N	23000		0.161	0.430				N	22600		0.218	0.440				N	20800		0.139	0.450			
Lead	22/22	Y	44	BKG-SS03-NEB-0016	0.552	0.430	Log over norm	0.957	0.908	N	26.3		0.118	0.440				N	24.4		0.157	0.450			
Magnesium	22/22	N	2780		0.094	0.430				N	2700		0.110	0.440				N	2610		0.263	0.450			
Manganese	22/22	N	290		0.398	0.430				N	253		0.254	0.440				N	222		0.136	0.450			
Mercury	22/22	N	0.24		0.370	0.430				N	0.18		0.256	0.440				N	0.16		0.221	0.450			
Nickel	22/22	N	16.5		0.186	0.430				N	14.5		0.041	0.440				N	14.3		0.135	0.450			
Potassium	22/22	Y	666	BWBK-SS-NE101-0001	0.715	0.430	Norm over log	0.969	0.908	N	461		0.173	0.440				N	445		0.273	0.450			
Selenium	16/22	Y	0.89	BKG-SS03-NEB-0016	0.513	0.430	Normal	0.932	0.908	N	0.58		0.327	0.440				N	0.48		0.179	0.450			
Vanadium	22/22	N	23.1		0.012	0.430				N	23		0.176	0.440				N	23		0.247	0.450			
Zinc	22/22	N	67.4				Nonparametric	0.878	0.908	N	55.8		0.413	0.440				N	40.3		0.030	0.450			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-7
DIXON'S OUTLIER TEST FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	12300		0.169	0.450				N	12300		0.253	0.462				N	11800		0.203	0.475			
Arsenic	20/20	N	5.8		0.167	0.450				N	5.5		0.091	0.462				N	5.2		0.083	0.475			
Barium	20/20	N	39.6		0.094	0.450				N	38.7		0.098	0.462				N	37.5		0.138	0.475			
Beryllium	20/20	N	0.51		0.270	0.450				N	0.48		0.258	0.462				N	0.46		0.222	0.475			
Cadmium	2/20	>50%ND	0.075							>50%ND	0.067							ND-NA	0.066						
Calcium	20/20	N	792.5		0.196	0.450				N	753		0.136	0.462				N	710		0.059	0.475			
Chromium	20/20	N	14.9		0.210	0.450				N	14.6		0.169	0.462				N	13.6		0.041	0.475			
Cobalt	20/20	N	9.6		0.129	0.450				N	9.3		0.080	0.462				N	9		0.074	0.475			
Copper	20/20	N	16.5		0.094	0.450				N	16.3		0.161	0.462				N	15.9		0.155	0.475			
Iron	20/20	N	23700		0.079	0.450				N	23100		0.084	0.462				N	22900		0.075	0.475			
Lead	20/20	N	7.8		0.154	0.450				N	7.5		0.061	0.462				N	7.5		0.061	0.475			
Magnesium	20/20	N	3890		0.280	0.450				N	3550		0.061	0.462				N	3520		0.274	0.475			
Manganese	20/20	Y	634	BWBK-SB-NE02-0109	0.674	0.450	Log over norm	0.937	0.901	N	359		0.110	0.462				N	344		0.150	0.475			
Mercury	2/20	>50%ND	0.017							>50%ND	0.013							ND-NA	0.018						
Nickel	20/20	N	19		0.131	0.450				N	18.8		0.117	0.462				N	17.8		0.113	0.475			
Potassium	20/20	N	2040		0.226	0.450				N	1770		0.091	0.462				N	1680		0.106	0.475			
Sodium	1/20	>50%ND	54.9							ND-NA	66							ND-NA	60.6						
Vanadium	20/20	N	18.5		0.377	0.450				N	16.5		0.122	0.462				N	16.2		0.421	0.475			
Zinc	20/20	N	41.9		0.070	0.450				N	41.6		0.065	0.462				N	40.7		0.244	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-8
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	14600		0.300	0.450				N	14000		0.350	0.462				N	13050		0.262	0.475			
Arsenic	20/20	Y	21.3	DABK-S-SO25-0001	0.513	0.450	Log over norm	0.951	0.901	N	15		0.215	0.462				N	13.3		0.053	0.475			
Barium	20/20	N	53.1		0.219	0.450				N	48.7		0.018	0.462				N	48.5		0.195	0.475			
Beryllium	1/20	ND-NA	0.77							>50%ND	0.3525							ND-NA	0.7						
Chromium	20/20	N	16		0.200	0.450				N	15.2		0.031	0.462				N	15.2		0.063	0.475			
Cobalt	20/20	Y	13.8	DABK-S-SO32-0001	0.684	0.450	Log over norm	0.976	0.901	N	9.8		0.436	0.462				N	8.4		0.240	0.475			
Iron	20/20	Y	43300	DABK-S-SO25-0001	0.643	0.450	Log over norm	0.970	0.901	N	25700		0.191	0.462				N	24600		0.135	0.475			
Lead	20/20	N	49.5		0.197	0.450				N	44.5		0.096	0.462				N	43.6		0.296	0.475			
Magnesium	20/20	N	1960		0.263	0.450				N	1960		0.298	0.462				N	1810		0.298	0.475			
Manganese	20/20	N	477		0.131	0.450				N	453.5		0.110	0.462				N	433		0.106	0.475			
Mercury	4/20	>50%ND	0.68							>50%ND	0.26							>50%ND	0.14						
Nickel	20/20	N	14.4		0.344	0.450				N	13.6		0.357	0.462				N	12.2		0.167	0.475			
Vanadium	20/20	N	35.8		0.102	0.450				N	35.2		0.134	0.462				N	34.9		0.139	0.475			
Zinc	20/20	N	93.7		0.340	0.450				N	84.4		0.250	0.462				N	71.6		0.154	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-9
DIXON'S OUTLIER TEST FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	24/24	N	13200		0.323	0.413				N	12300		0.233	0.421				N	11800		0.136	0.430			
Arsenic	24/24	N	23.5		0.189	0.413				N	21.8		0.099	0.421				N	20.5		0.132	0.430			
Barium	24/24	N	33.4		0.074	0.413				N	33.2		0.187	0.421				N	32.4		0.238	0.430			
Beryllium	24/24	N	0.76		0.313	0.413				N	0.68		0.167	0.421				N	0.66		0.273	0.430			
Cadmium	2/24	>50%ND	0.15							>50%ND	0.13							ND-NA	0.23						
Calcium	24/24	N	1650		0.271	0.413				N	1550		0.233	0.421				N	1390		0.165	0.430			
Chromium	24/24	Y	21.3	BWBK-SB-PM02-0104	0.602	0.413	Norm over log	0.964	0.914	N	17.2		0.365	0.421				N	15.7		0.189	0.430			
Cobalt	24/24	N	17.1		0.147	0.413				N	15.9		0.111	0.421				N	15.6		0.172	0.430			
Copper	24/24	N	25.8		0.367	0.413				N	22.2		0.238	0.421				N	19.7		0.181	0.430			
Iron	24/24	N	38700		0.180	0.413				N	36100		0.069	0.421				N	35100		0.061	0.430			
Lead	24/24	N	11.3		0.104	0.413				N	10.8		0.047	0.421				N	10.8		0.116	0.430			
Magnesium	24/24	N	3360		0.068	0.413				N	3350		0.085	0.421				N	3280		0.073	0.430			
Manganese	24/24	N	1520				Not norm;?Log	0.971	0.914	Y	1370	BWBK-SB-PM11-0104	0.658	0.421	Log over norm	0.976	0.911	N	850		0.349	0.430			
Mercury	1/24	>50%ND	0.016							ND-NA	0.016							ND-NA	0.016						
Nickel	24/24	N	27.1		0.243	0.413				N	25.6		0.171	0.421				N	23.6		0.211	0.430			
Potassium	24/24	Y	590	BWBK-SB-PM04-0105	0.438	0.413	Norm over log	0.977	0.914	N	548.5		0.297	0.421				N	512		0.100	0.430			
Selenium	1/24	>50%ND	0.71							ND-NA	0.34							ND-NA	0.34						
Sodium	20/24	N	94.5		0.090	0.413				N	89.6		0.021	0.421				N	88.5		0.007	0.430			
Vanadium	24/24	N	28.5				Not norm;?Log	0.929	0.914	Y	26.6	BWBK-SB-PM02-0104	0.470	0.421	Log over norm	0.979	0.911	N	22.2		0.268	0.430			
Zinc	24/24	N	61.4		0.189	0.413				N	56.5		0.151	0.421				N	55.7		0.160	0.430			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND	---	Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal	---	The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-10
DIXON'S OUTLIER TEST FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	20/20	N	16700		0.251	0.450				N	15200		0.149	0.462				N	14800		0.292	0.475			
Arsenic	20/20	Y	71.7	DABK-S-SO06-0001	0.841	0.450	Log over norm	0.963	0.901	Y	23.5	DABK-S-SO20-0001	0.582	0.462	Norm over log	0.989	0.897	N	16.3		0.352	0.475			
Barium	20/20	N	60.6		0.359	0.450				N	48.5		0.064	0.462				N	47.3		0.063	0.475			
Beryllium	1/20	ND-NA	0.815							ND-NA	0.81							ND-NA	0.78						
Chromium	20/20	Y	28.2	DABK-S-SO02-0001	0.649	0.450	Norm over log	0.968	0.901	N	16		0.232	0.462				N	15.8		0.254	0.475			
Cobalt	20/20	N	11.9				Nonparametric	0.737	0.901	N	11.4				Not norm;?Log	0.934	0.897	N	7.5		0.368	0.475			
Iron	20/20	Y	53900	DABK-S-SO06-0001	0.738	0.450	Normal	0.940	0.901	N	24100		0.055	0.462				N	23800		0.075	0.475			
Lead	20/20	N	38		0.221	0.450				N	33.6		0.275	0.462				N	33.1		0.347	0.475			
Magnesium	15/20	N	2930		0.202	0.450				N	2780		0.184	0.462				N	2460		0.065	0.475			
Manganese	20/20	N	373		0.410	0.450				N	296		0.395	0.462				N	248		0.356	0.475			
Mercury	2/20	>50%ND	0.12							ND-NA	0.22							ND-NA	0.21						
Nickel	20/20	N	19.1		0.367	0.450				N	14.8		0.058	0.462				N	14.7		0.105	0.475			
Vanadium	20/20	N	34.2		0.222	0.450				N	34		0.225	0.462				N	30.8		0.034	0.475			
Zinc	20/20	Y	81.7	DABK-S-SO02-0001	0.493	0.450	Norm over log	0.969	0.901	N	60.9		0.190	0.462				N	54.9		0.080	0.475			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":
ND-NA --- Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND --- Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":
Normal --- The W-Test indicates the data minus the test point matches a normal distribution.
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Log over norm --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log --- The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric --- The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-11
DIXON'S OUTLIER TEST FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	15/15	N	14000		0.185	0.525				N	13450		0.197	0.546				N	13100		0.175	0.521			
Arsenic	15/15	N	32.2		0.281	0.525				N	25		0.071	0.546				N	24.6		0.065	0.521			
Barium	15/15	N	30.2		0.174	0.525				N	29.9		0.169	0.546				N	28.7		0.226	0.521			
Beryllium	15/15	N	0.61		0.071	0.525				N	0.6		0.231	0.546				N	0.6		0.276	0.521			
Cadmium	11/15	N	0.25		0.051	0.525				N	0.24		0.324	0.546				N	0.24		0.432	0.521			
Calcium	15/15	N	1540		0.168	0.525				N	1420		0.152	0.546				N	1420		0.145	0.521			
Chromium	15/15	N	17.3		0.167	0.525				N	16.85		0.280	0.546				N	16.6		0.229	0.521			
Cobalt	15/15	N	17.7		0.053	0.525				N	17.7		0.120	0.546				N	17.3		0.073	0.521			
Copper	15/15	N	30.5		0.326	0.525				N	26.8		0.227	0.546				N	24.7		0.096	0.521			
Iron	15/15	N	42650		0.112	0.525				N	40900		0.263	0.546				N	39900		0.217	0.521			
Lead	15/15	N	13.5		0.085	0.525				N	13.4		0.086	0.546				N	13		0.355	0.521			
Magnesium	15/15	N	3850		0.176	0.525				N	3630		0.050	0.546				N	3600		0.420	0.521			
Manganese	15/15	N	1330				Not norm;?Log	0.949	0.874	Y	1040	BWBK-SB-SO07-0106	0.639	0.546	Log over norm	0.954	0.866	N	563		0.305	0.521			
Nickel	15/15	N	37.1		0.325	0.525				N	31		0.131	0.546				N	30.4		0.218	0.521			
Potassium	15/15	N	677		0.245	0.525				N	648		0.181	0.546				N	632		0.096	0.521			
Selenium	1/15	>50%ND	0.3325							ND-NA	0.45							ND-NA	0.35						
Sodium	3/15	>50%ND	60.8							>50%ND	60.5							>50%ND	58.8						
Vanadium	15/15	N	21.15		0.059	0.525				N	21.1		0.310	0.546				N	20.9		0.311	0.521			
Zinc	15/15	N	74.5		0.142	0.525				N	72.1		0.258	0.546				N	69.5		0.258	0.521			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
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If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA --- Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND --- Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":

Normal --- The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log --- The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric --- The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-12
DIXON'S OUTLIER TEST FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	11/11	N	12600		0.147	0.576				N	12300		0.115	0.477				N	11400		0.212	0.512			
Antimony	1/11	ND-NA	2.5							>50%ND	0.52							ND-NA	1						
Arsenic	11/11	N	27.1		0.485	0.576				N	20.4		0.311	0.477				N	14.2		0.160	0.512			
Barium	11/11	Y	20.1	BWBK-BR-PC1-C7	0.850	0.576	Log over norm	0.989	0.842	N	5.3		0.282	0.477				N	4.2		0.250	0.512			
Beryllium	11/11	N	0.75				Not norm;?Log	0.949	0.842	Y	0.609	BWBK-BR-PC1-C10	0.662	0.477	Log over norm	0.961	0.829	N	0.263		0.237	0.512			
Calcium	11/11	N	39500				Not norm;?Log	0.936	0.842	N	21300		0.316	0.477				Y	15100	BWBK-BR-PC1-C8	0.709	0.512	Normal	0.893	0.818
Chromium	11/11	N	18.1		0.470	0.576				N	14.2		0.247	0.477				N	11.9		0.171	0.512			
Cobalt	11/11	N	37.3				Not norm;?Log	0.967	0.842	Y	31.7	BWBK-BR-PC1-C7	0.650	0.477	Norm over log	0.949	0.829	N	15.7		0.047	0.512			
Copper	11/11	Y	60	BWBK-BR-PC1-C7	0.699	0.576	Norm over log	0.931	0.842	N	24		0.095	0.477				N	22.3		0.352	0.512			
Iron	11/11	N	61600		0.547	0.576				N	46900		0.333	0.477				N	36500		0.418	0.512			
Lead	11/11	N	31		0.491	0.576				N	26.2		0.379	0.477				N	17.9		0.169	0.512			
Magnesium	11/11	Y	7830	BWBK-BR-PC1-C10	0.605	0.576	Log over norm	0.908	0.842	N	6460		0.473	0.477				N	4520		0.009	0.512			
Manganese	11/11	N	3680				Not norm;?Log	0.949	0.842	N	1660		0.197	0.477				Y	1350	BWBK-BR-PC1-C9	0.567	0.512	Norm over log	0.954	0.818
Nickel	11/11	N	34.1		0.320	0.576				N	26.7		0.039	0.477				N	26		0.267	0.512			
Potassium	10/11	Y	537	BWBK-BR-PC1-C7	0.797	0.576	Log over norm	0.938	0.842	N	158		0.058	0.477				Y	152	BWBK-BR-PC1-C13	0.530	0.512	Norm over log	0.947	0.818
Selenium	1/11	>50%ND	1.3							ND-NA	0.75							ND-NA	0.4						
Silver	1/11	ND-NA	0.25							>50%ND	0.085							ND-NA	0.051						
Sodium	11/11	Y	354	BWBK-BR-PC1-C7	0.765	0.576	Log over norm	0.981	0.842	N	198		0.441	0.477				N	148		0.063	0.512			
Vanadium	11/11	N	35.9				Not norm;?Log	0.890	0.842	N	18.7		0.209	0.477				N	16		0.098	0.512			
Zinc	11/11	N	65.1		0.414	0.576				N	56.6		0.256	0.477				N	48.5		0.128	0.512			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
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Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":

ND-NA	---	Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
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Norm over log	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm	---	The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log	---	The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric	---	The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

APPENDIX E, TABLE E2-13
DIXON'S OUTLIER TEST FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Substance	Detection Frequency	1st Test Y/N ?	Largest Value	Largest Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	2nd Test Y/N ?	Second Value	Second Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table	3rd Test Y/N ?	Third Value	Third Sample	"C" Calc.	Dixon Table	Shape of Distribution	W-Test Calc.	W-Test Table
Aluminum	19/19	N	14000		0.024	0.462				N	13800		0.029	0.475				N	13750		0.044	0.490			
Antimony	1/19	ND-NA	1.73							>50%ND	0.55							ND-NA	1						
Arsenic	19/19	N	78.75		0.255	0.462				N	68.8		0.231	0.475				N	60.7		0.135	0.490			
Barium	19/19	N	12.2		0.314	0.462				N	9.1		0.115	0.475				N	8.9		0.181	0.490			
Beryllium	19/19	N	0.869		0.289	0.462				N	0.73		0.177	0.475				N	0.678		0.110	0.490			
Calcium	19/19	N	11800		0.376	0.462				N	10400		0.388	0.475				N	7620		0.448	0.490			
Chromium	18/19	N	16.7		0.418	0.462				N	12.8		0.193	0.475				N	11.6		0.169	0.490			
Cobalt	19/19	Y	31.15	BWBK-BR-RI1-C13	0.574	0.462	Normal	0.912	0.897	N	19.6		0.205	0.475				N	17.8		0.091	0.490			
Copper	19/19	N	53.3		0.332	0.462				N	48.2		0.358	0.475				N	37.9		0.310	0.490			
Iron	19/19	N	46950		0.358	0.462				N	39700		0.234	0.475				N	36700		0.109	0.490			
Lead	19/19	N	26.25		0.207	0.462				N	24.3				Not norm;?Log	0.957	0.892	N	21.3		0.447	0.490			
Magnesium	19/19	N	7940		0.110	0.462				N	7610		0.115	0.475				N	7350		0.077	0.490			
Manganese	19/19	N	3830				Nonparametric	0.721	0.897	N	1950		0.411	0.475				N	1540				Nonparametric	0.780	0.887
Nickel	19/19	N	56.95		0.445	0.462				N	47.2		0.266	0.475				N	39.4		0.132	0.490			
Potassium	18/19	N	389		0.142	0.462				N	359		0.345	0.475				N	345.5		0.334	0.490			
Silver	2/19	ND-NA	0.48							>50%ND	0.095							>50%ND	0.0805						
Sodium	13/19	N	343		0.248	0.462				N	282		0.151	0.475				N	264		0.184	0.490			
Vanadium	19/19	N	17.8		0.427	0.462				N	13.5		0.200	0.475				N	11.7		0.037	0.490			
Zinc	19/19	N	125		0.407	0.462				N	87		0.053	0.475				N	86.7		0.068	0.490			

Notes:

Outlier test results shown in this table are meant to identify possible outliers for further investigation. A final decision to discard or retain any data point should also consider scientific or judgmental reasoning as well as the results of statistical outlier testing.
The columns titled, "1st Test Y/N", "2nd Test Y/N", answer the question, "Is the Nth largest value in the data set a possible outlier, if it can be assumed that data are normally distributed?"
The columns titled, "Largest Value", "Second Value", and "Third Value" list the sample concentration that is the Nth largest in the data set in units of MG/KG.
Dixon's Outlier Test compares the largest concentration value in a data set to the remaining values. The test is not applicable if remaining values do not pass the Shapiro Wilke W-test for normality, if there are greater than 50 percent nondetects, or if value in question is nondetect.
Dixon's Test is performed three times, in case the second or third largest values are actually outliers and mask detection of the larger values as outliers.
Interpreting Dixon's Test: If the value shown for "C-Calculated" exceeds lookup value shown for "Dixon Table", and distribution matches a normal distribution, then a candidate outlier exists and requires further scientific and judgmental evaluation to decide whether to retain or discard.
If the third largest value is a potential outlier compared to the remaining data points spanning the 4th largest to the smallest value, then the largest and second largest values may be considered potential outliers as well.
If the second largest value is a potential outlier compared to the remaining data points spanning the 3rd largest to the smallest value, then the largest value may be considered a potential outlier as well.
Columns titled, "Shape of Distribution" present the results of the Shapiro Wilke W-Test for normality. The test is run once on raw data and once after data are converted to logarithms, but results for Dixon's Outlier Test are used if raw data match the shape of normal distribution.

Abbreviations for "Test Y/N":
ND-NA --- Dixon's Test is not applicable because the Nth largest value in the data set is non-detected. The value listed is the detection limit.
>50%ND --- Dixon's Test is not applicable because the data sets consists of 50% or more non-detected values, which makes testing distributional shape and quantitative outlier calculations uncertain.

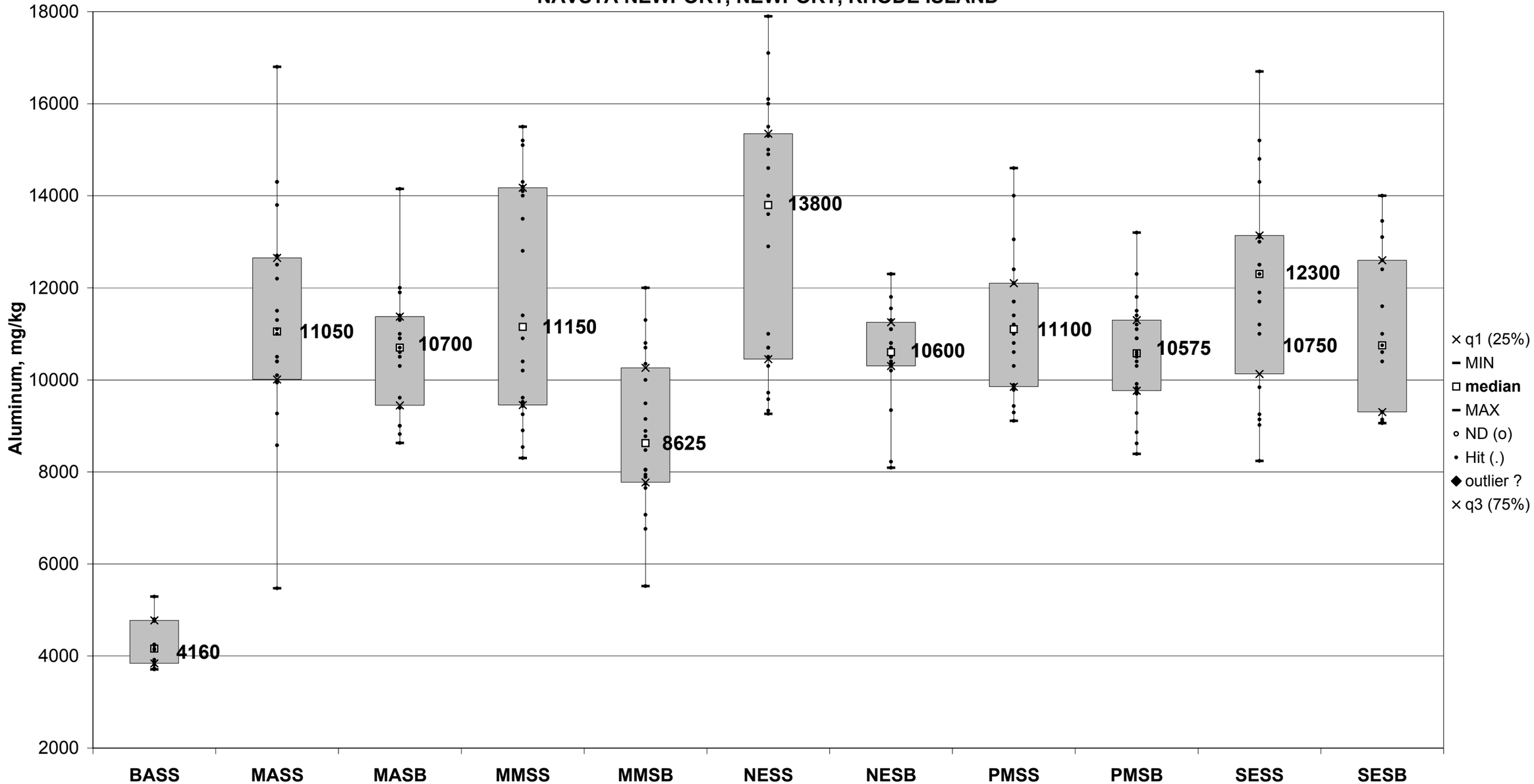
Interpreting the shape of distribution: If the value shown for "W-test calculated" exceeds the "W-test Table" value, then it can be concluded that the data fit a normal distribution if the candidate outlier is first eliminated.

Abbreviations for "Shape of Distribution":
Normal --- The W-Test indicates the data minus the test point matches a normal distribution.
Norm over log --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a lower fit.
Log over norm --- The W-Test indicates the data minus the test point matches a normal distribution, but a lognormal distribution is also a match, but with a better fit.
Not norm; ?Log --- The W-Test indicates the data minus the test point does not match a normal distribution, but a lognormal distribution is a match, but should not be used for outlier testing because of uncertainties with matching a possible lognormal distribution.
Nonparametric --- The W-Test indicates the data minus the test point does not match a normal distribution, nor a lognormal distribution.

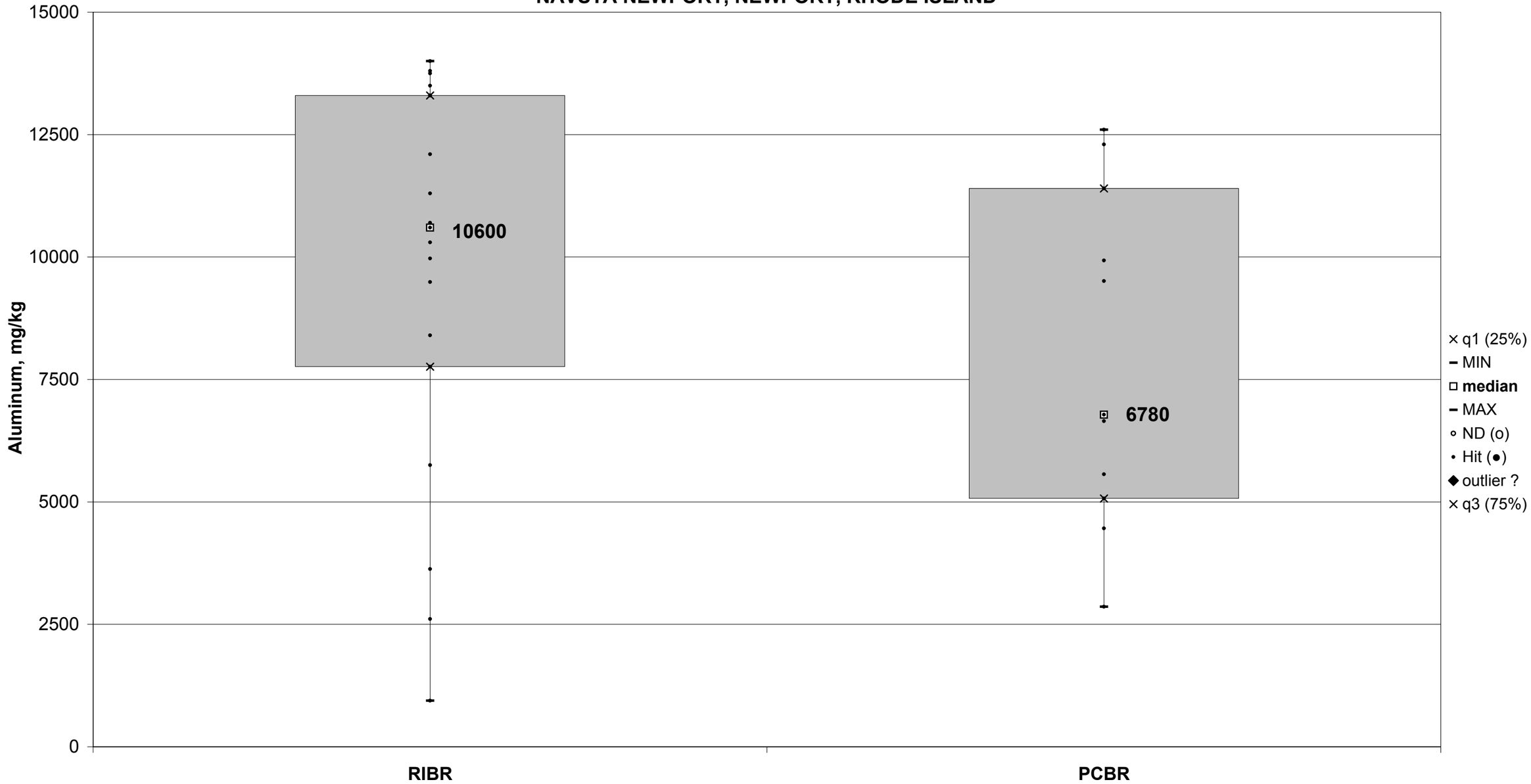
APPENDIX E, PART 3

BOX PLOTS (INTERQUARTILE RANGE) FOR EACH SOIL TYPE

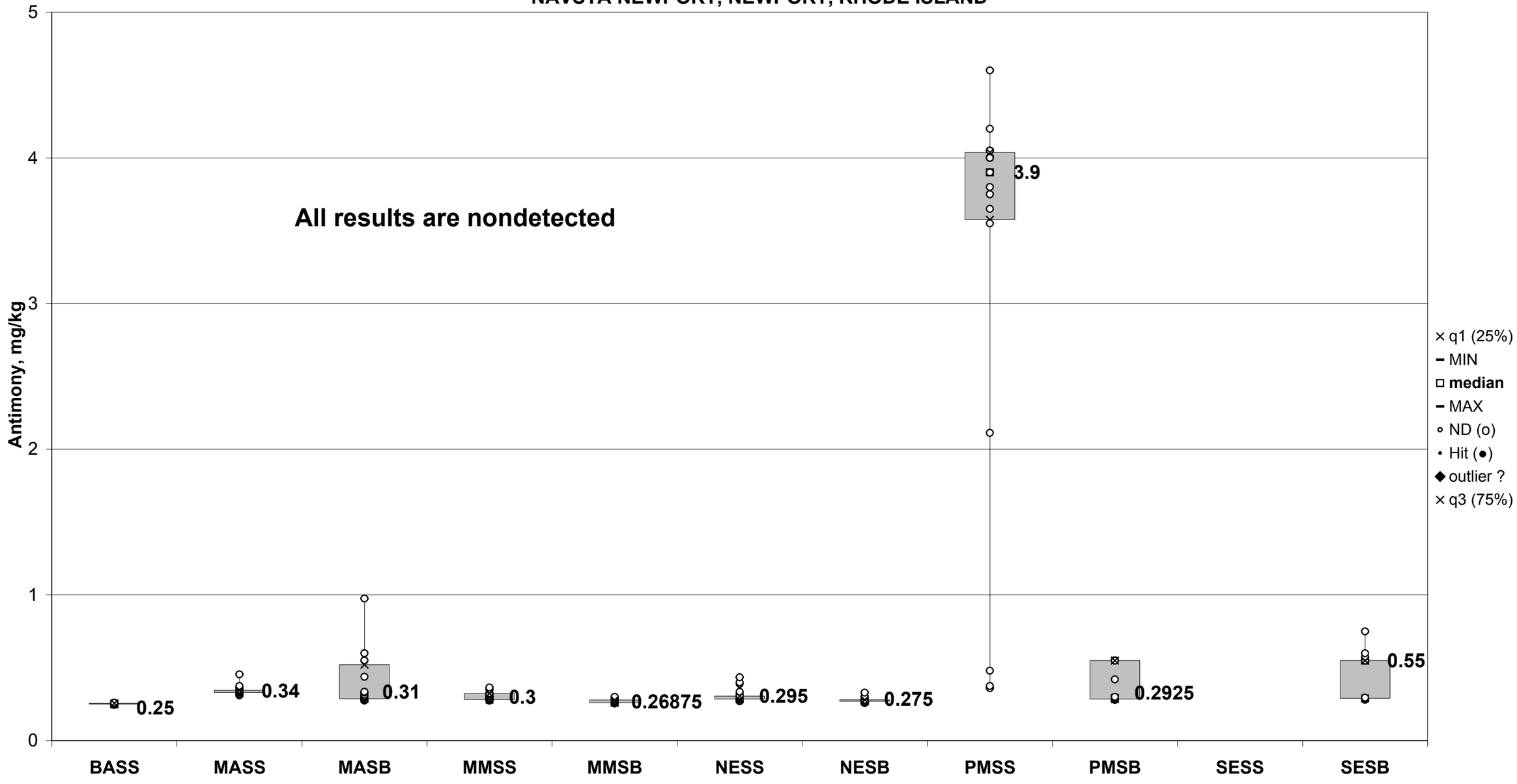
APPENDIX E, FIGURE E3-1
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ALUMINUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



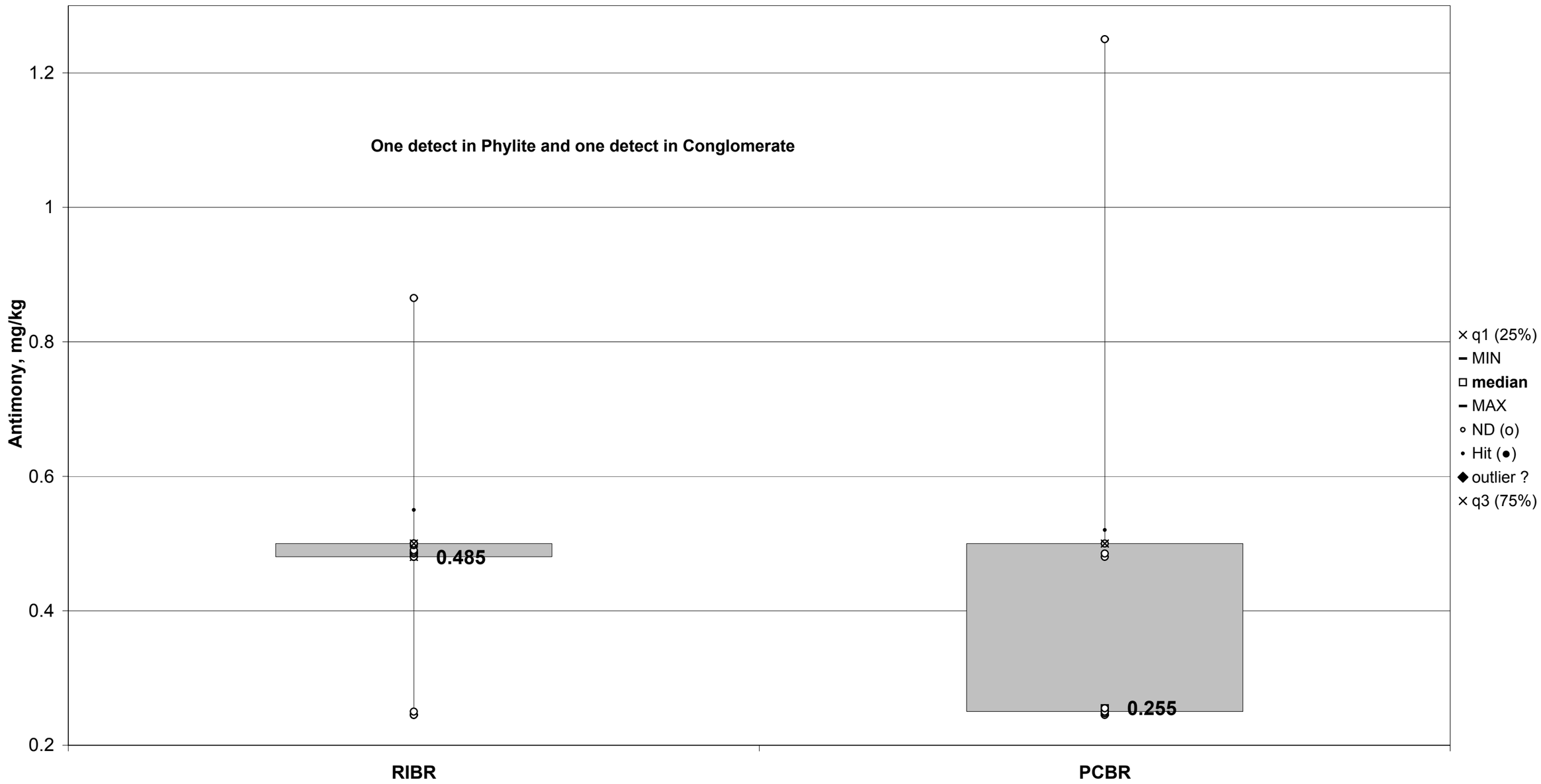
APPENDIX E, FIGURE E3-2
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ALUMINUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



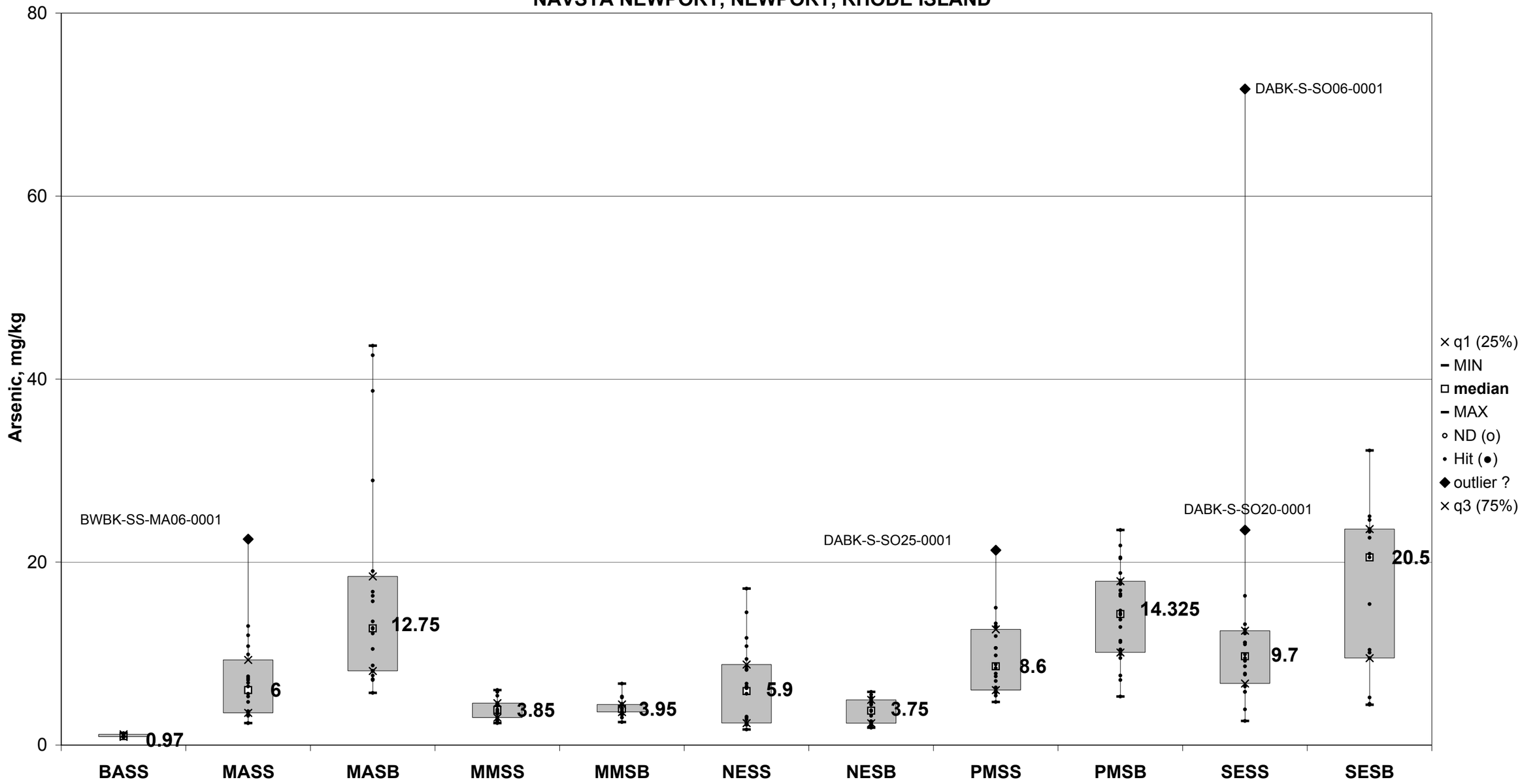
APPENDIX E, FIGURE E3-3
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ANTIMONY BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



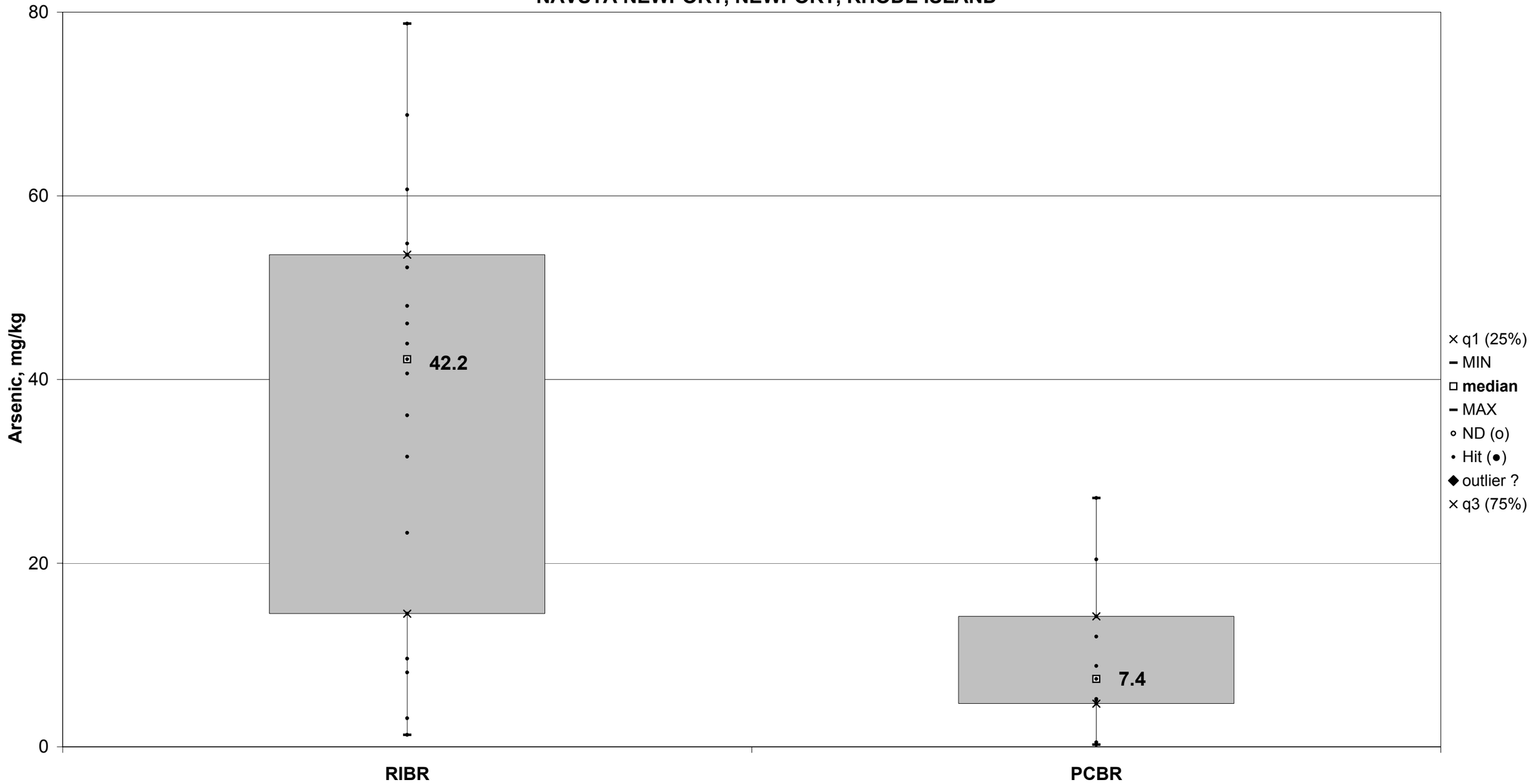
APPENDIX E, FIGURE E3-4
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ANTIMONY IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



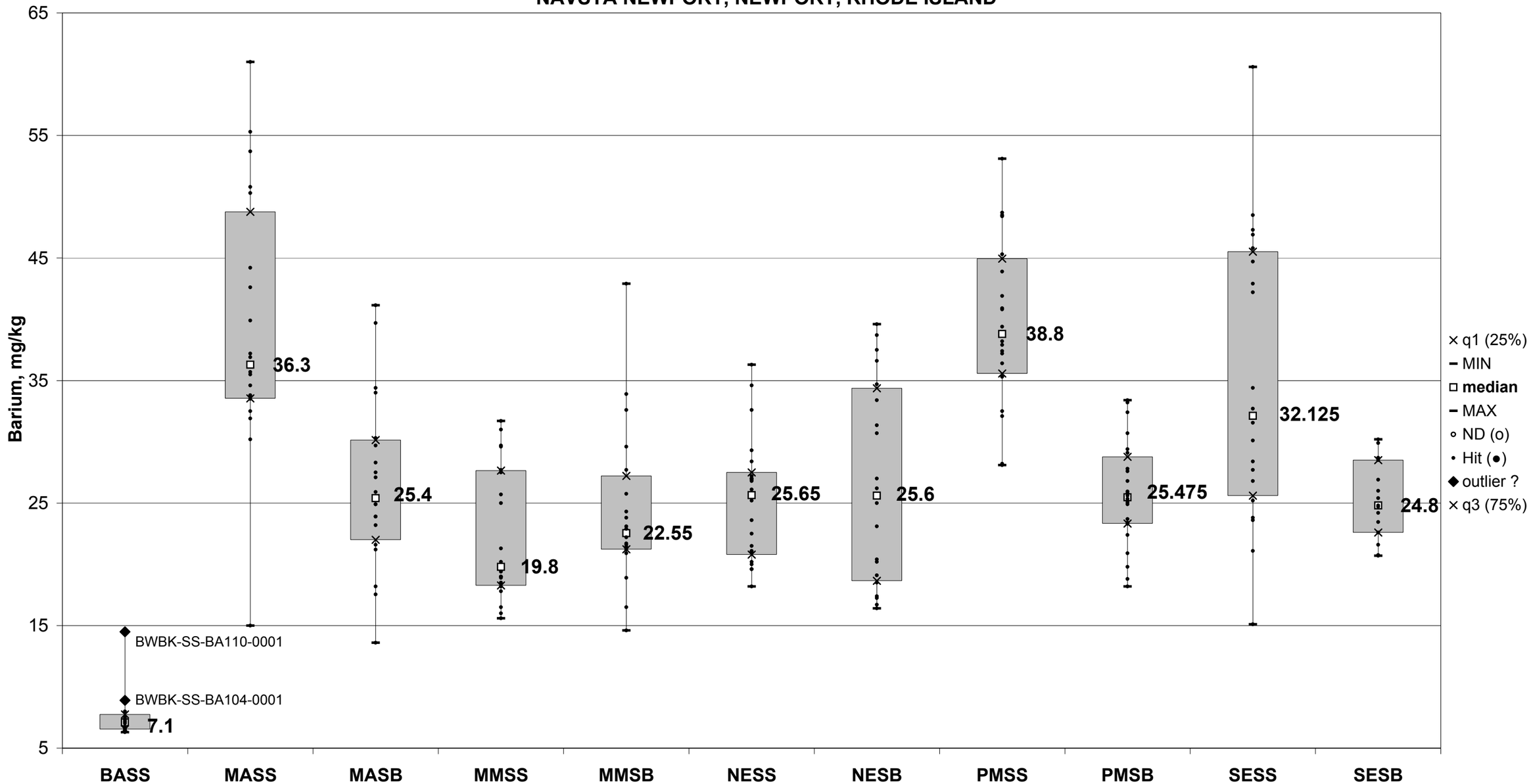
APPENDIX E, FIGURE E3-5
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ARSENIC BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



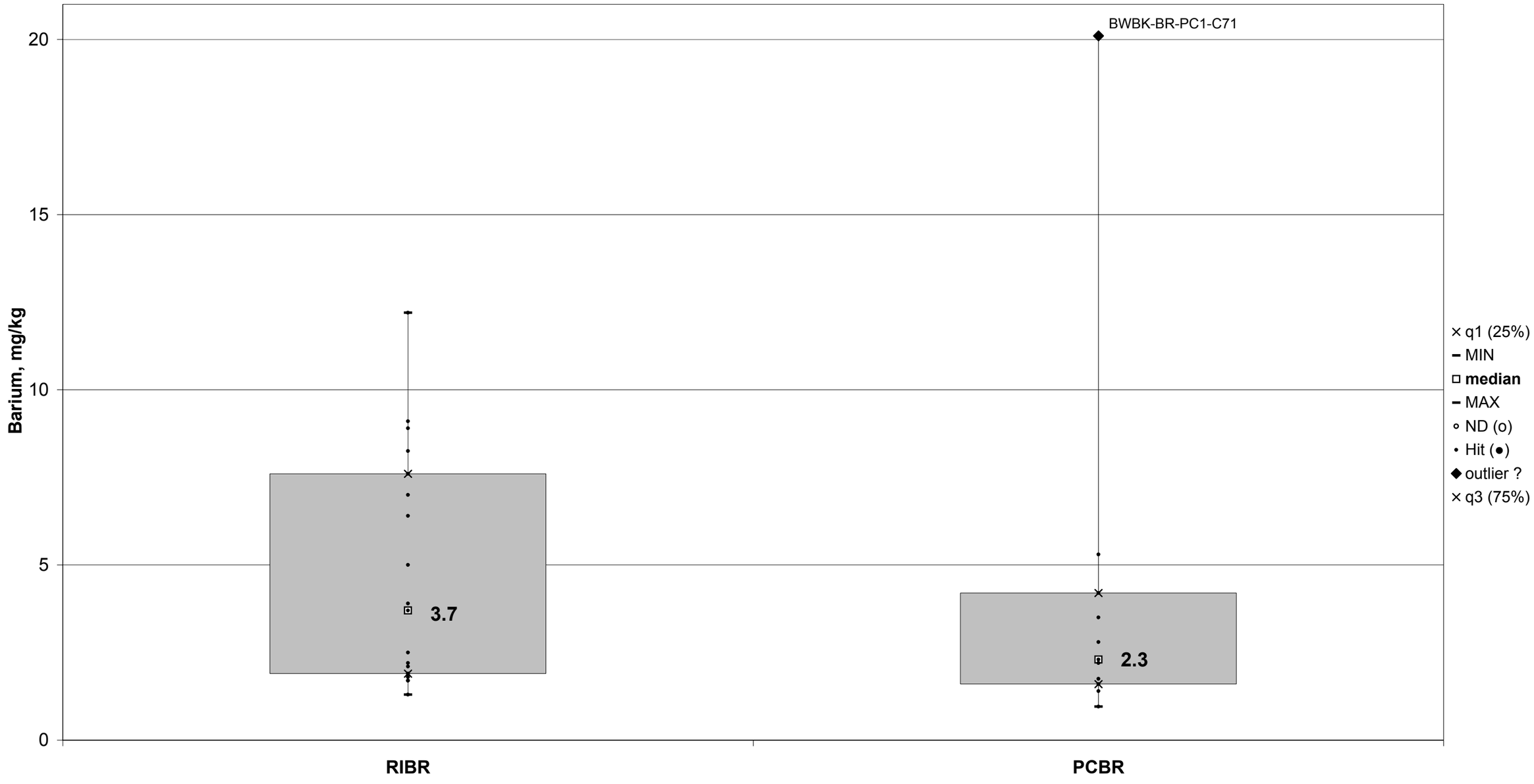
APPENDIX E, FIGURE E3-6
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ARSENIC IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



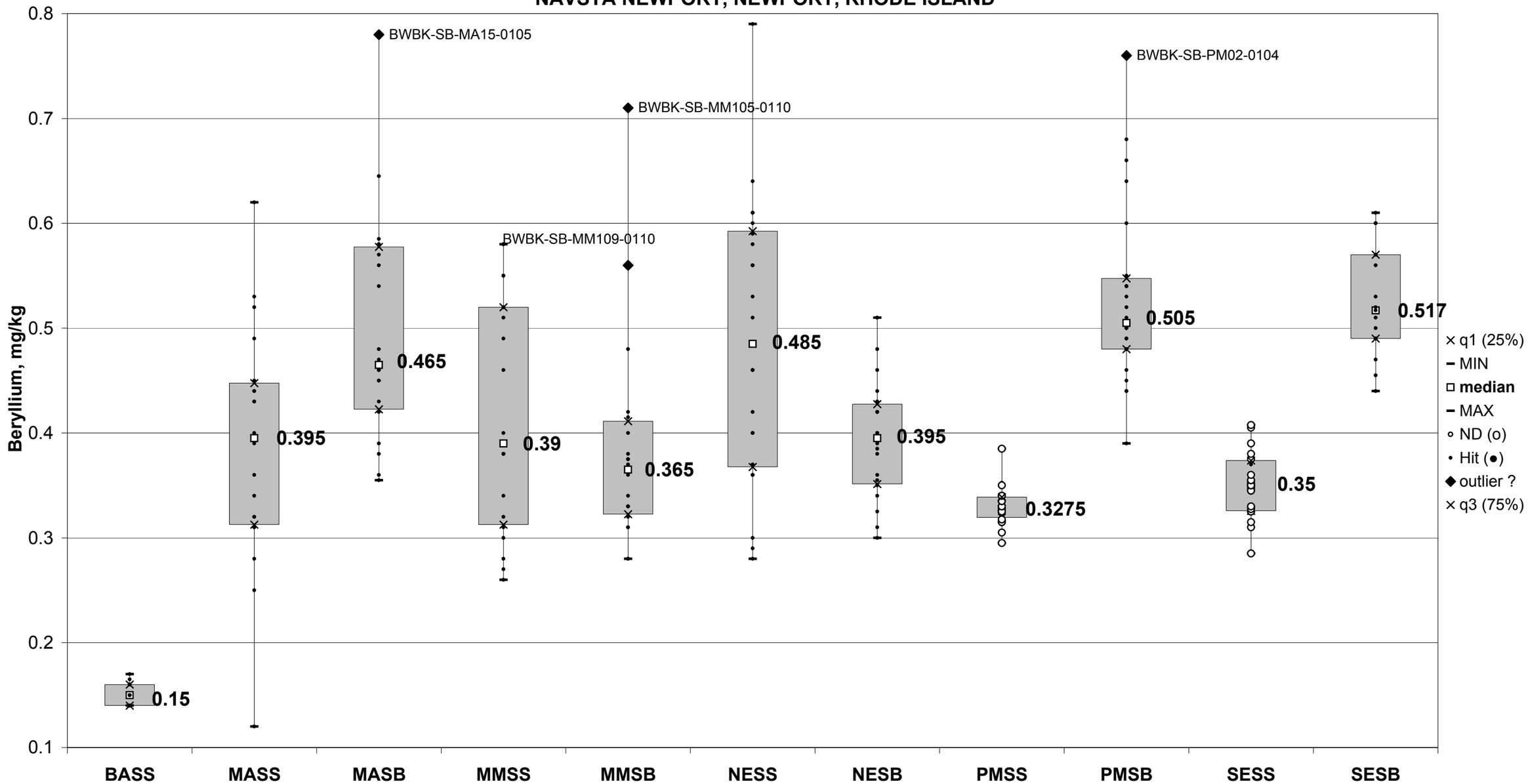
APPENDIX E, FIGURE E3-7
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR BARIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



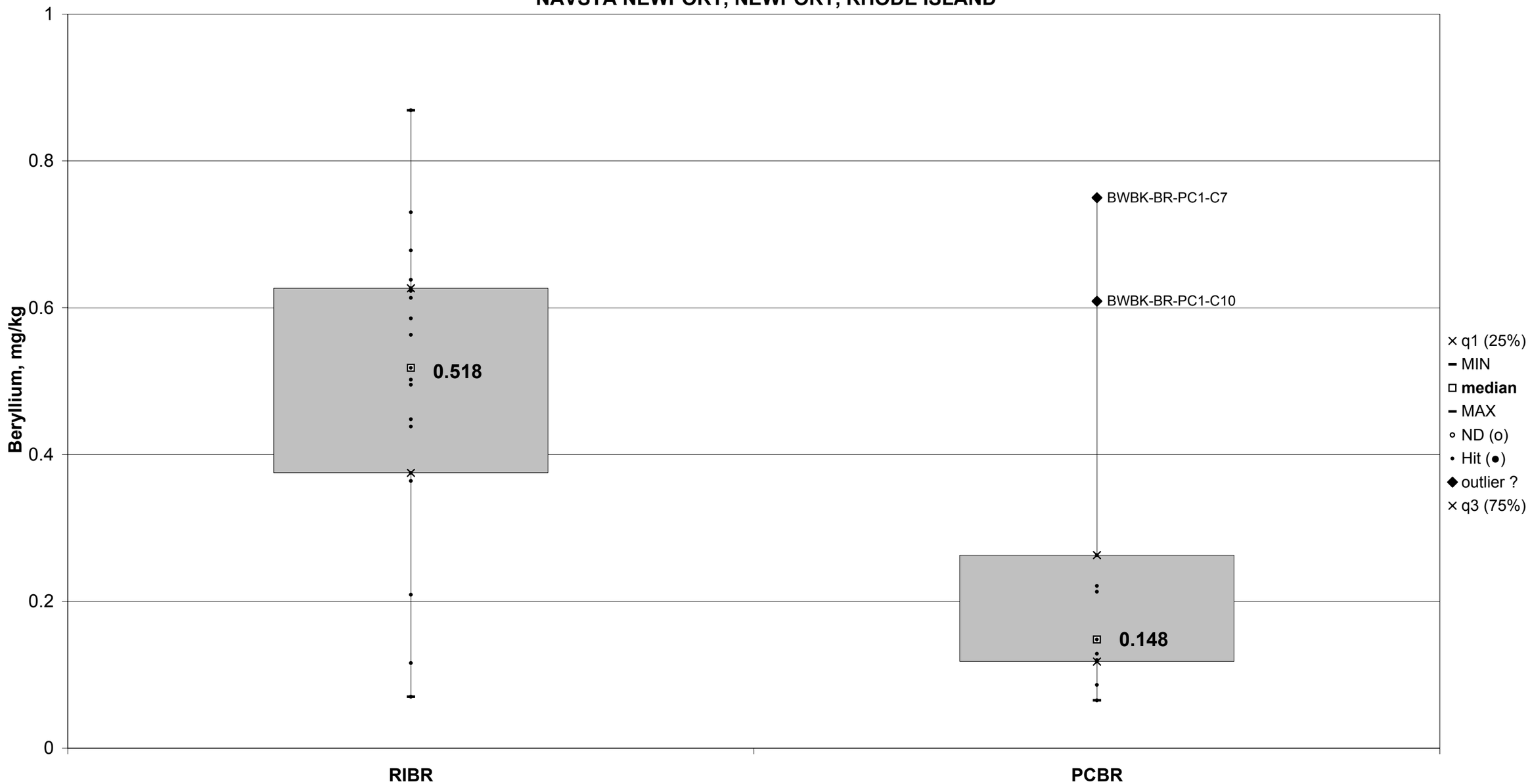
APPENDIX E, FIGURE E3-8
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR BARIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX E, FIGURE E3-9
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR BERYLLIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



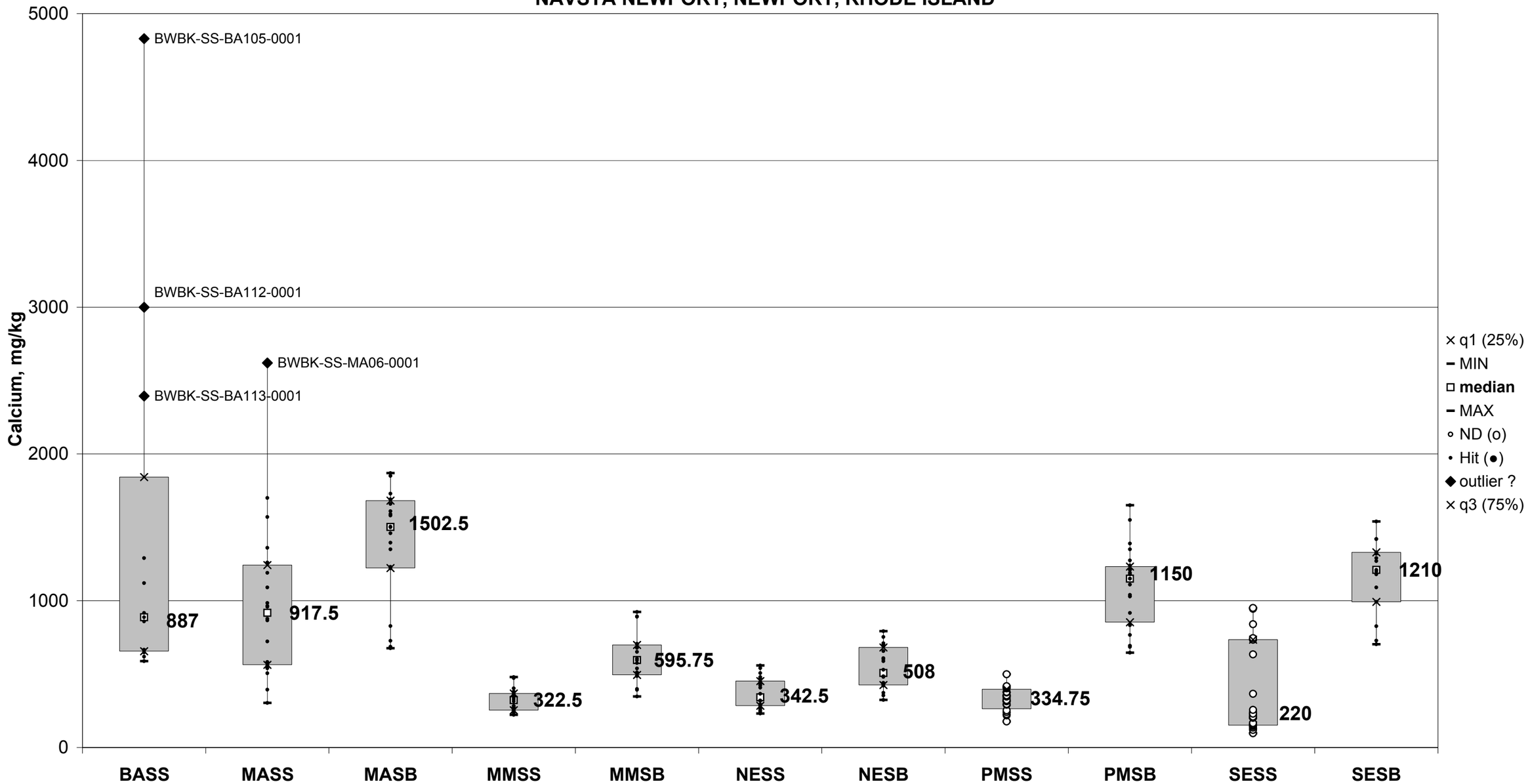
APPENDIX E, FIGURE E3-10
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR BERYLLIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



E3-10_BEDROCK_Be_BOXPLOTS.xls

CTO 043

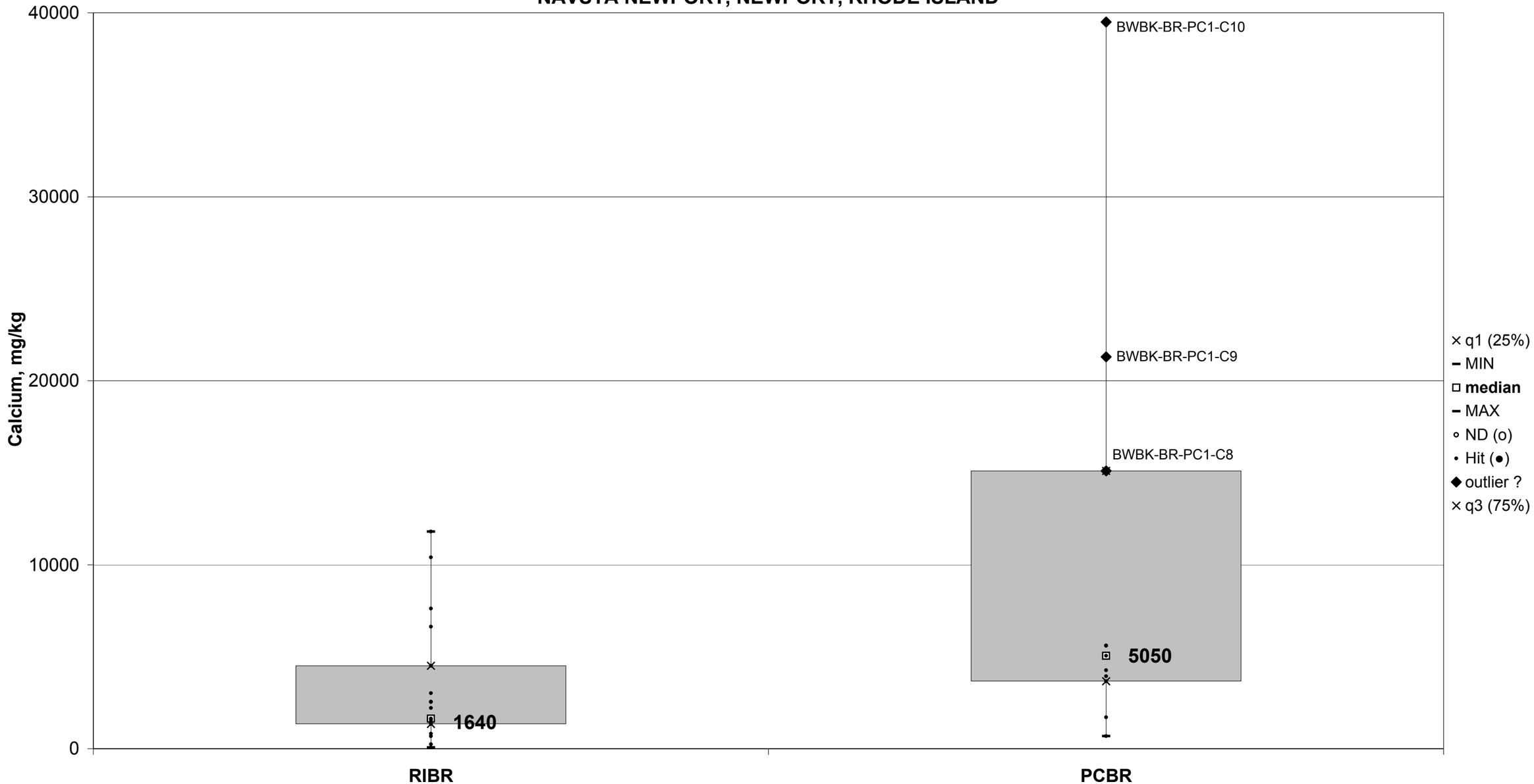
APPENDIX E, FIGURE E3-11
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CALCIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



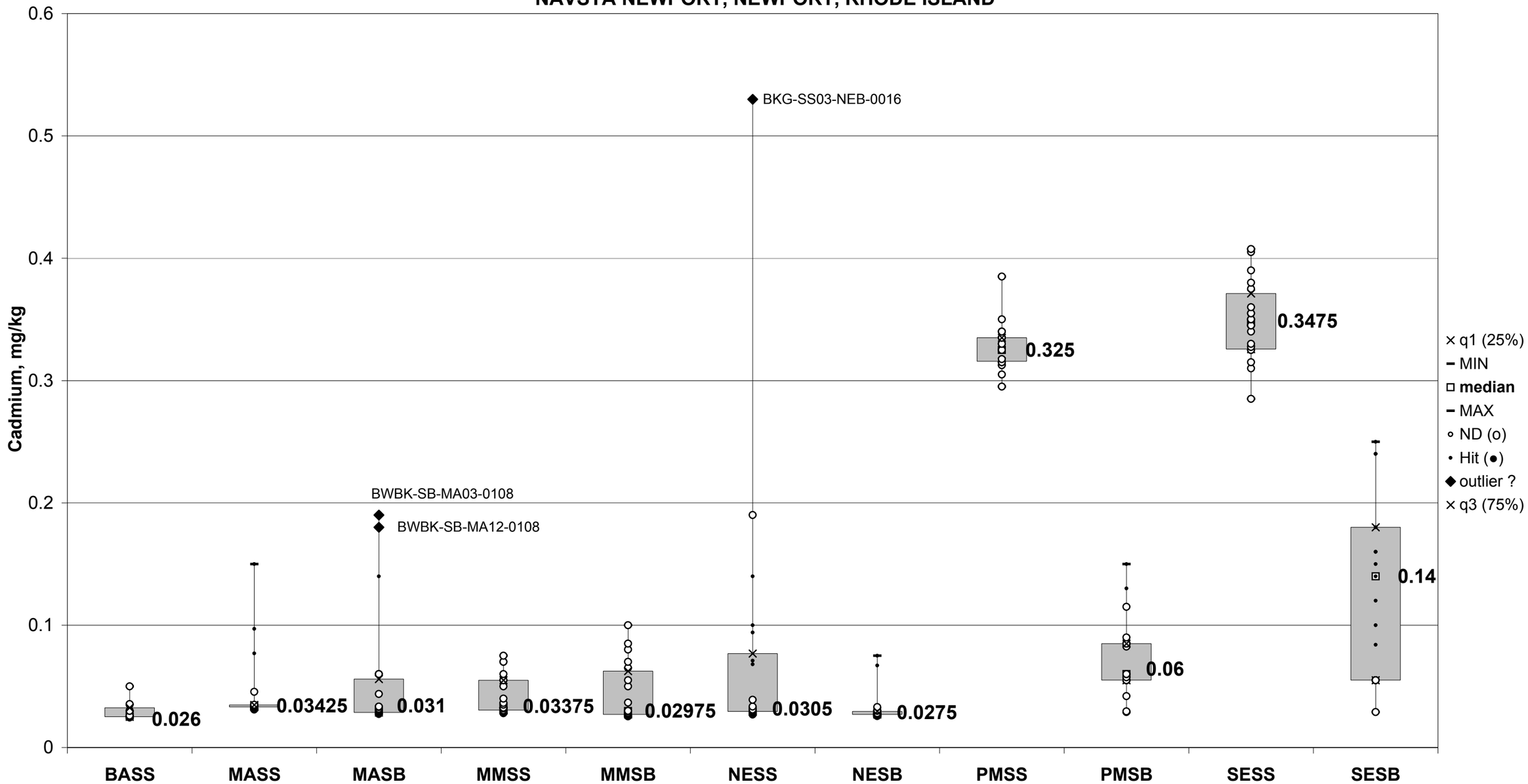
E3-11_Ca_BOXPLOTS.xls

CTO 043

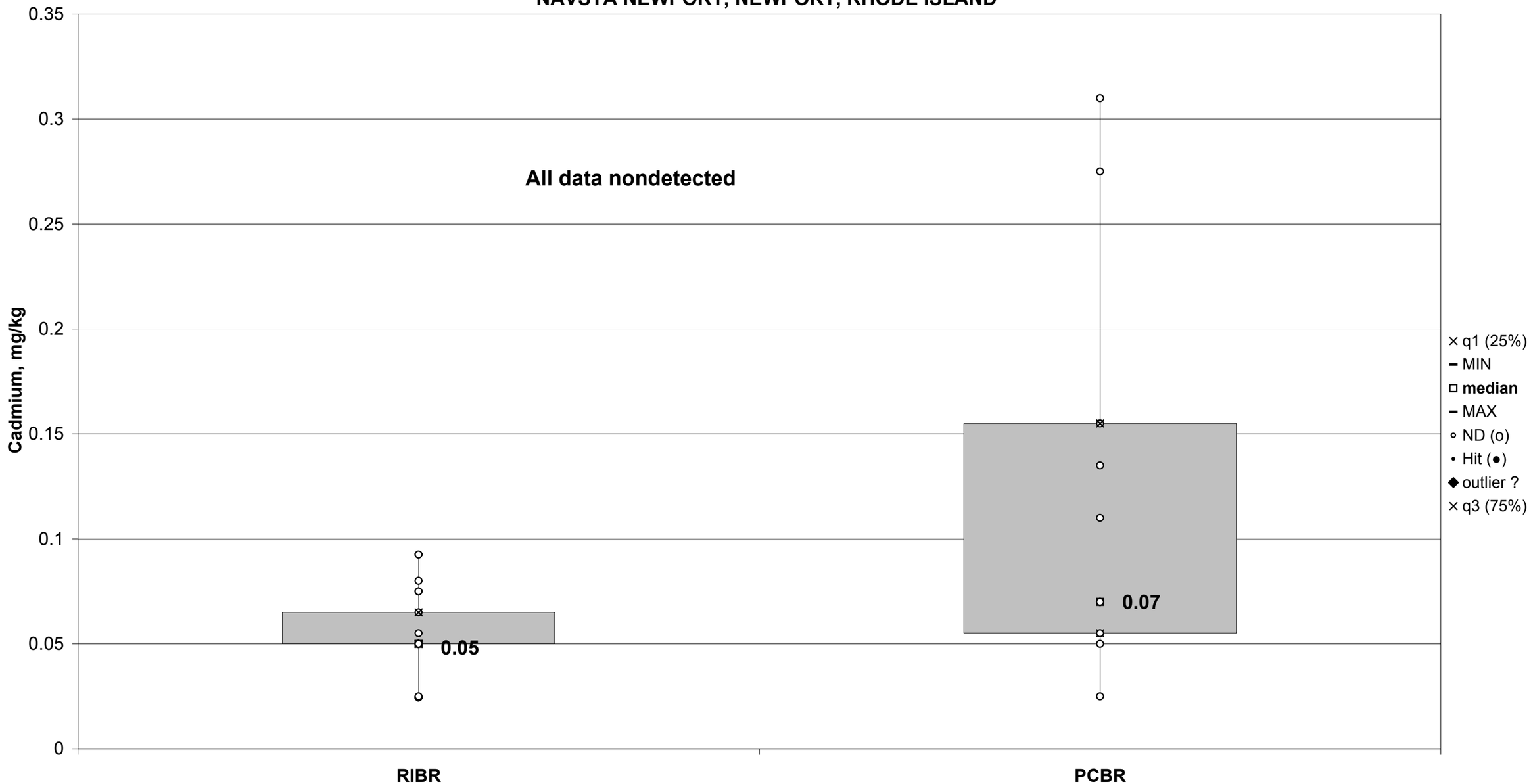
APPENDIX E, FIGURE E3-12
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CALCIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



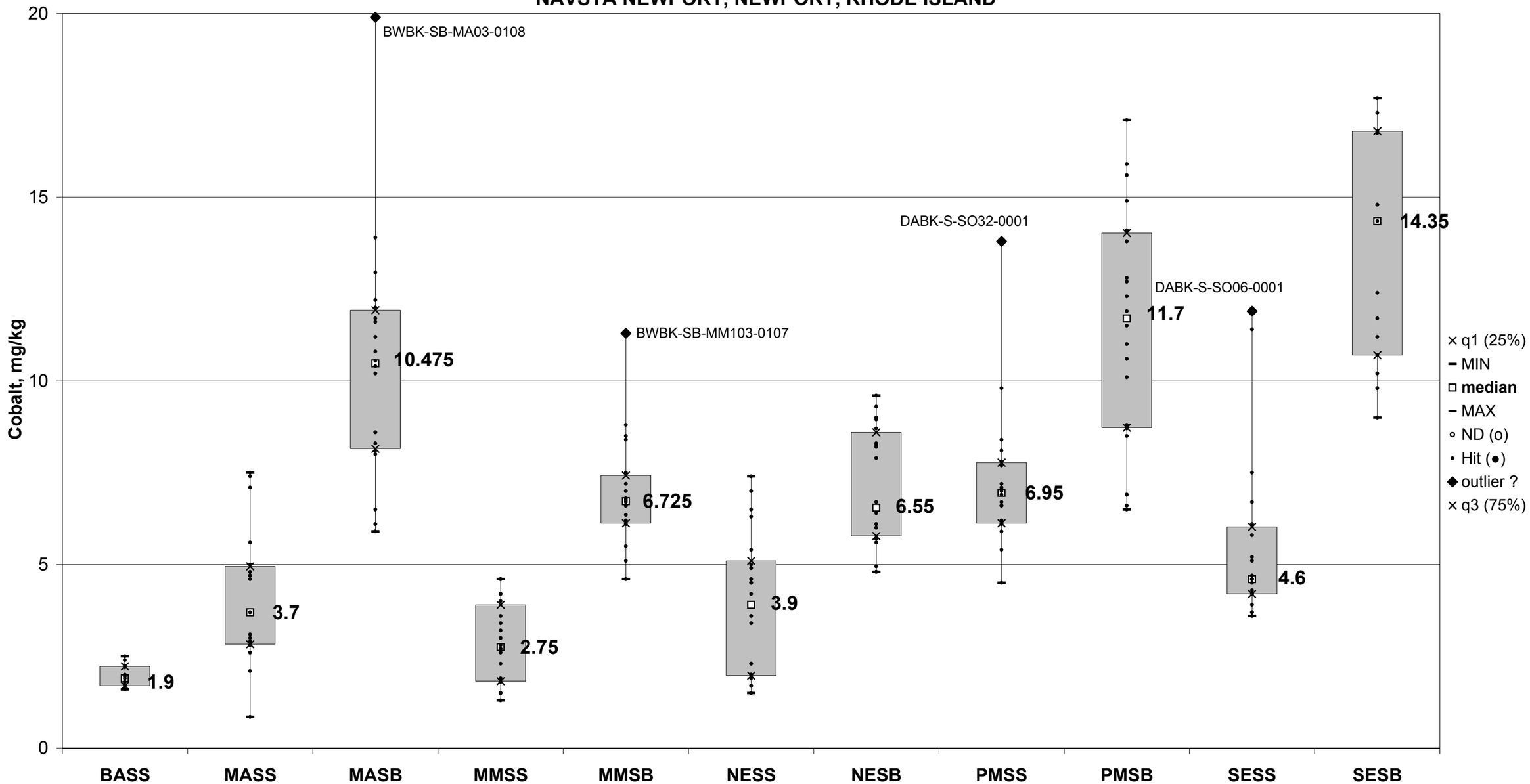
APPENDIX E, FIGURE E3-13
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CADMIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX E, FIGURE E3-14
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CADMIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



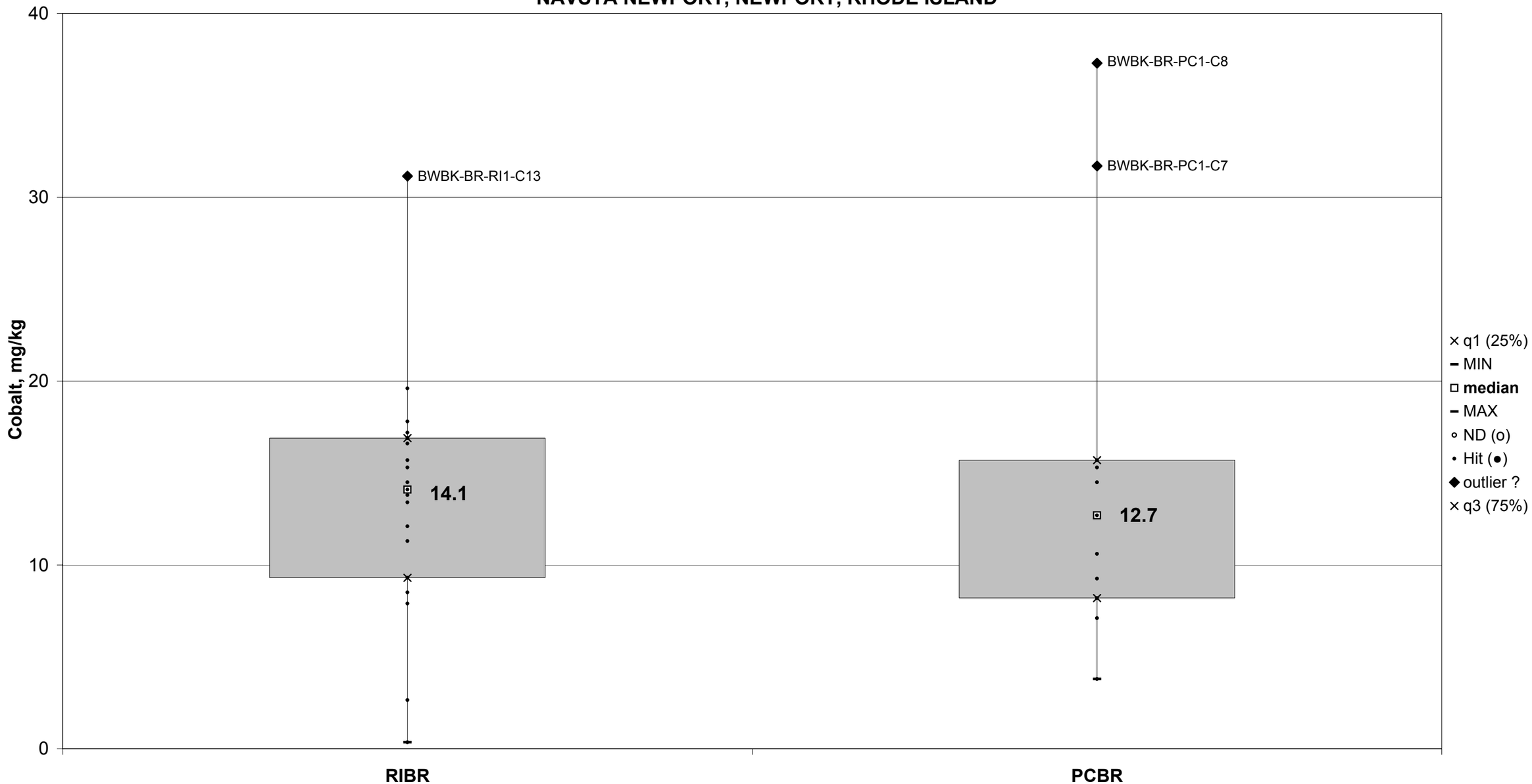
APPENDIX E, FIGURE E3-15
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR COBALT BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



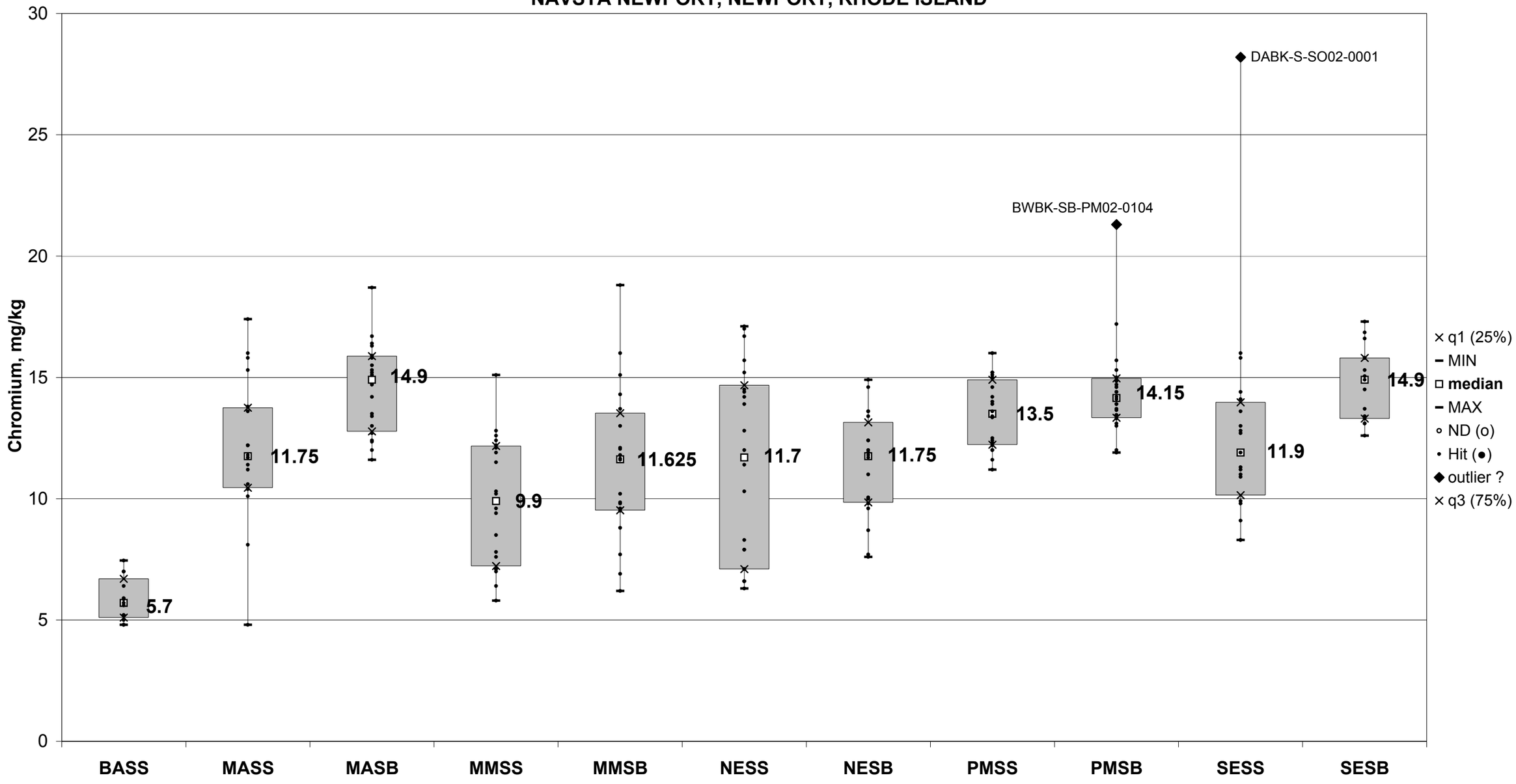
E3-15_Co_BOXPLOTS.xls

CTO 043

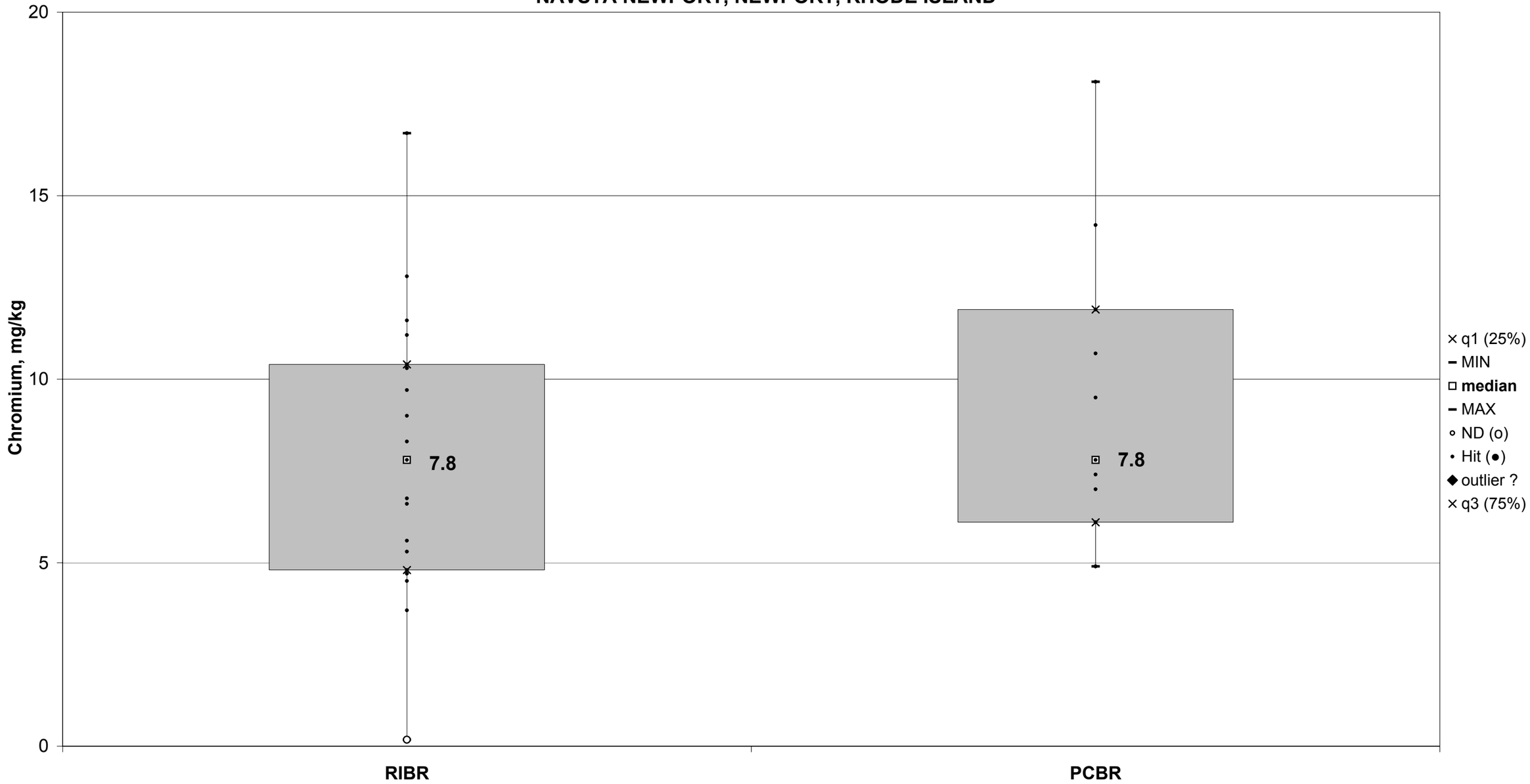
APPENDIX E, FIGURE E3-16
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR COBALT IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



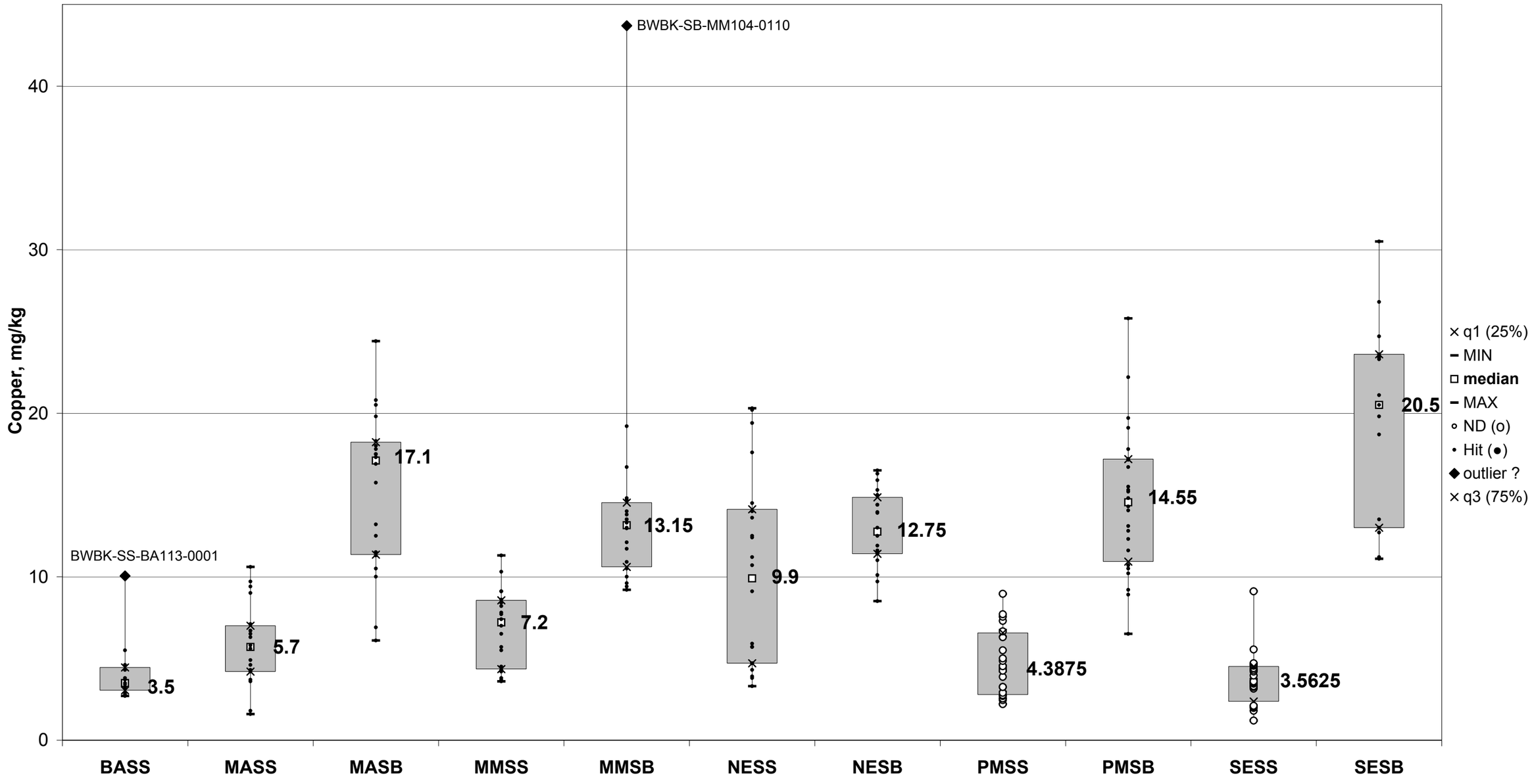
APPENDIX E, FIGURE E3-17
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CHROMIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



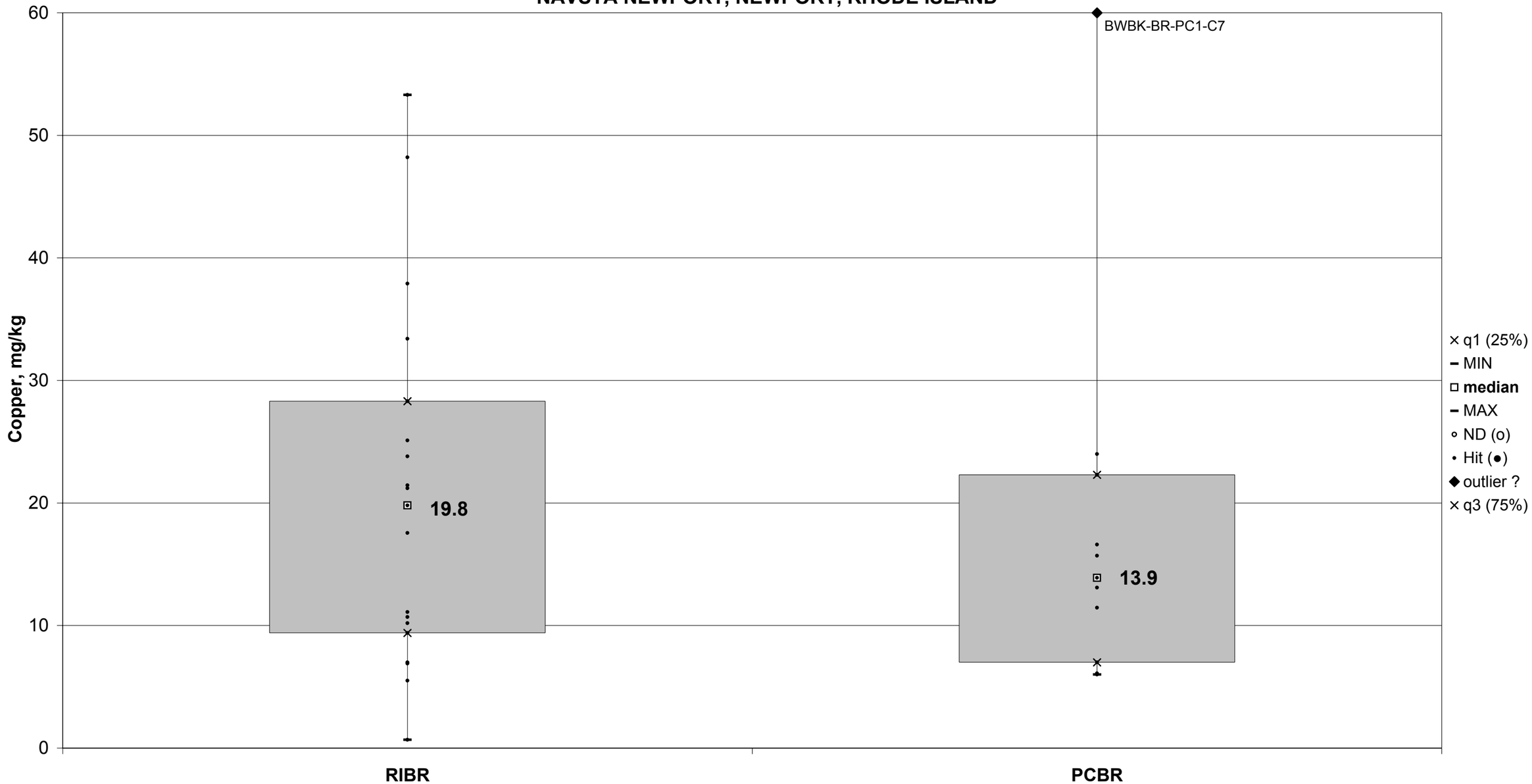
APPENDIX E, FIGURE E3-18
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR CHROMIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



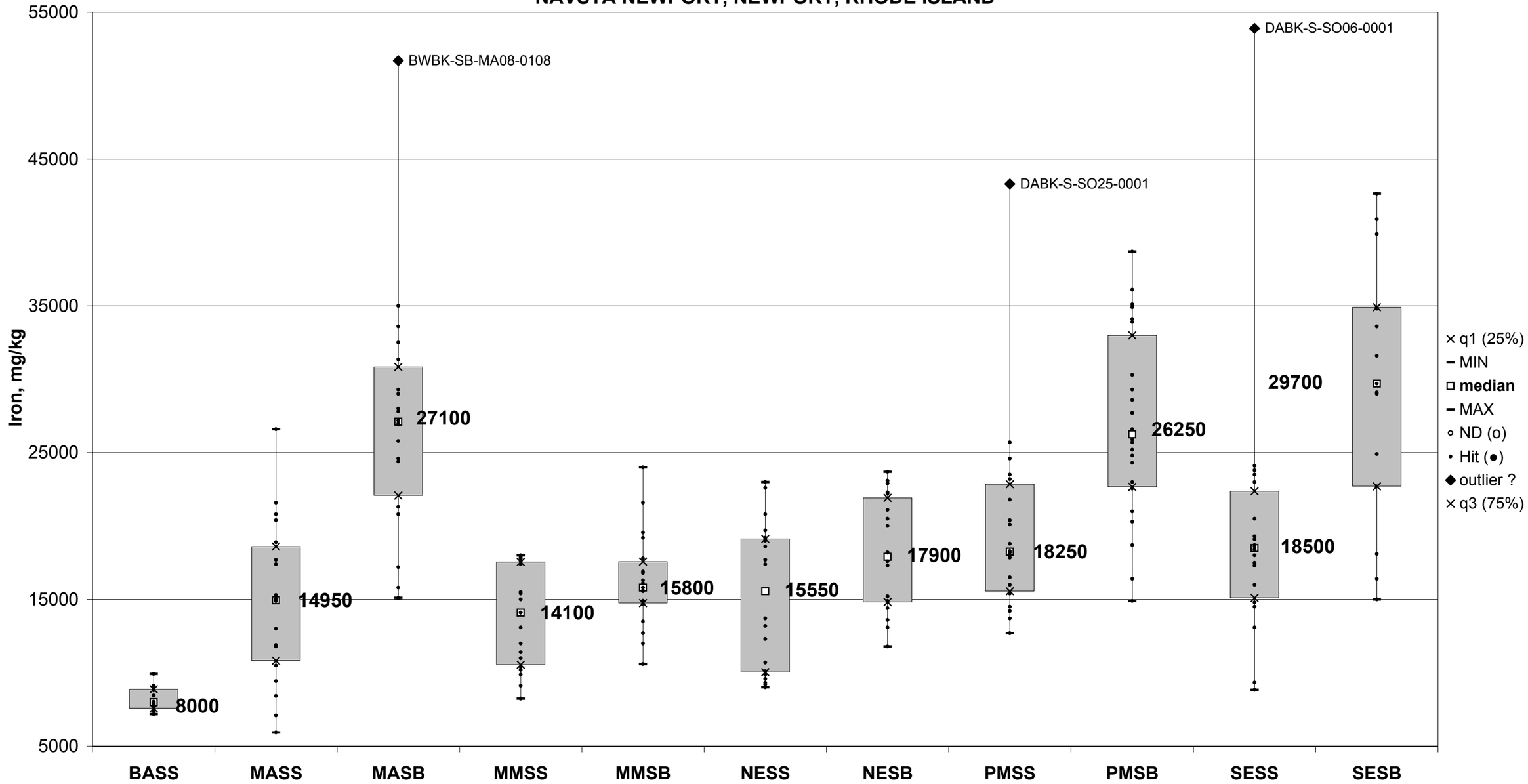
APPENDIX E, FIGURE E3-19
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR COPPER BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



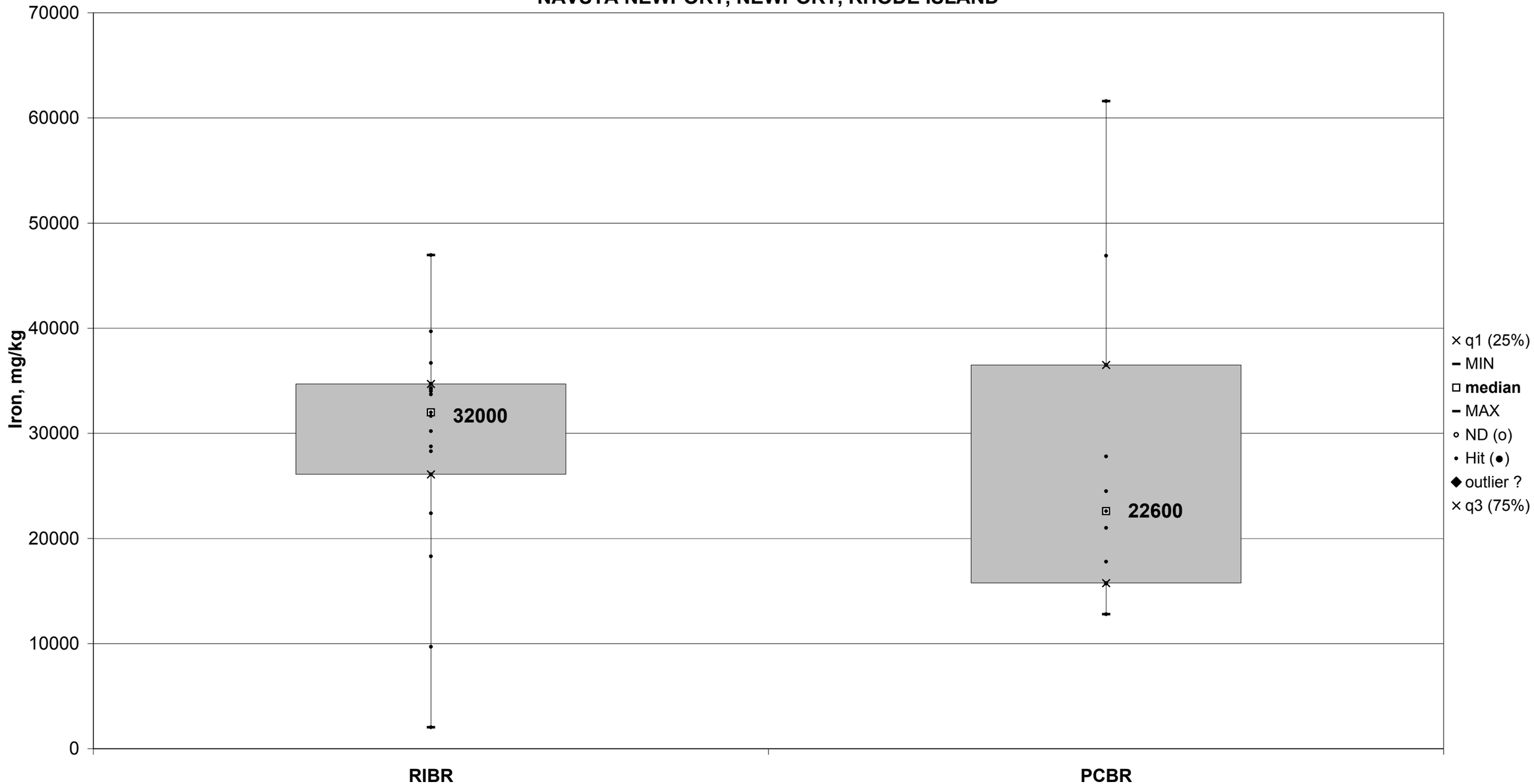
APPENDIX E, FIGURE E3-20
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR COPPER IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



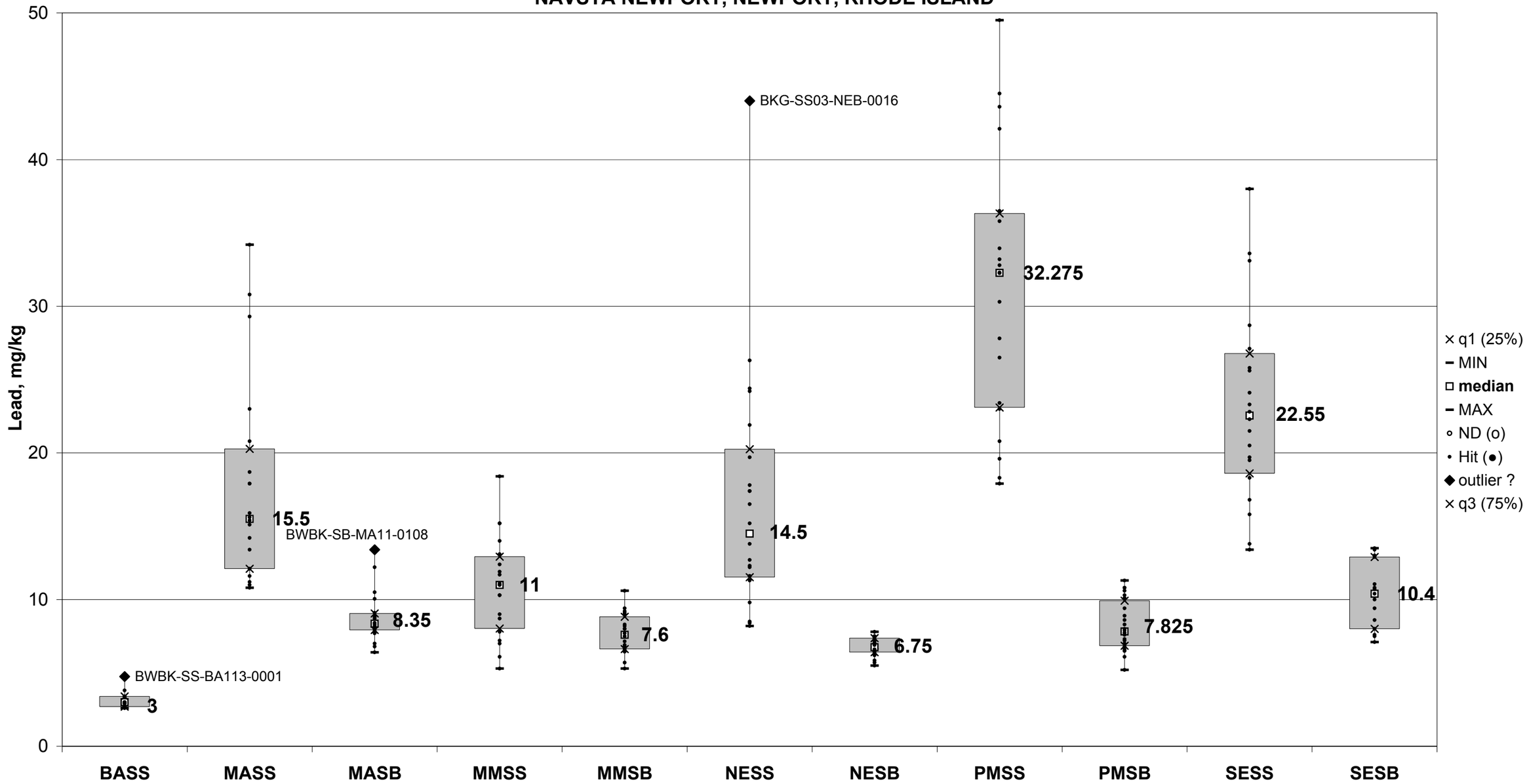
APPENDIX E, FIGURE E3-21
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR IRON BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



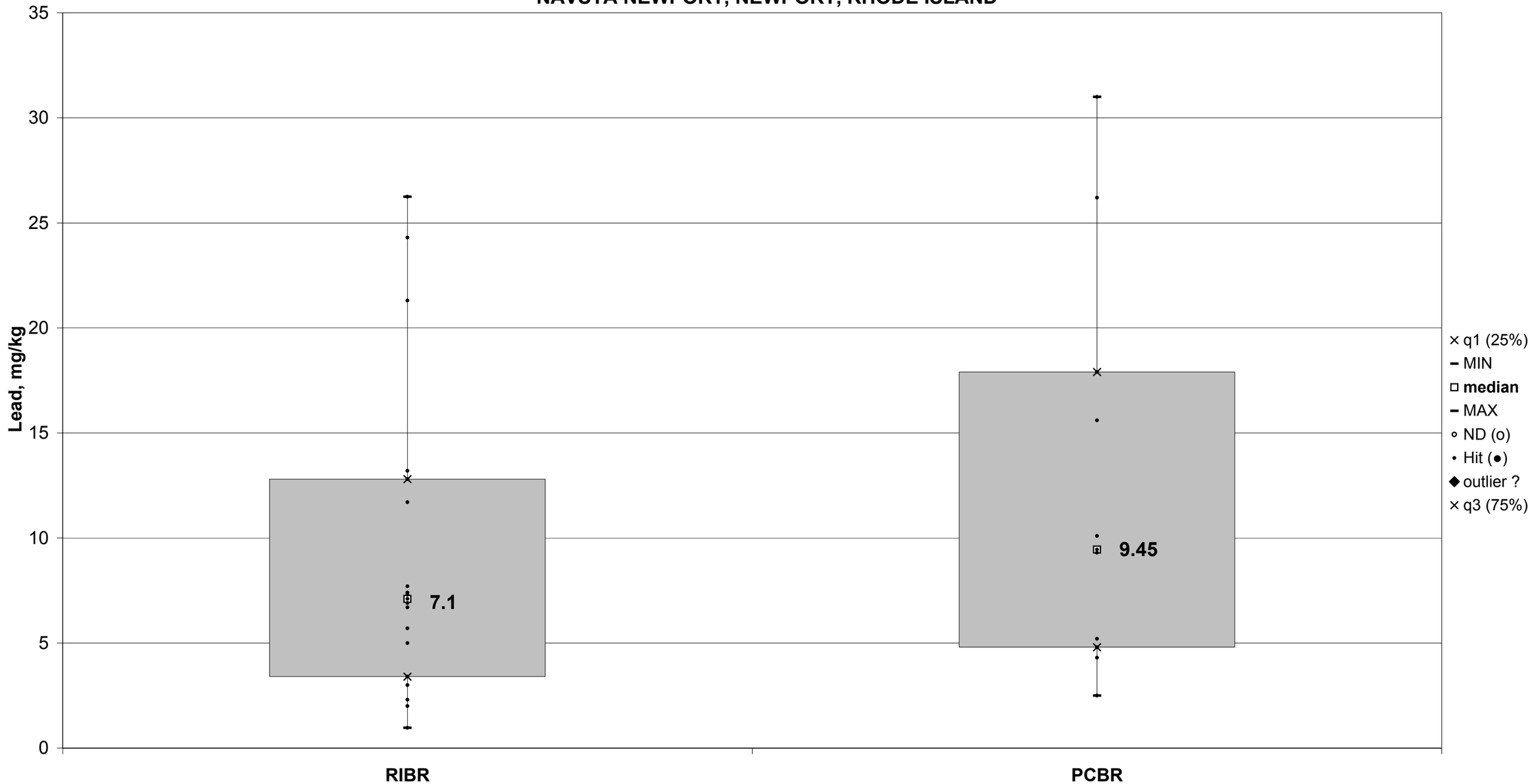
APPENDIX E, FIGURE E3-22
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR IRON IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



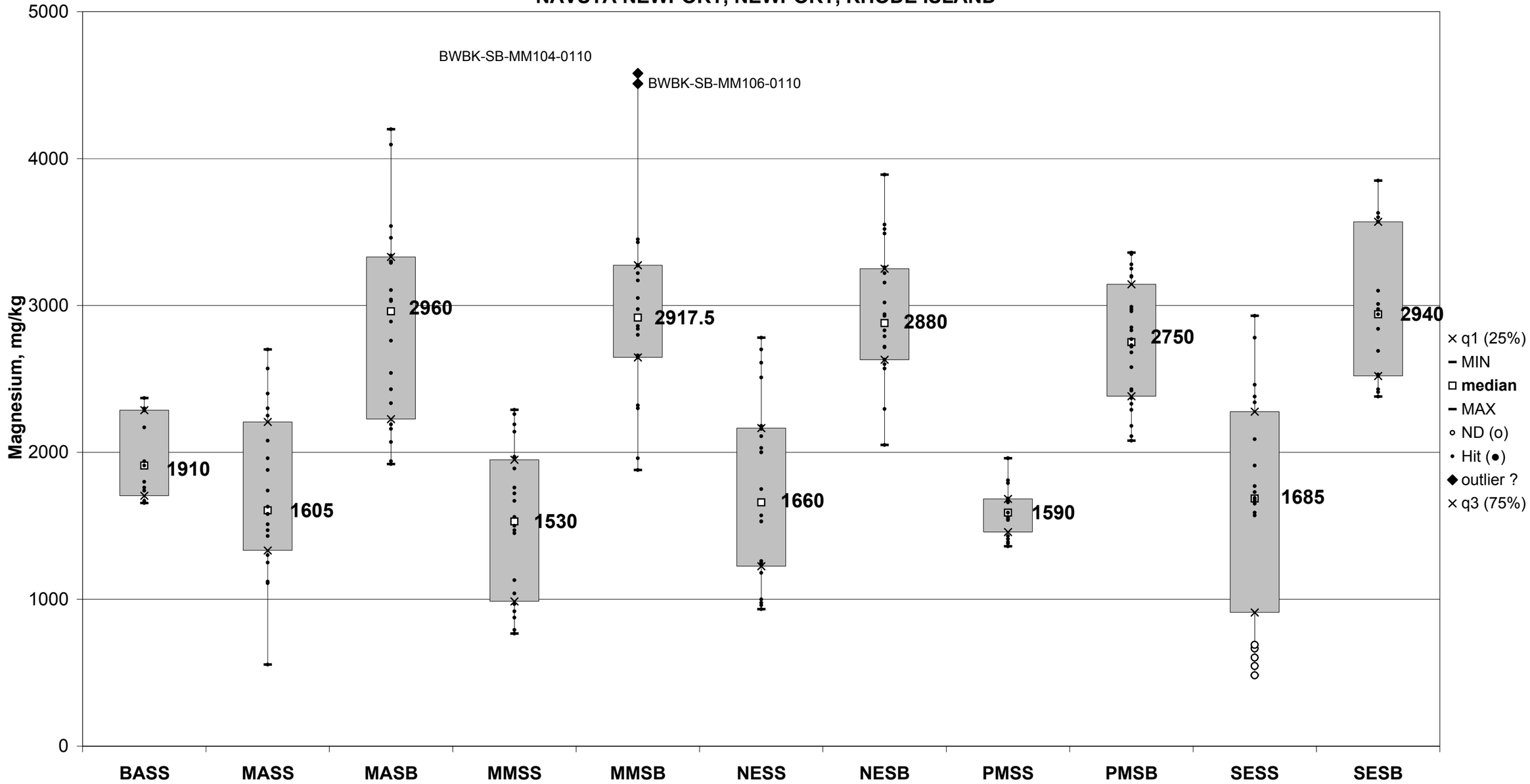
APPENDIX E, FIGURE E3-23
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR LEAD BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



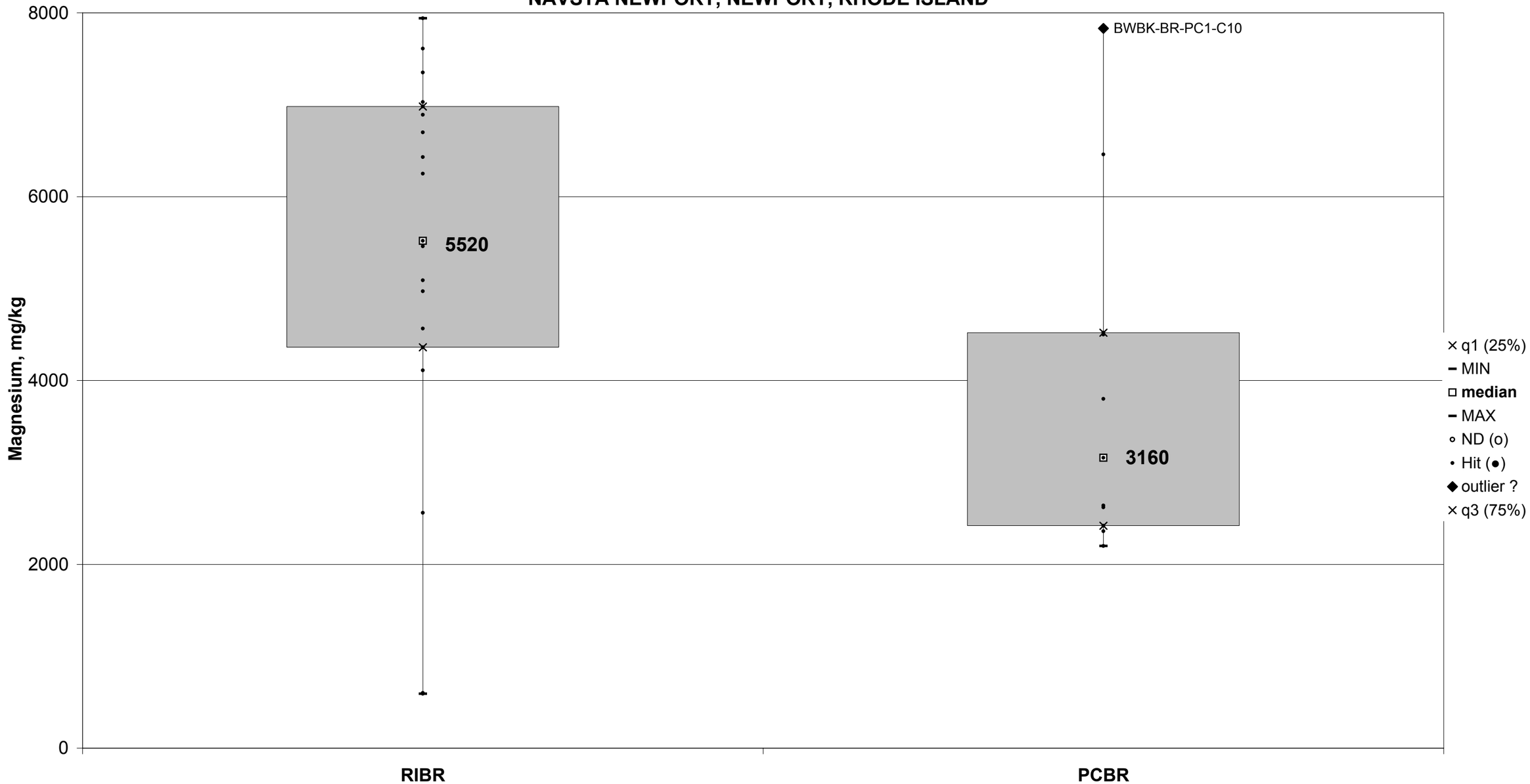
APPENDIX E, FIGURE E3-24
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR LEAD IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



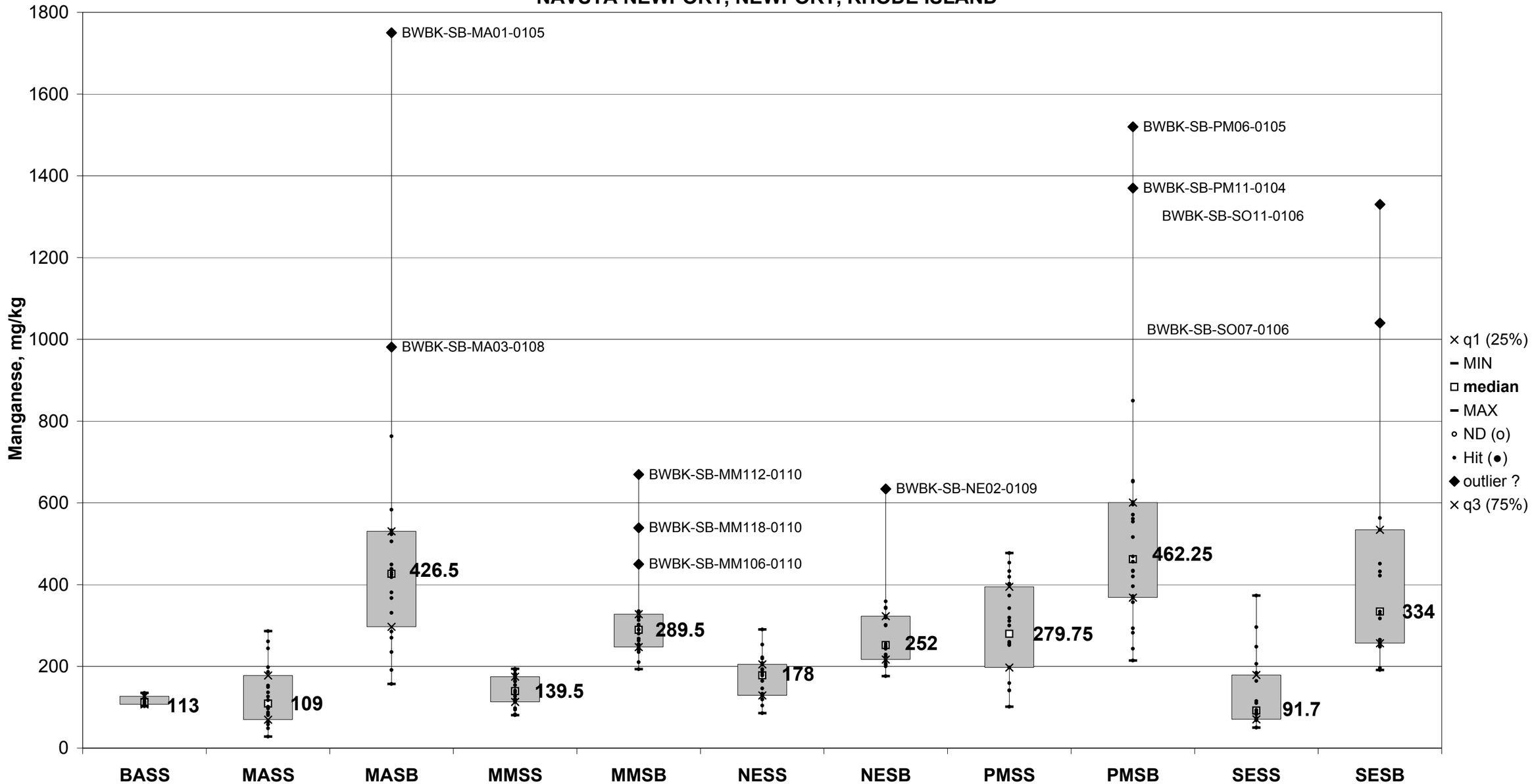
APPENDIX E, FIGURE E3-25
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MAGNESIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



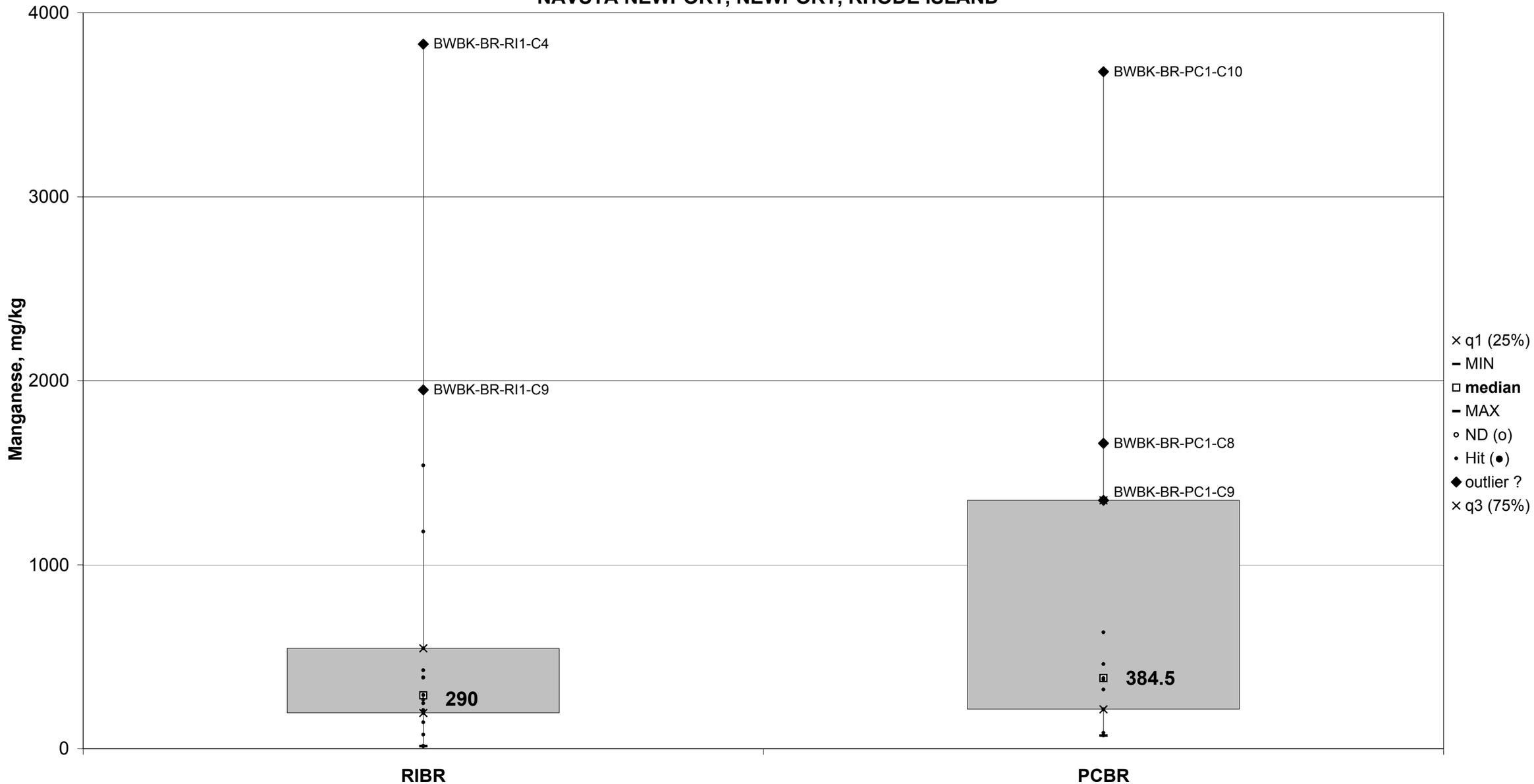
APPENDIX E, FIGURE E3-26
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MAGNESIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



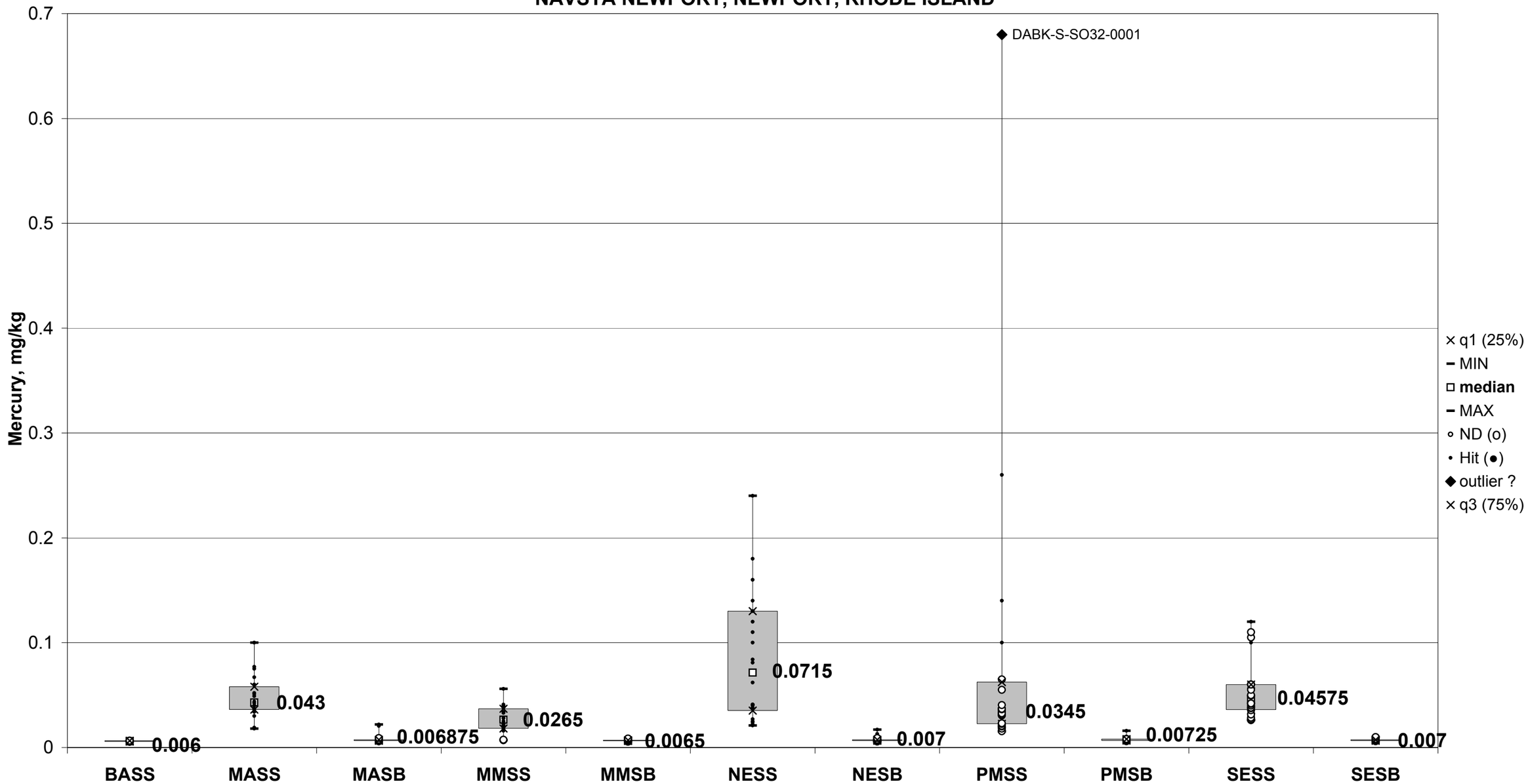
APPENDIX E, FIGURE E3-27
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MANGANESE BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



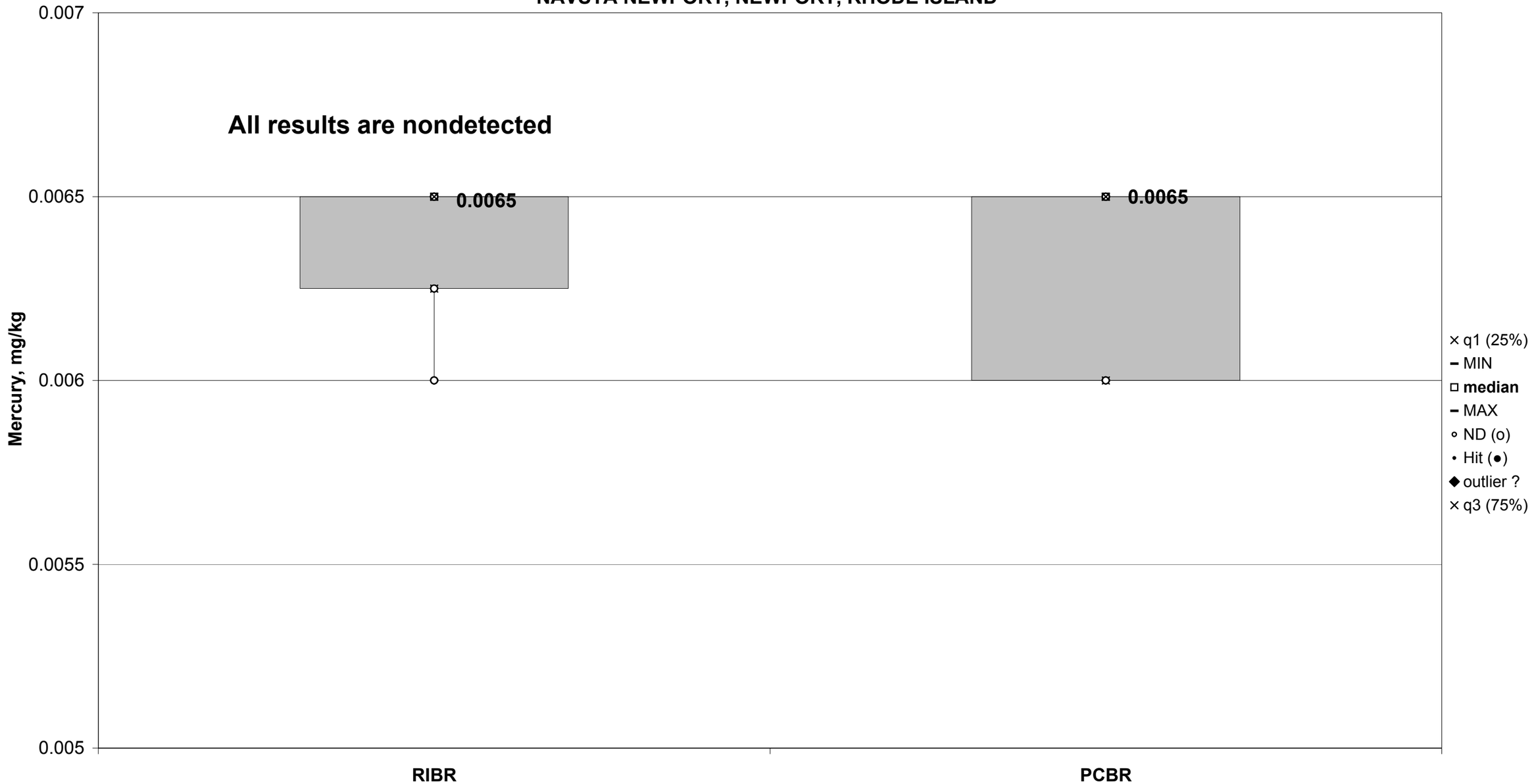
APPENDIX E, FIGURE E3-28
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MANGANESE IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



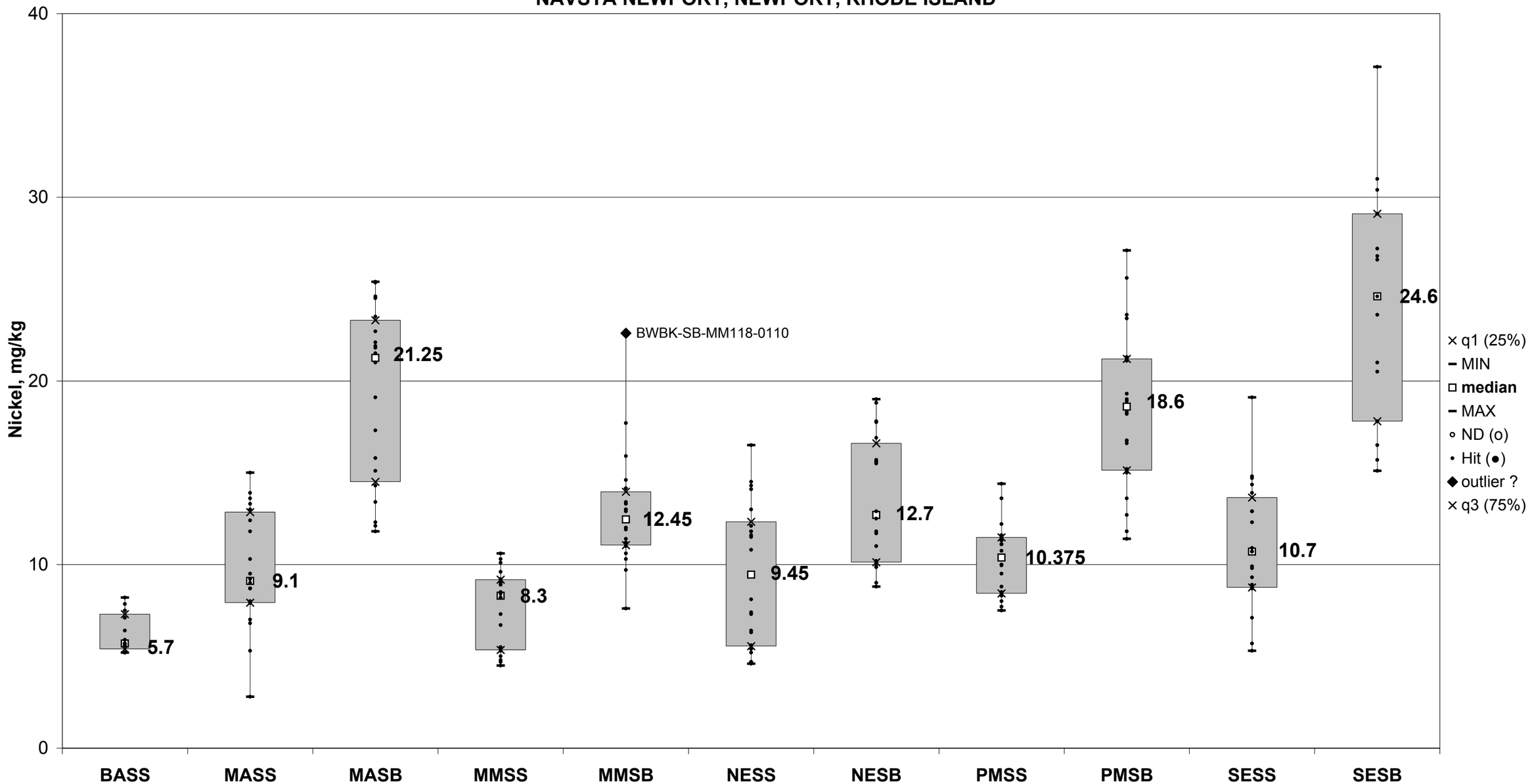
APPENDIX E, FIGURE E3-29
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MERCURY BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



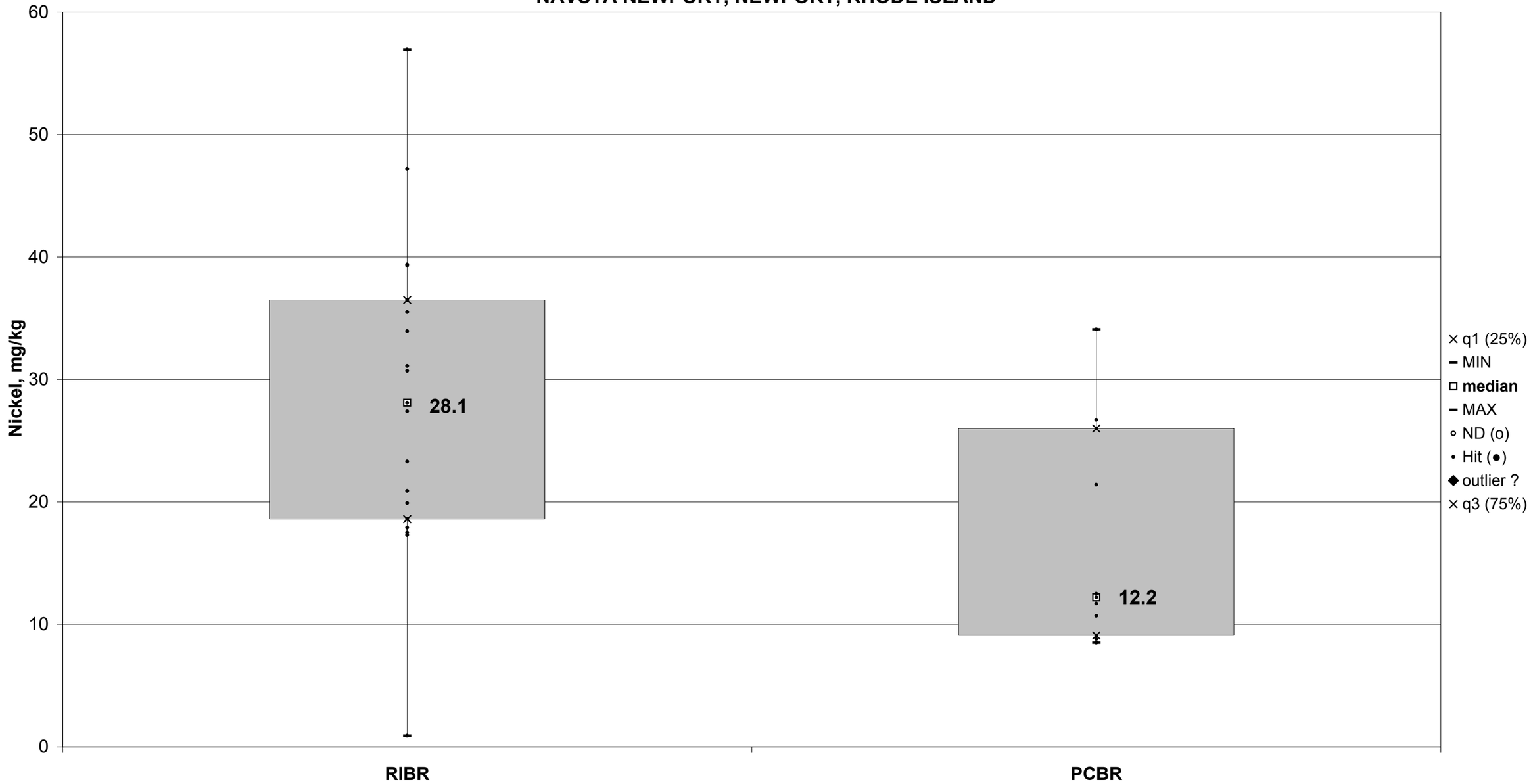
APPENDIX E, FIGURE E3-30
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR MERCURY IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



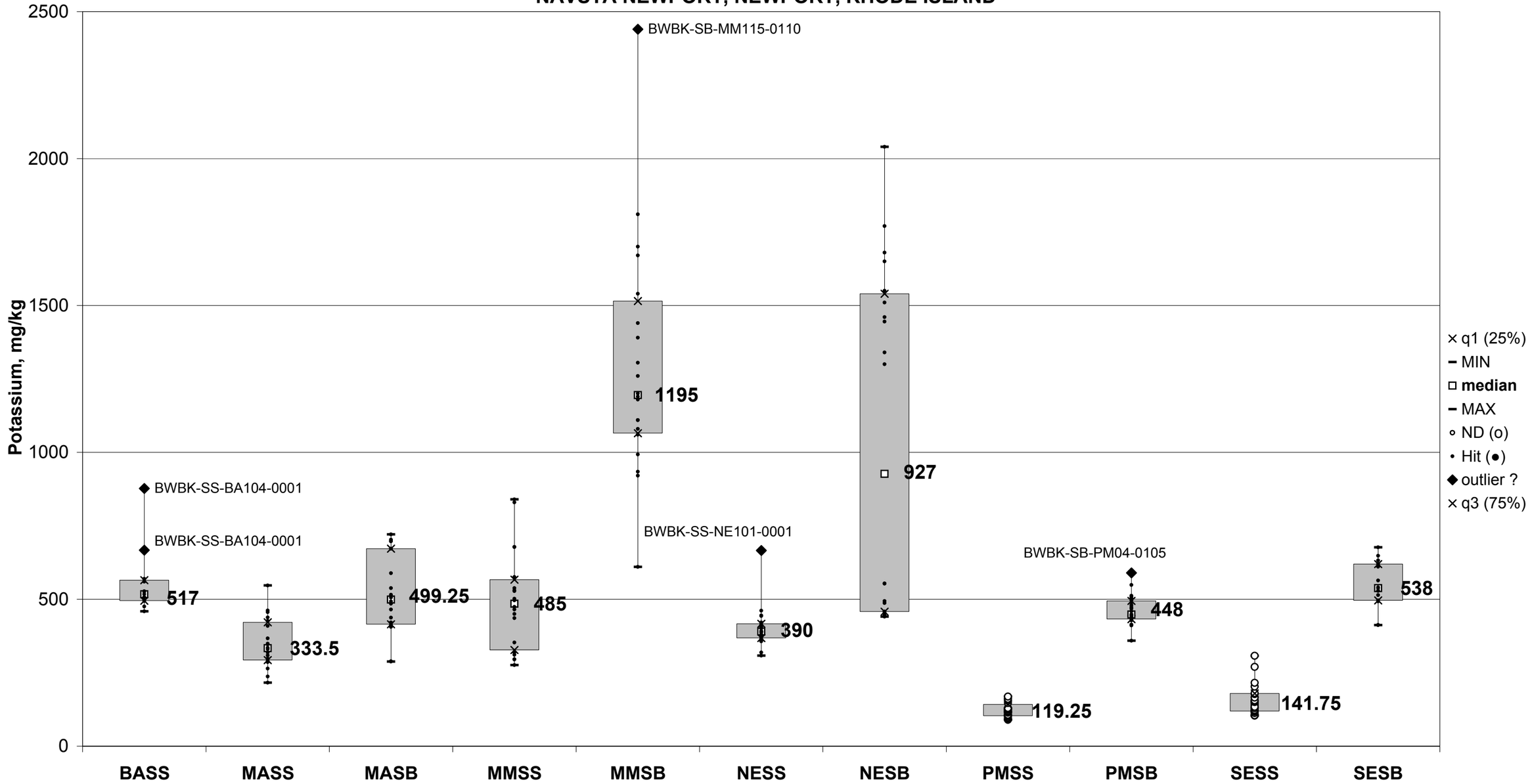
APPENDIX E, FIGURE E3-31
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR NICKEL BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



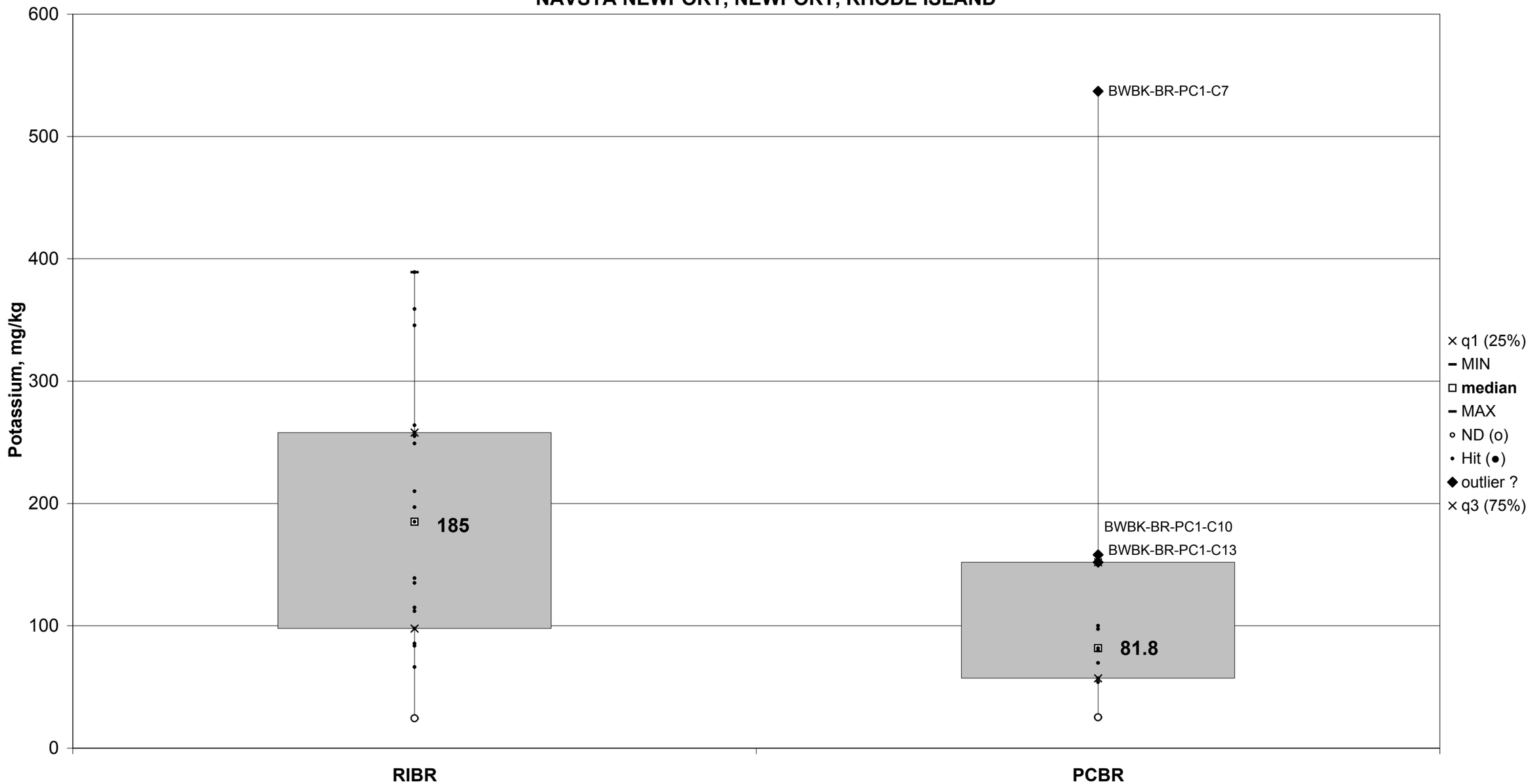
APPENDIX E, FIGURE E3-32
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR NICKEL IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



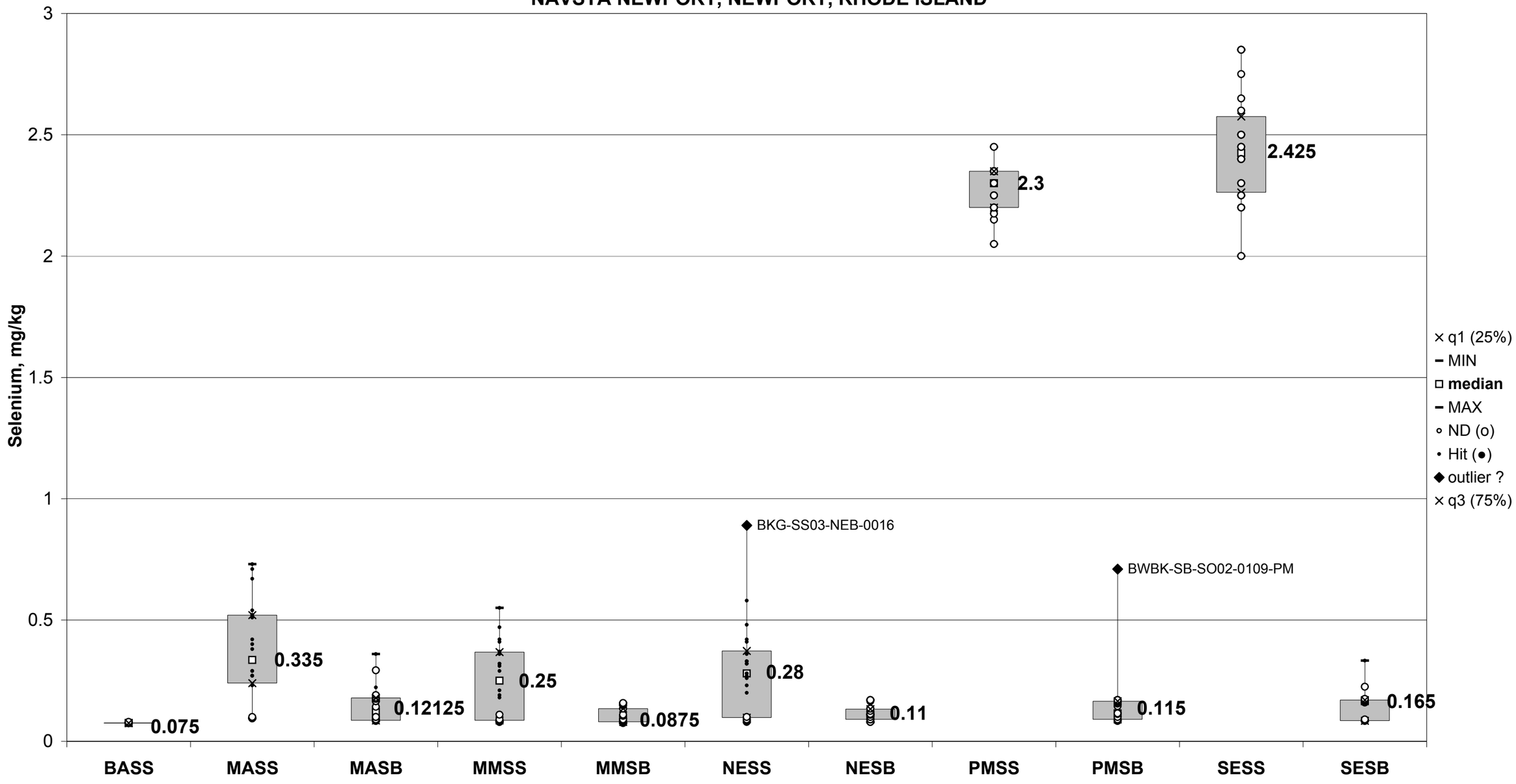
APPENDIX E, FIGURE E3-33
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR POTASSIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



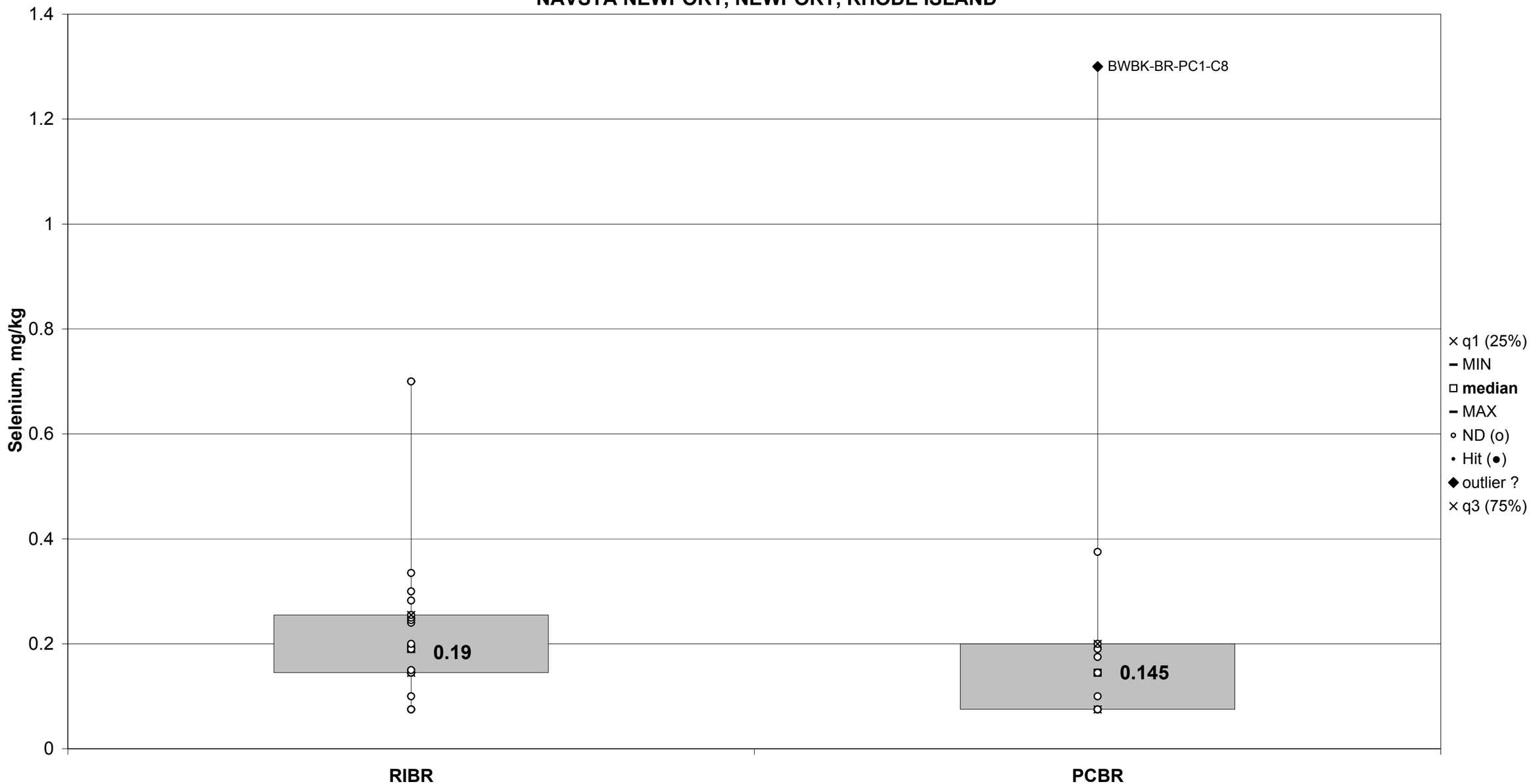
APPENDIX E, FIGURE E3-34
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR POTASSIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



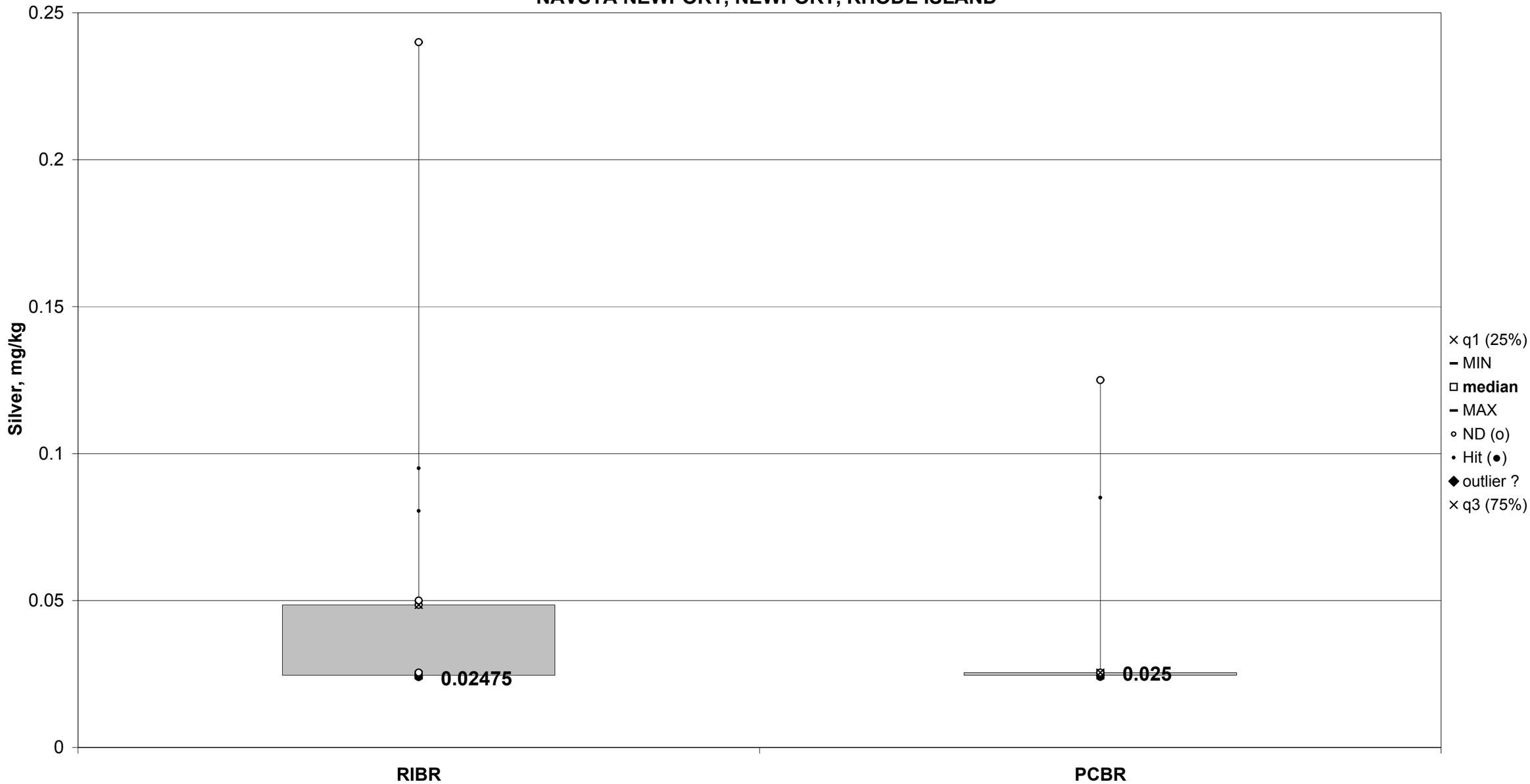
APPENDIX E, FIGURE E3-35
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR SELENIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



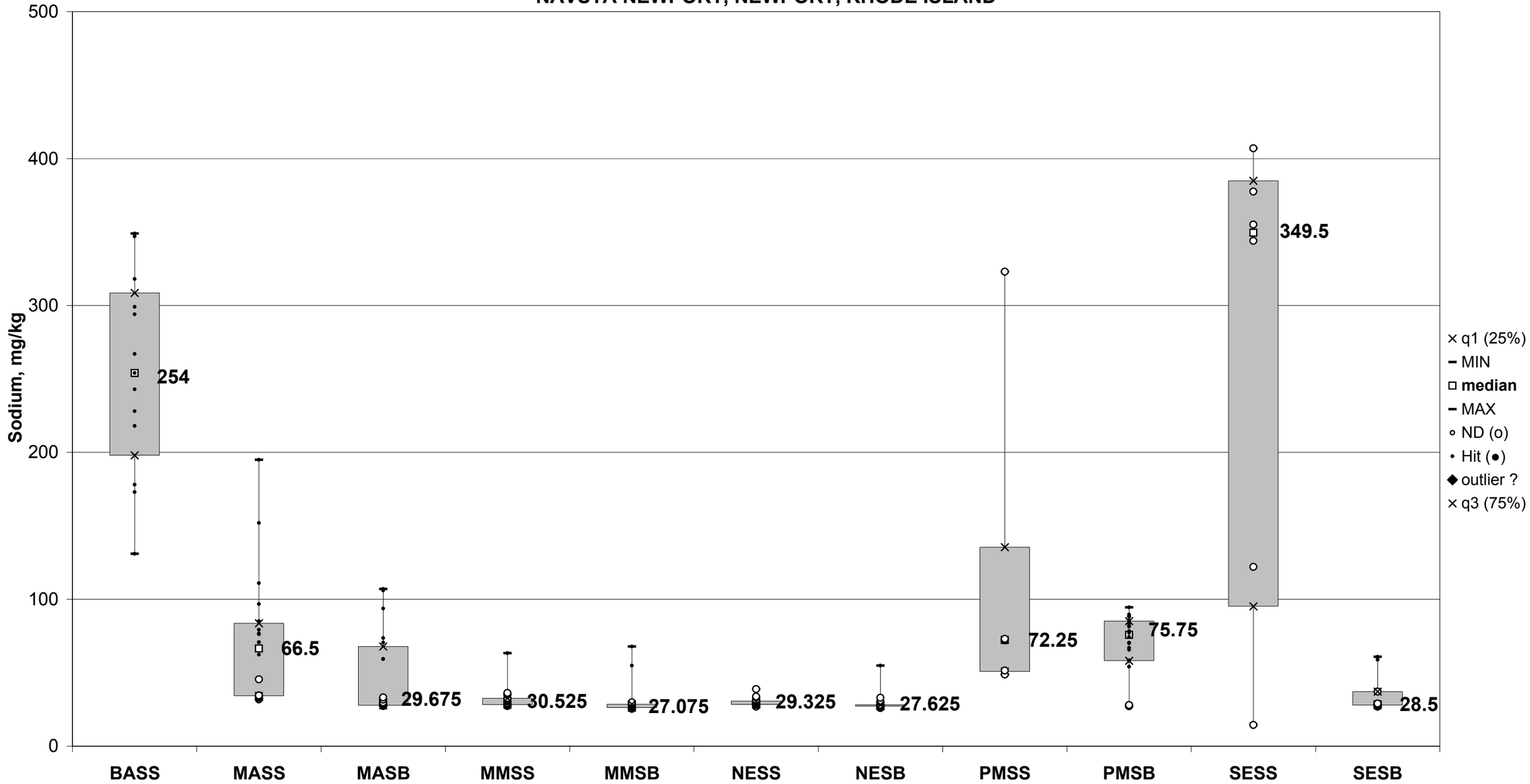
APPENDIX E, FIGURE E3-36
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR SELENIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



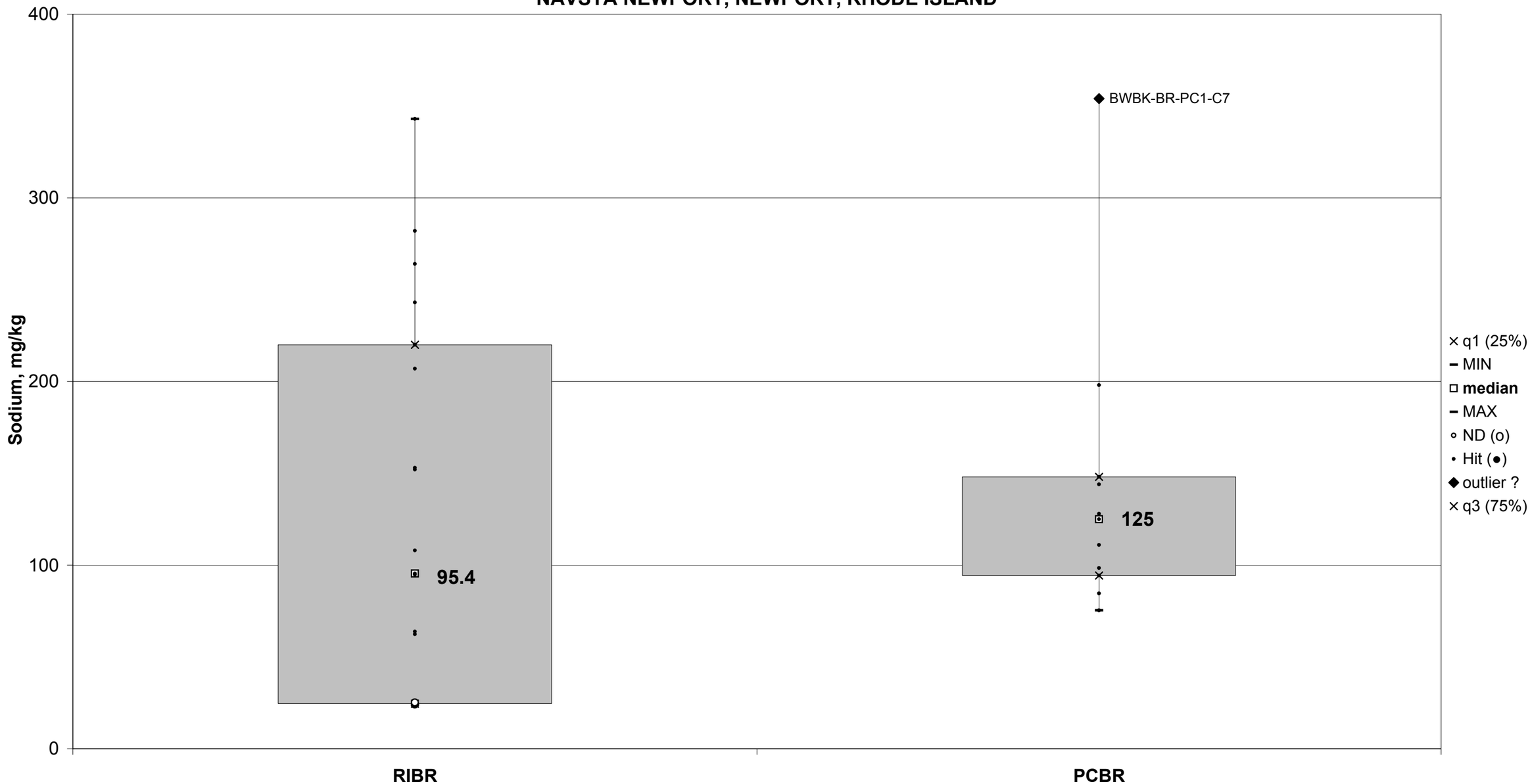
APPENDIX E, FIGURE E3-37
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR SILVER IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



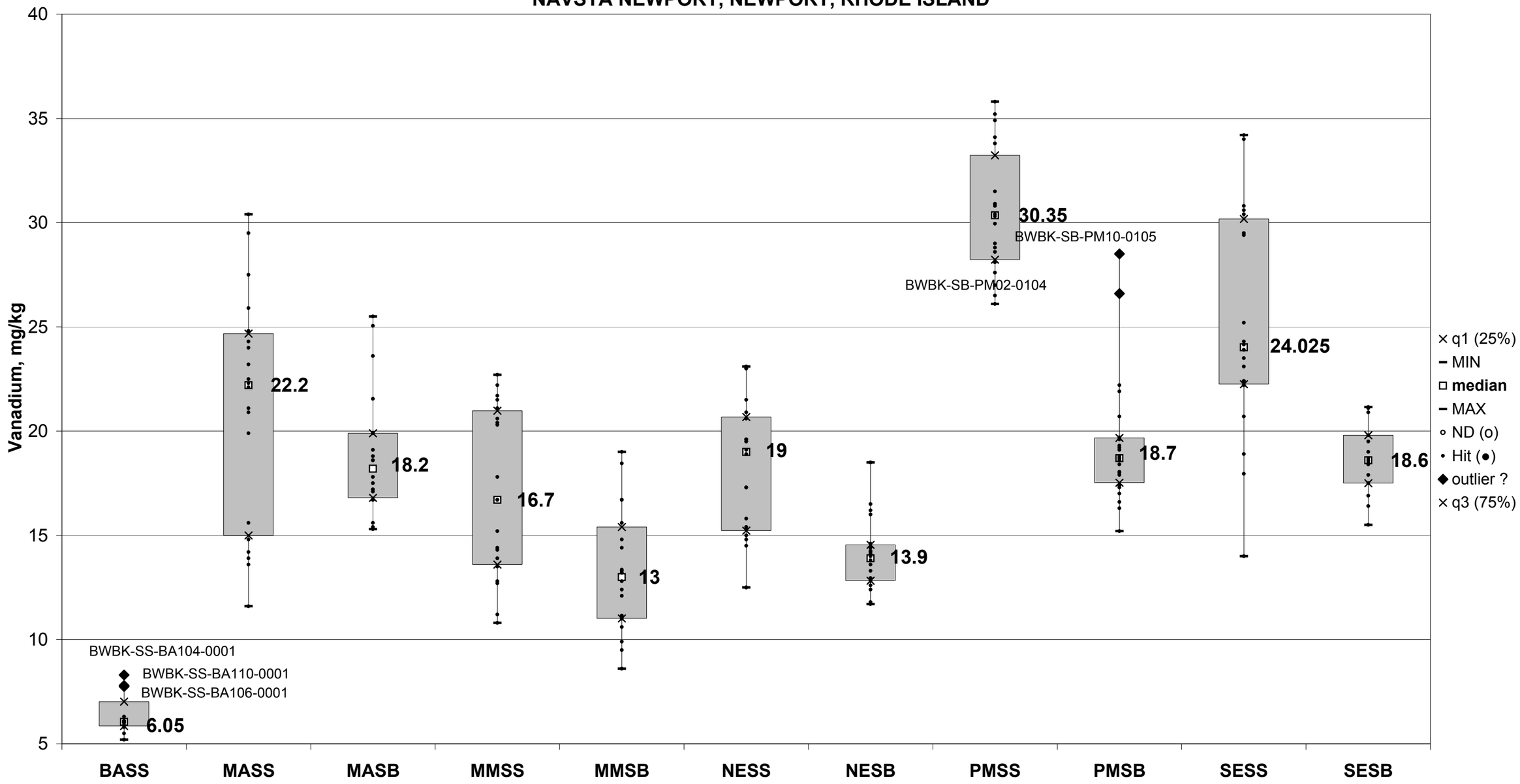
APPENDIX E, FIGURE E3-38
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR SODIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



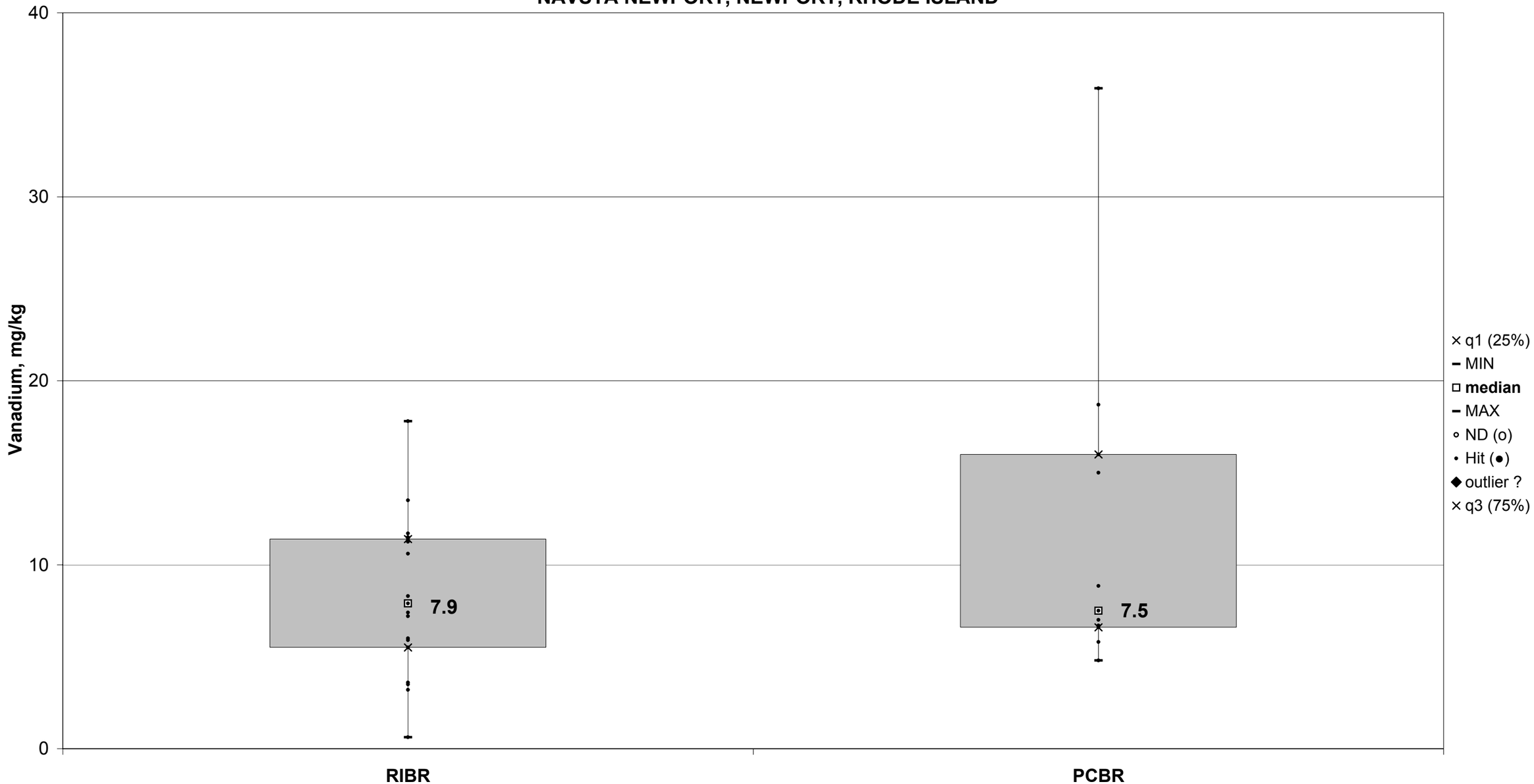
APPENDIX E, FIGURE E3-39
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR SODIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



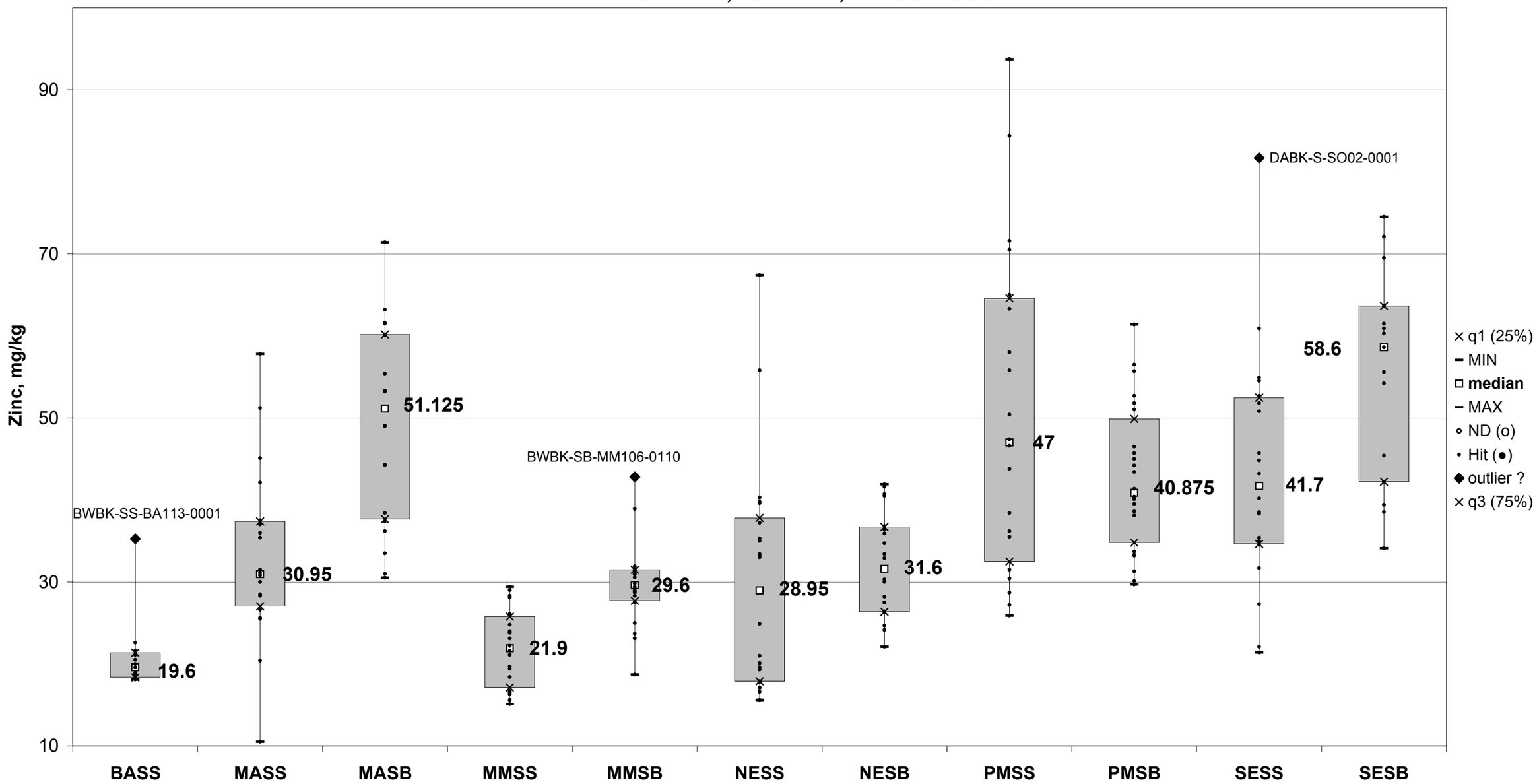
APPENDIX E, FIGURE E3-40
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR VANADIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



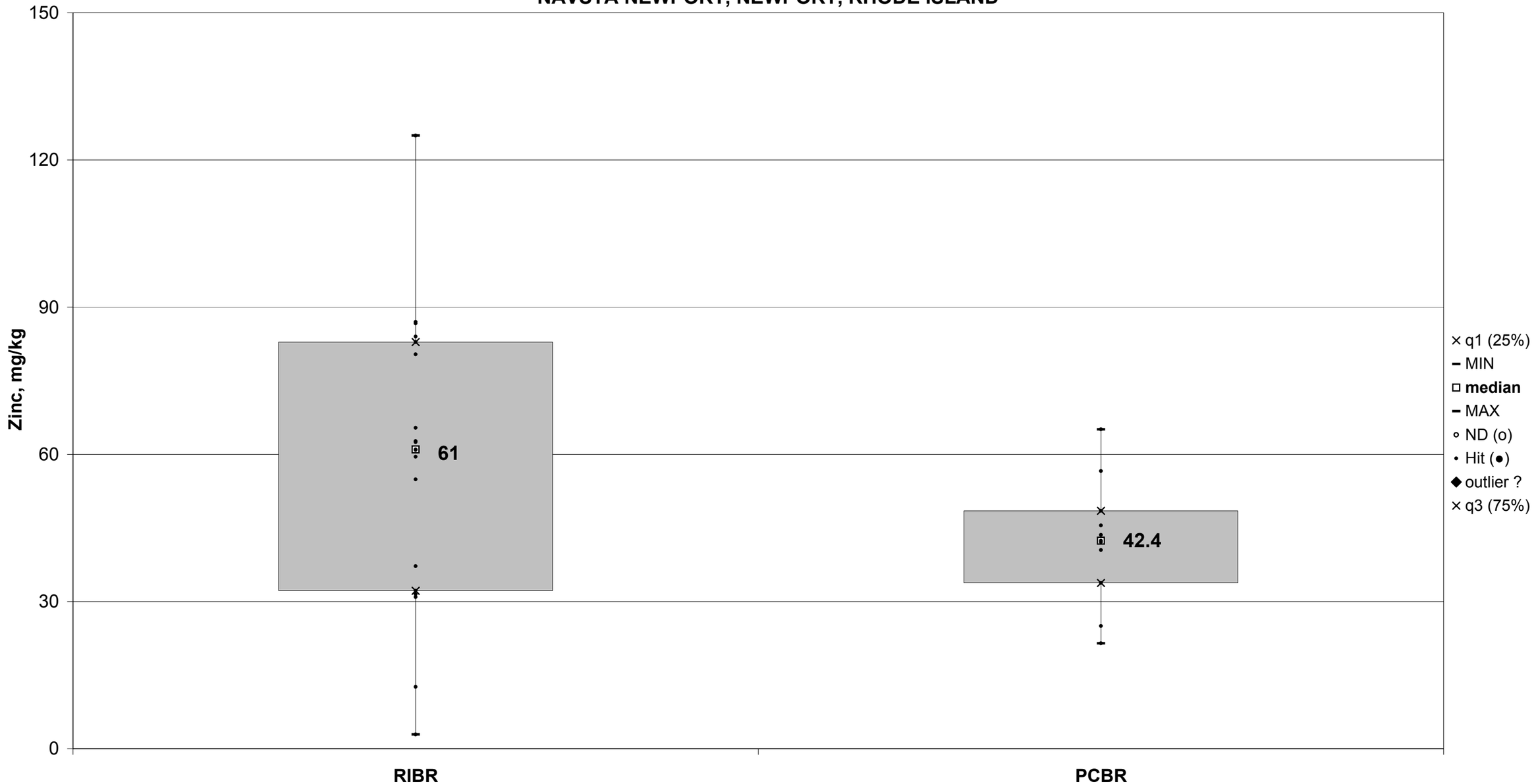
APPENDIX E, FIGURE E3-41
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR VANADIUM IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX E, FIGURE E3-42
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ZINC BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX E, FIGURE E3-43
MINIMUM, MAXIMUM, MEDIAN, AND SHADED INTERQUARTILE RANGE FOR ZINC IN BEDROCK
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



E3-43_BEDROCK_Zn_BOXPLOTS.xls

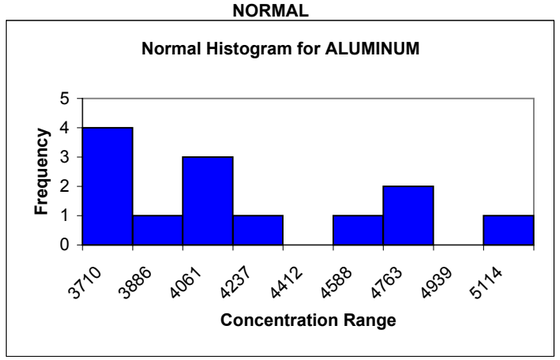
CTO 043

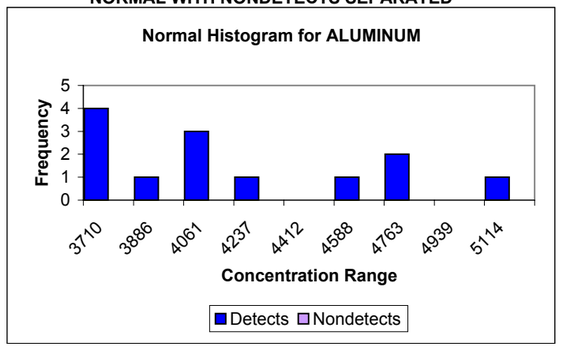
APPENDIX E, PART 4

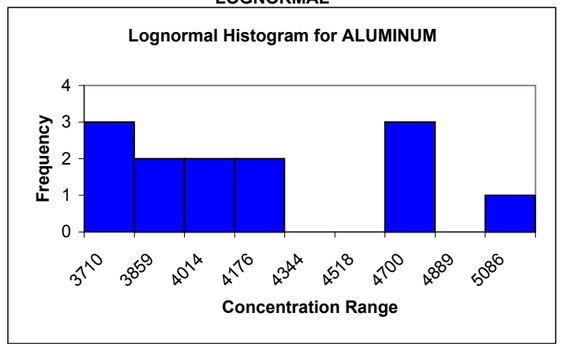
HISTOGRAMS (NORMAL AND LOGNORMAL) FOR EACH SOIL TYPE

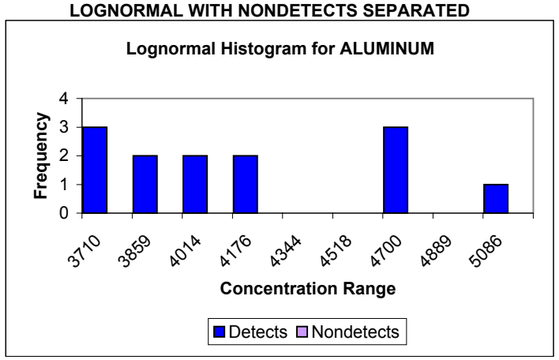
APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

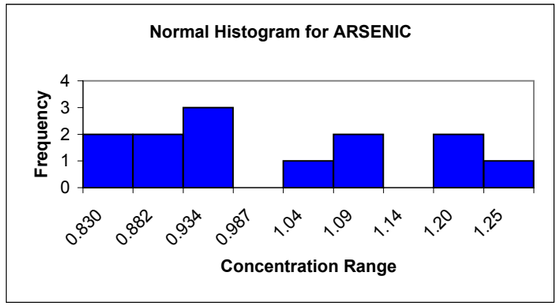
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

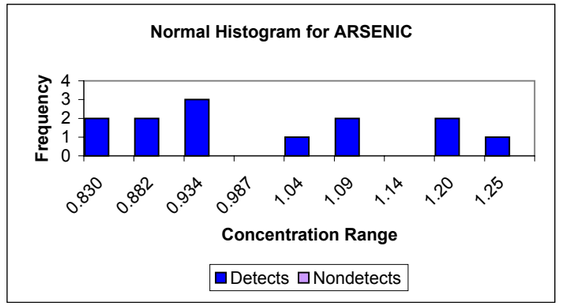


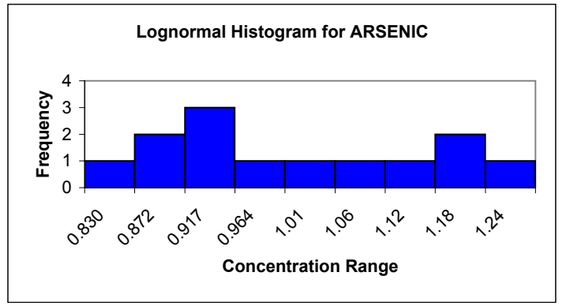


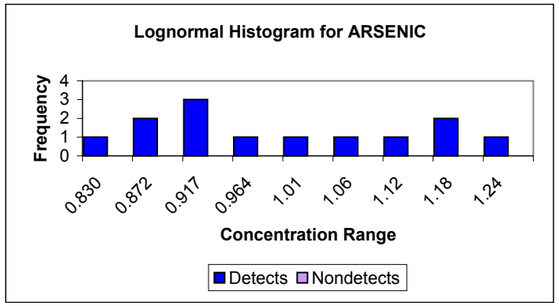


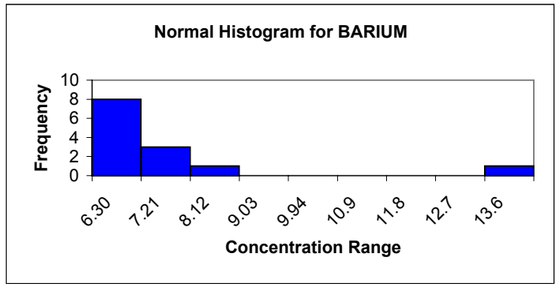


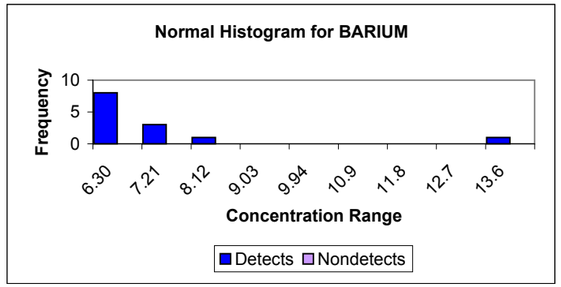


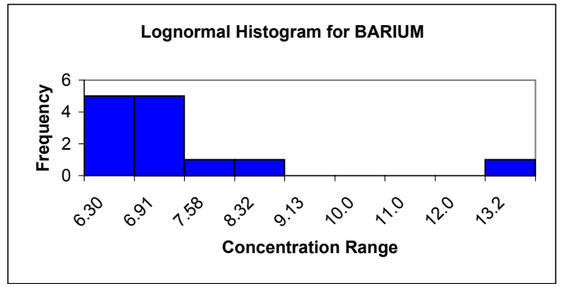


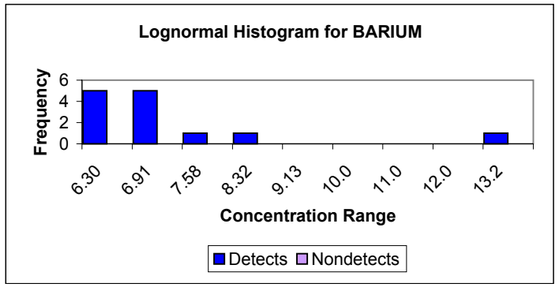






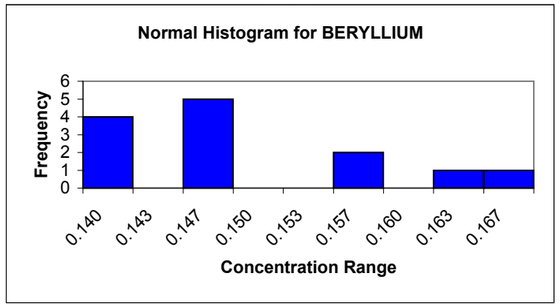


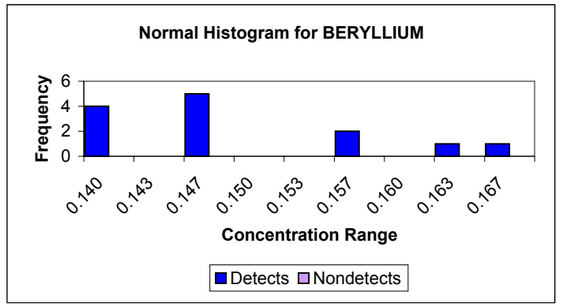


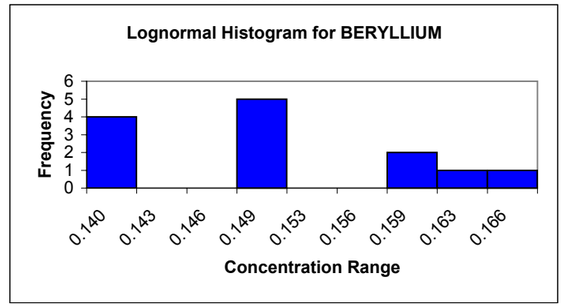


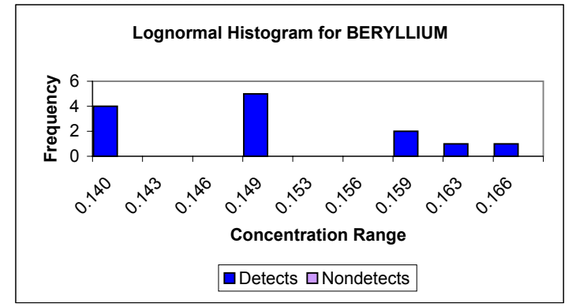
APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

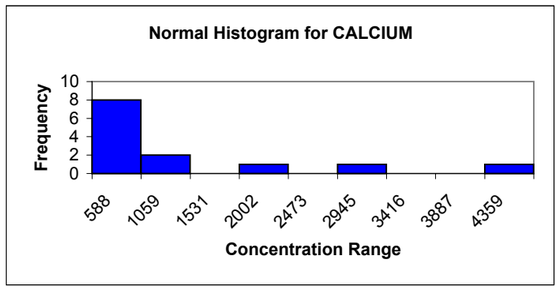
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

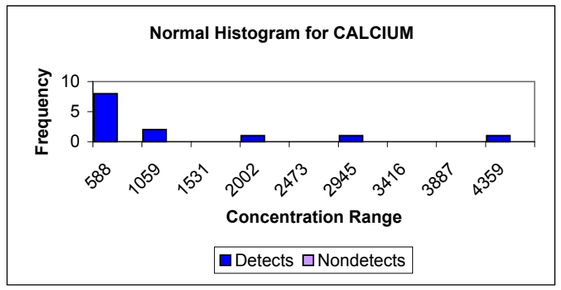


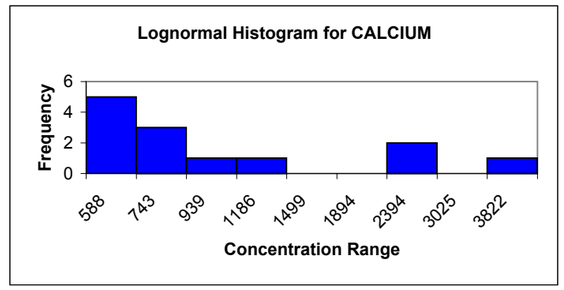


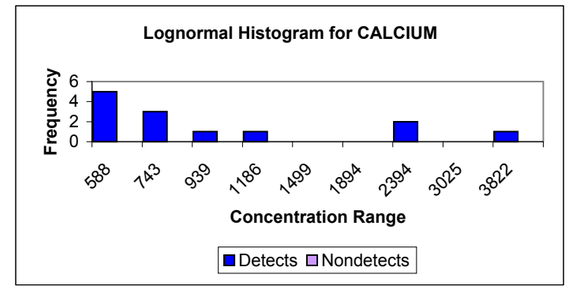


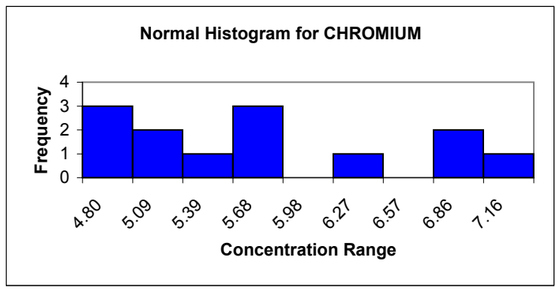


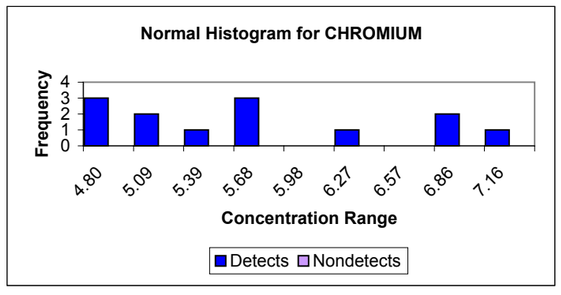


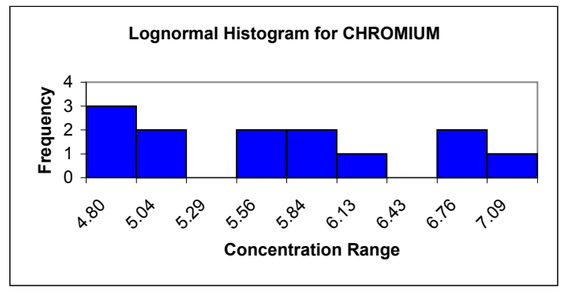


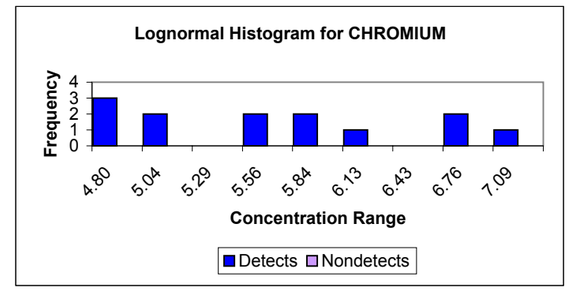






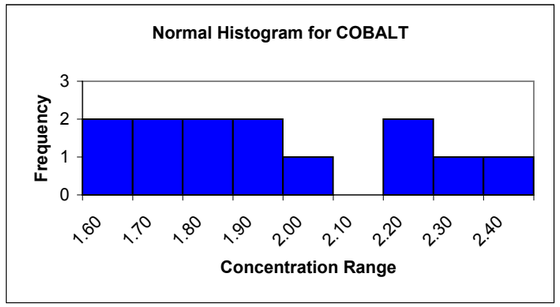




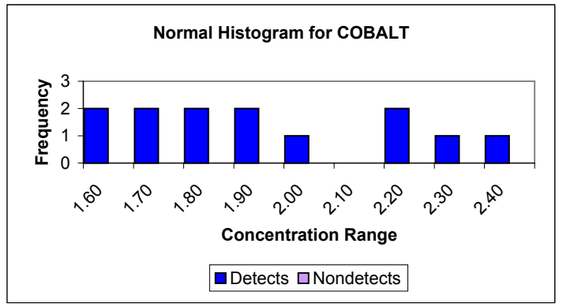


APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

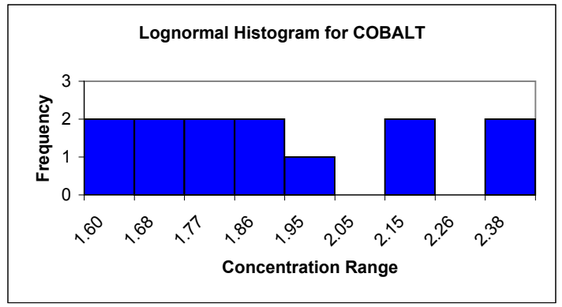
NORMAL



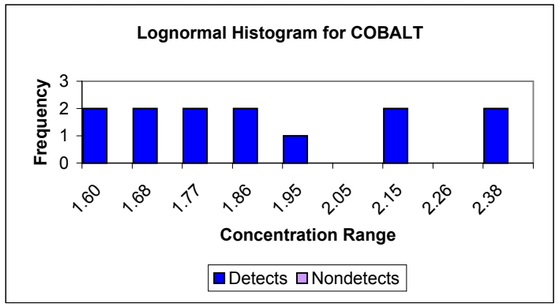
NORMAL WITH NONDETECTS SEPARATED

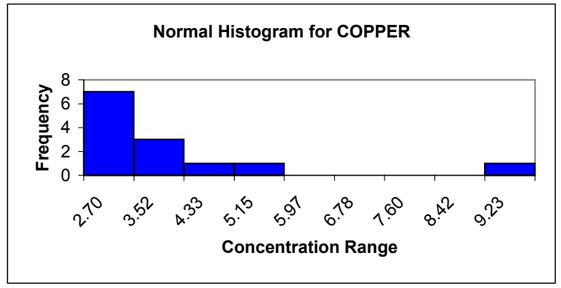


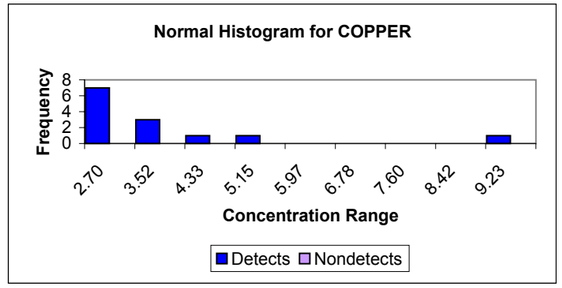
LOGNORMAL

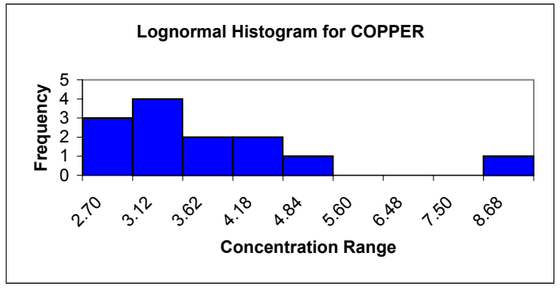


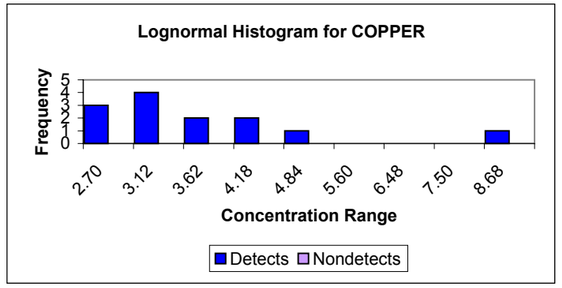
LOGNORMAL WITH NONDETECTS SEPARATED

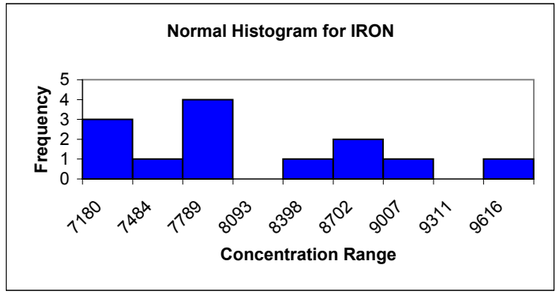


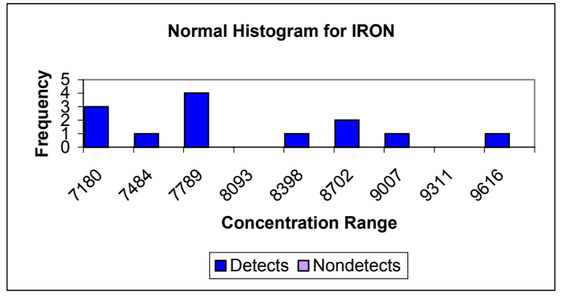


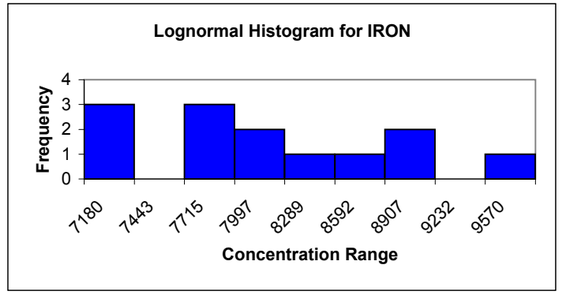


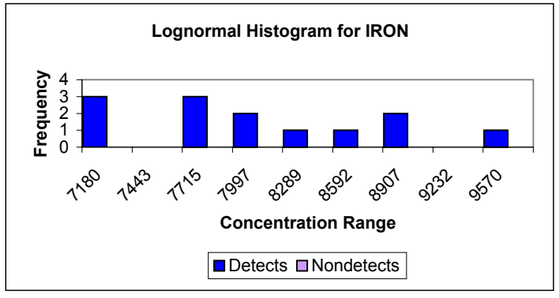






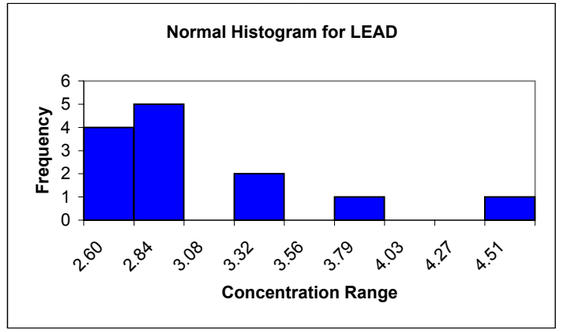




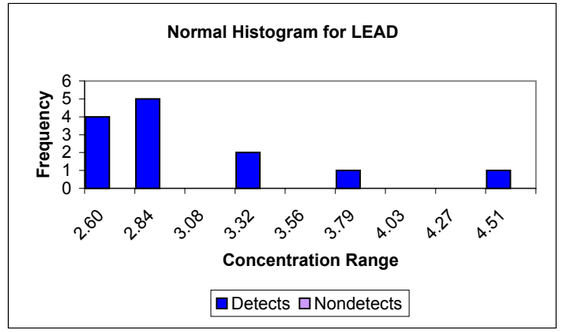


APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

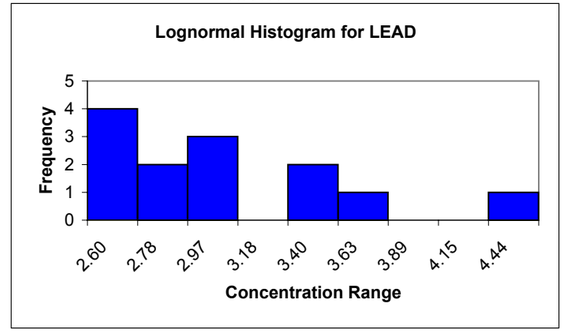
NORMAL



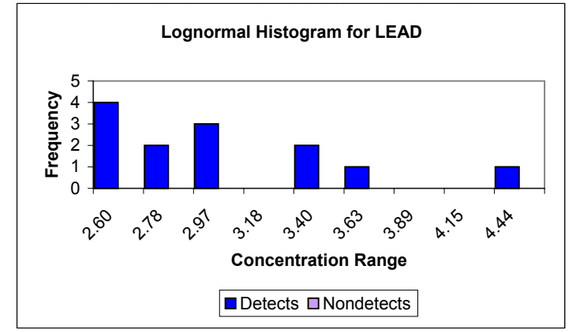
NORMAL WITH NONDETECTS SEPARATED

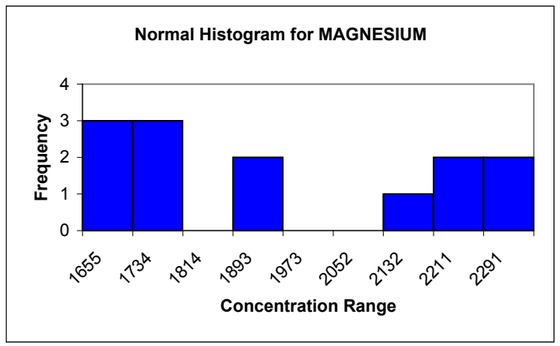


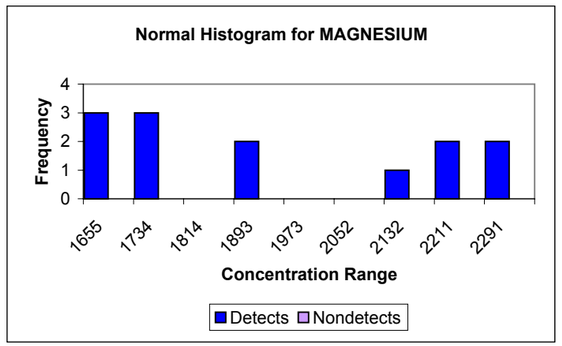
LOGNORMAL

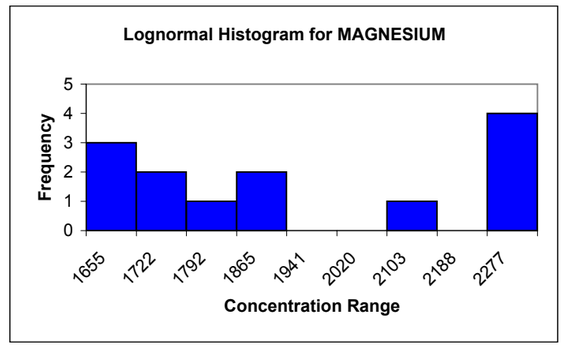


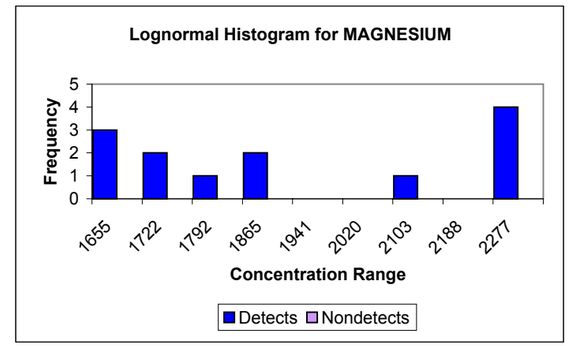
LOGNORMAL WITH NONDETECTS SEPARATED

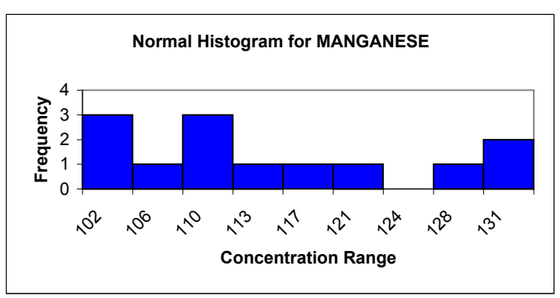


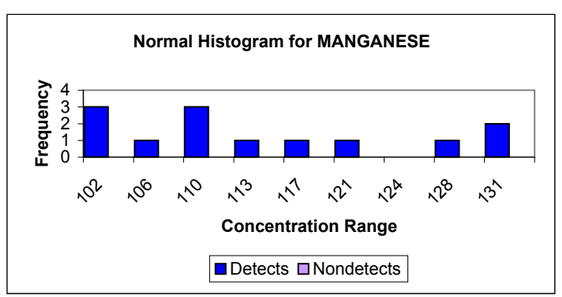


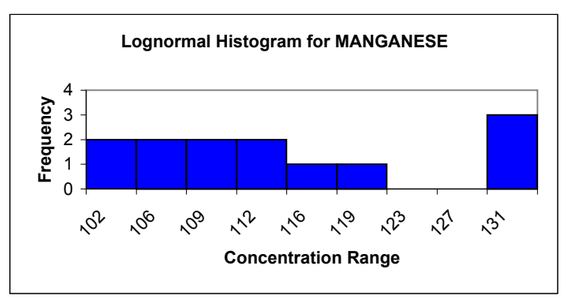


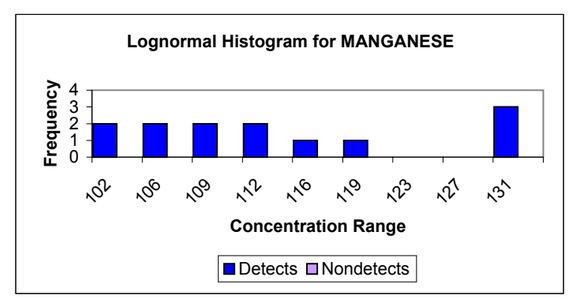






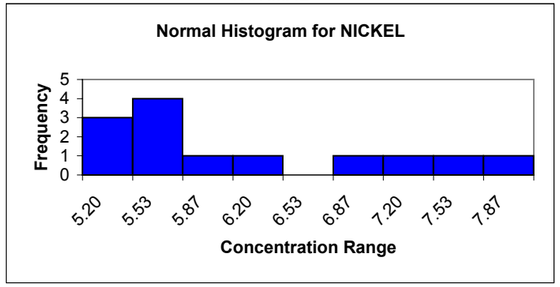




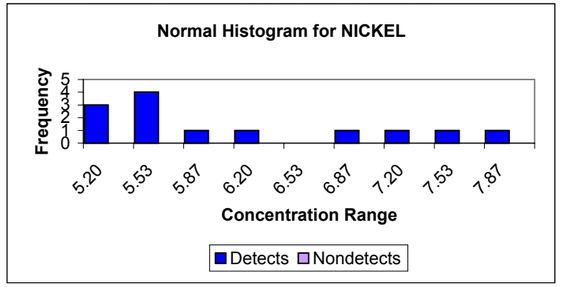


APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

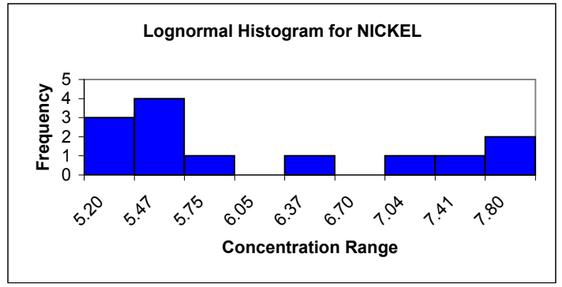
NORMAL



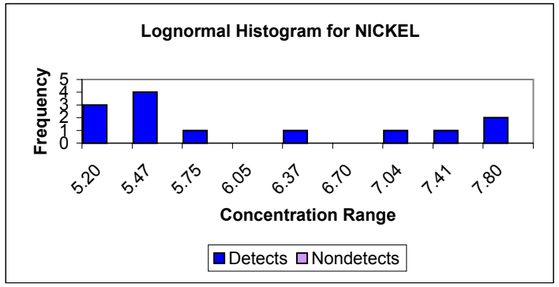
NORMAL WITH NONDETECTS SEPARATED

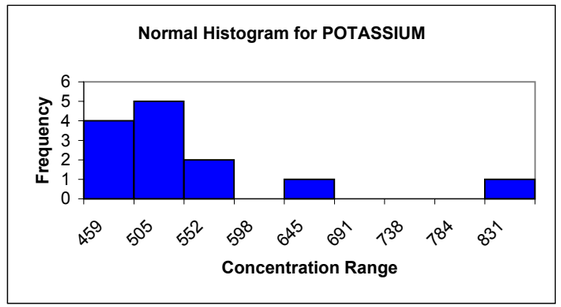


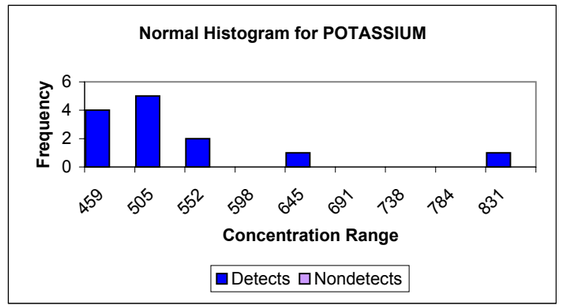
LOGNORMAL

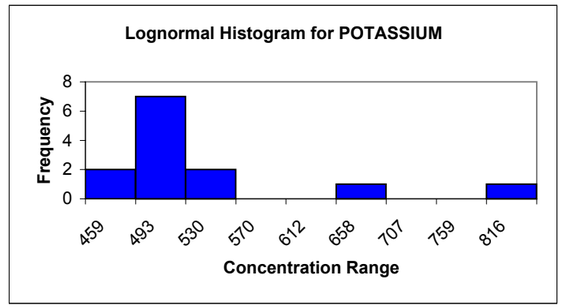


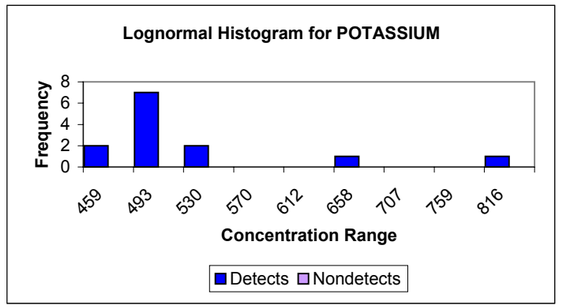
LOGNORMAL WITH NONDETECTS SEPARATED

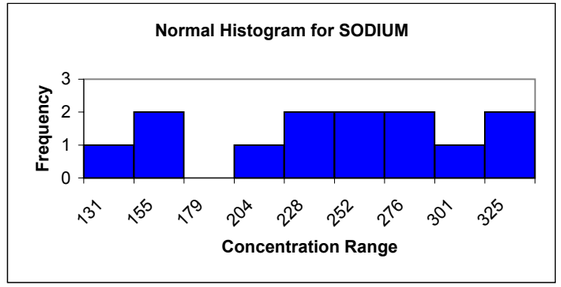


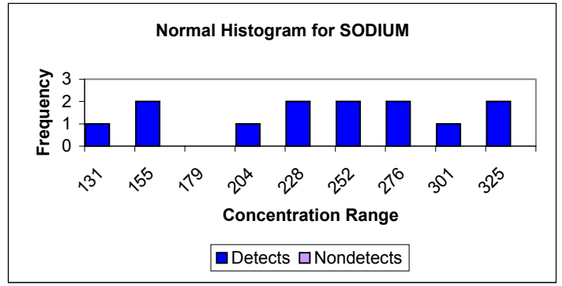


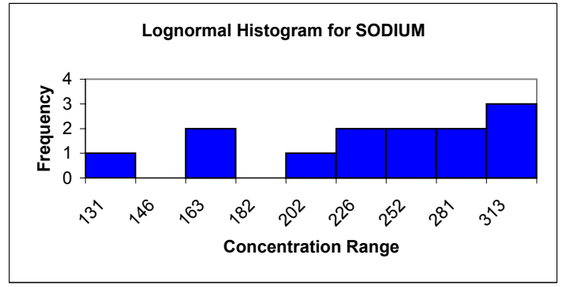


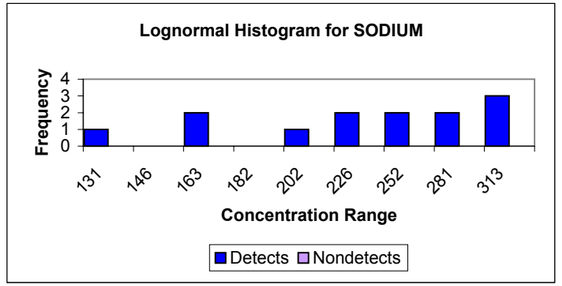






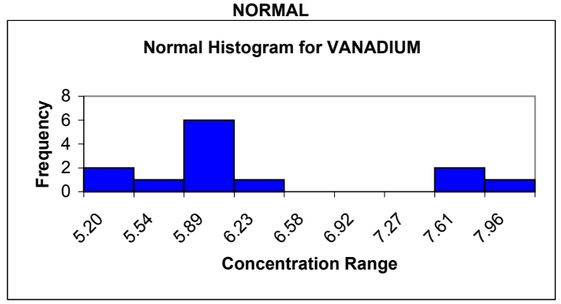




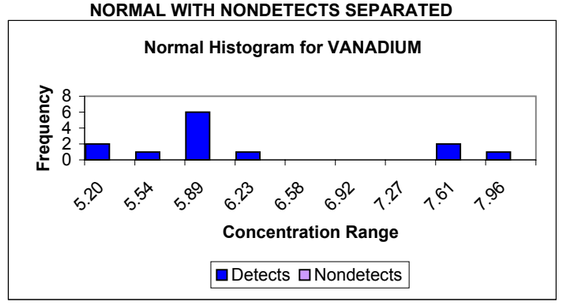


APPENDIX E, FIGURE E4-1
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

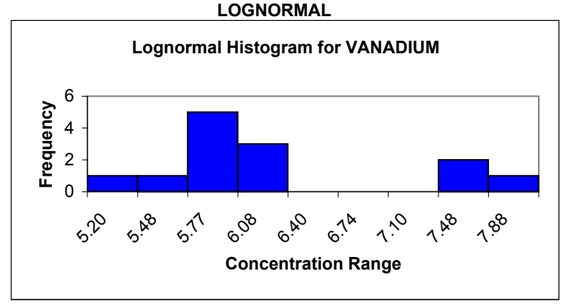
NORMAL



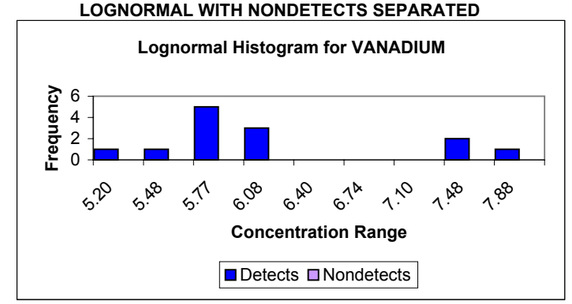
NORMAL WITH NONDETECTS SEPARATED

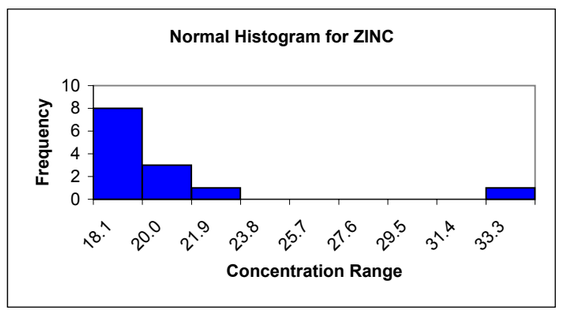


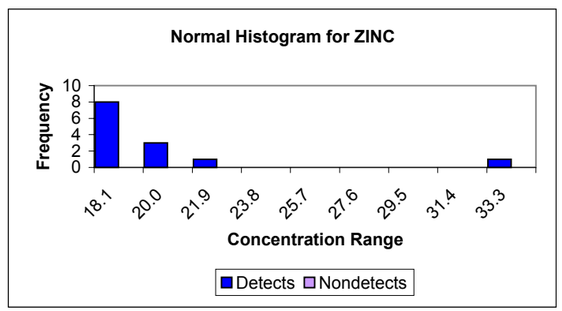
LOGNORMAL

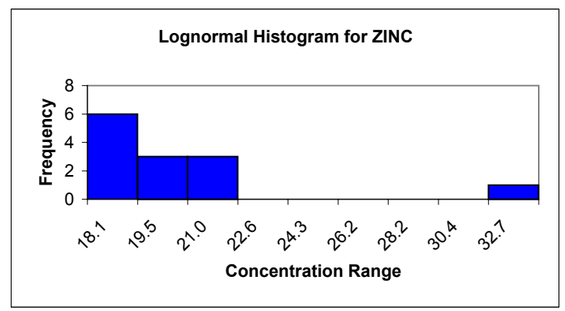


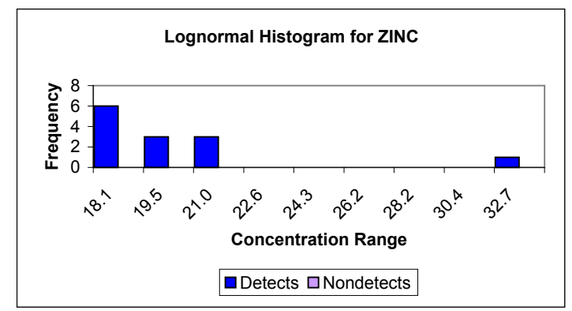
LOGNORMAL WITH NONDETECTS SEPARATED





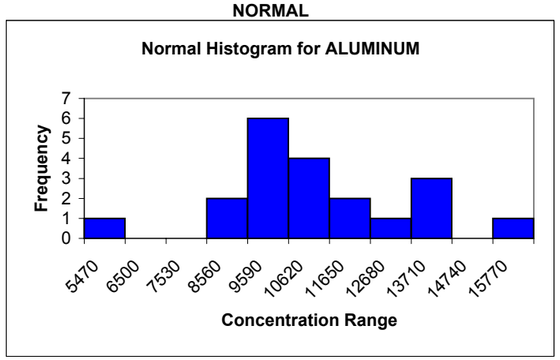


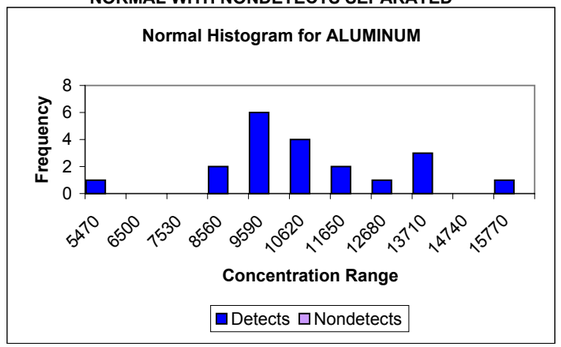


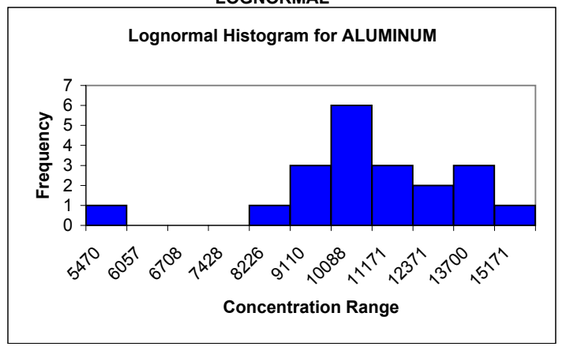


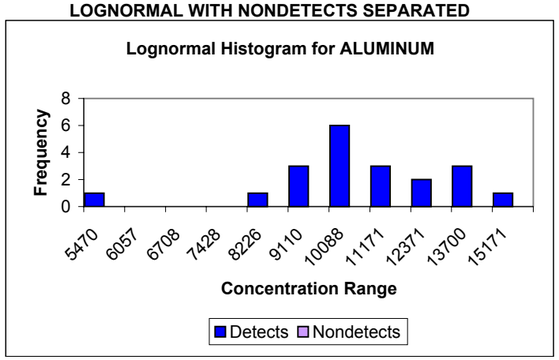
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

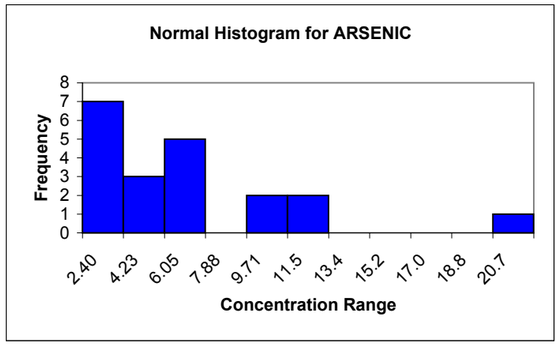
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

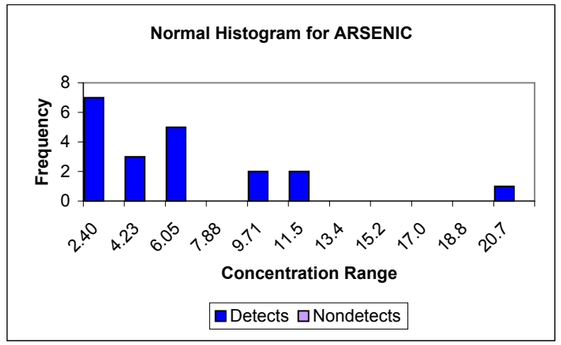


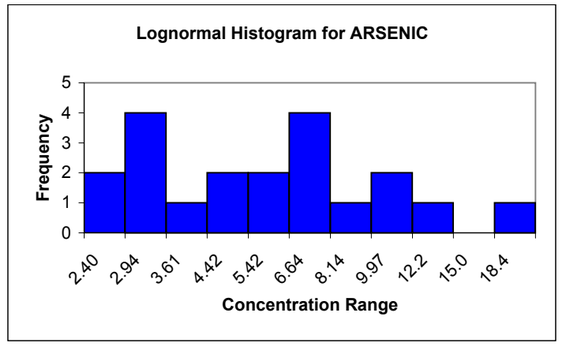


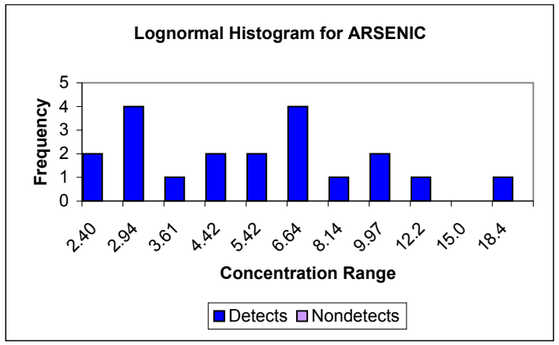


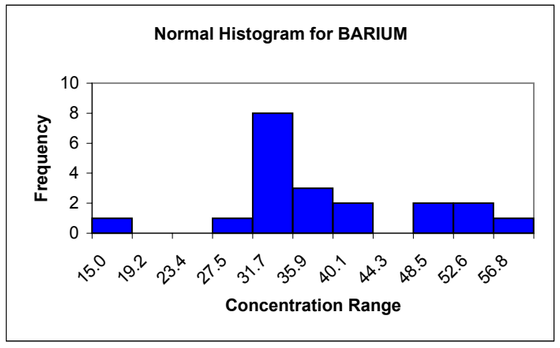


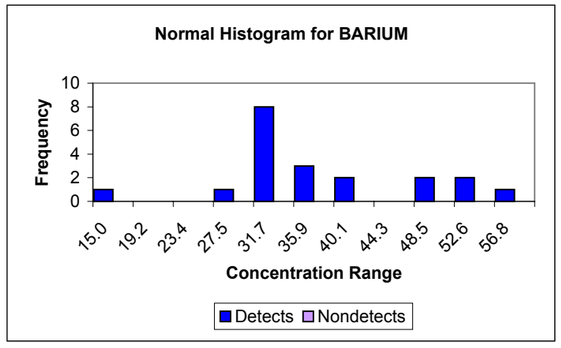


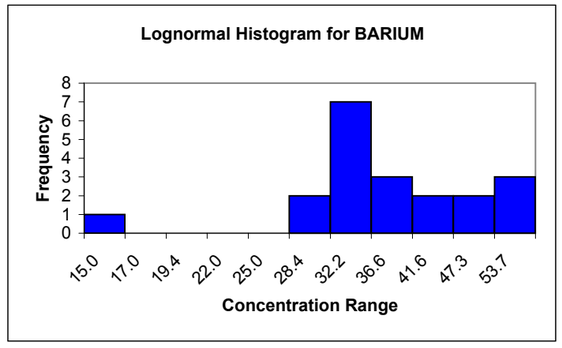


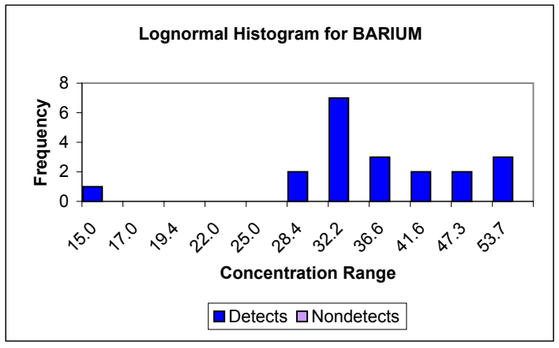






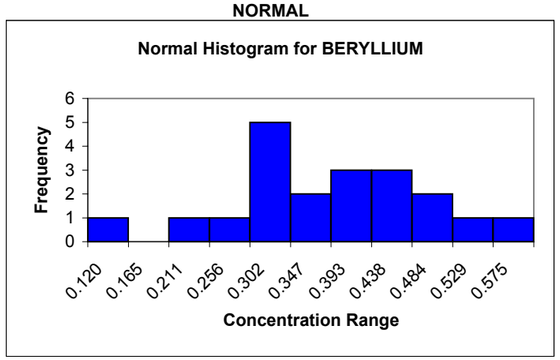


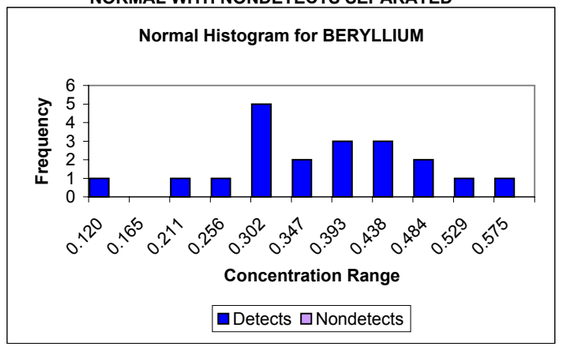


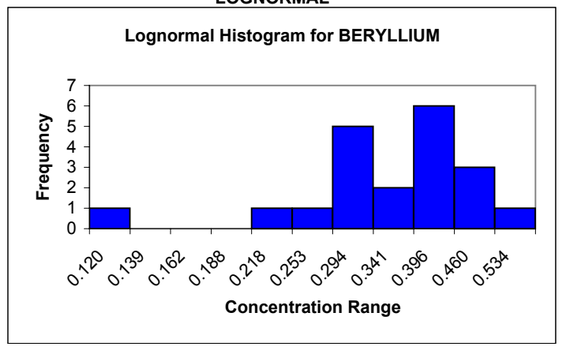


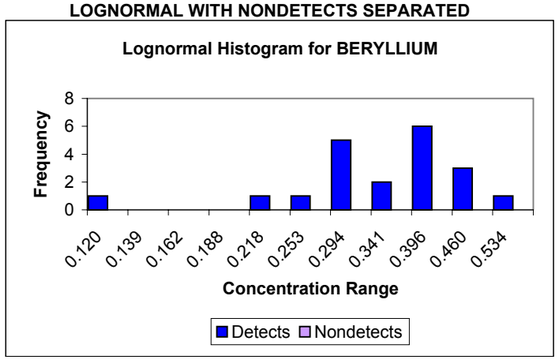
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

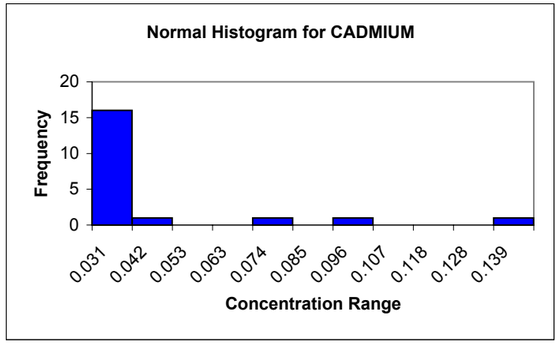
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

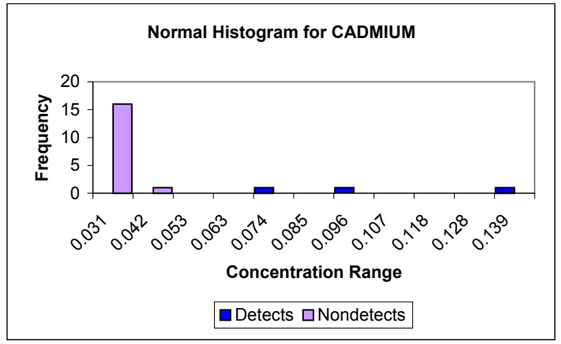


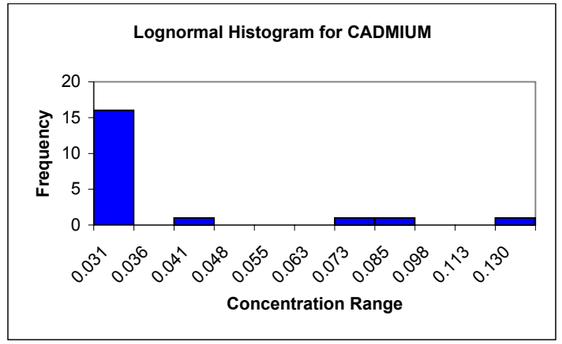


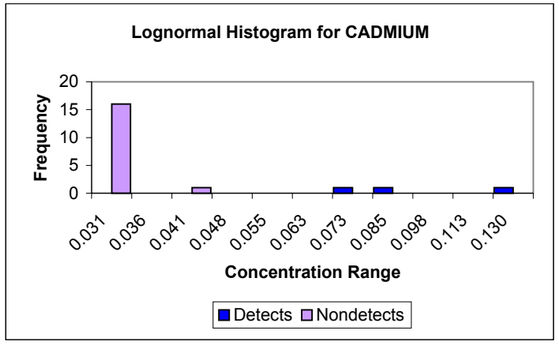


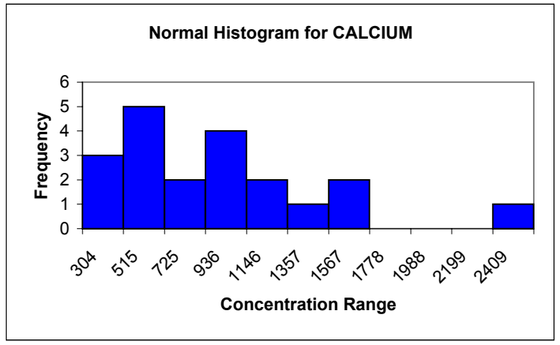


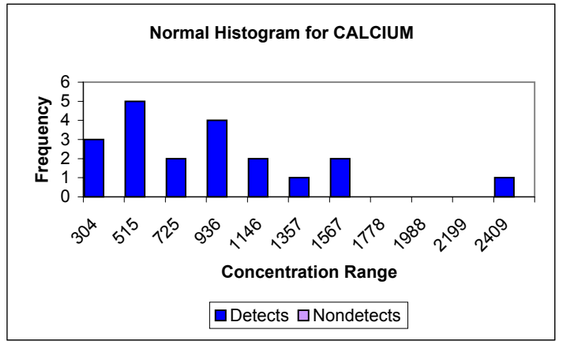


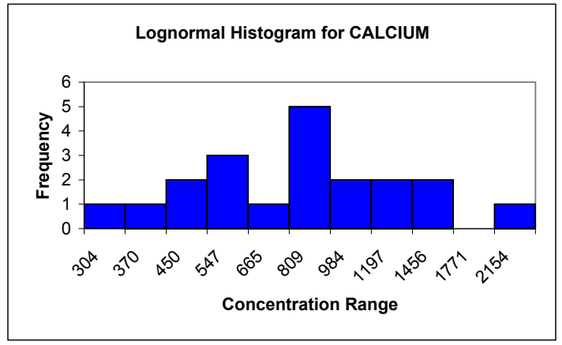


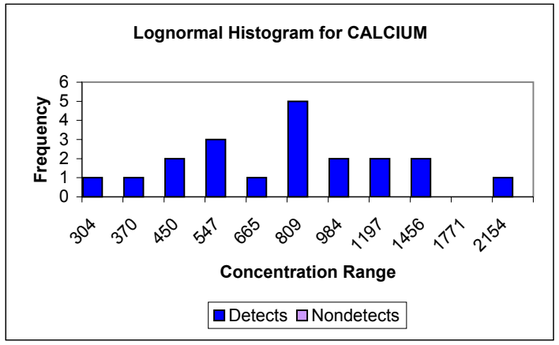






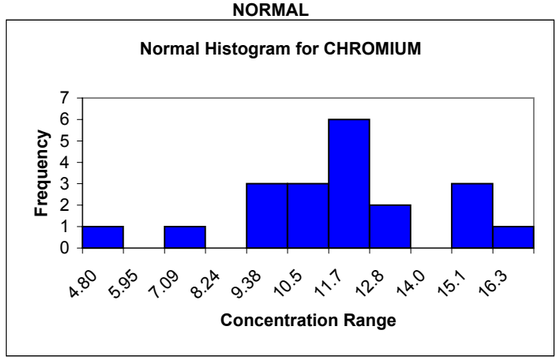


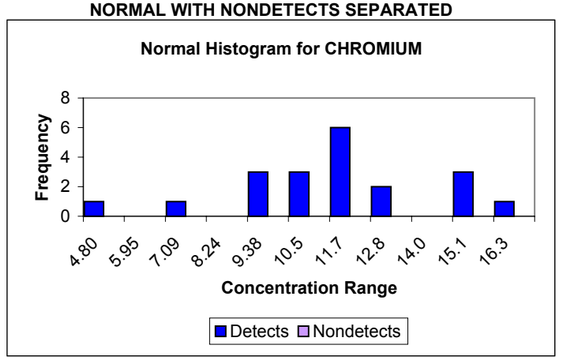


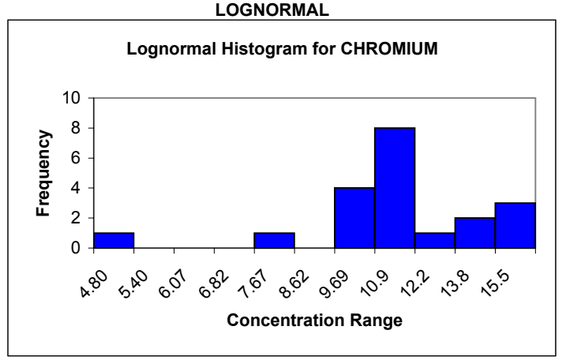


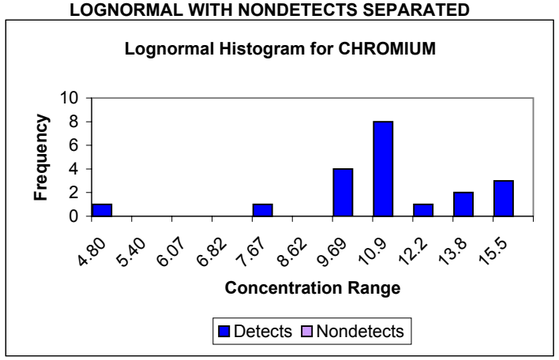
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

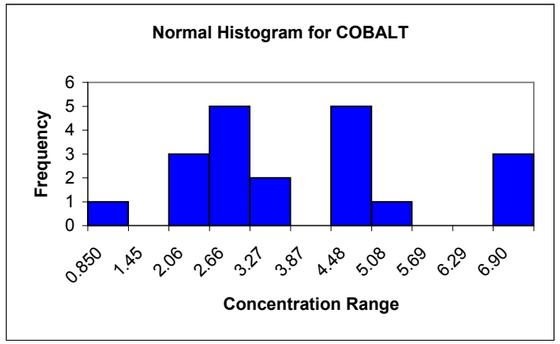
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

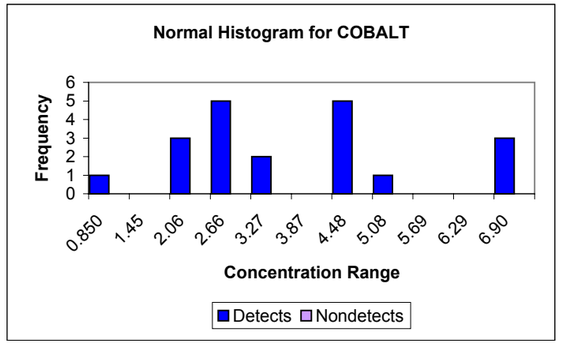


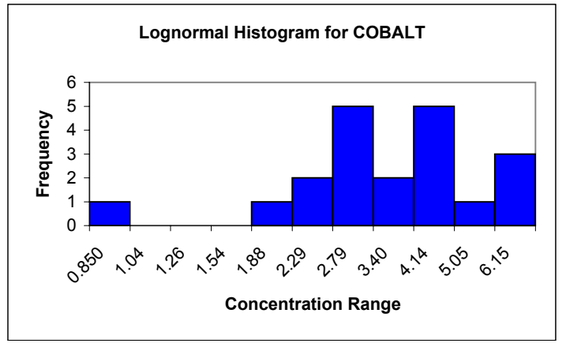


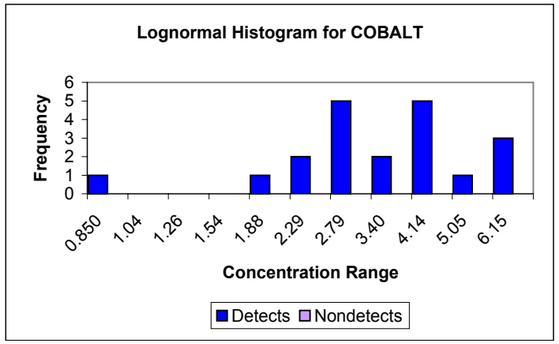


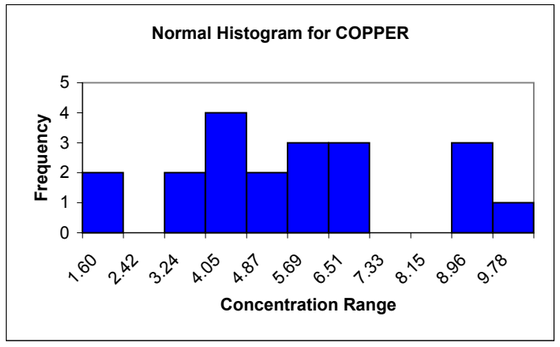


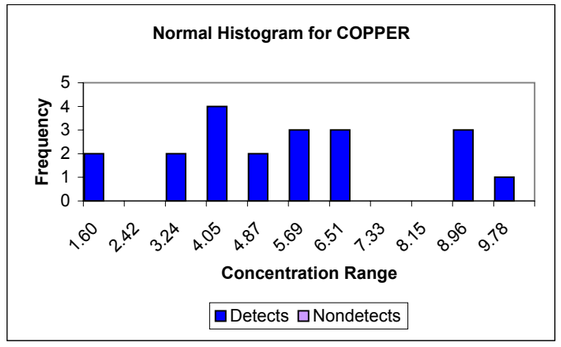


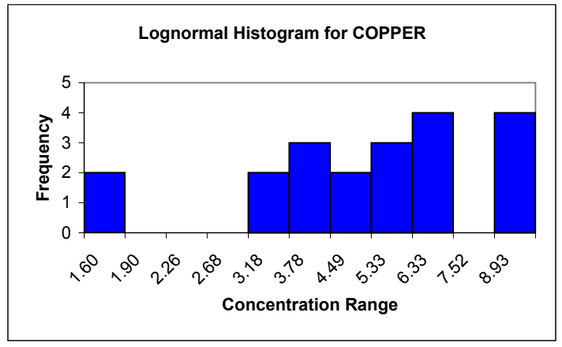


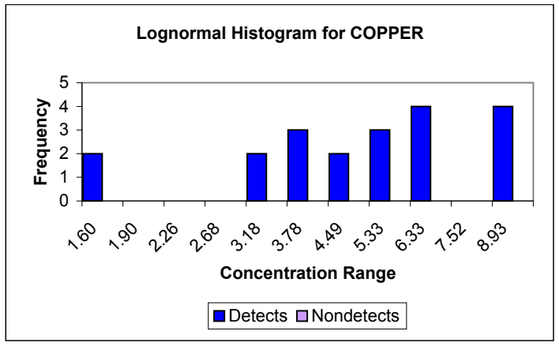






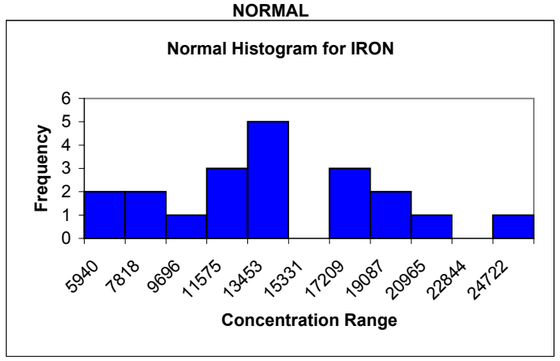


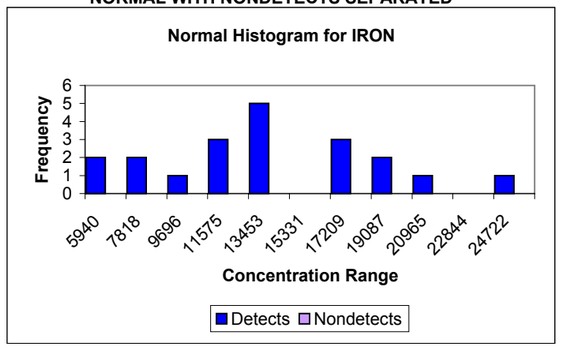


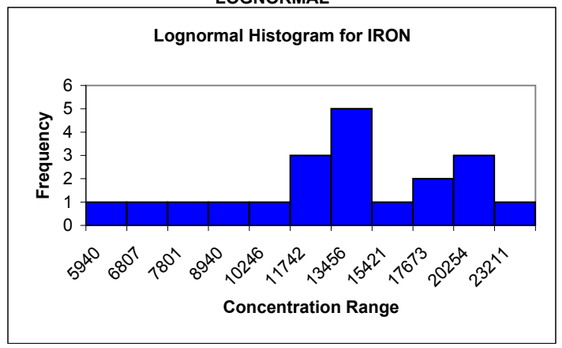


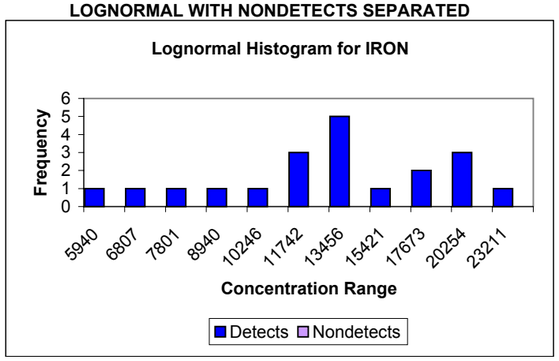
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

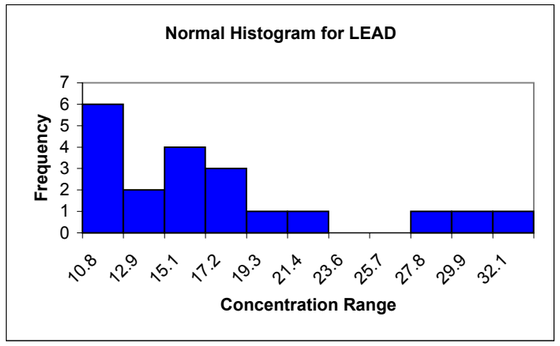
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

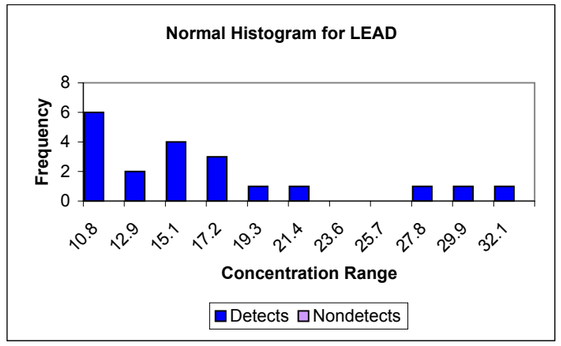


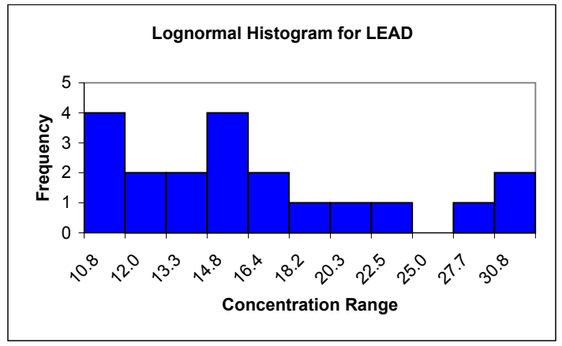


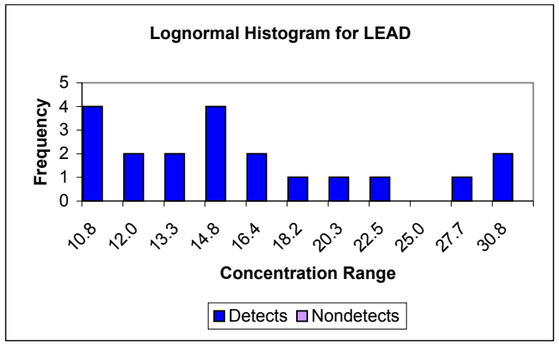


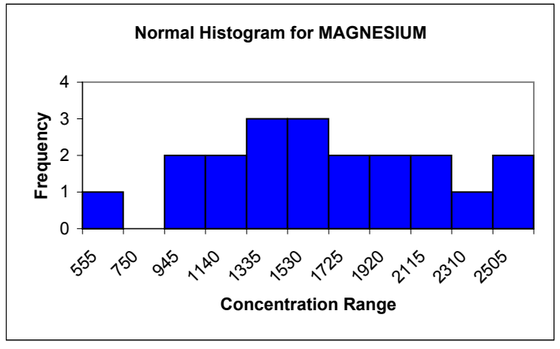


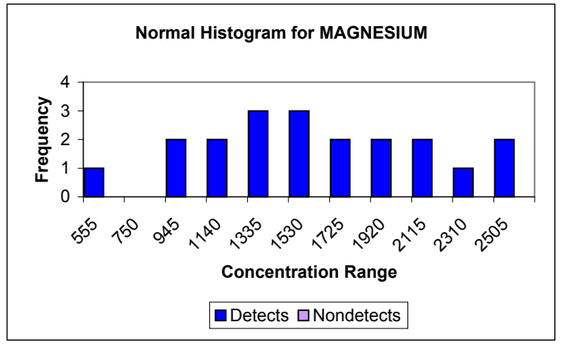


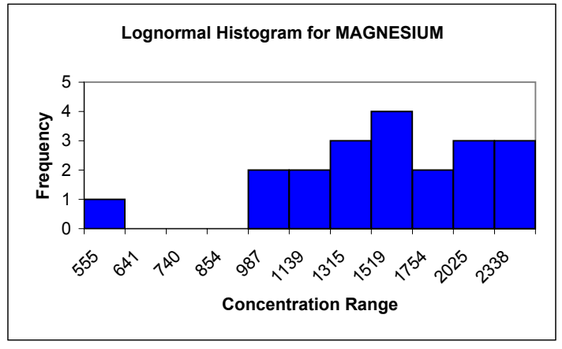


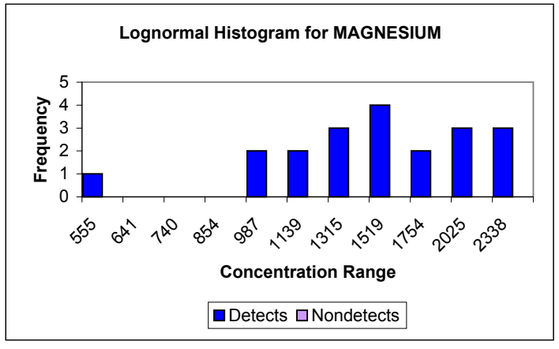






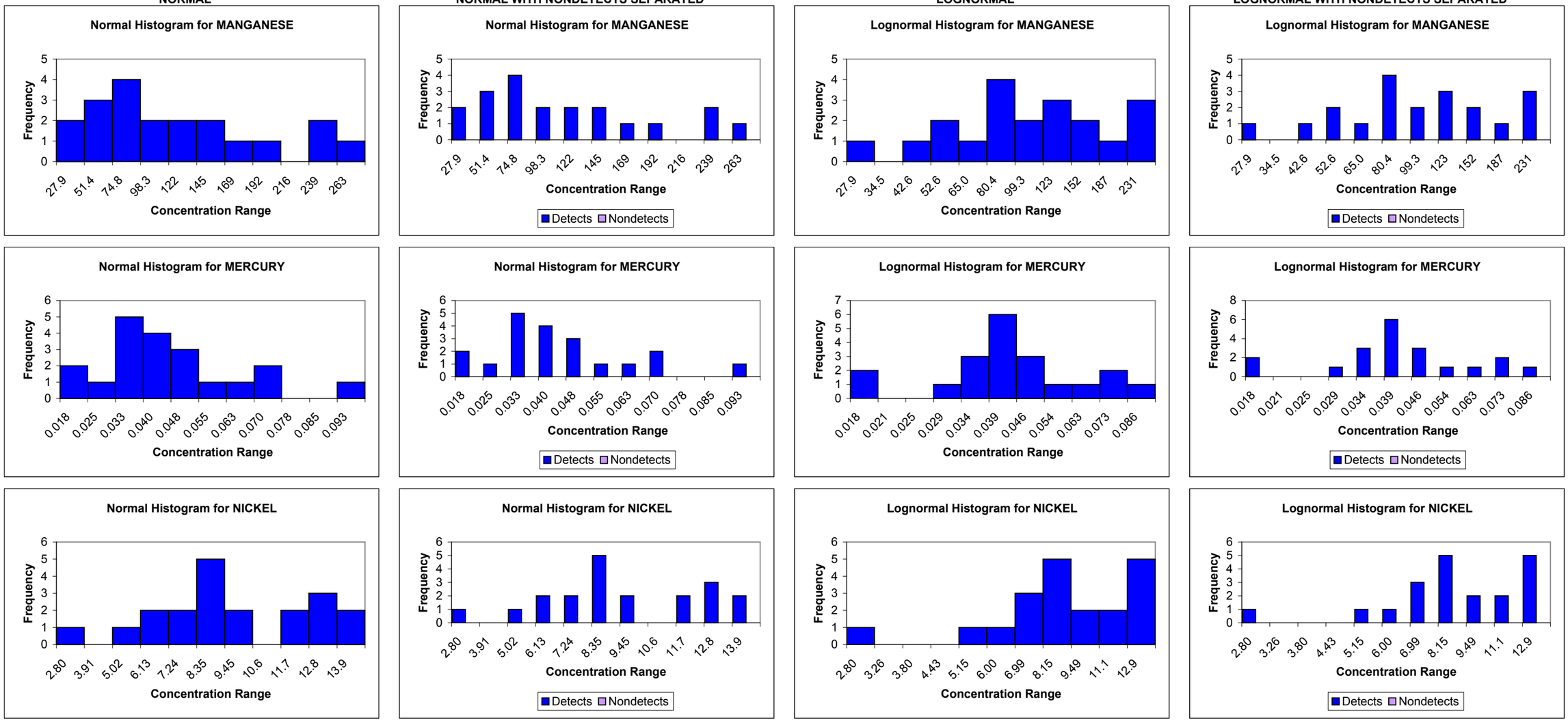






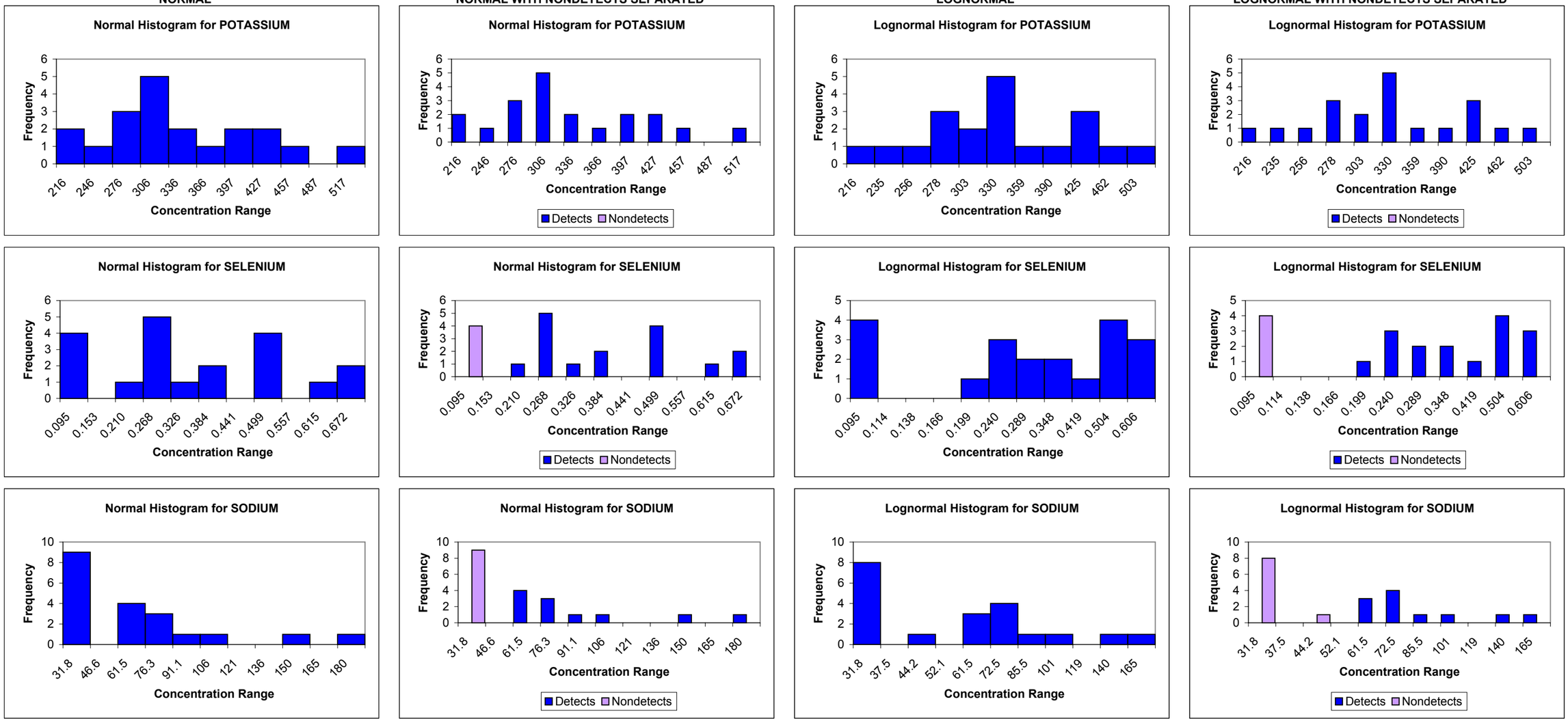
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



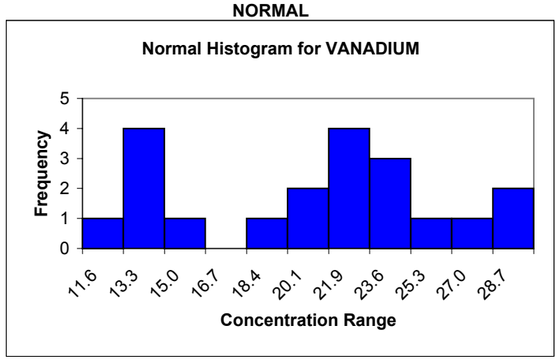
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

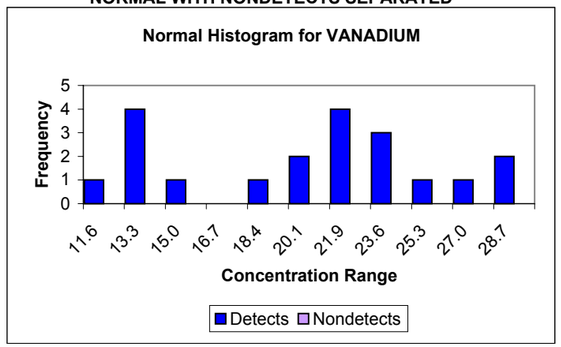
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

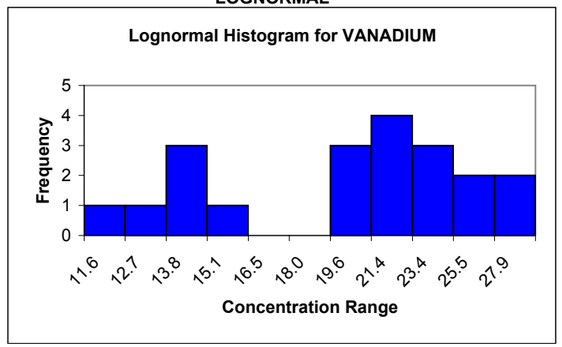


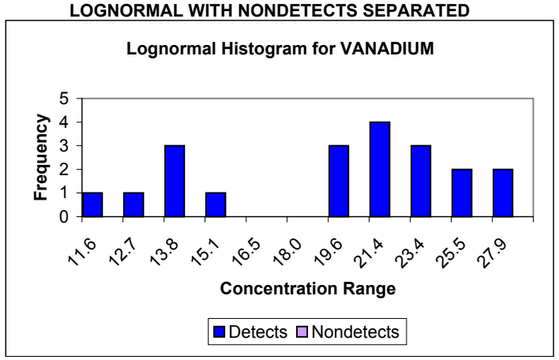
APPENDIX E, FIGURE E4-2
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

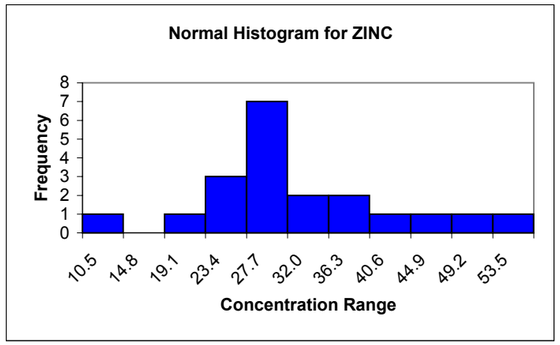
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

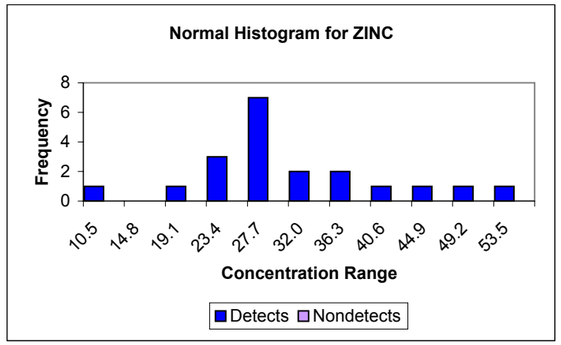


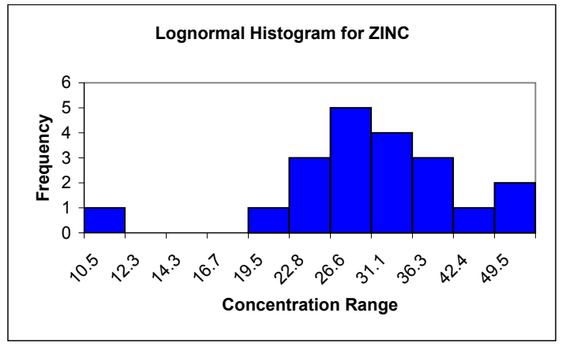


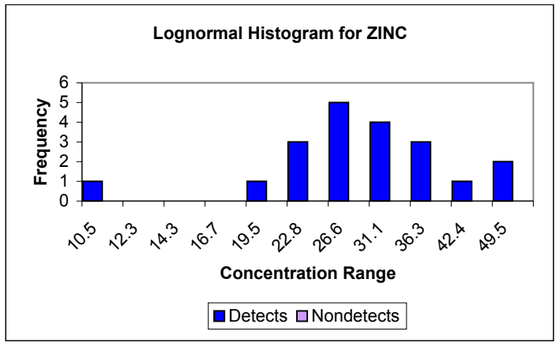






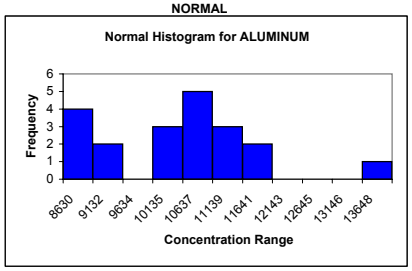


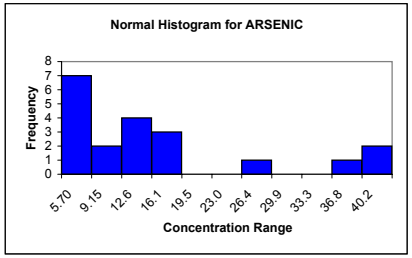


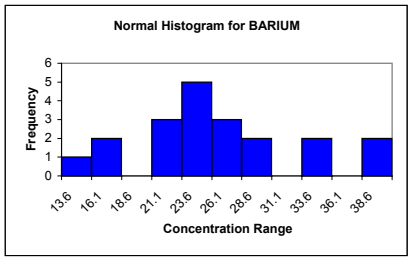


APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

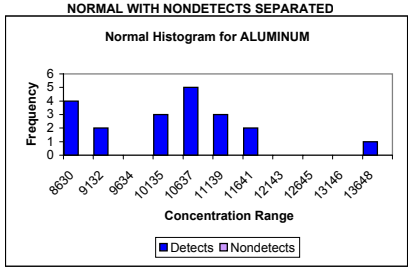
NORMAL

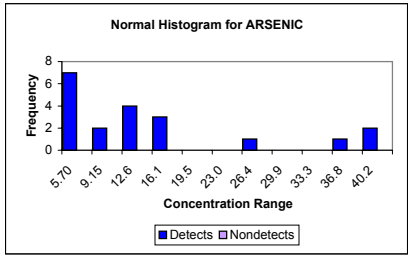


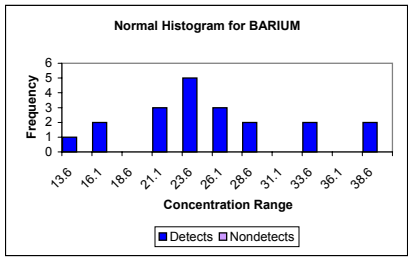




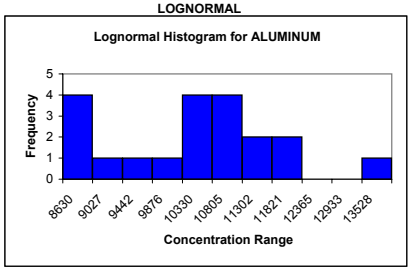
NORMAL WITH NONDETECTS SEPARATED

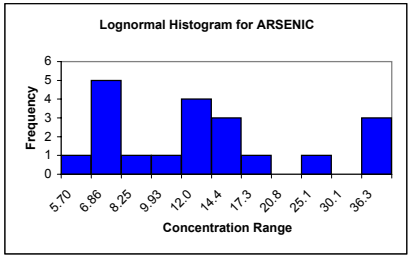


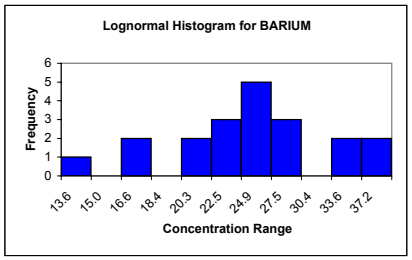




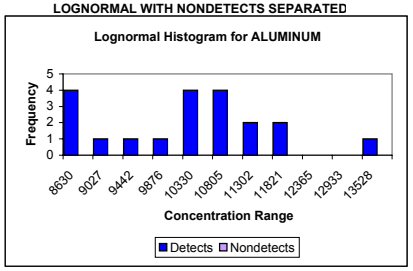
LOGNORMAL

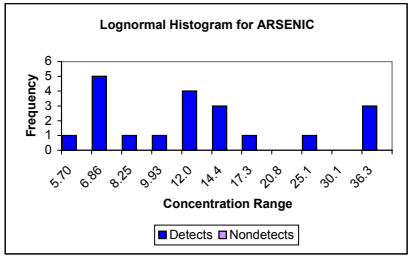


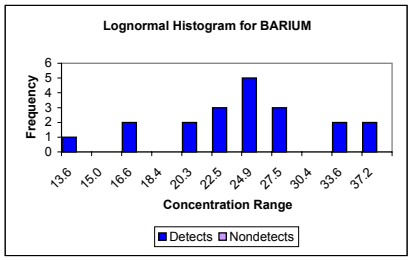




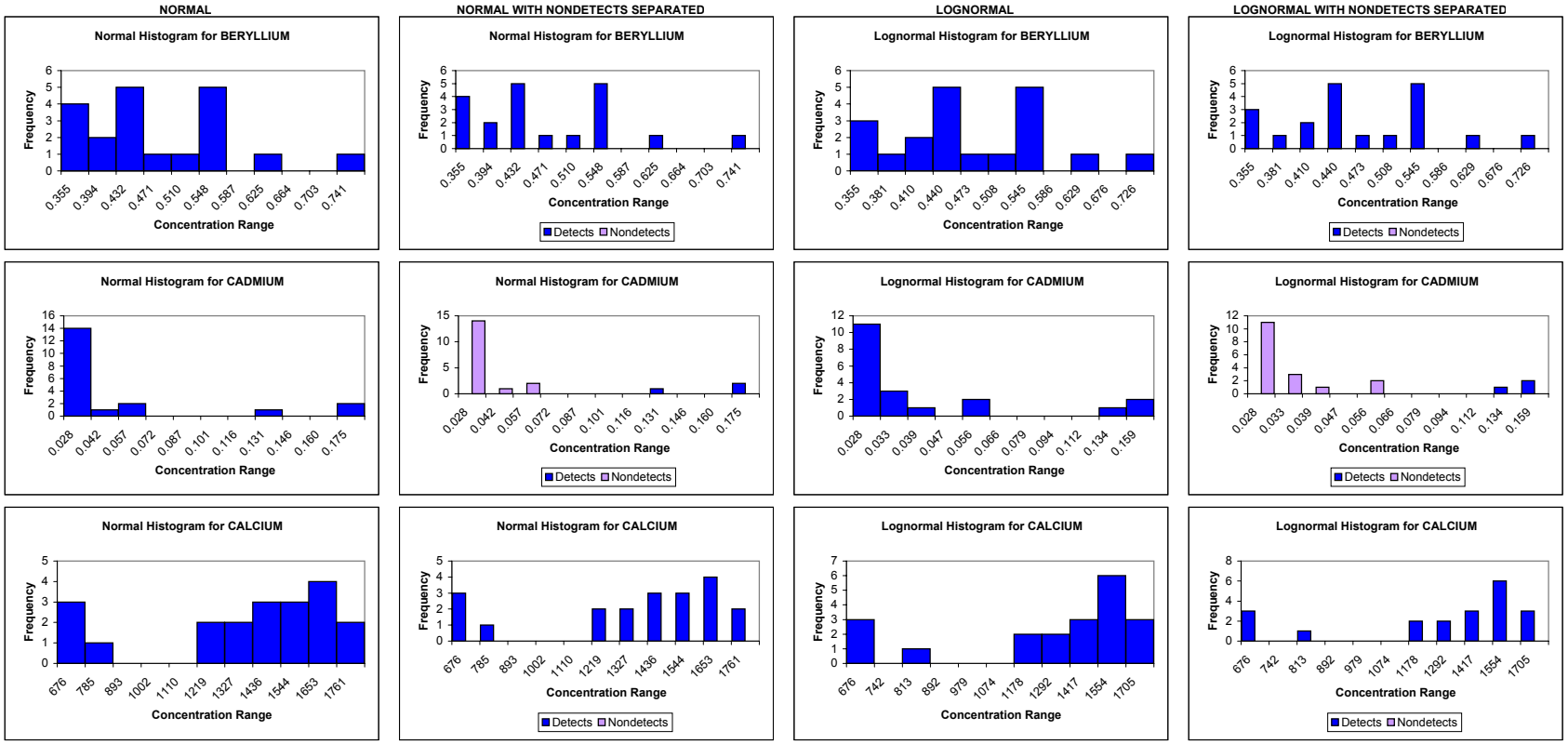
LOGNORMAL WITH NONDETECTS SEPARATED





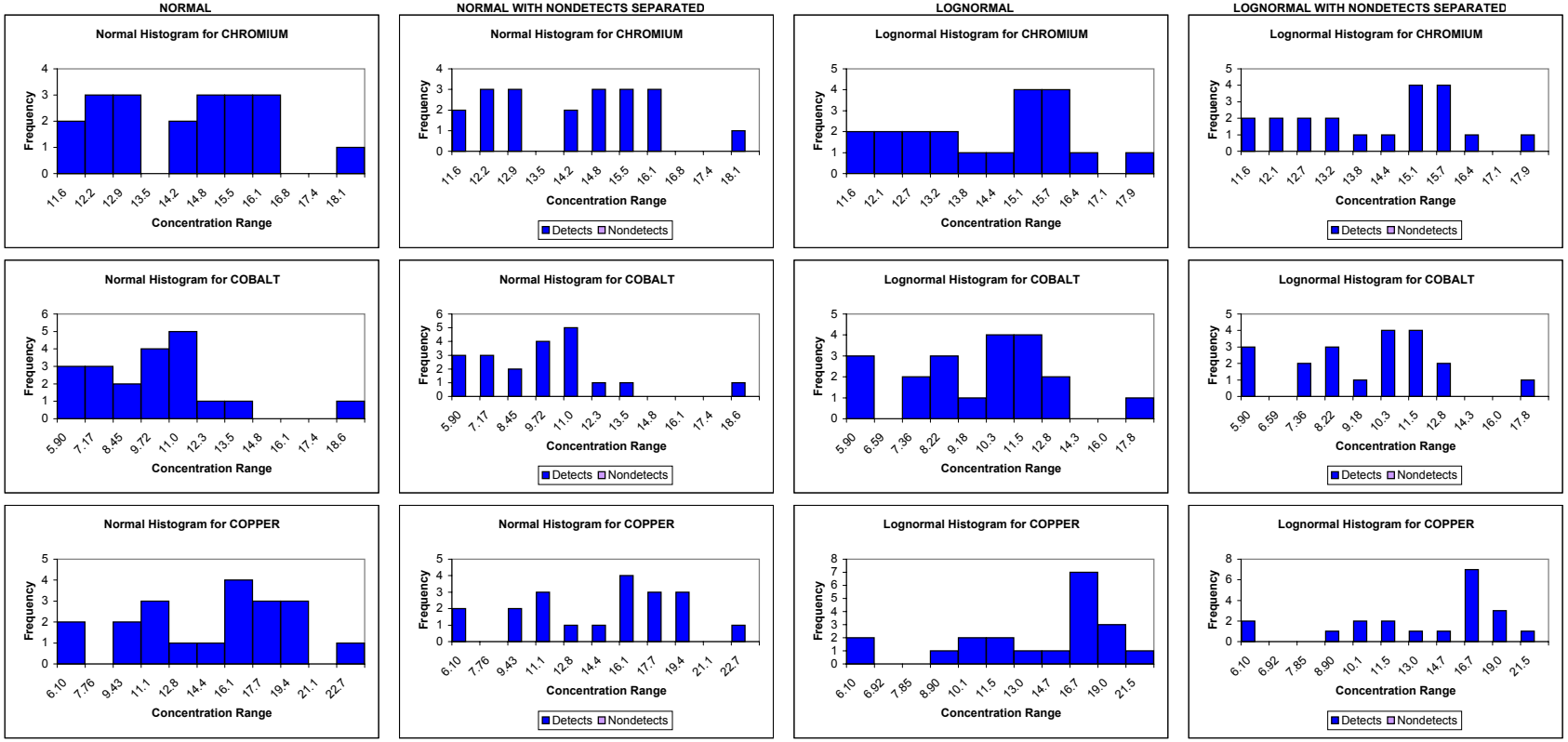


APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



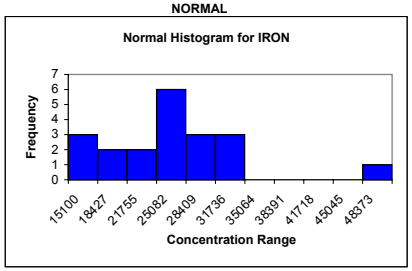
APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

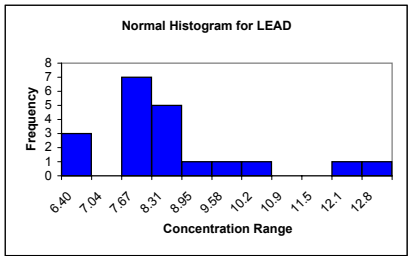
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

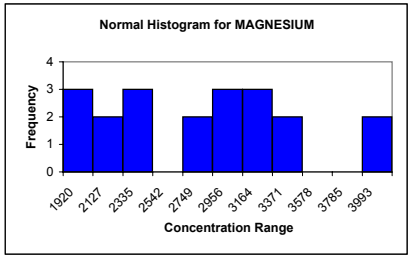


APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

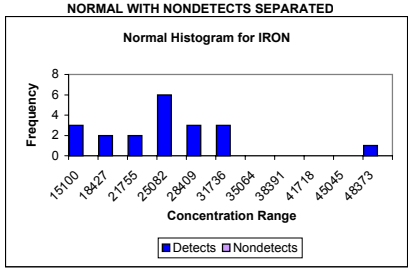
NORMAL

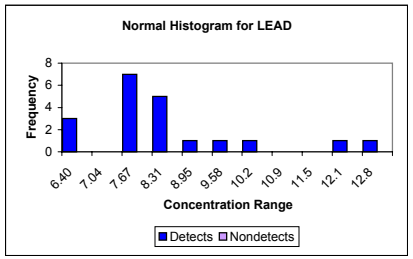


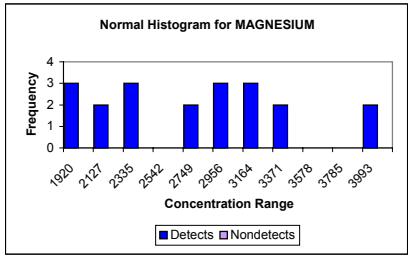




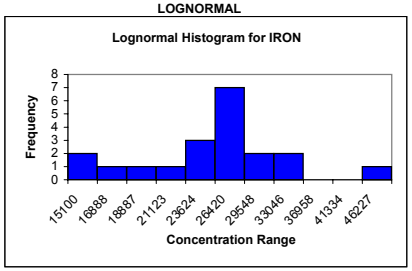
NORMAL WITH NONDETECTS SEPARATED

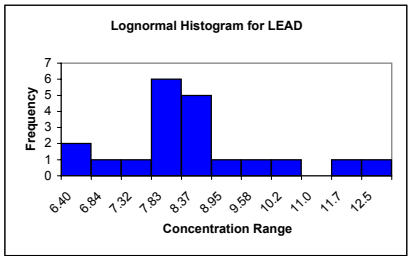


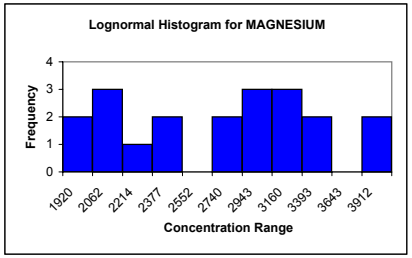




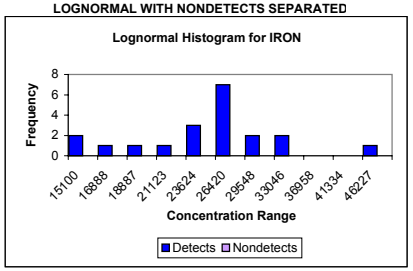
LOGNORMAL

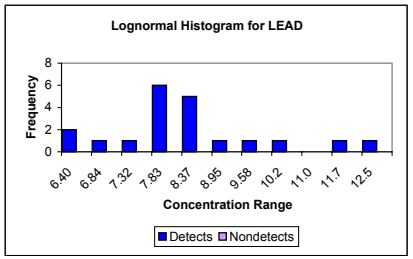


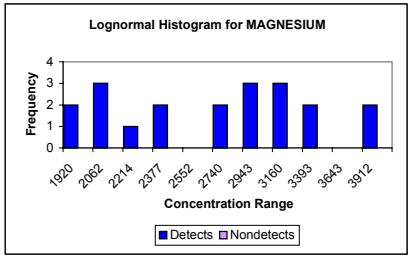




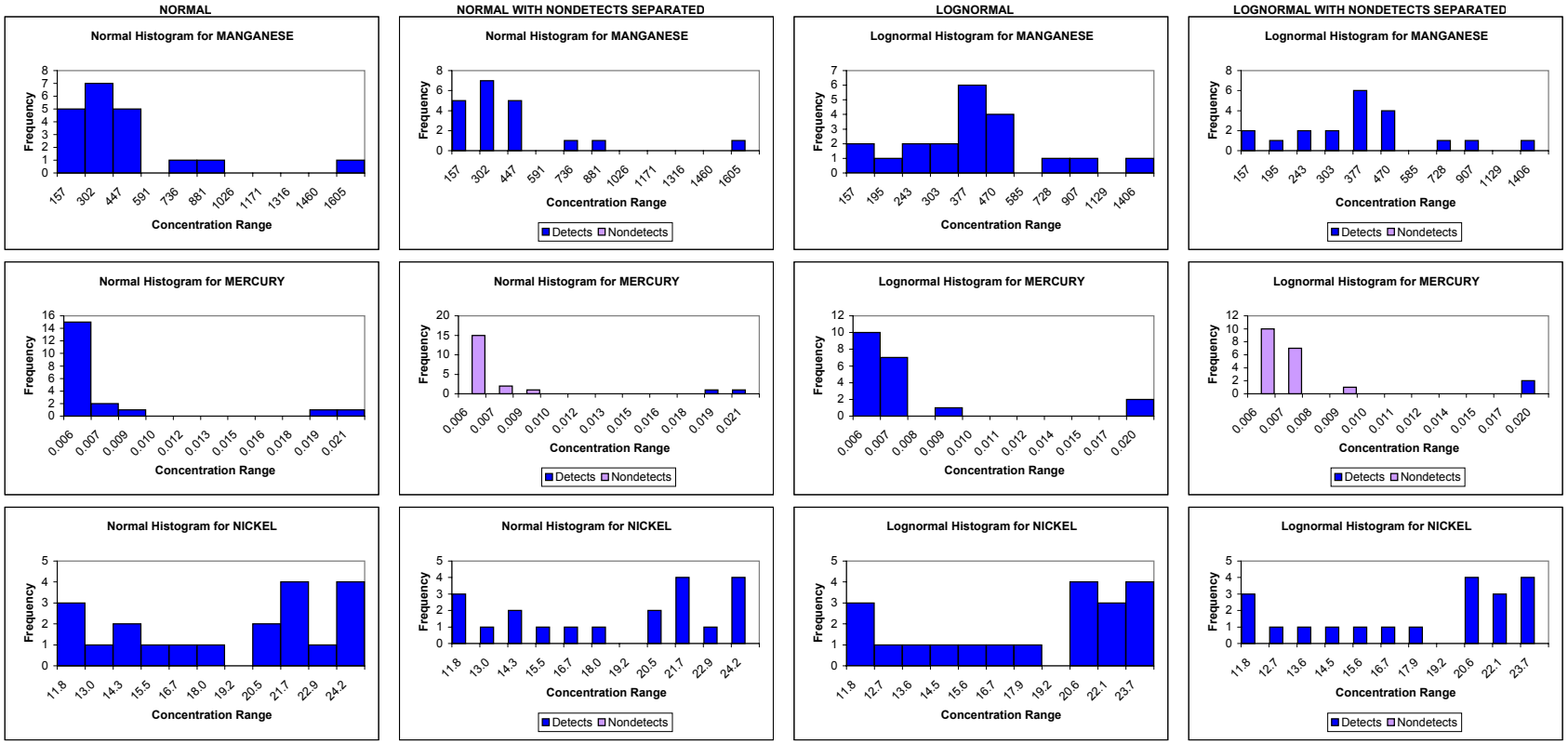
LOGNORMAL WITH NONDETECTS SEPARATED



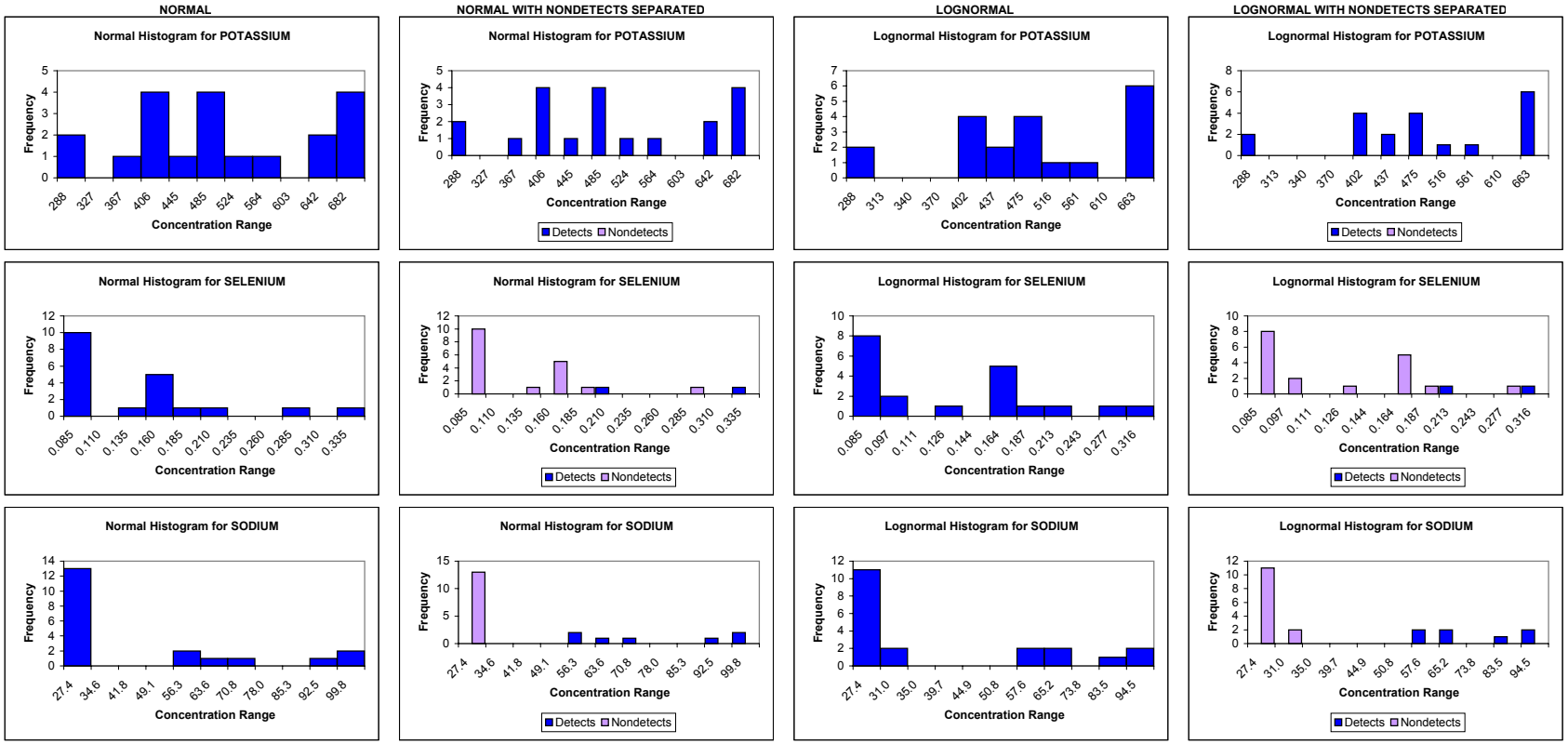




APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

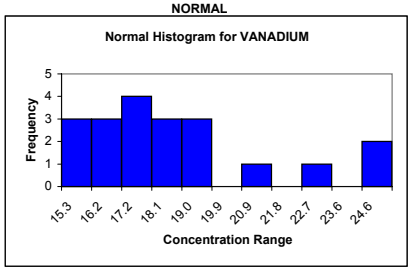


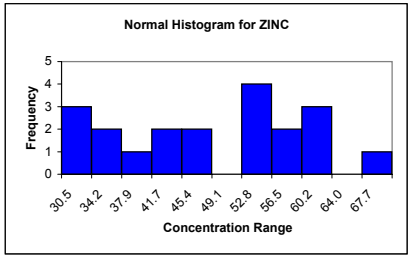
APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



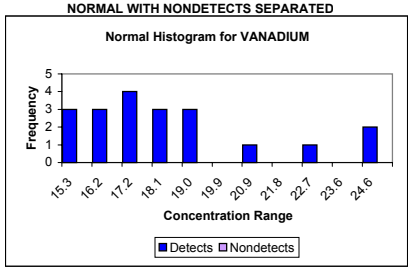
APPENDIX E, FIGURE E4-3
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

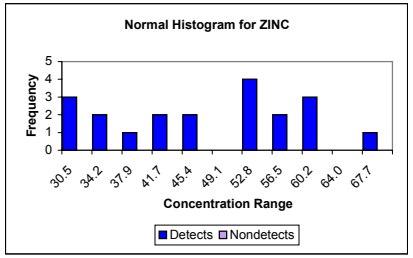
NORMAL



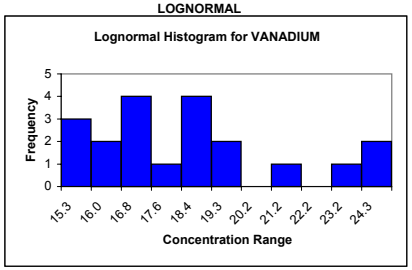


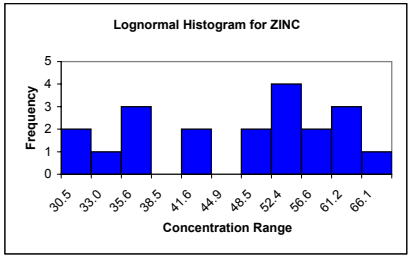
NORMAL WITH NONDETECTS SEPARATED



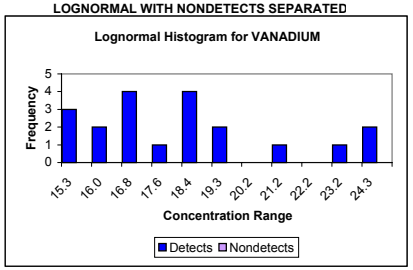


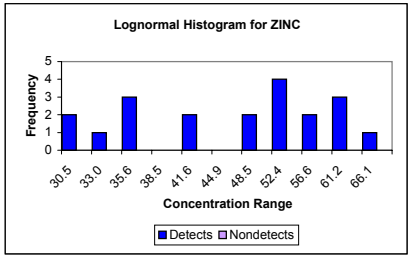
LOGNORMAL





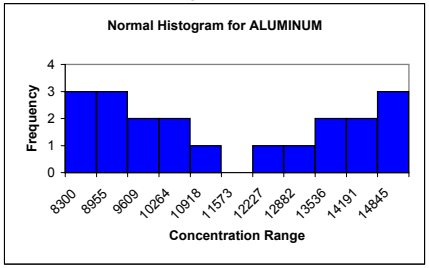
LOGNORMAL WITH NONDETECTS SEPARATED

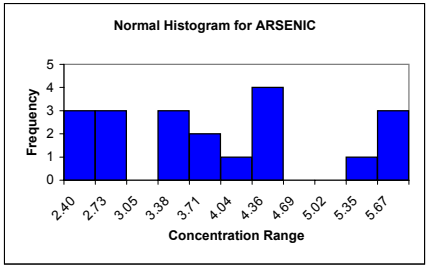


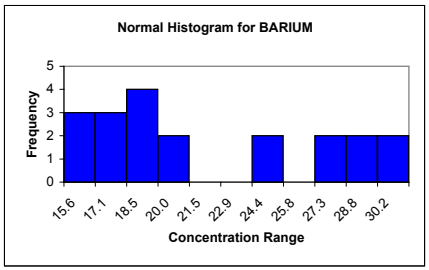


APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

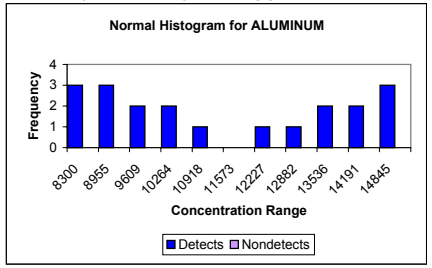
NORMAL

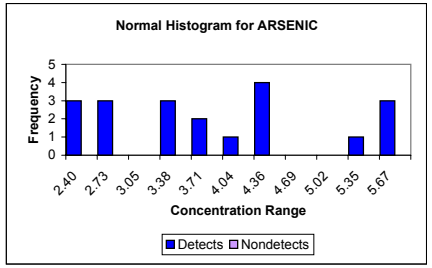


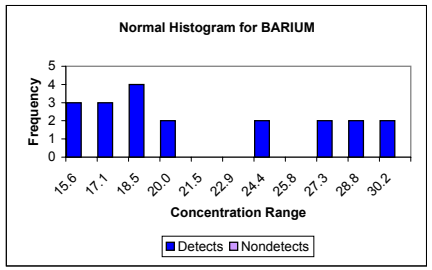




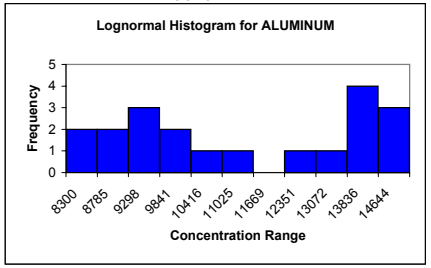
NORMAL WITH NONDETECTS SEPARATED

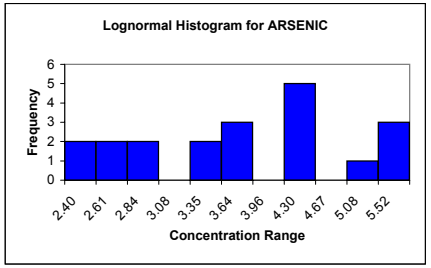


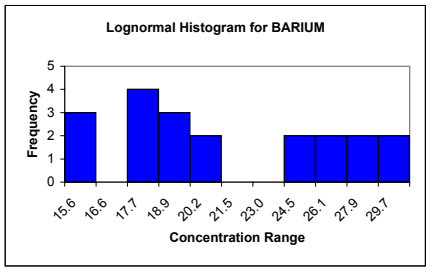




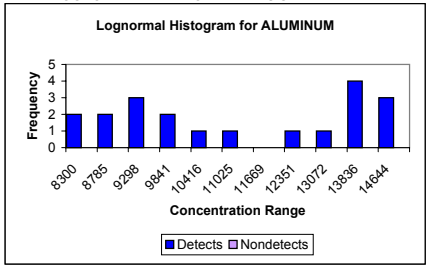
LOGNORMAL

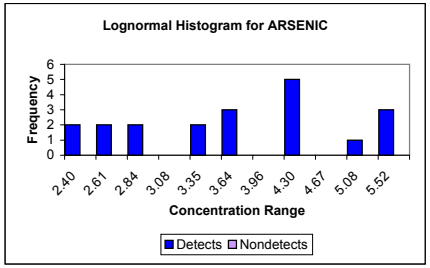


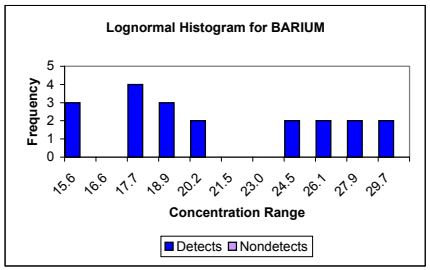




LOGNORMAL WITH NONDETECTS SEPARATED

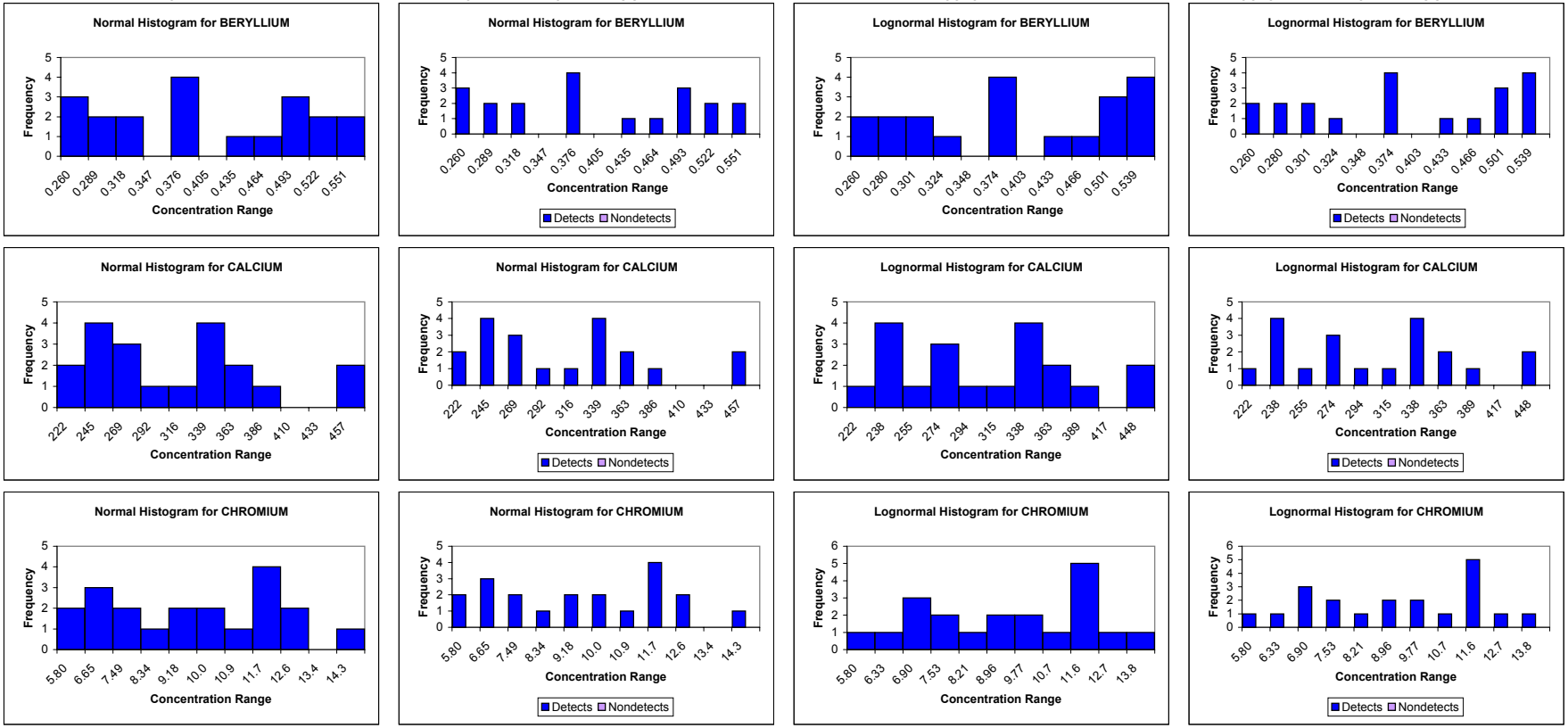






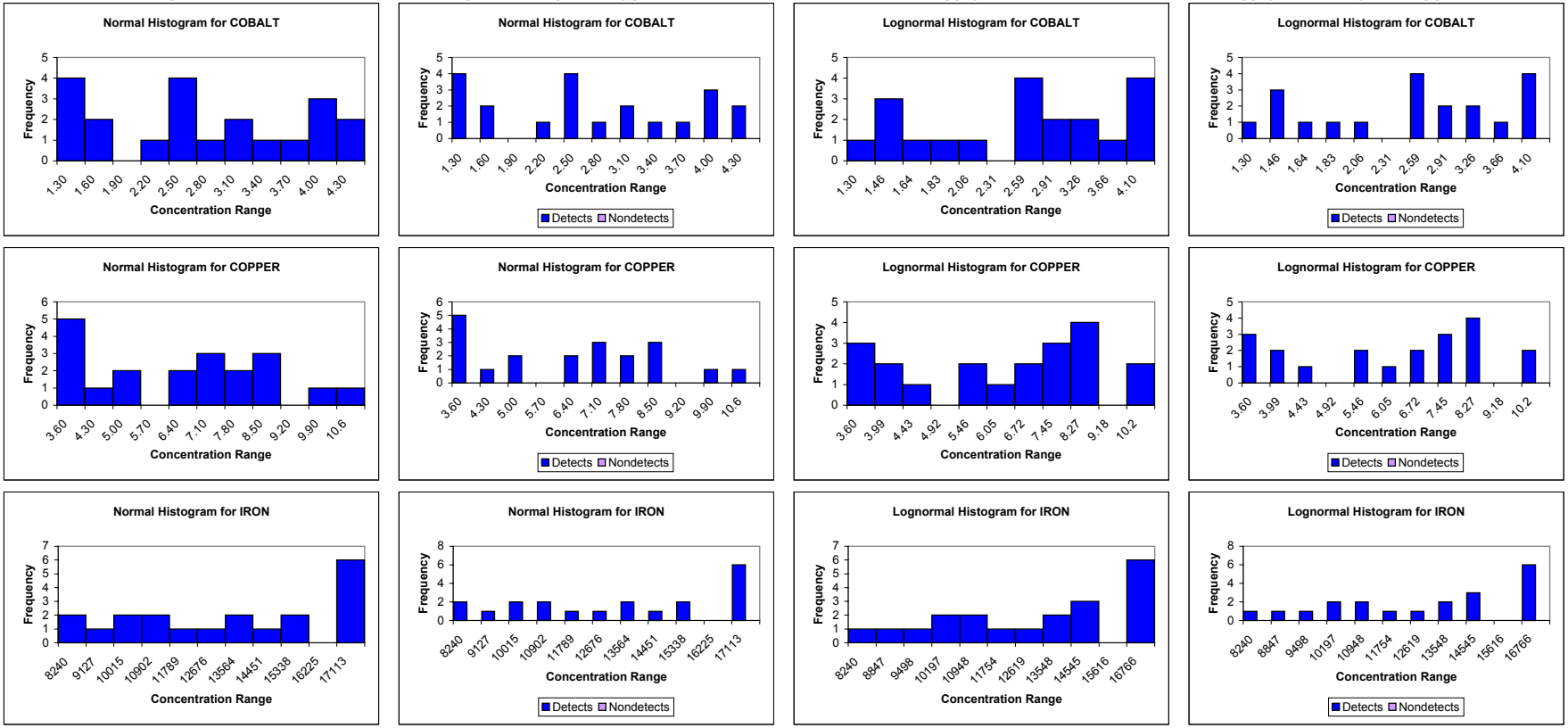
APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

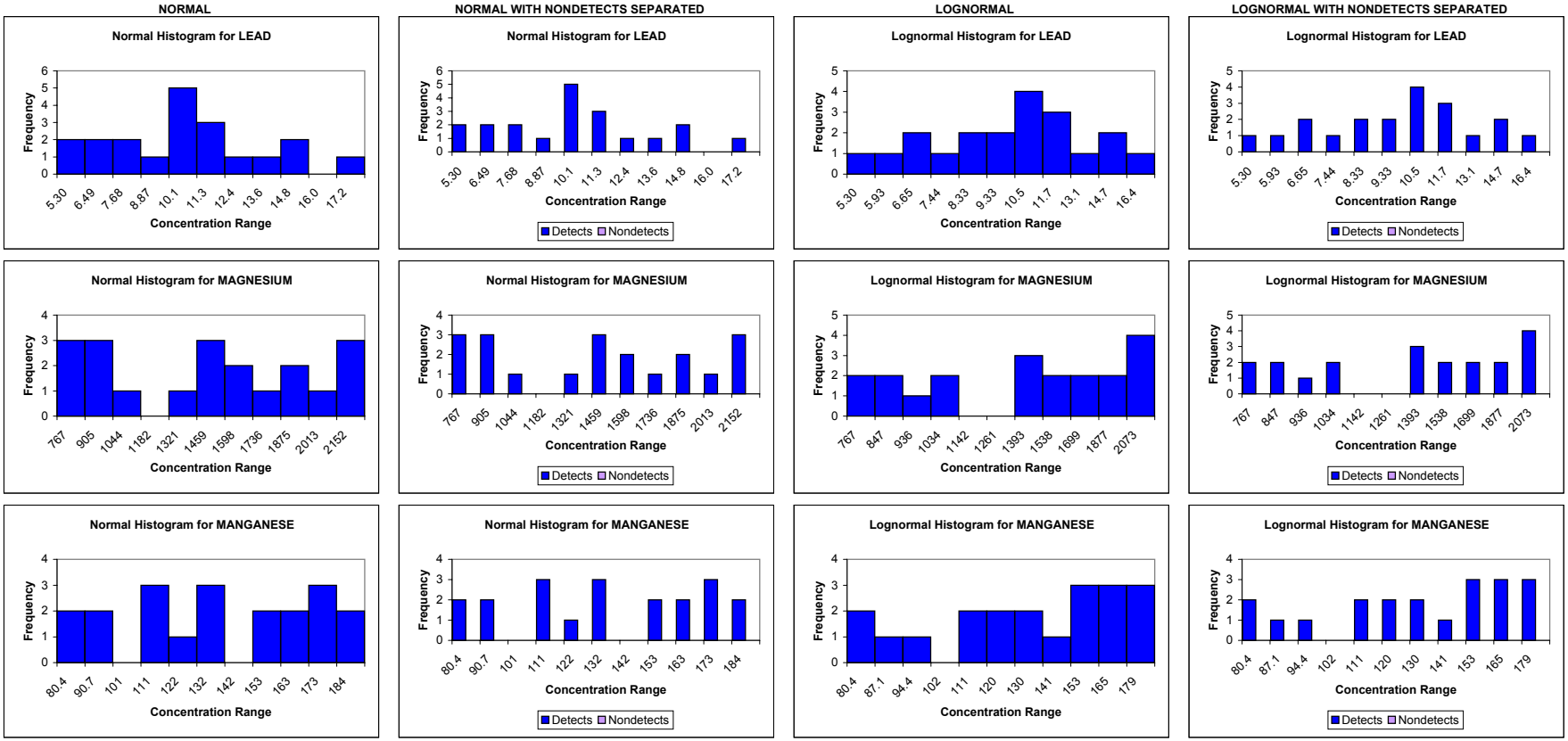


APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

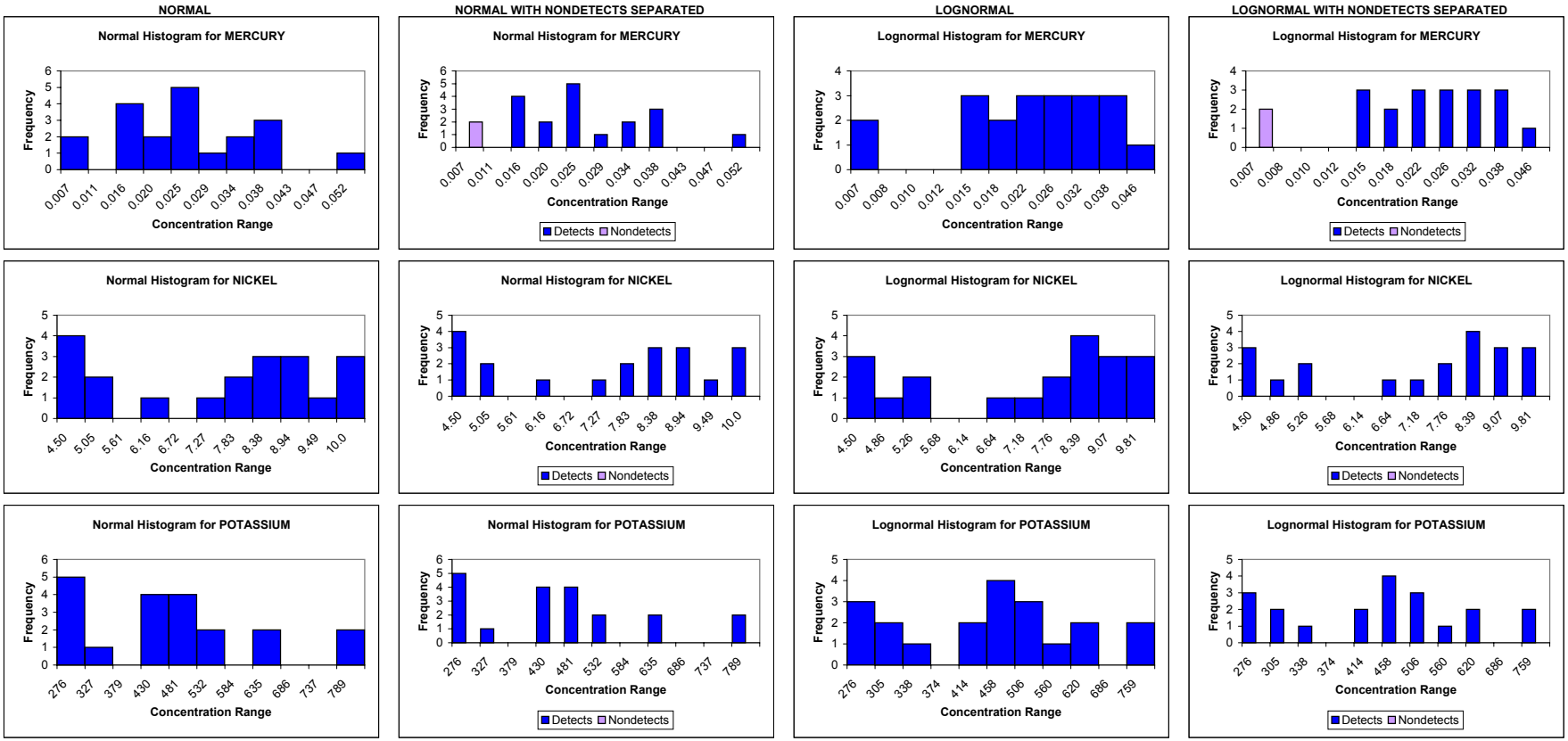
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

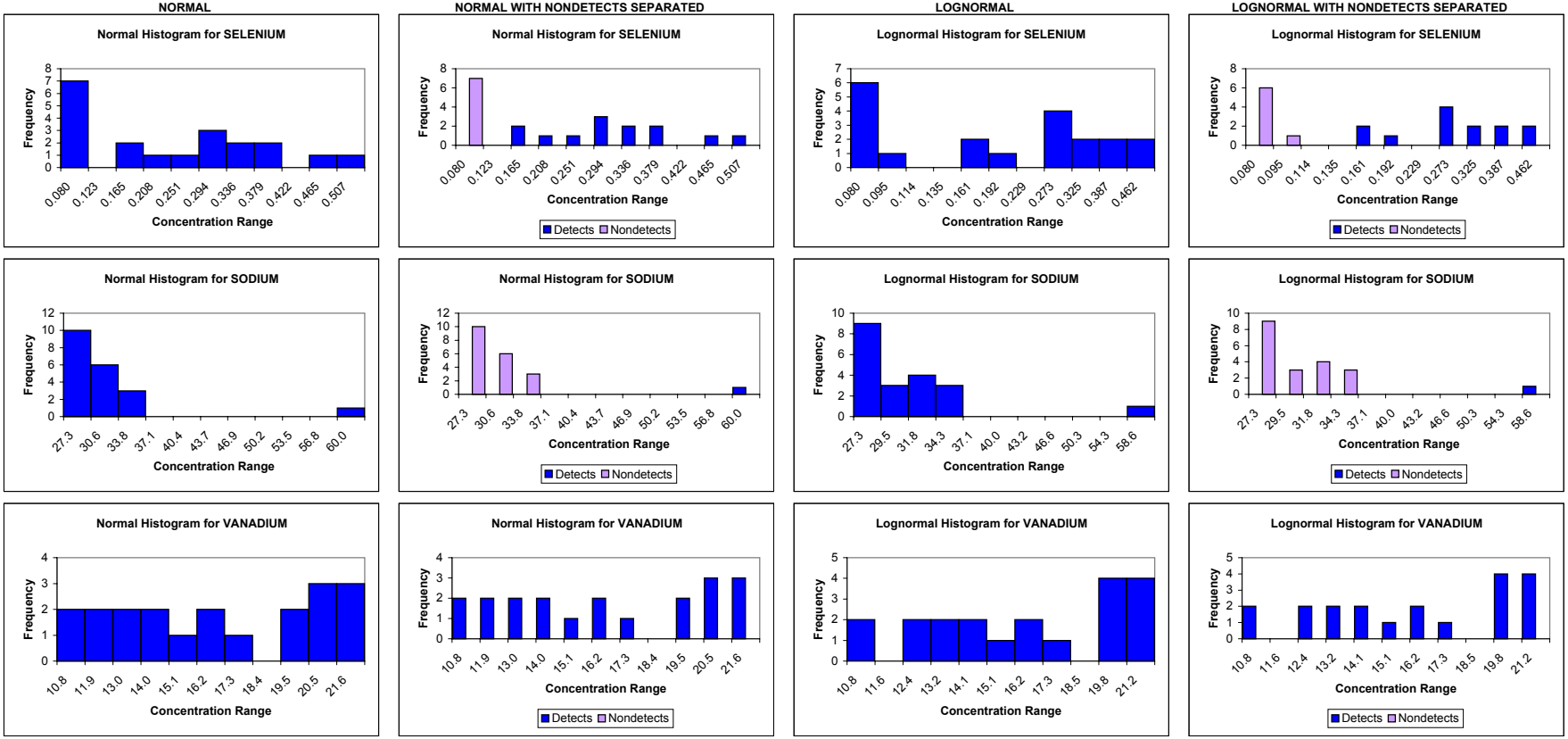


APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



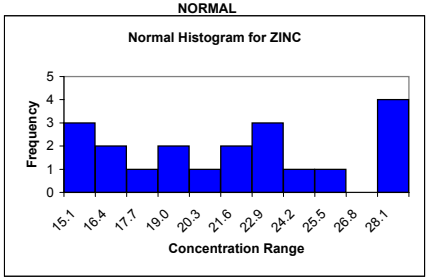
APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

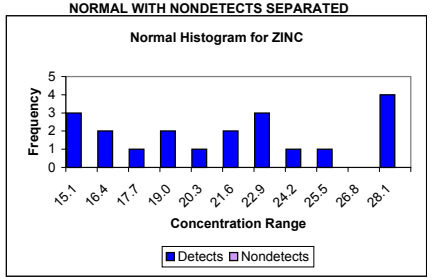


APPENDIX E, FIGURE E4-4
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

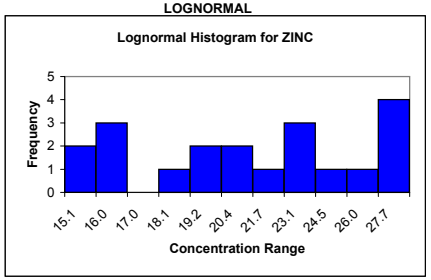
NORMAL



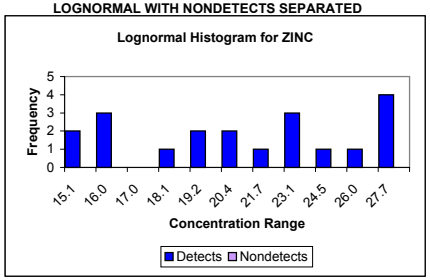
NORMAL WITH NONDETECTS SEPARATED



LOGNORMAL

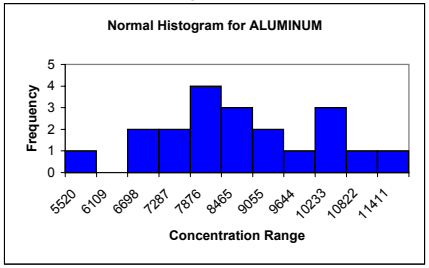


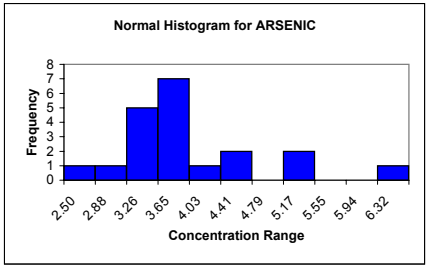
LOGNORMAL WITH NONDETECTS SEPARATED

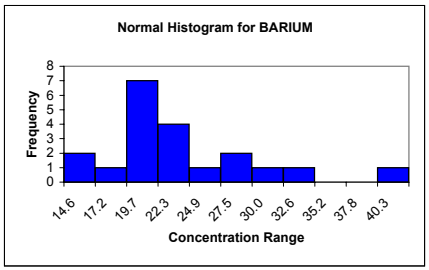


APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

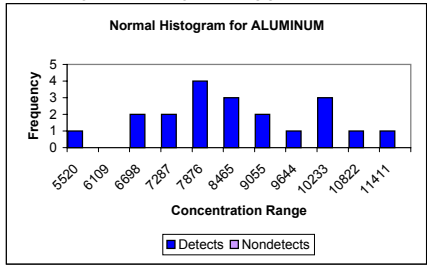
NORMAL

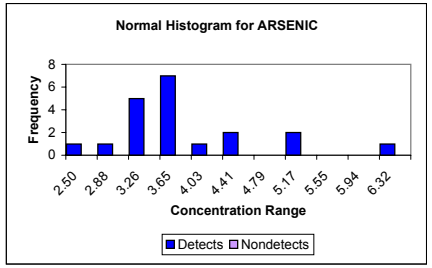


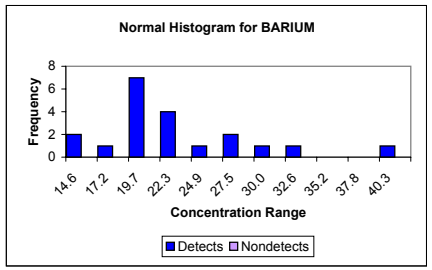




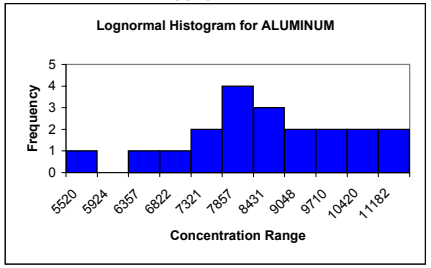
NORMAL WITH NONDETECTS SEPARATED

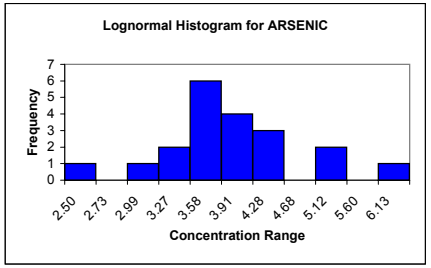


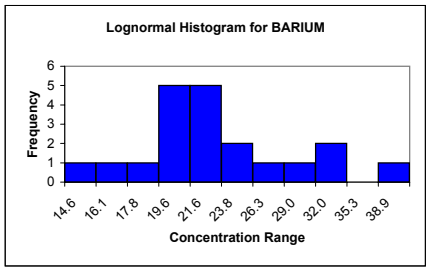




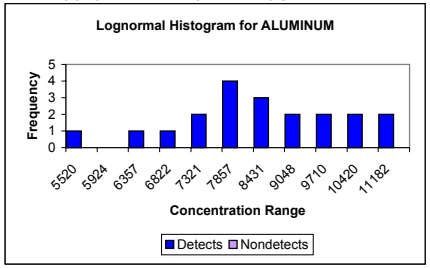
LOGNORMAL

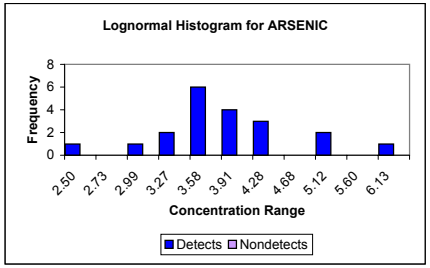


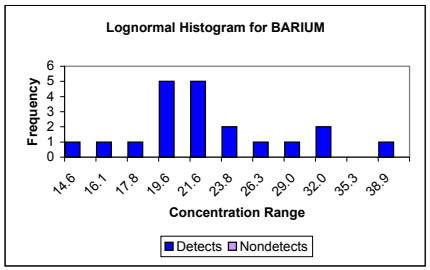




LOGNORMAL WITH NONDETECTS SEPARATED

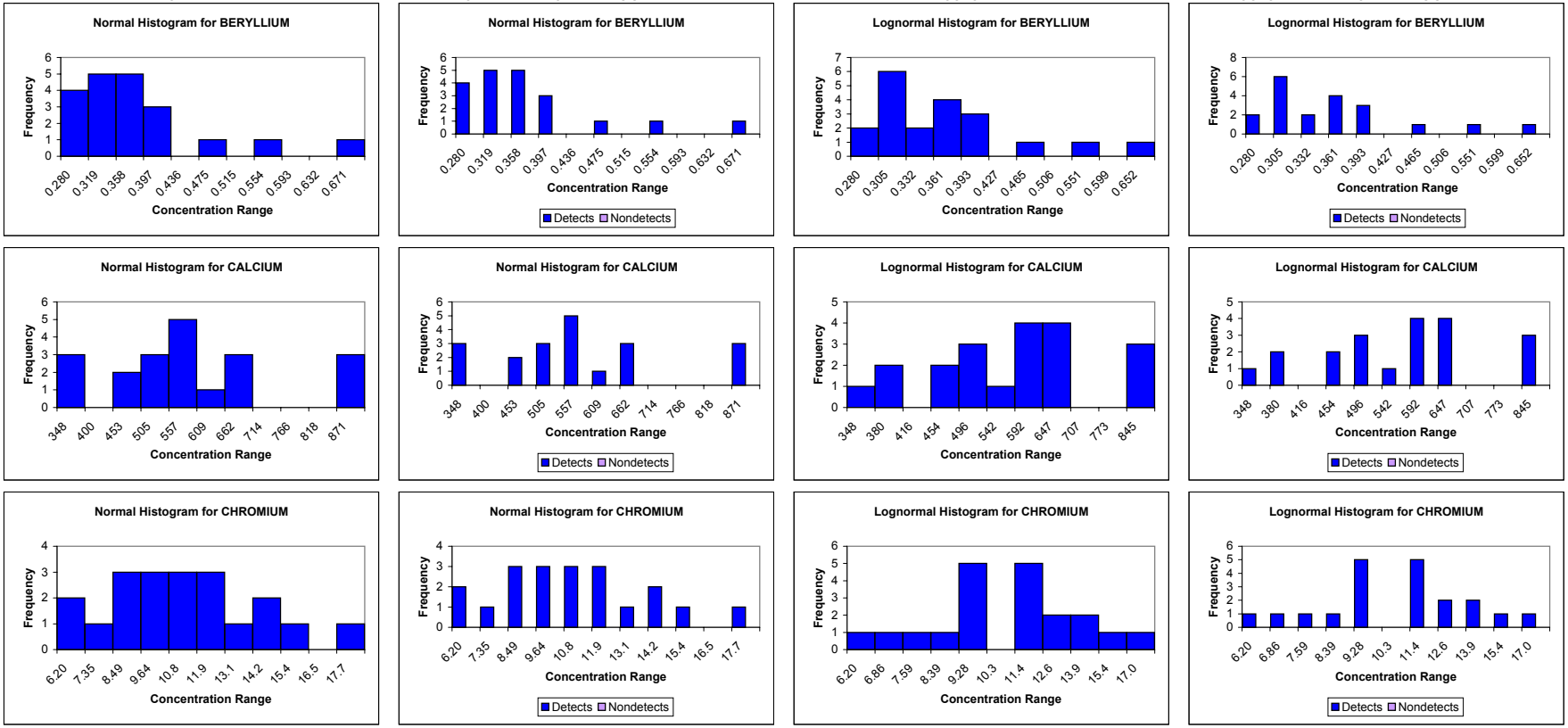






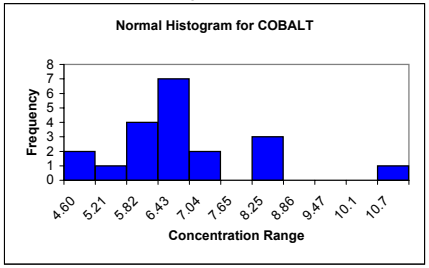
APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

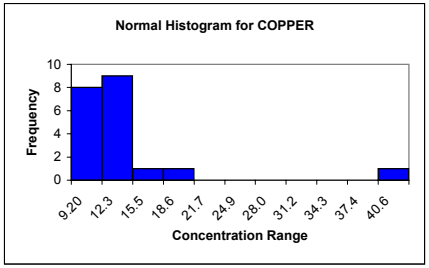
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

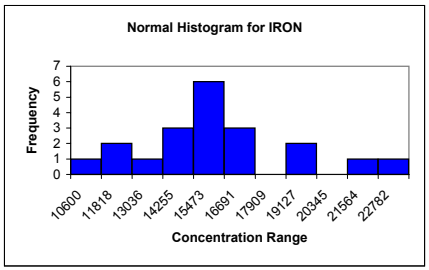


APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

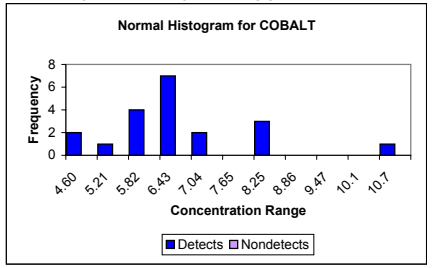
NORMAL

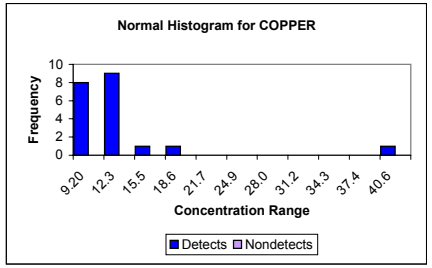


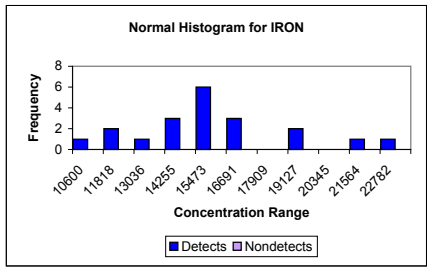




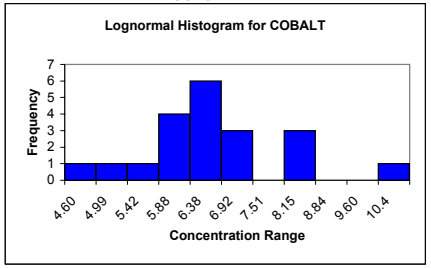
NORMAL WITH NONDETECTS SEPARATED

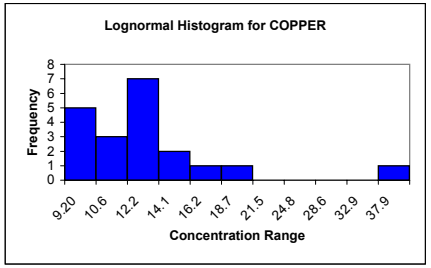


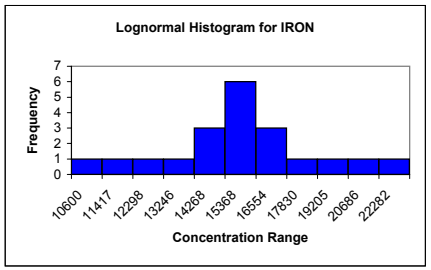




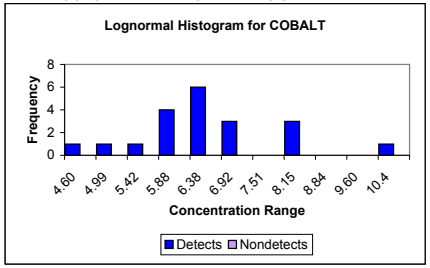
LOGNORMAL

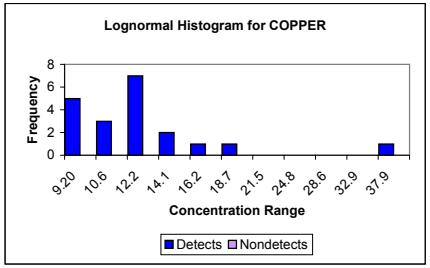


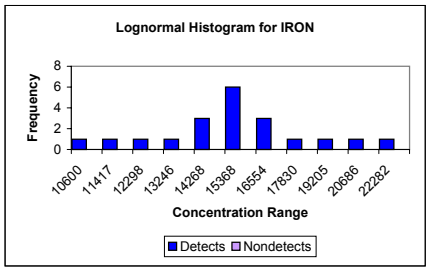




LOGNORMAL WITH NONDETECTS SEPARATED

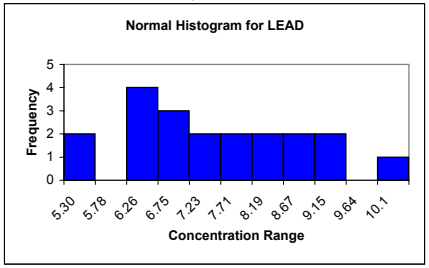


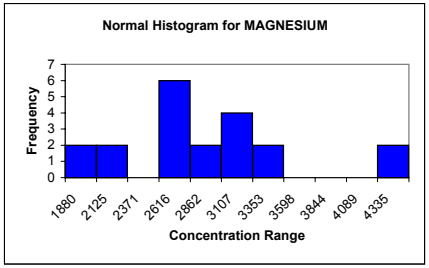


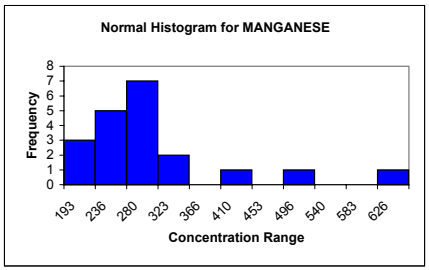


APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

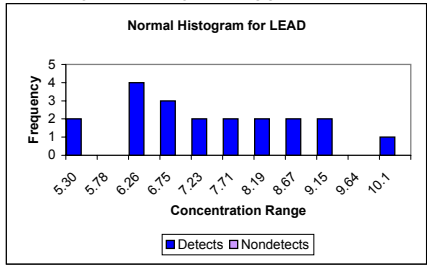
NORMAL

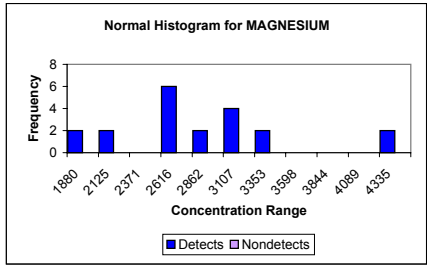


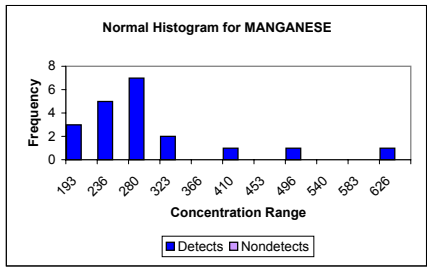




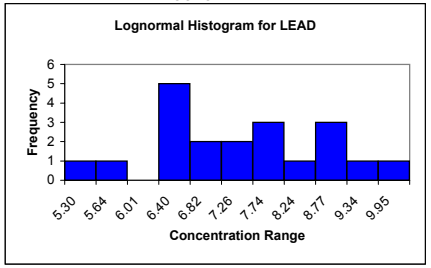
NORMAL WITH NONDETECTS SEPARATED

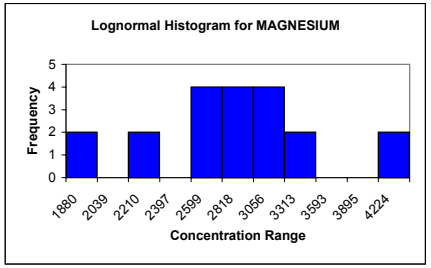


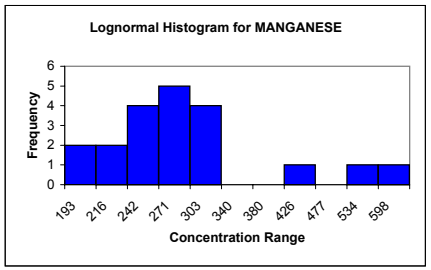




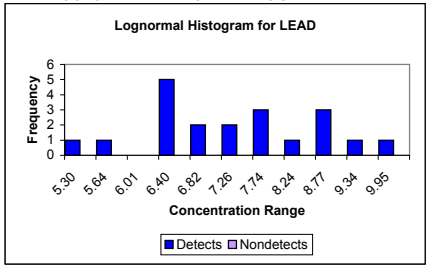
LOGNORMAL

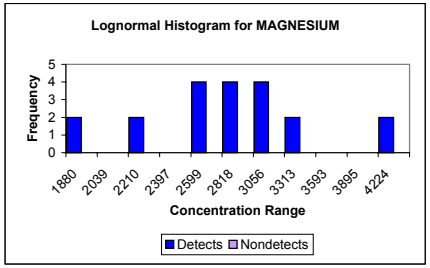


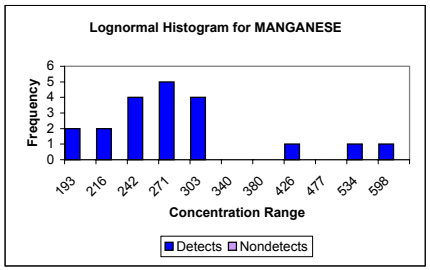




LOGNORMAL WITH NONDETECTS SEPARATED

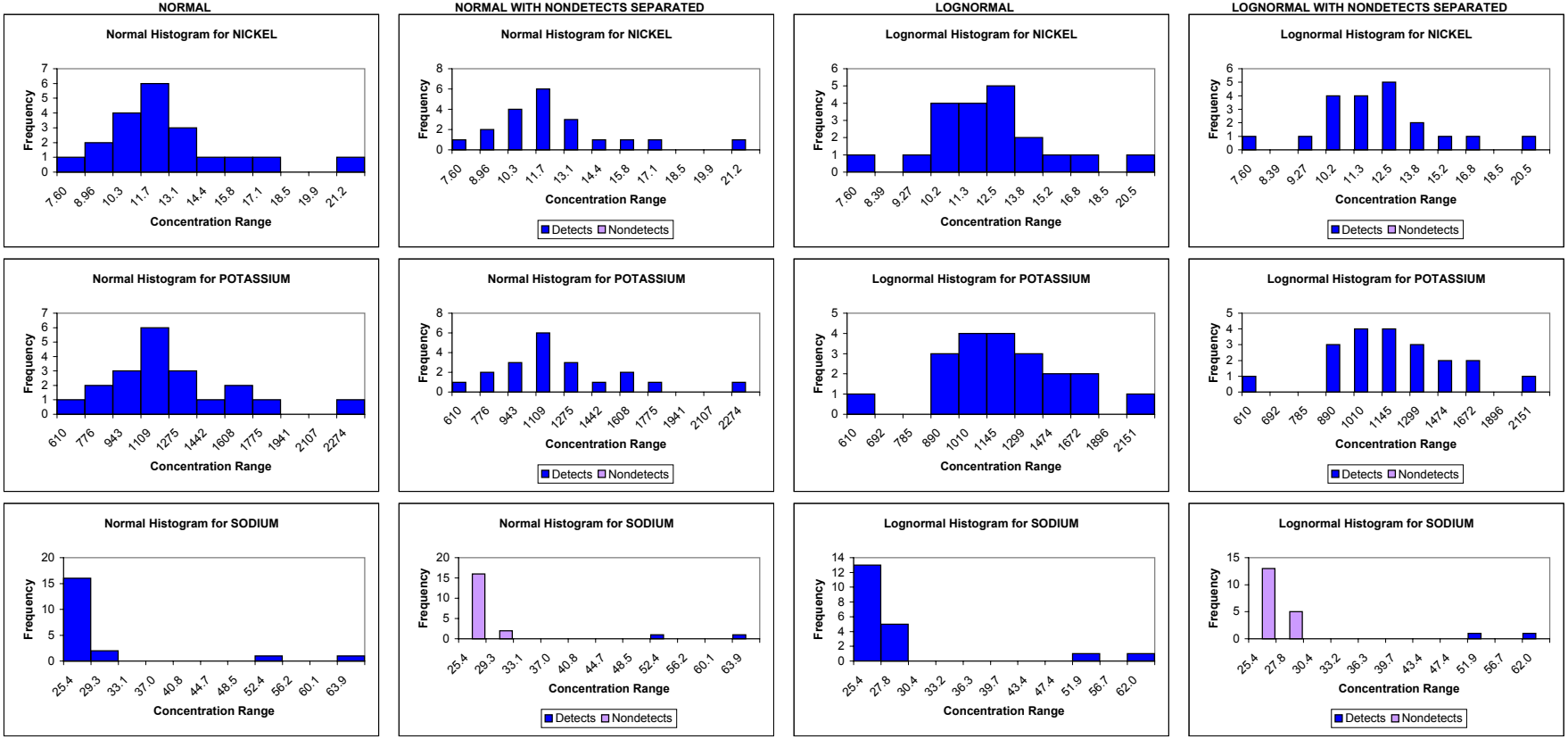






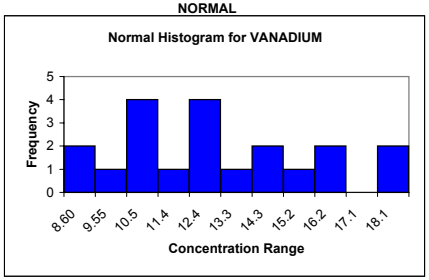
APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

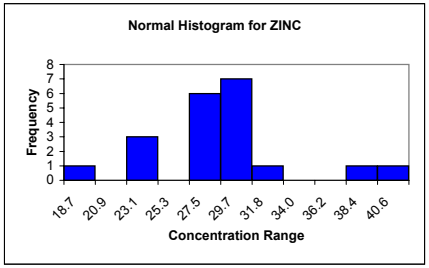
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



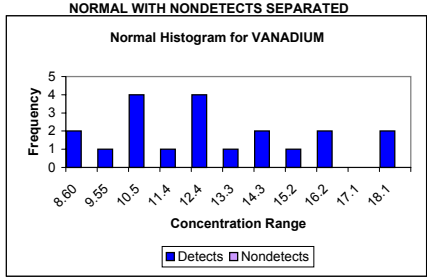
APPENDIX E, FIGURE E4-5
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

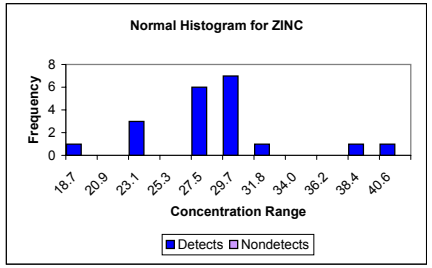
NORMAL



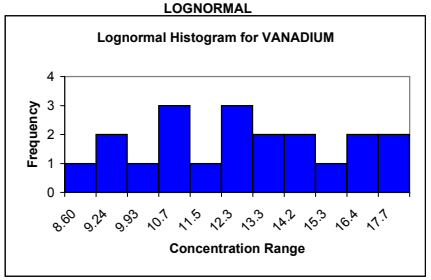


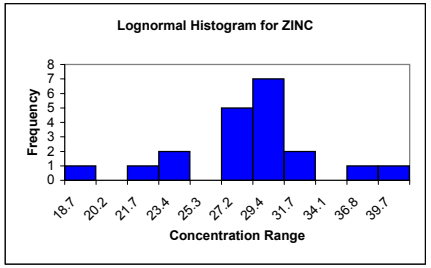
NORMAL WITH NONDETECTS SEPARATED



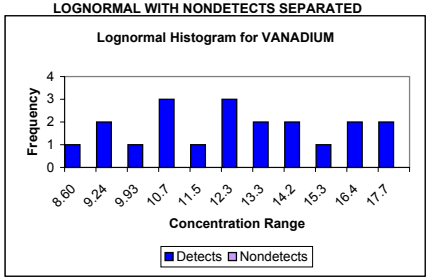


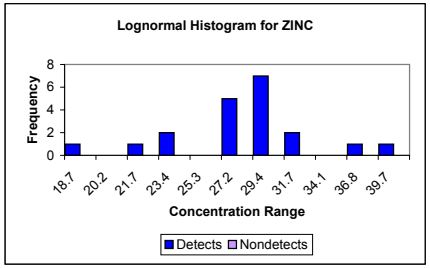
LOGNORMAL





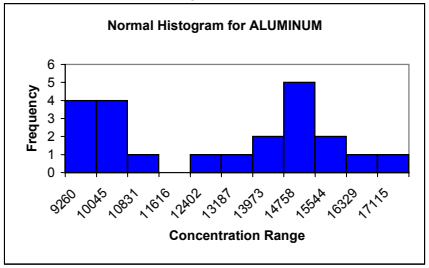
LOGNORMAL WITH NONDETECTS SEPARATED

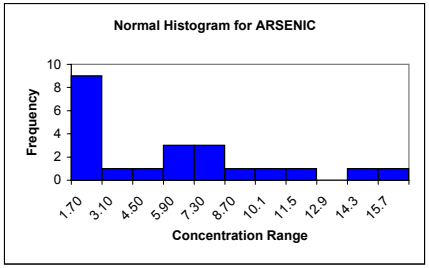


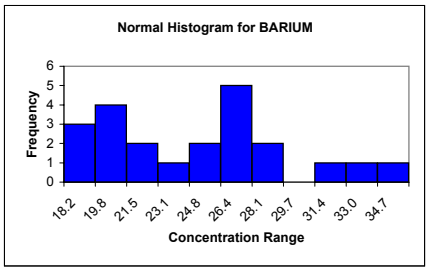


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

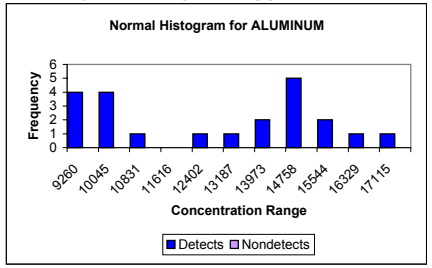
NORMAL

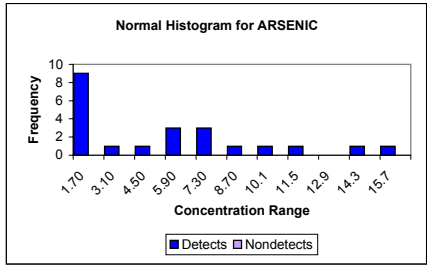


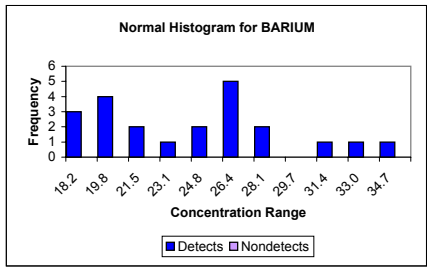




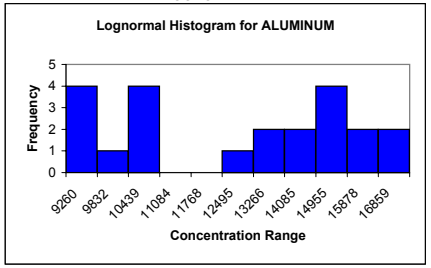
NORMAL WITH NONDETECTS SEPARATED

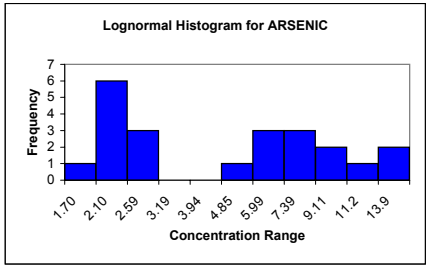


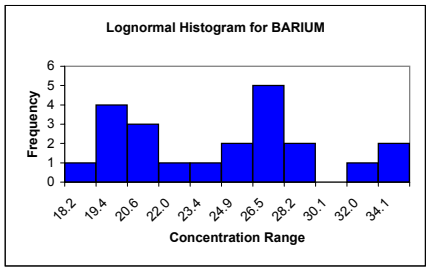




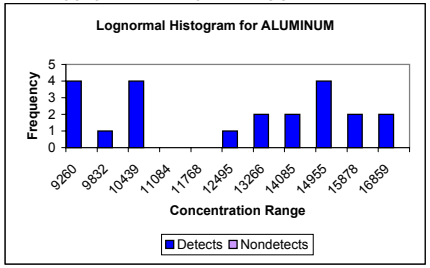
LOGNORMAL

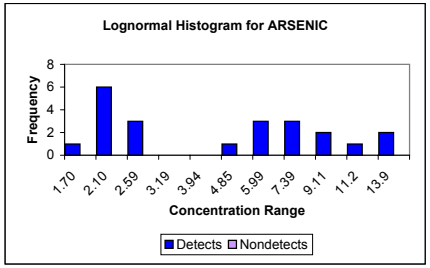


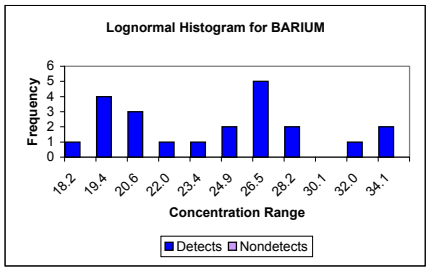




LOGNORMAL WITH NONDETECTS SEPARATED

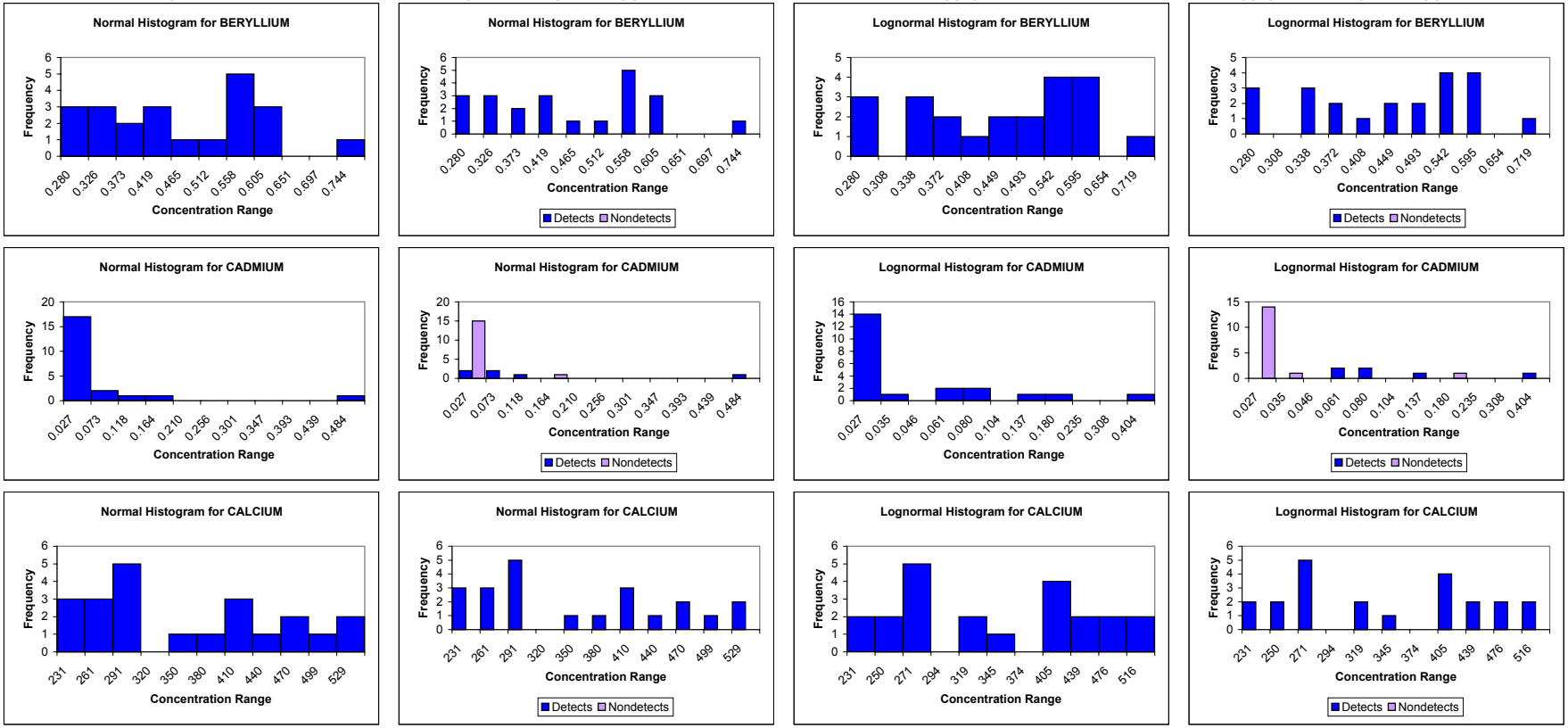






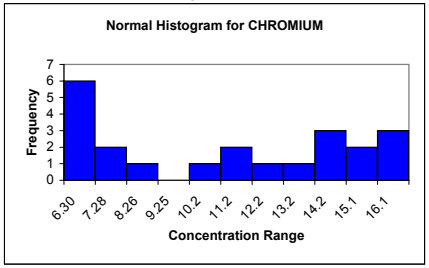
APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

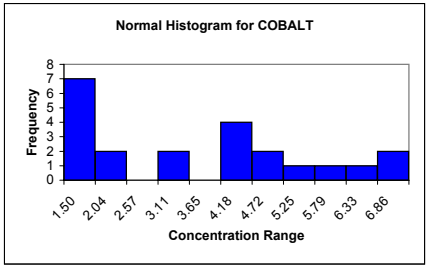
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

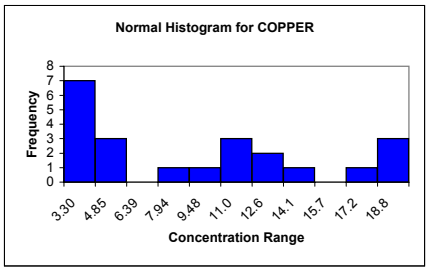


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

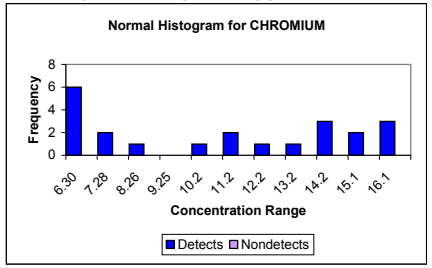
NORMAL

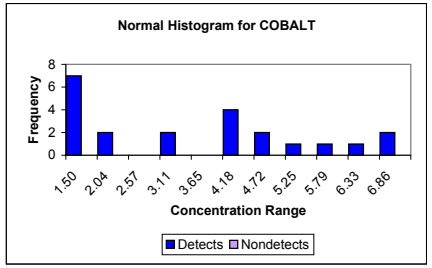


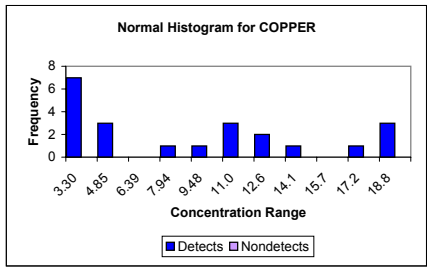




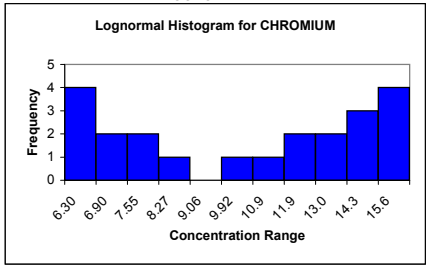
NORMAL WITH NONDETECTS SEPARATED

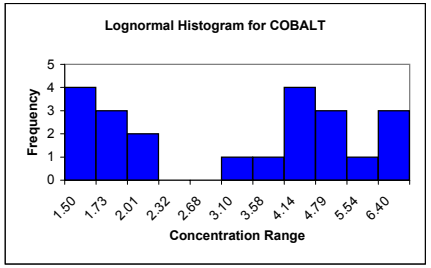


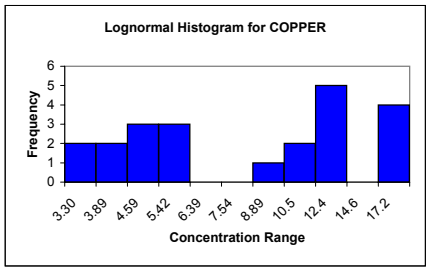




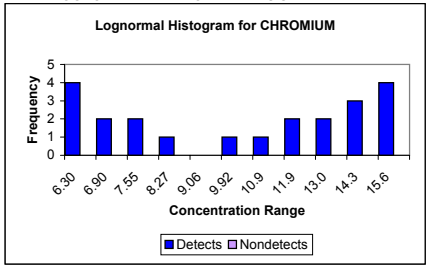
LOGNORMAL

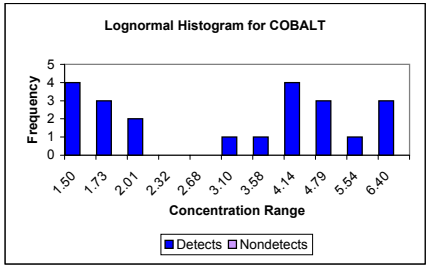


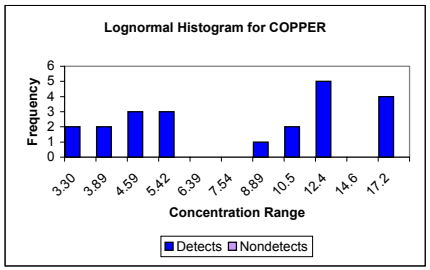




LOGNORMAL WITH NONDETECTS SEPARATED

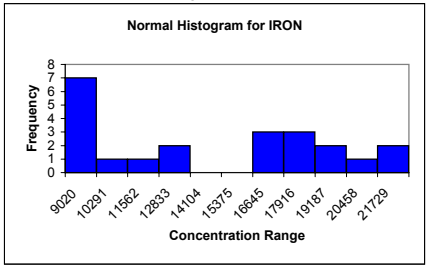


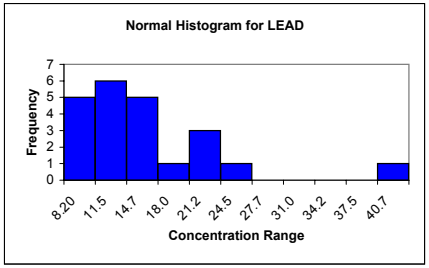


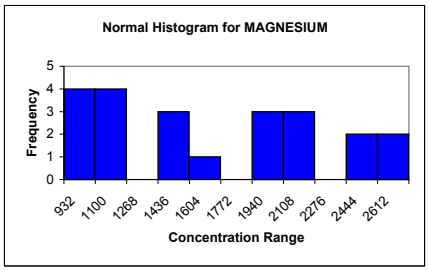


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

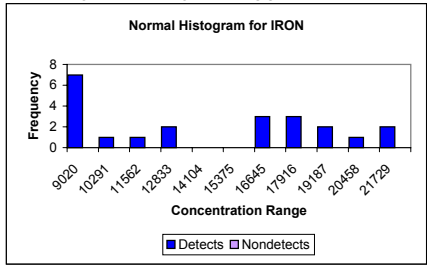
NORMAL

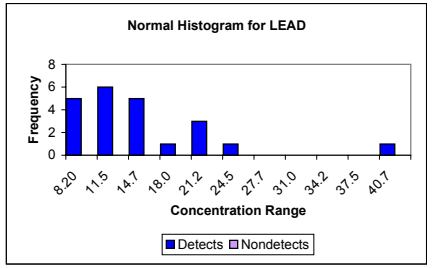


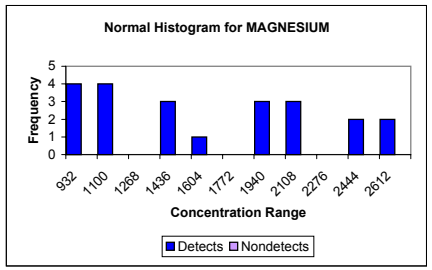




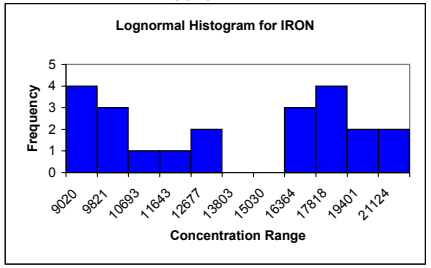
NORMAL WITH NONDETECTS SEPARATED

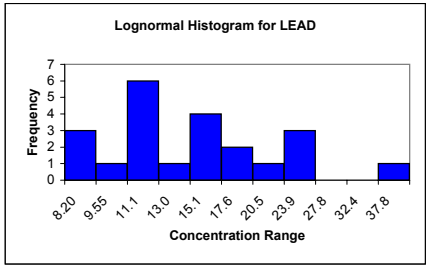


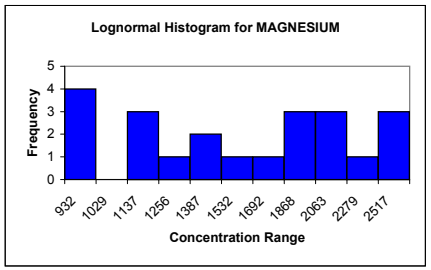




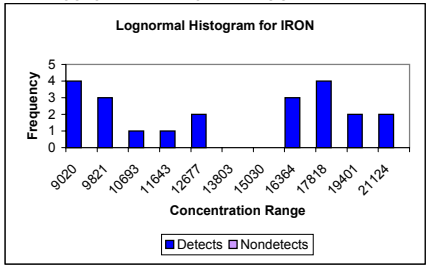
LOGNORMAL

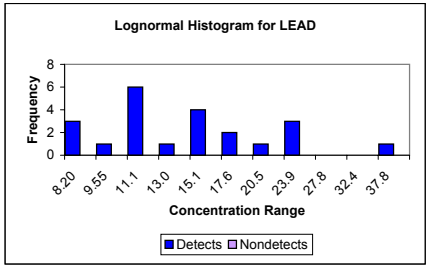


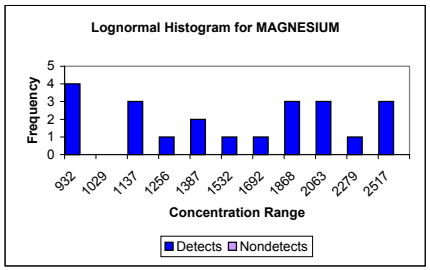




LOGNORMAL WITH NONDETECTS SEPARATED

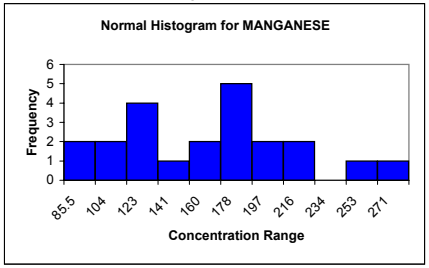


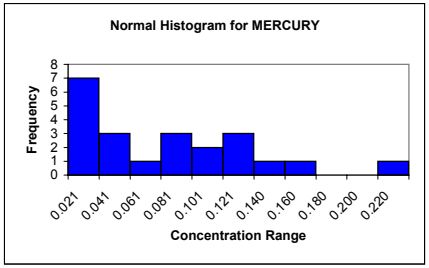


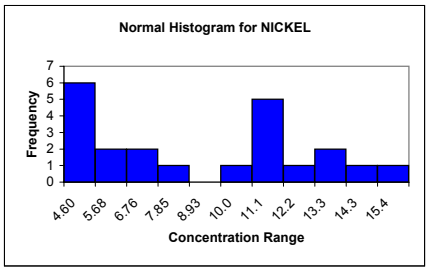


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

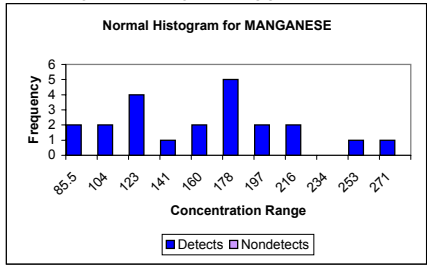
NORMAL

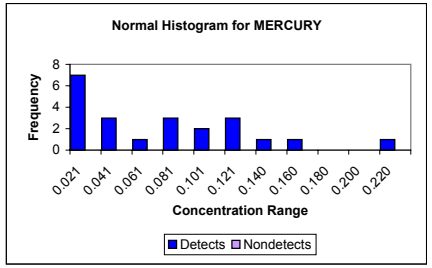


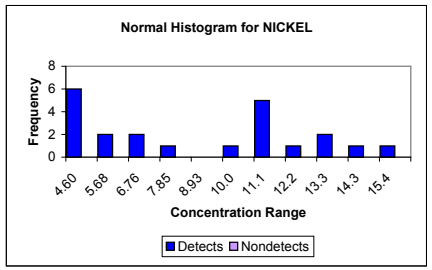




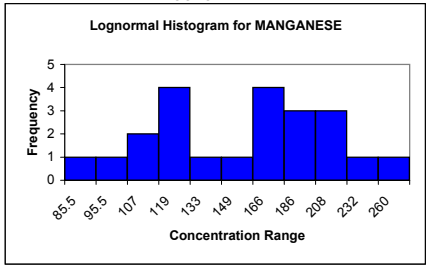
NORMAL WITH NONDETECTS SEPARATED

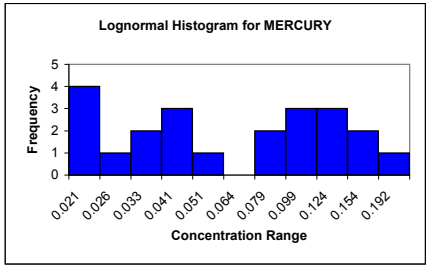


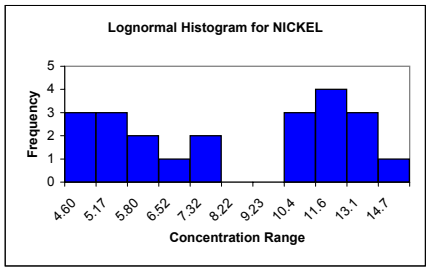




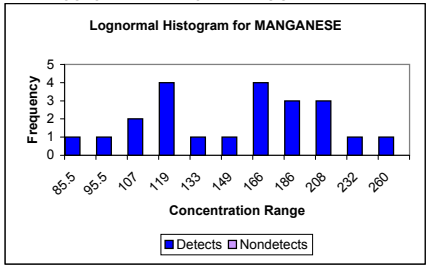
LOGNORMAL

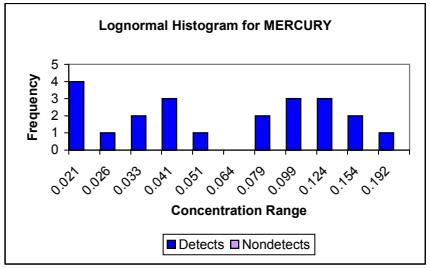


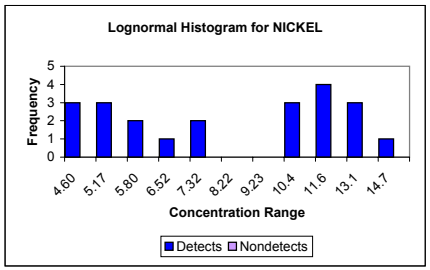




LOGNORMAL WITH NONDETECTS SEPARATED

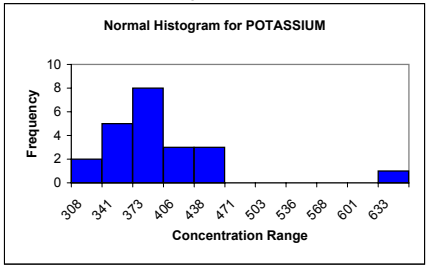


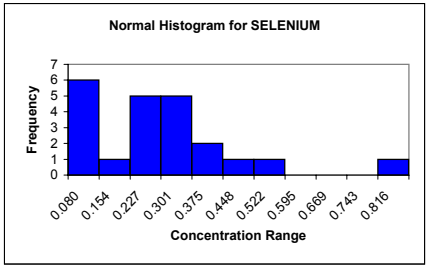


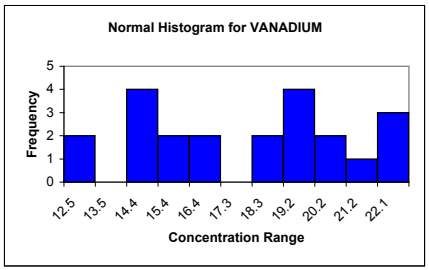


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

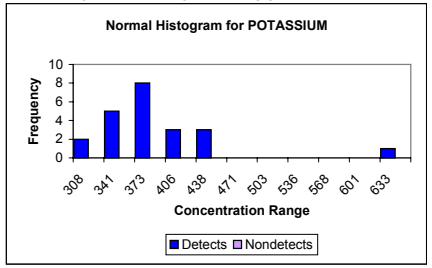
NORMAL

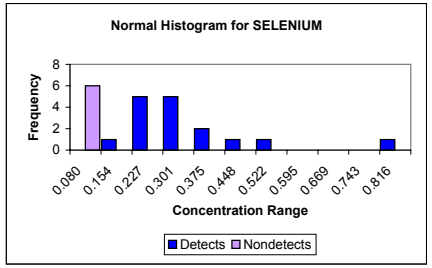


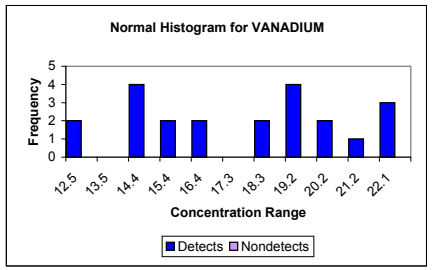




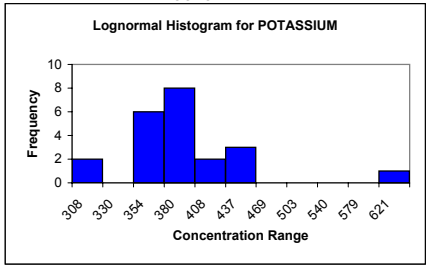
NORMAL WITH NONDETECTS SEPARATED

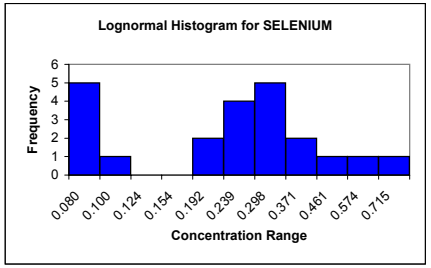


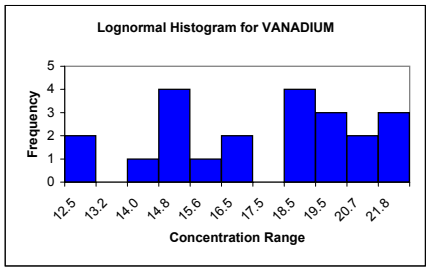




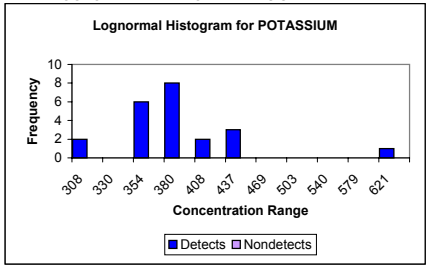
LOGNORMAL

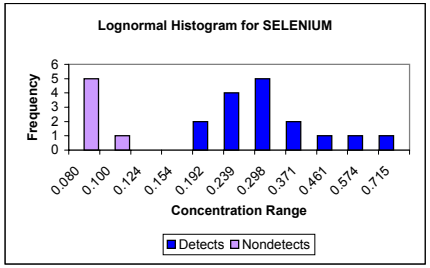


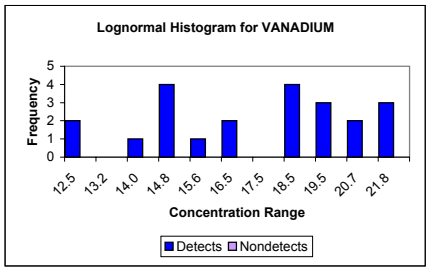




LOGNORMAL WITH NONDETECTS SEPARATED

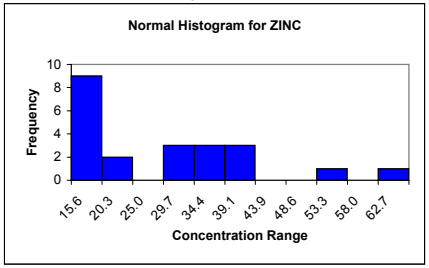




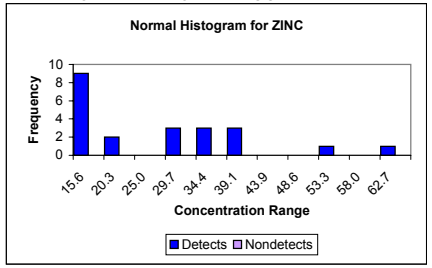


APPENDIX E, FIGURE E4-6
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

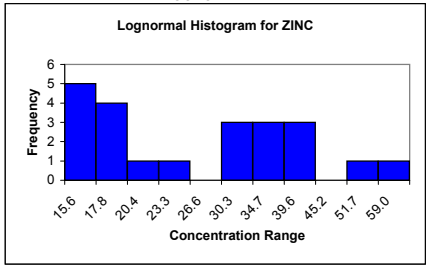
NORMAL



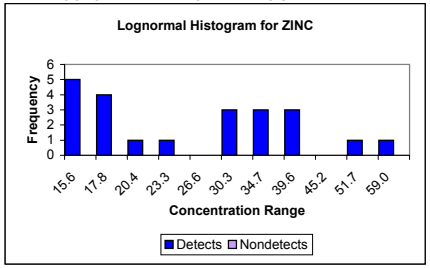
NORMAL WITH NONDETECTS SEPARATED



LOGNORMAL

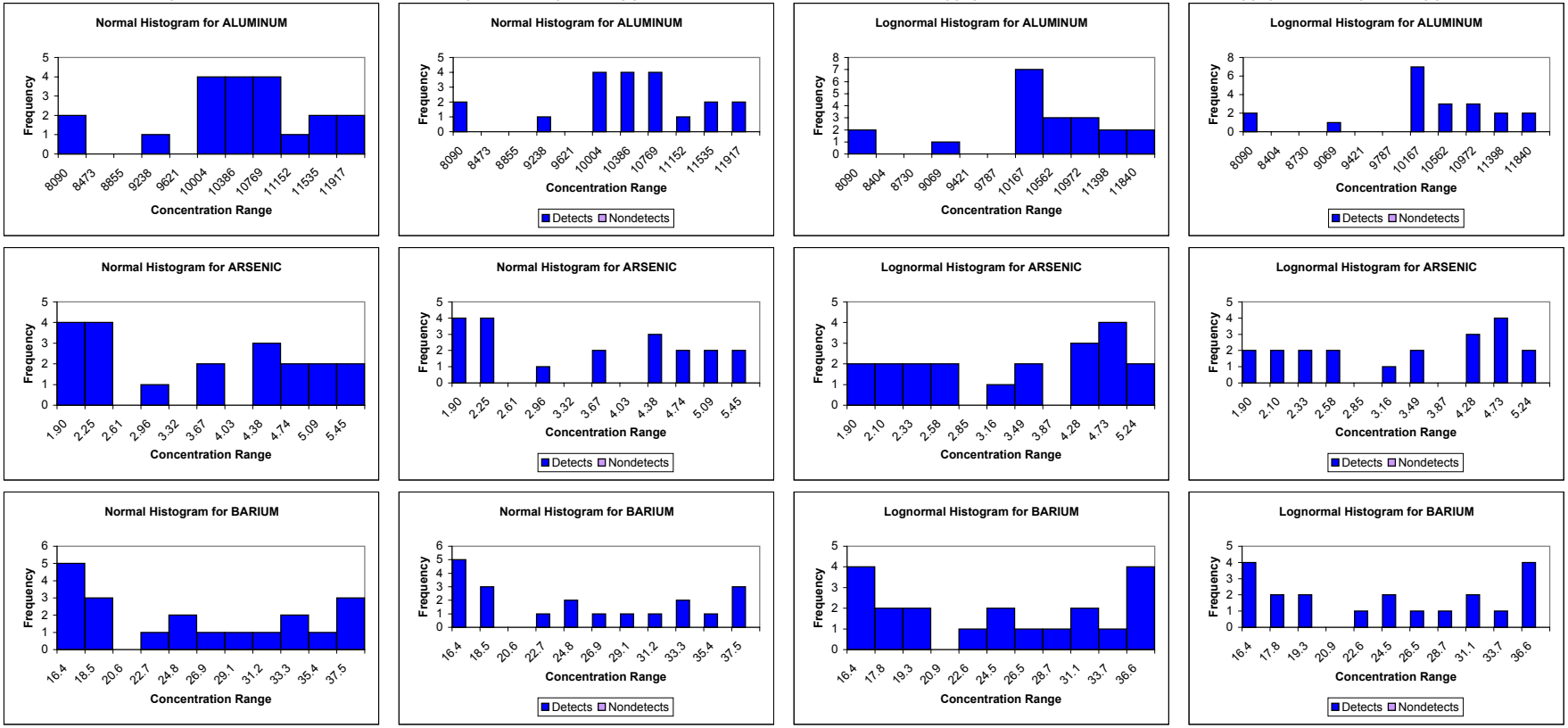


LOGNORMAL WITH NONDETECTS SEPARATED



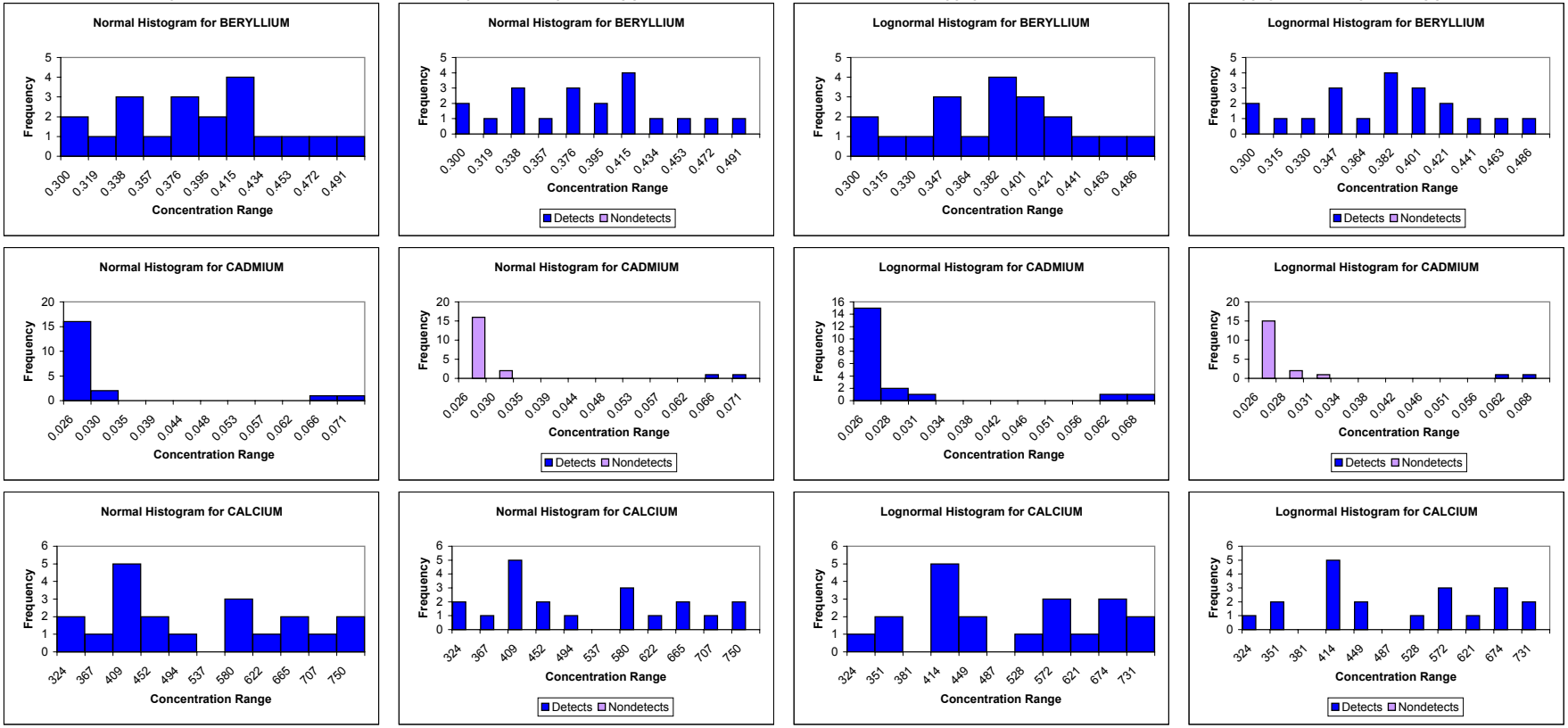
APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



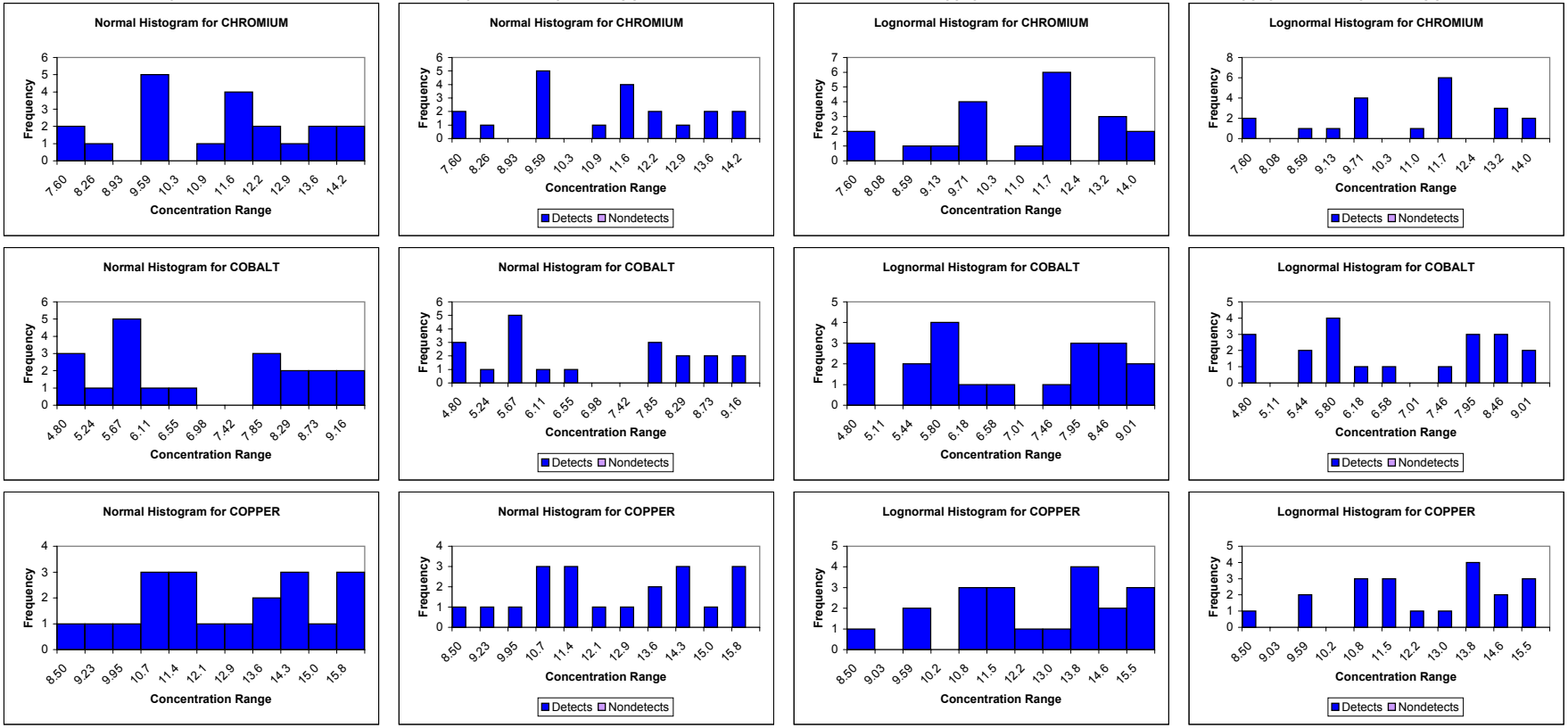
APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



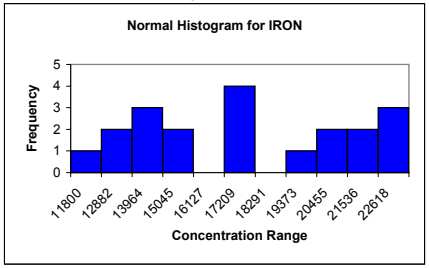
APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

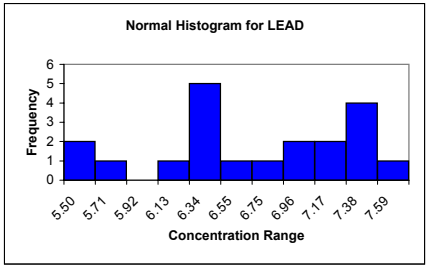
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

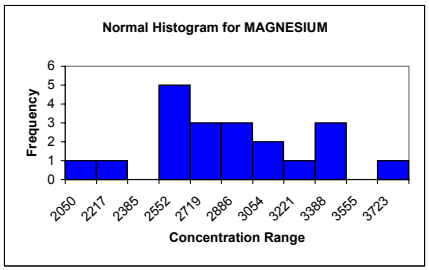


APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

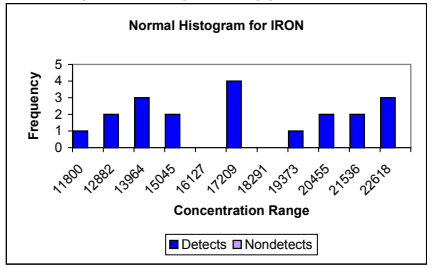
NORMAL

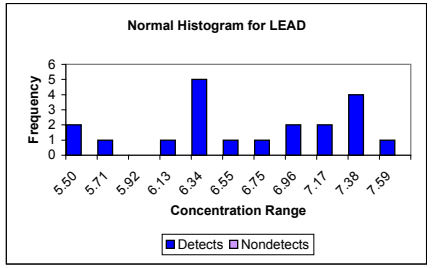


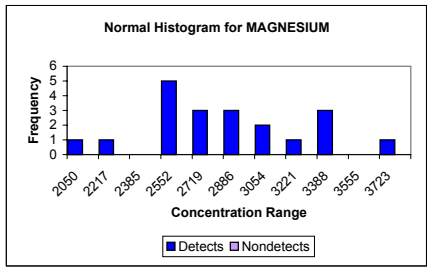




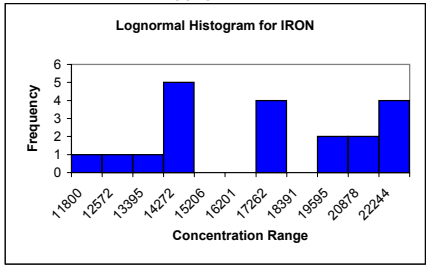
NORMAL WITH NONDETECTS SEPARATED

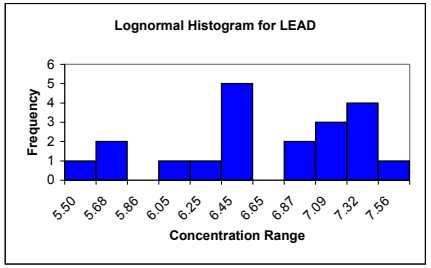


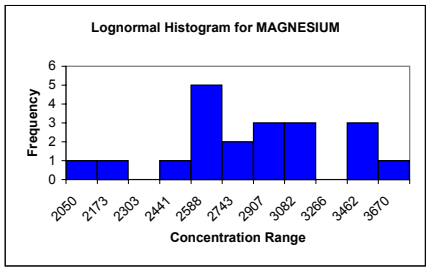




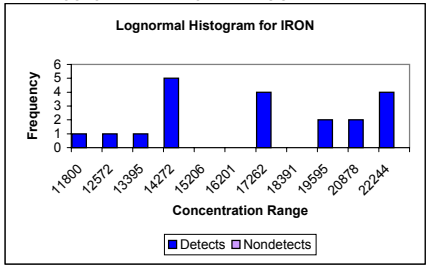
LOGNORMAL

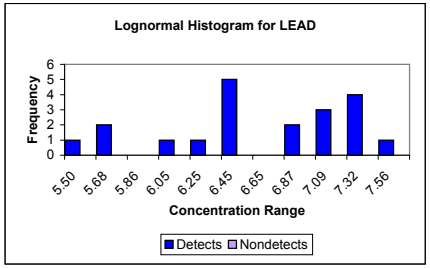


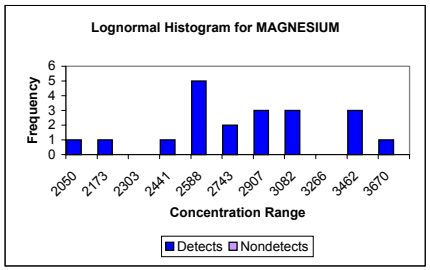




LOGNORMAL WITH NONDETECTS SEPARATED

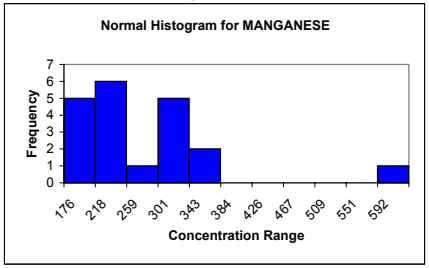


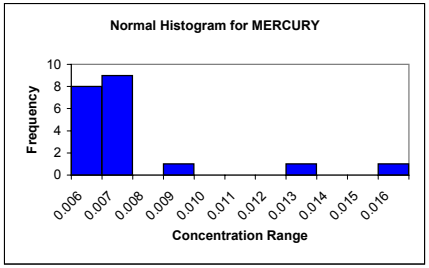


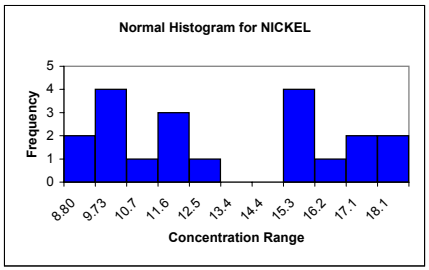


APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

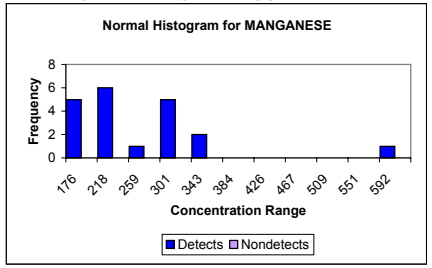
NORMAL

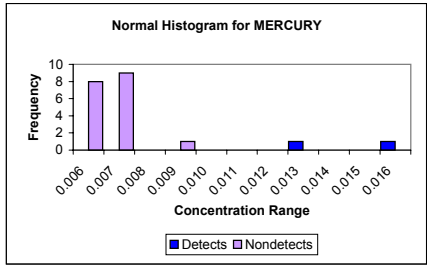


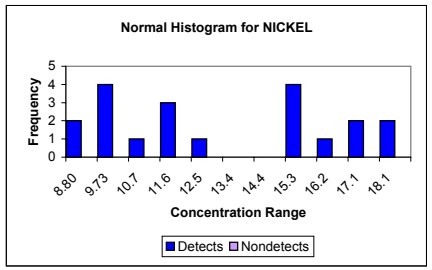




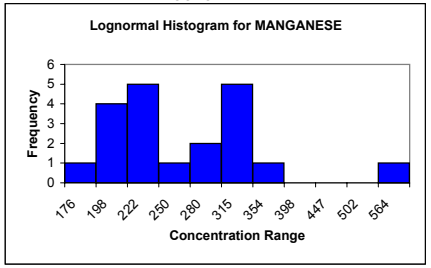
NORMAL WITH NONDETECTS SEPARATED

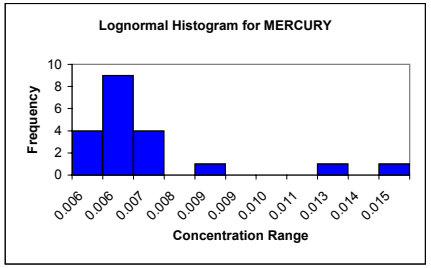


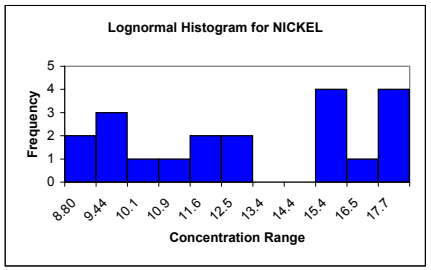




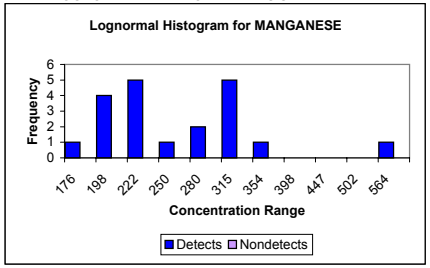
LOGNORMAL

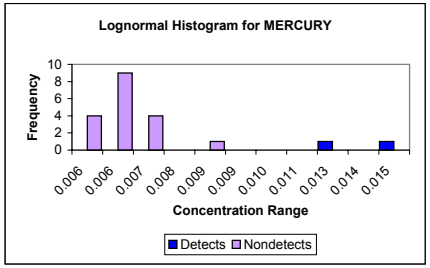


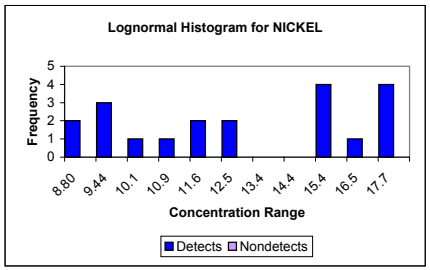




LOGNORMAL WITH NONDETECTS SEPARATED

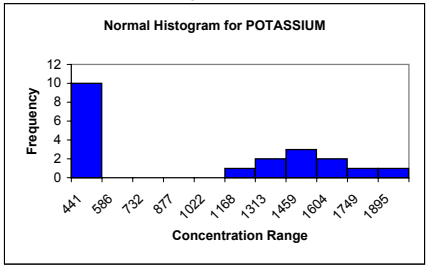


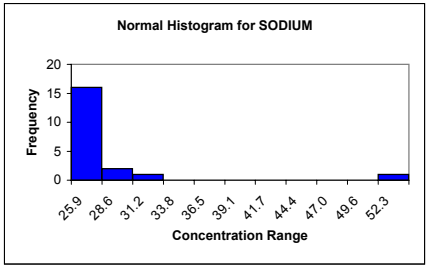


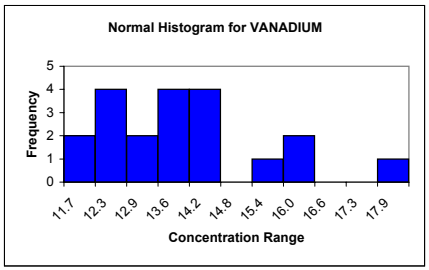


APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

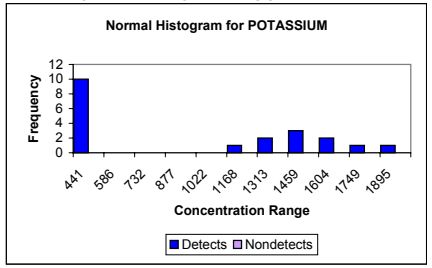
NORMAL

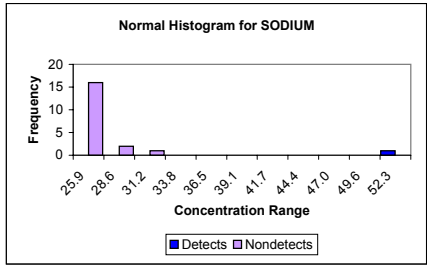


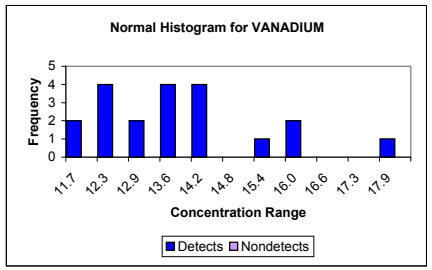




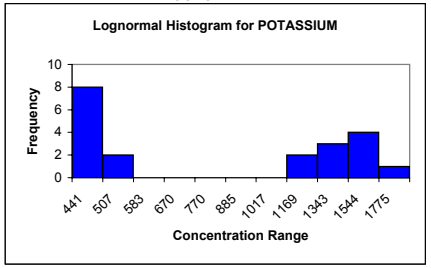
NORMAL WITH NONDETECTS SEPARATED

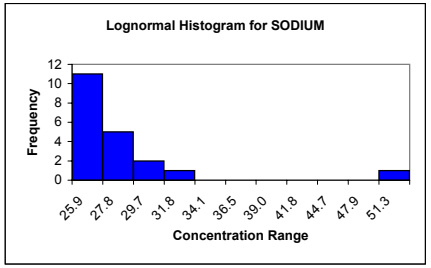


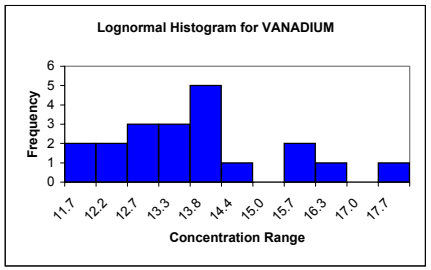




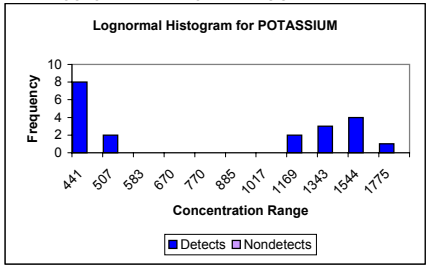
LOGNORMAL

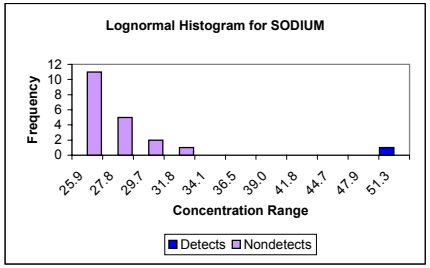


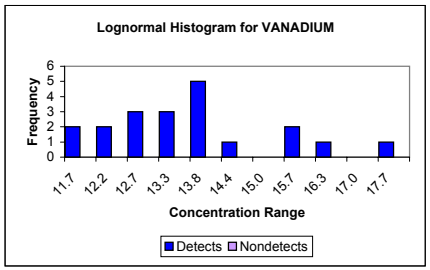




LOGNORMAL WITH NONDETECTS SEPARATED

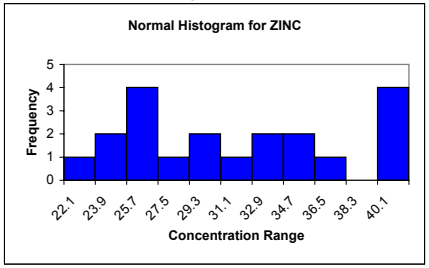




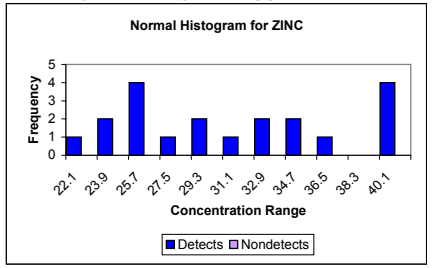


APPENDIX E, FIGURE E4-7
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

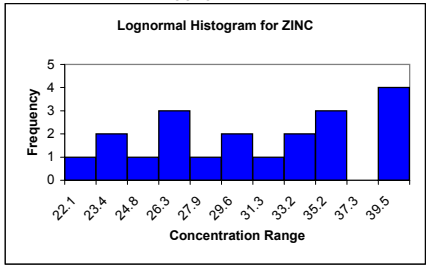
NORMAL



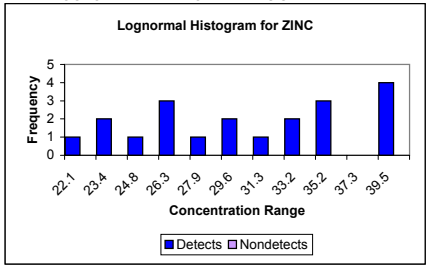
NORMAL WITH NONDETECTS SEPARATED



LOGNORMAL

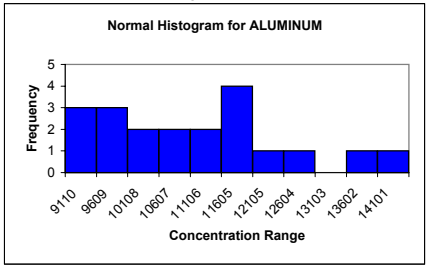


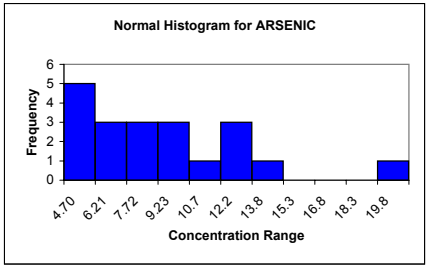
LOGNORMAL WITH NONDETECTS SEPARATED

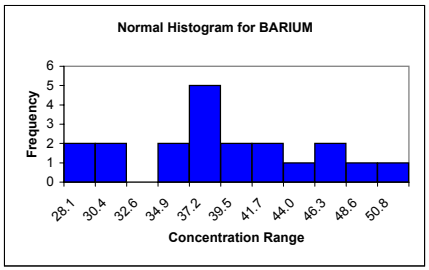


APPENDIX E, FIGURE E4-8
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

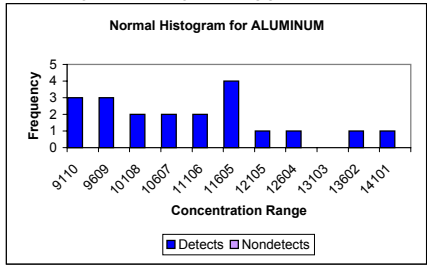
NORMAL

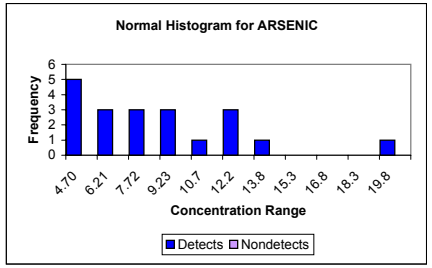


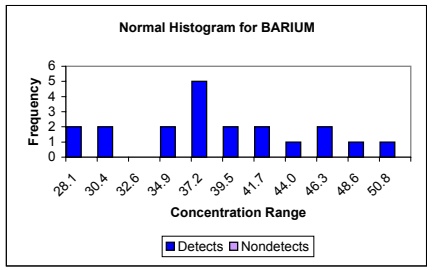




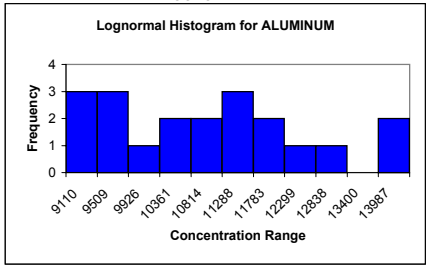
NORMAL WITH NONDETECTS SEPARATED

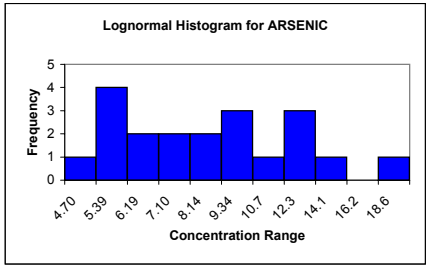


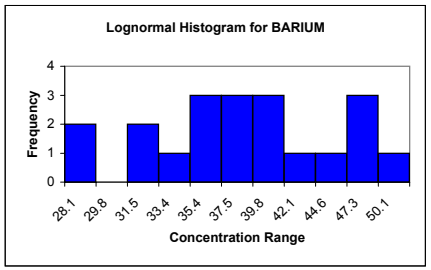




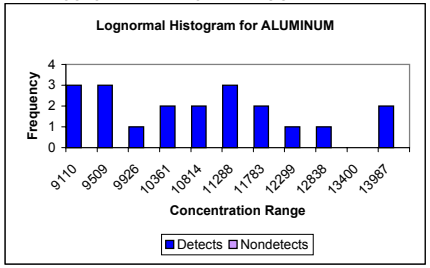
LOGNORMAL

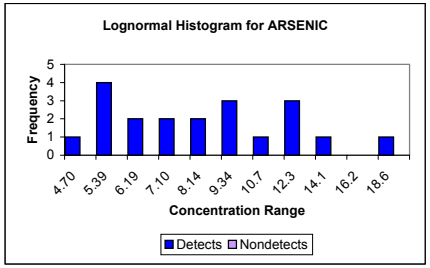


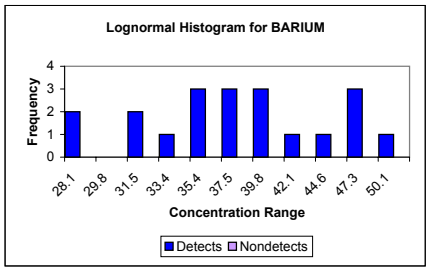




LOGNORMAL WITH NONDETECTS SEPARATED

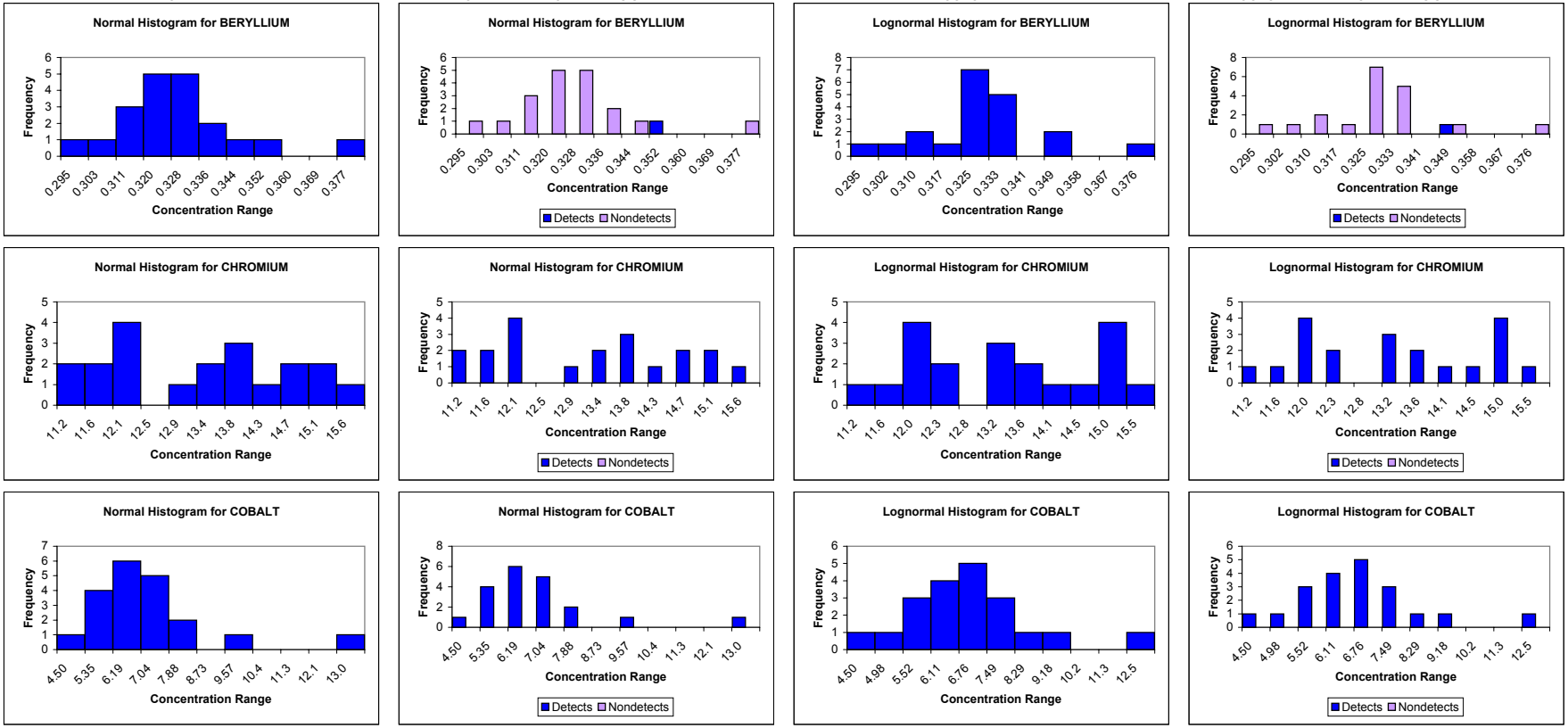




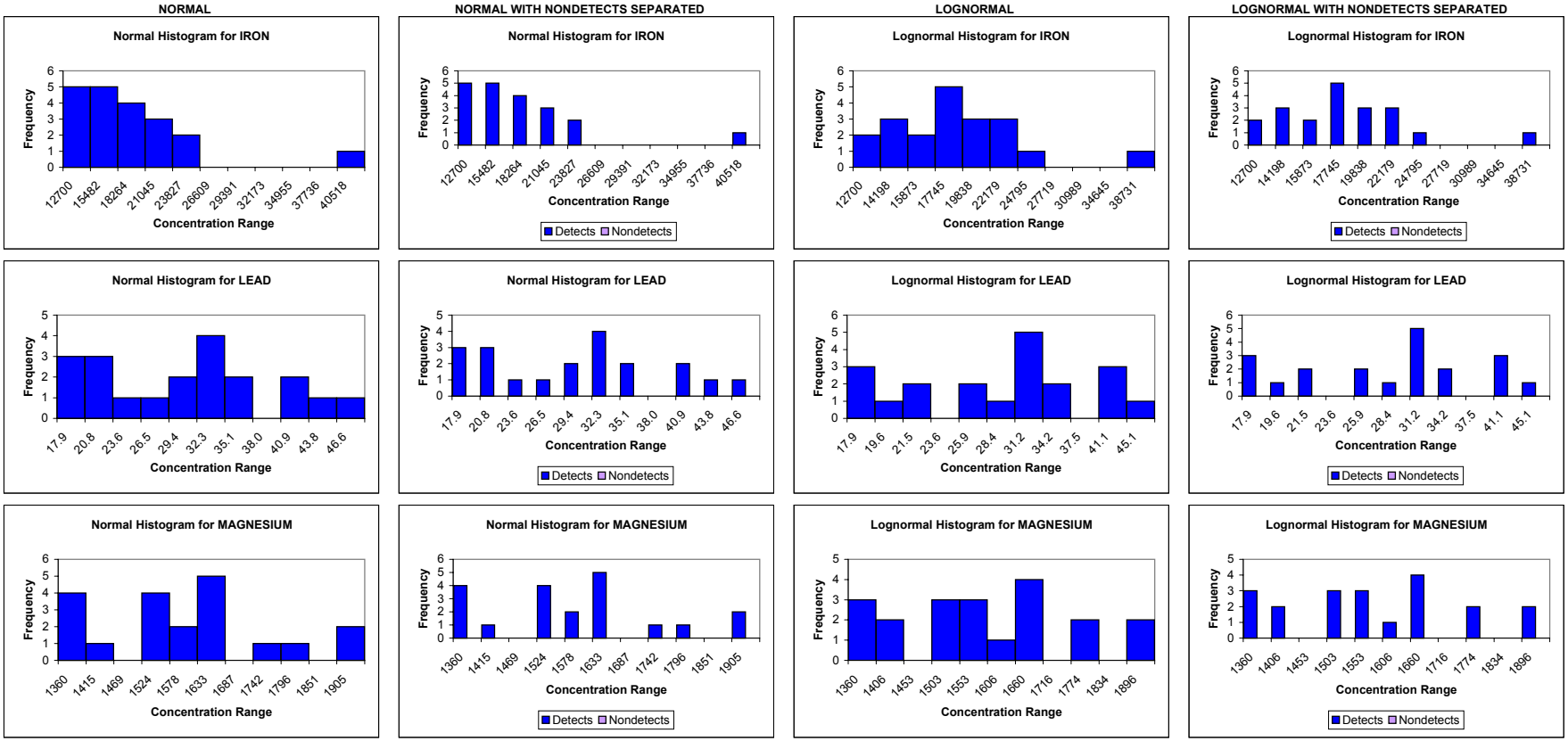


APPENDIX E, FIGURE E4-8
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

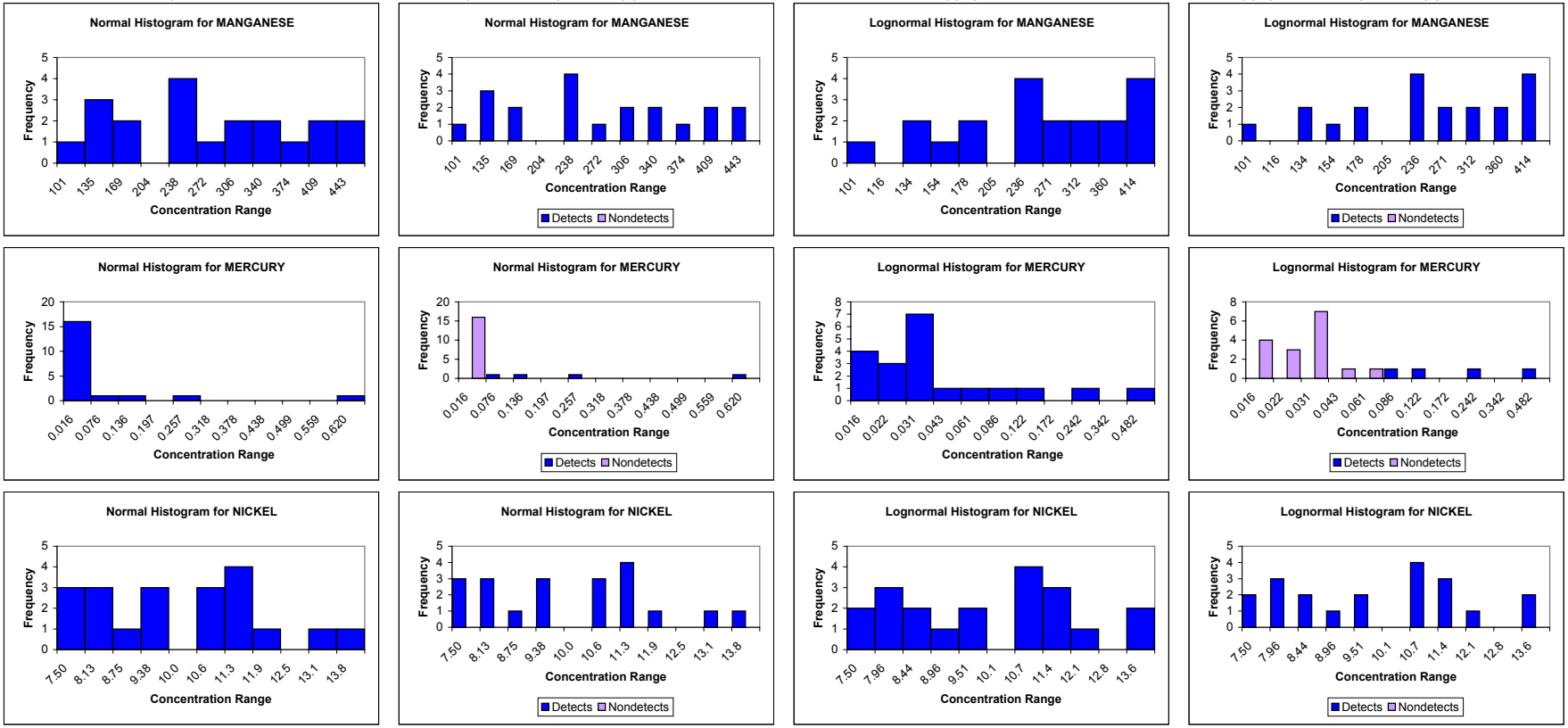


APPENDIX E, FIGURE E4-8
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



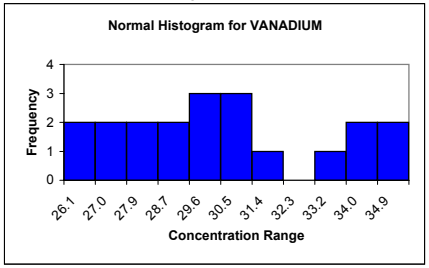
APPENDIX E, FIGURE E4-8
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

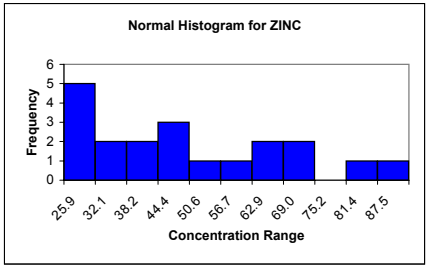
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



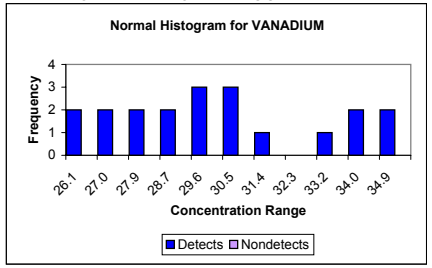
APPENDIX E, FIGURE E4-8
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

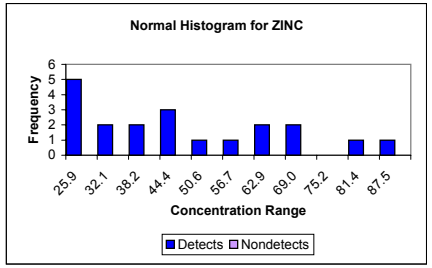
NORMAL



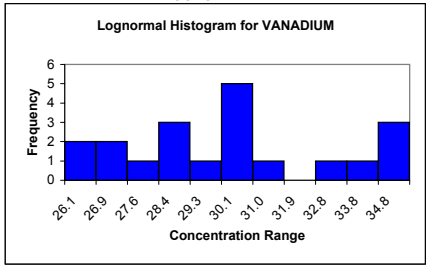


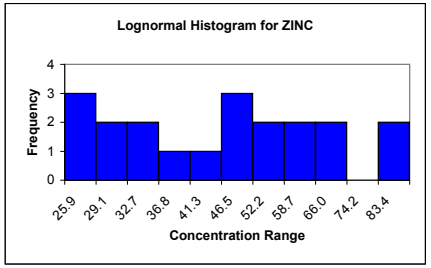
NORMAL WITH NONDETECTS SEPARATED



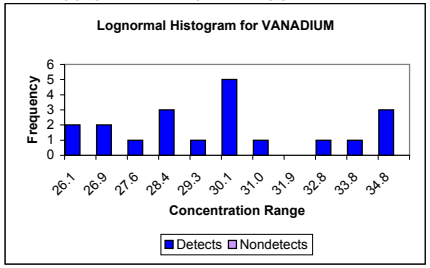


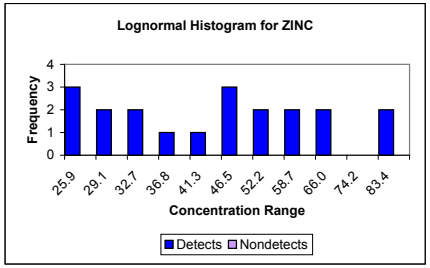
LOGNORMAL





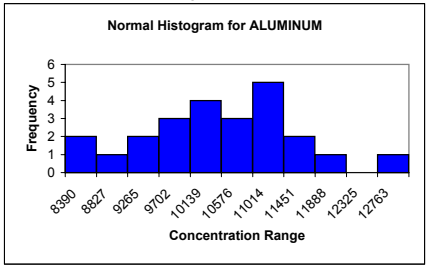
LOGNORMAL WITH NONDETECTS SEPARATED

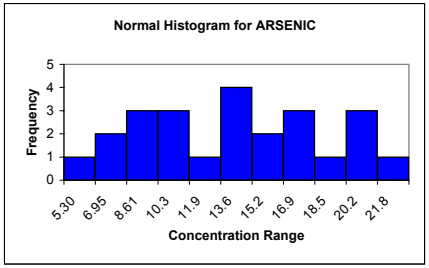


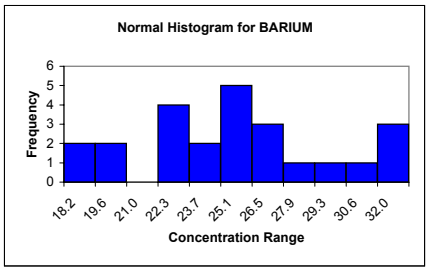


APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

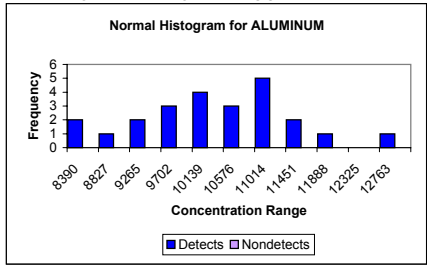
NORMAL

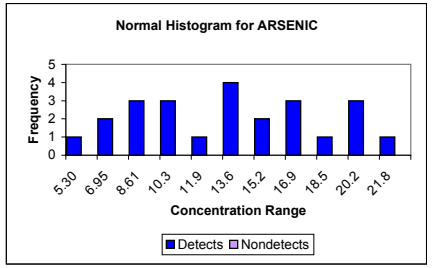


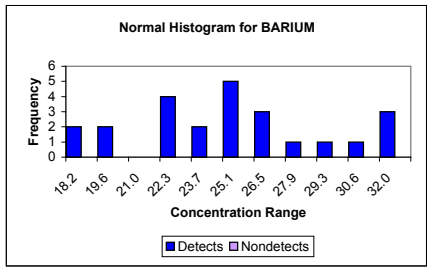




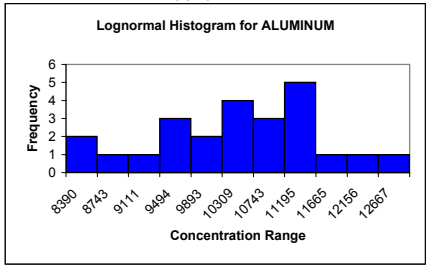
NORMAL WITH NONDETECTS SEPARATED

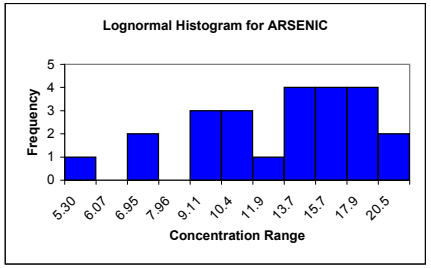


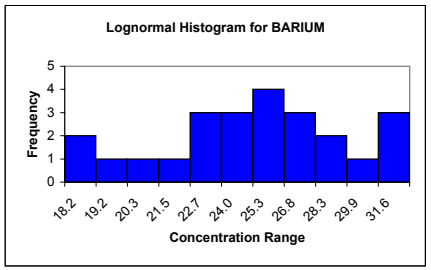




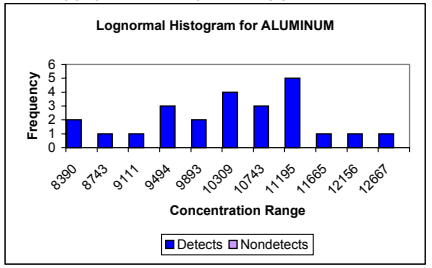
LOGNORMAL

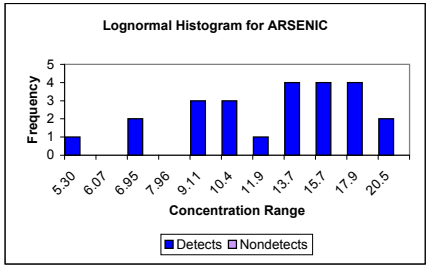


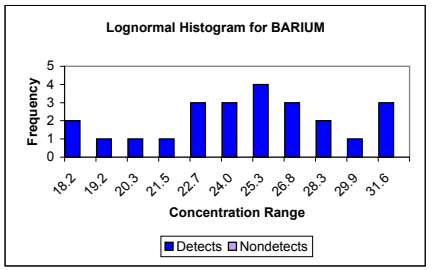




LOGNORMAL WITH NONDETECTS SEPARATED

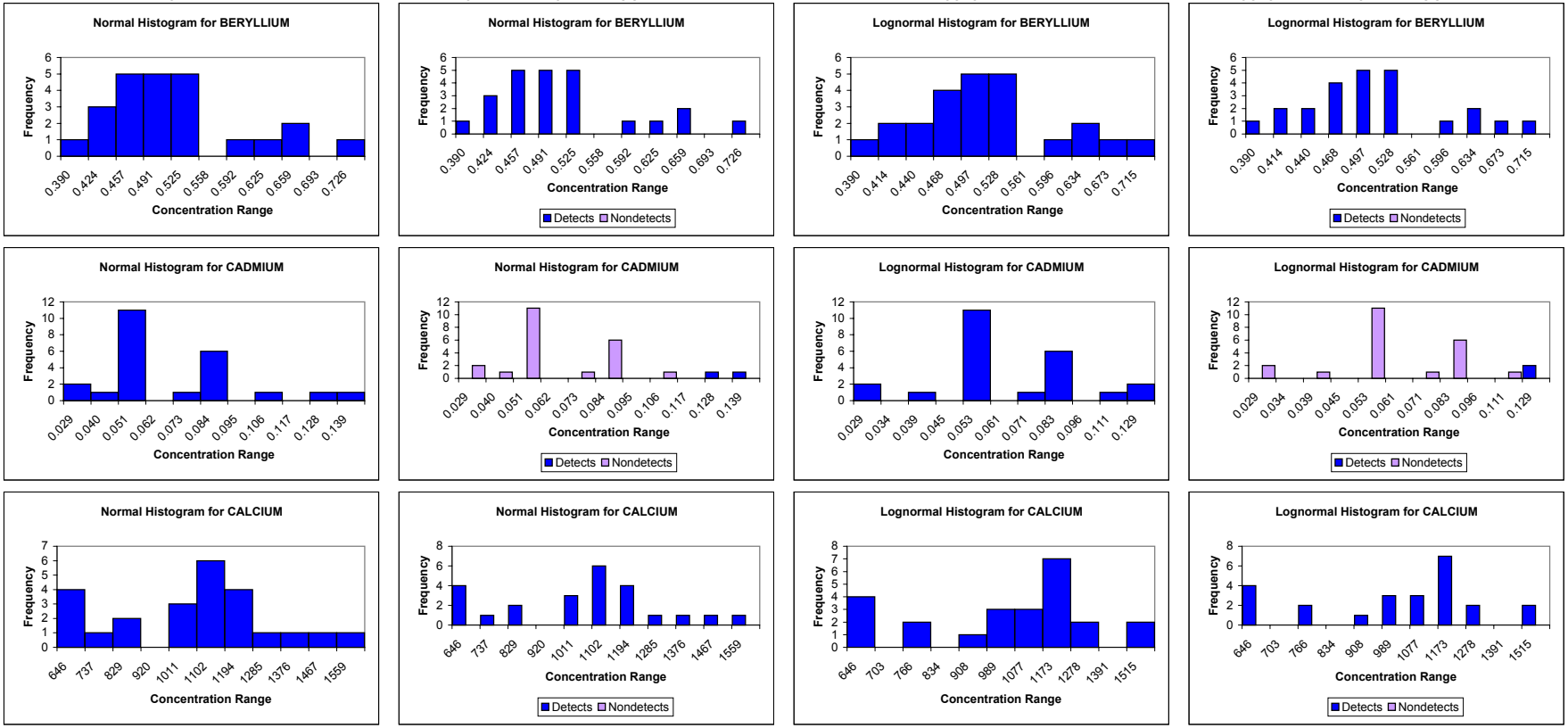






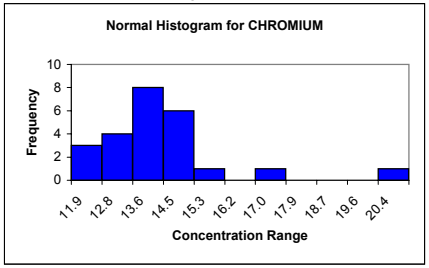
APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

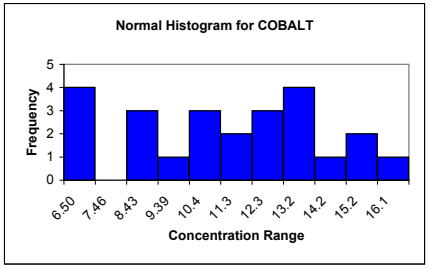
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

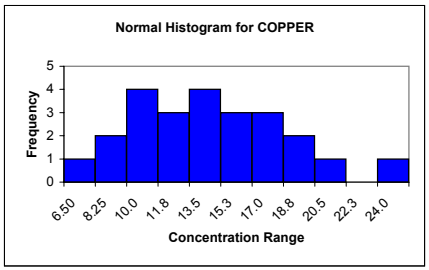


APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

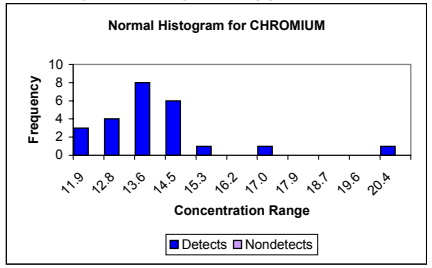
NORMAL

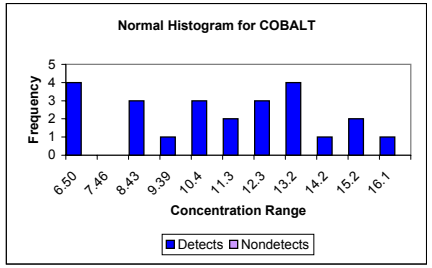


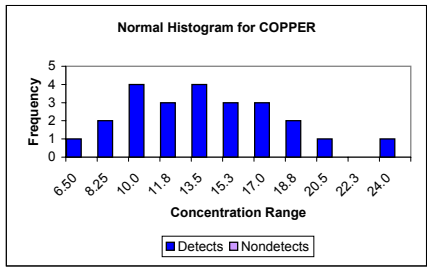




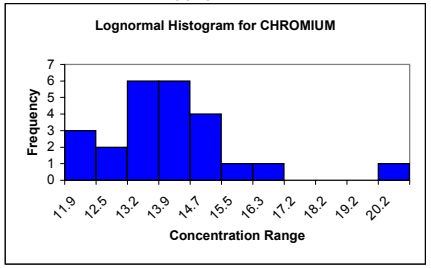
NORMAL WITH NONDETECTS SEPARATED

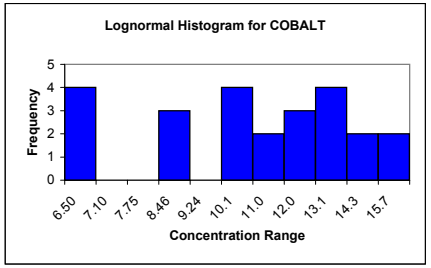


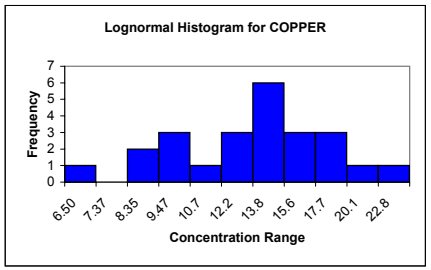




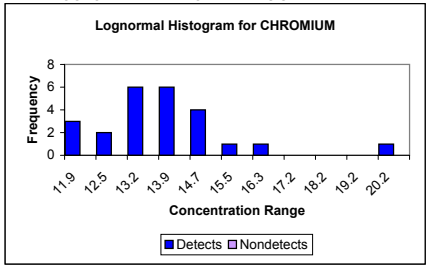
LOGNORMAL

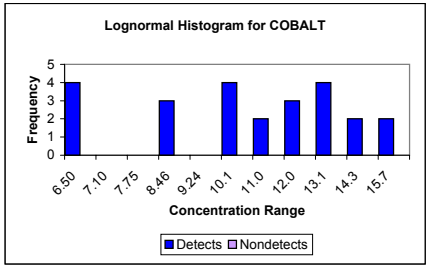


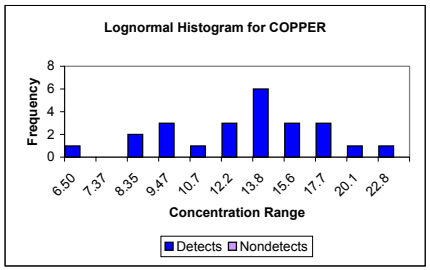




LOGNORMAL WITH NONDETECTS SEPARATED

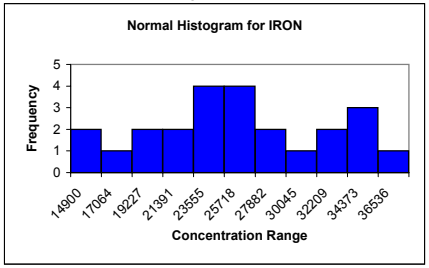


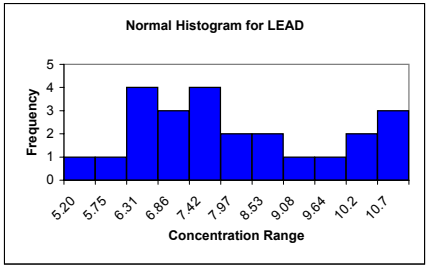


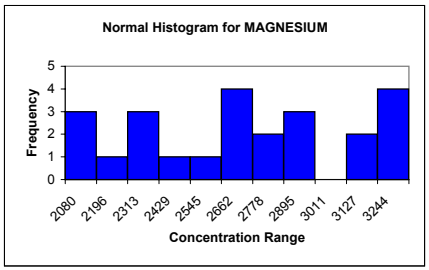


APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

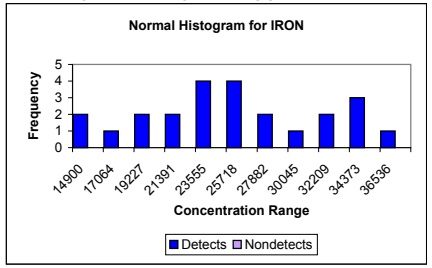
NORMAL

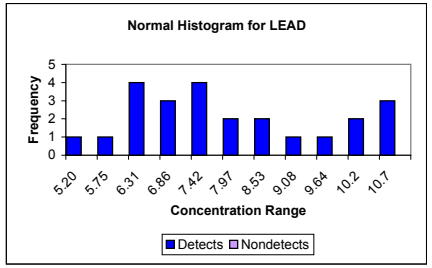


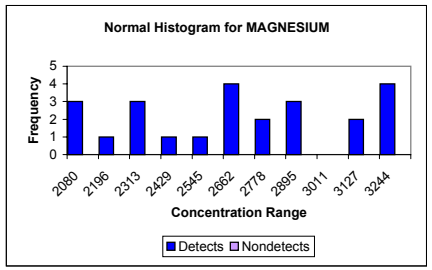




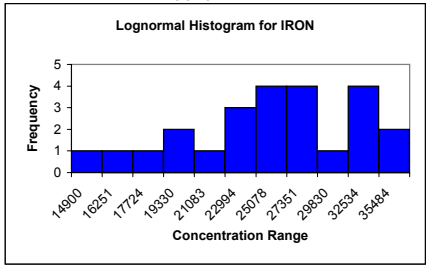
NORMAL WITH NONDETECTS SEPARATED

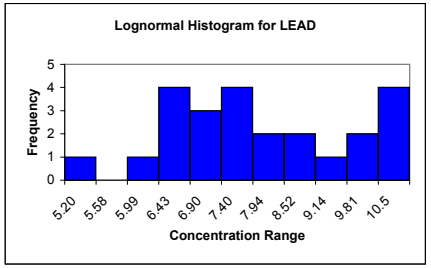


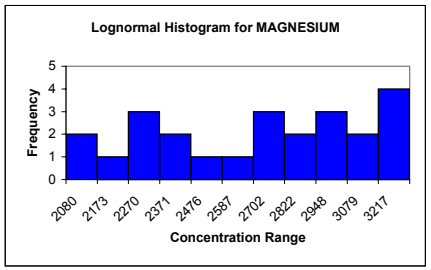




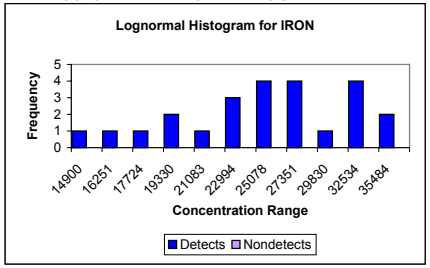
LOGNORMAL

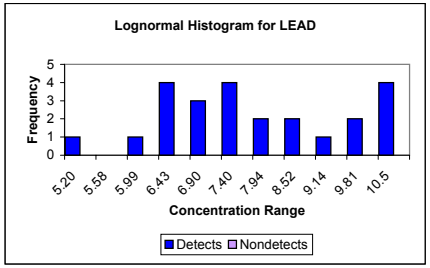


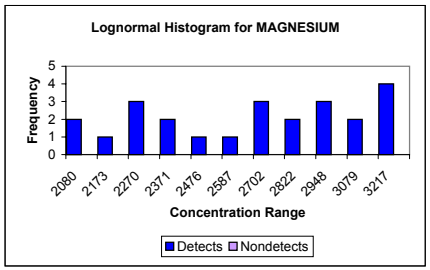




LOGNORMAL WITH NONDETECTS SEPARATED

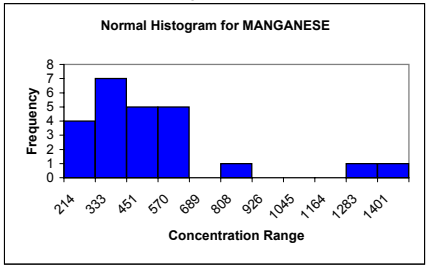


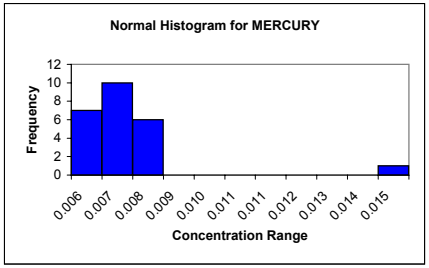


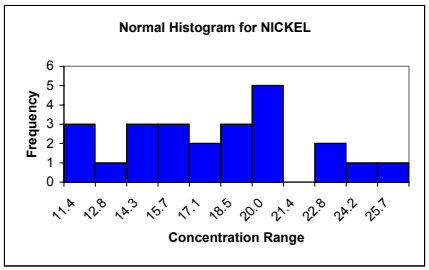


APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

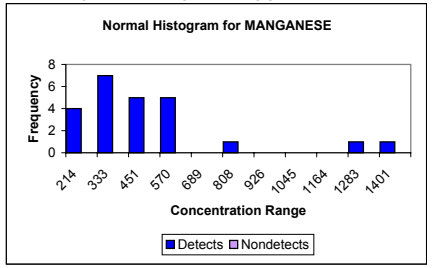
NORMAL

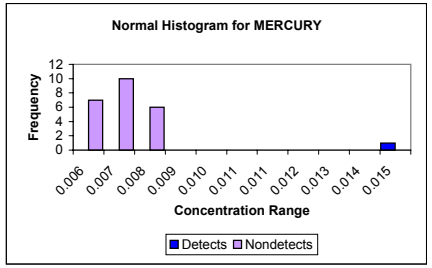


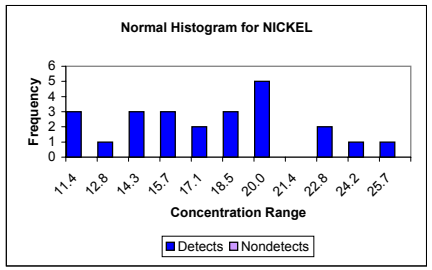




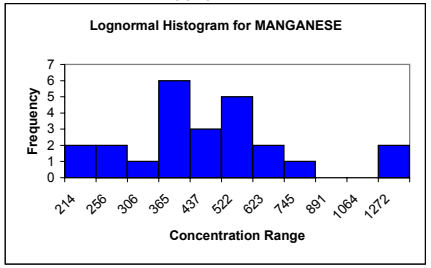
NORMAL WITH NONDETECTS SEPARATED

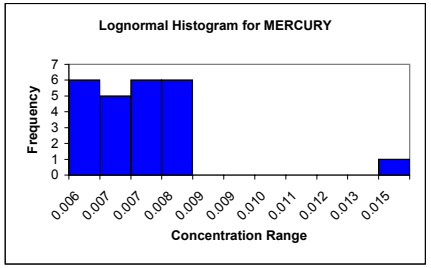


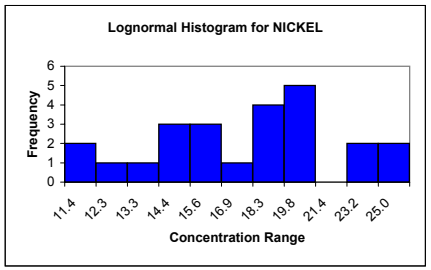




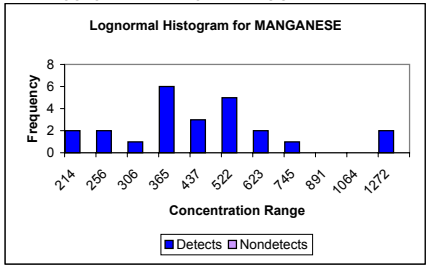
LOGNORMAL

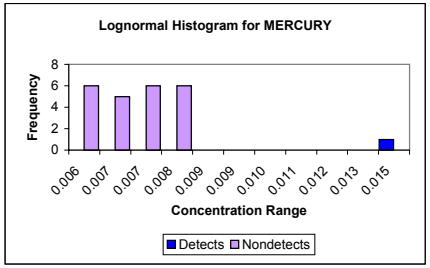


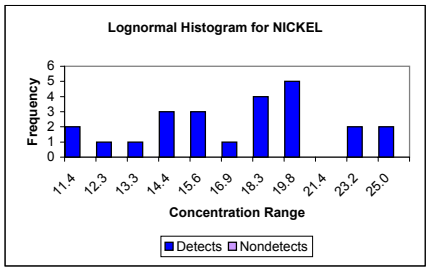




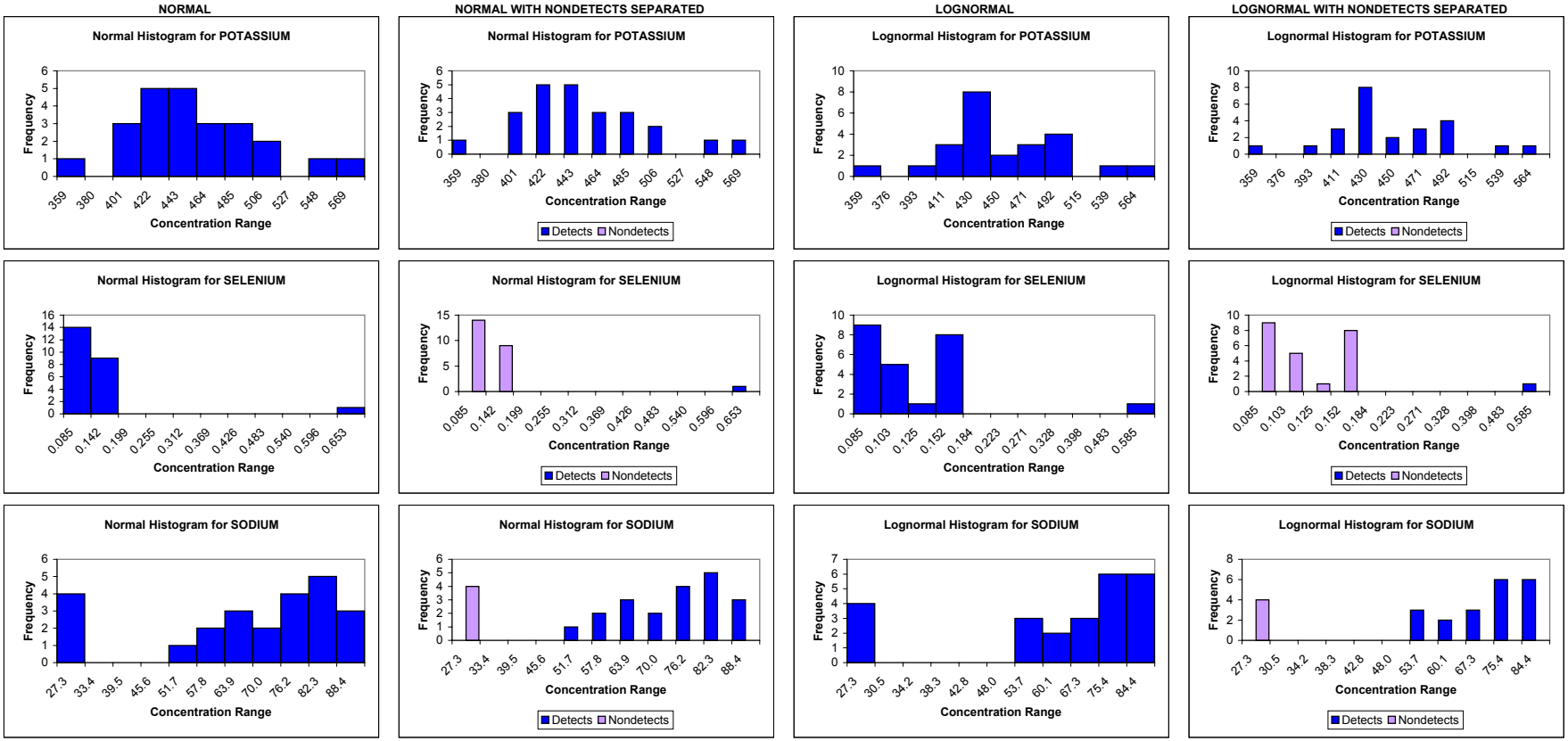
LOGNORMAL WITH NONDETECTS SEPARATED





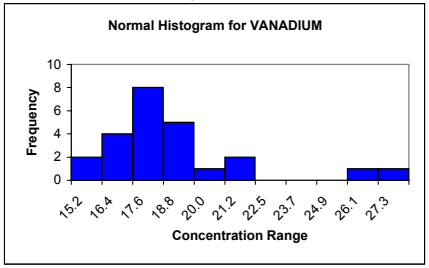


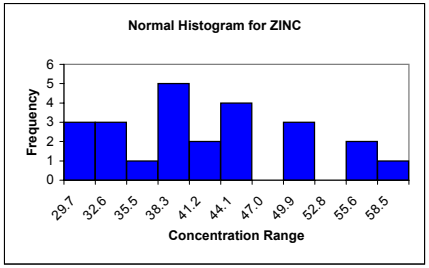
APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



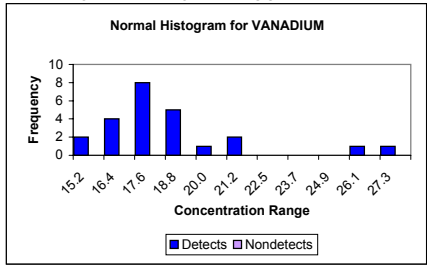
APPENDIX E, FIGURE E4-9
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

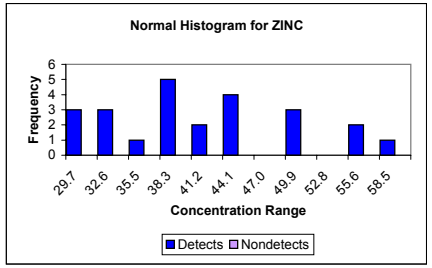
NORMAL



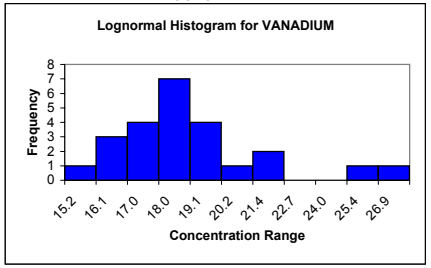


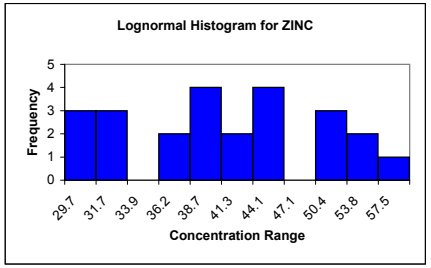
NORMAL WITH NONDETECTS SEPARATED



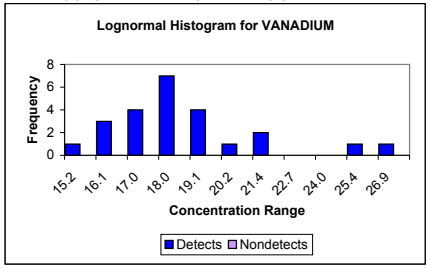


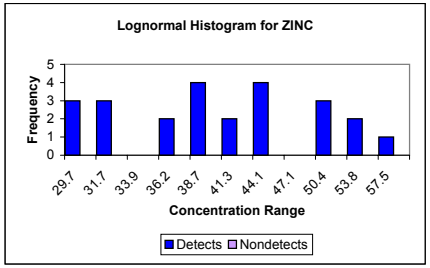
LOGNORMAL





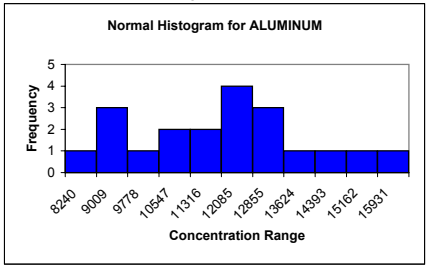
LOGNORMAL WITH NONDETECTS SEPARATED

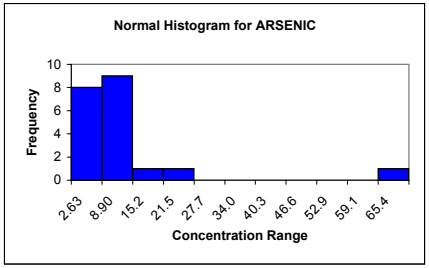


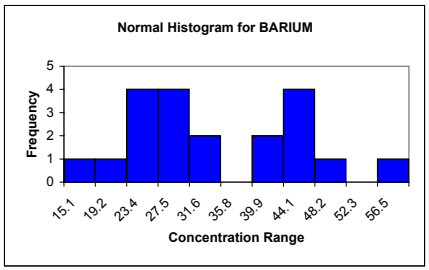


APPENDIX E, FIGURE E4-10
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

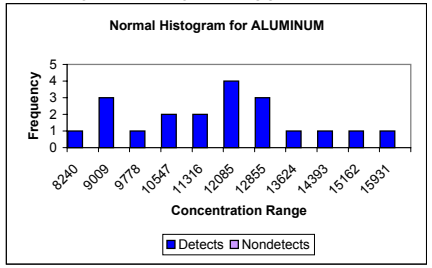
NORMAL

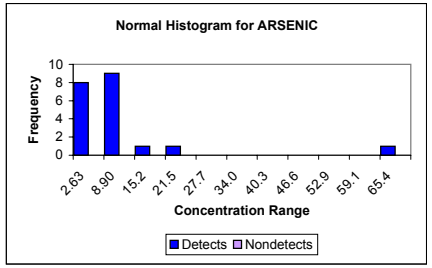


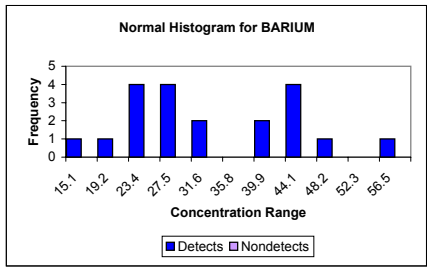




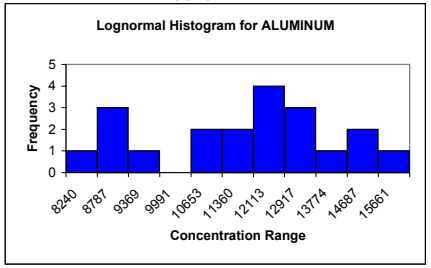
NORMAL WITH NONDETECTS SEPARATED

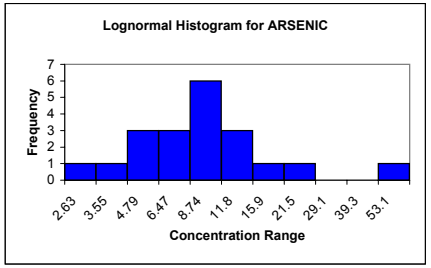


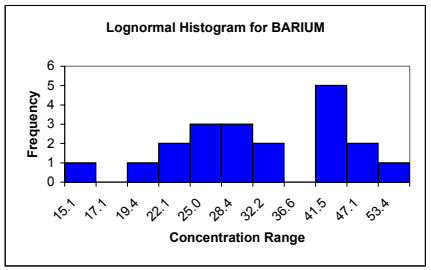




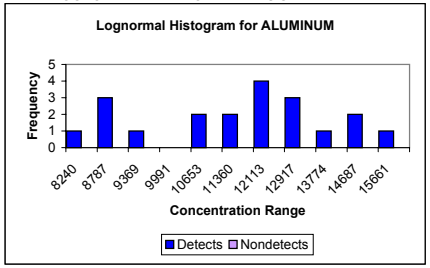
LOGNORMAL

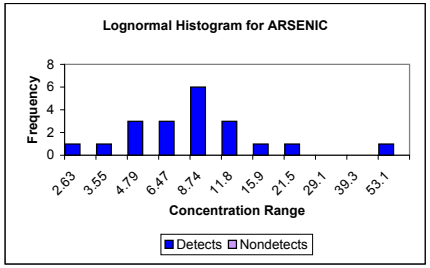


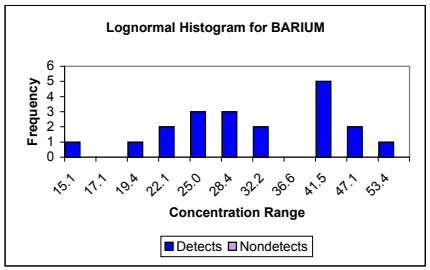




LOGNORMAL WITH NONDETECTS SEPARATED

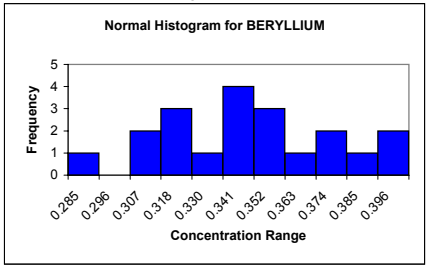


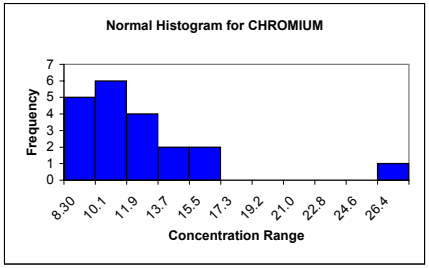


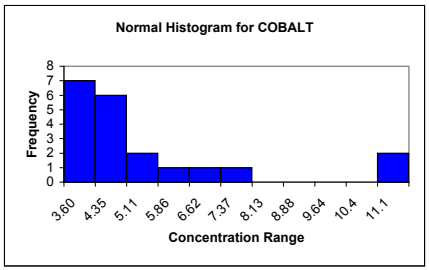


APPENDIX E, FIGURE E4-10
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

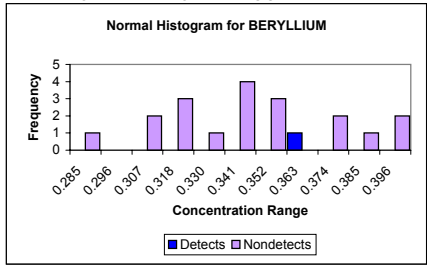
NORMAL

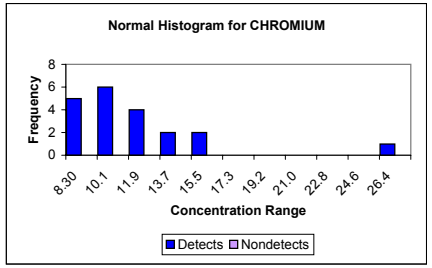


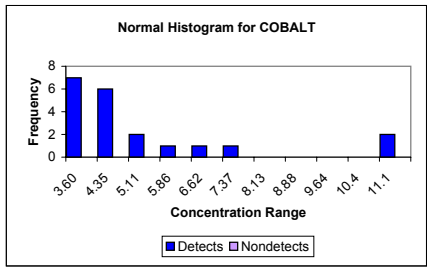




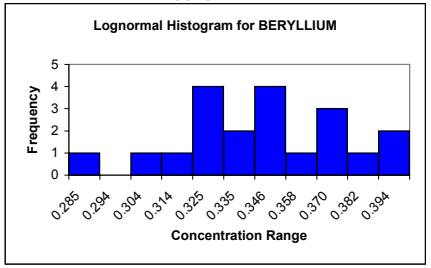
NORMAL WITH NONDETECTS SEPARATED

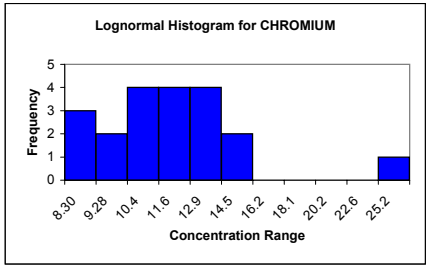


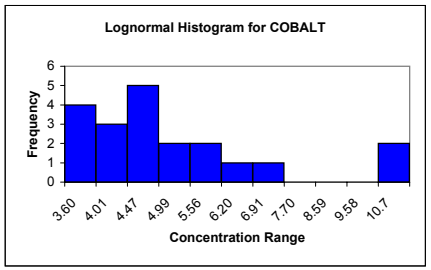




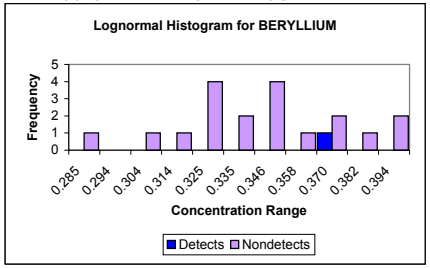
LOGNORMAL

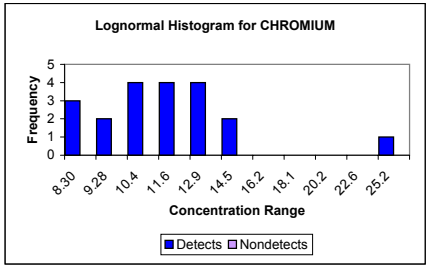


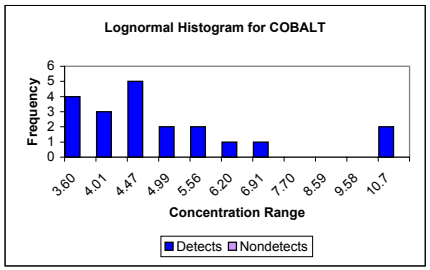




LOGNORMAL WITH NONDETECTS SEPARATED

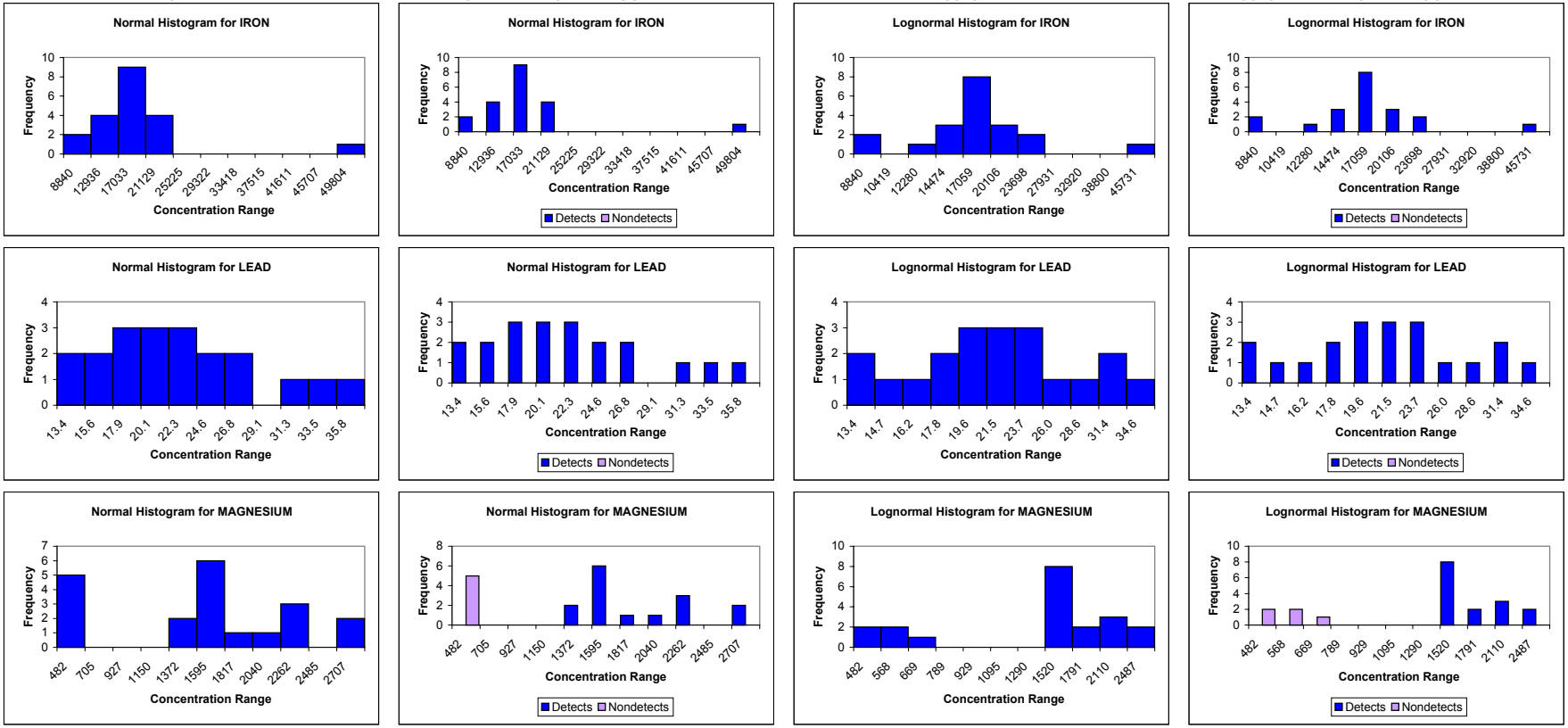






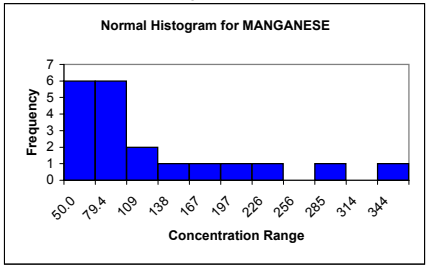
APPENDIX E, FIGURE E4-10
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

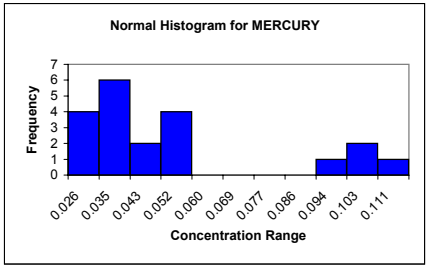
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

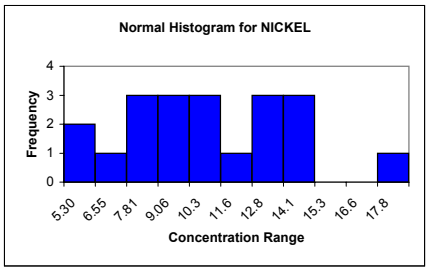


APPENDIX E, FIGURE E4-10
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

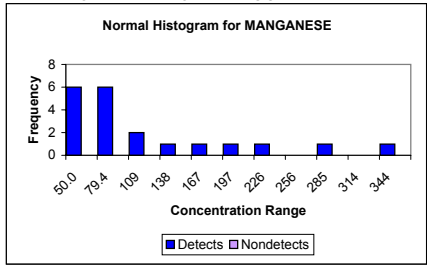
NORMAL

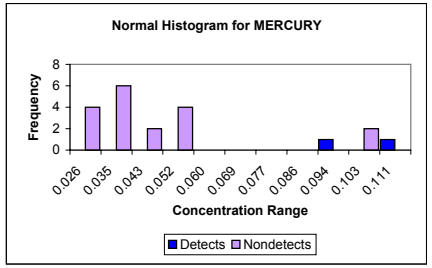


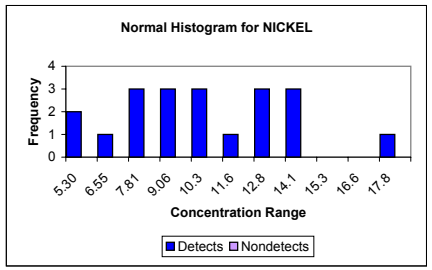




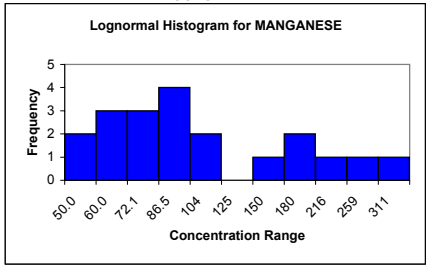
NORMAL WITH NONDETECTS SEPARATED

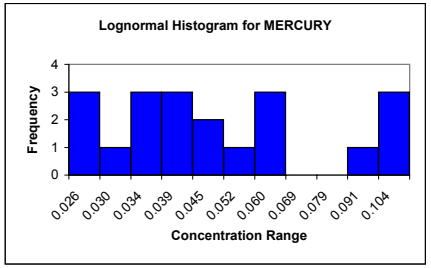


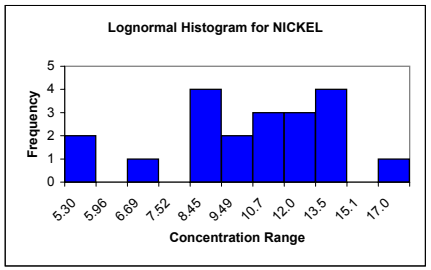




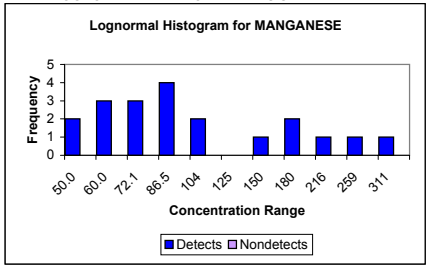
LOGNORMAL

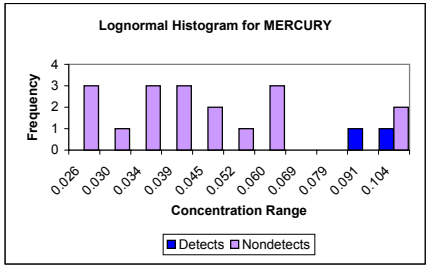


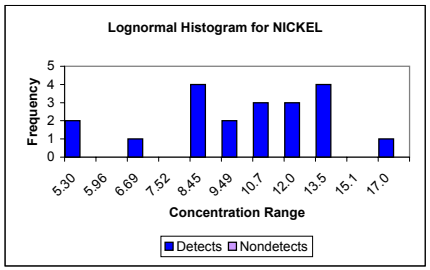




LOGNORMAL WITH NONDETECTS SEPARATED

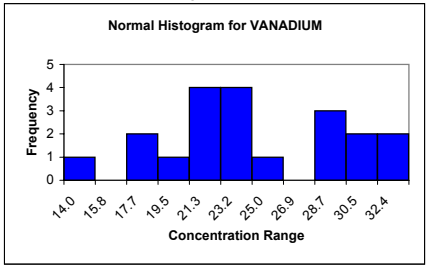


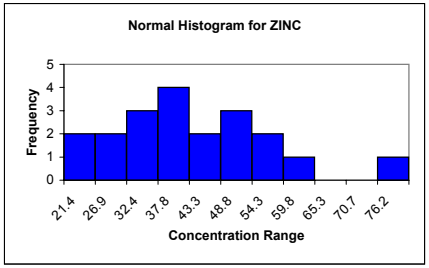




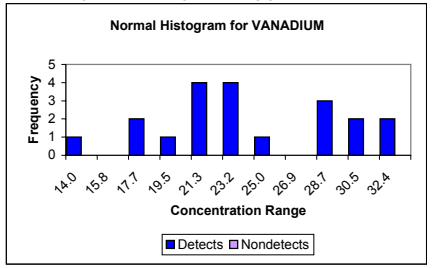
APPENDIX E, FIGURE E4-10
HISTOGRAMS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

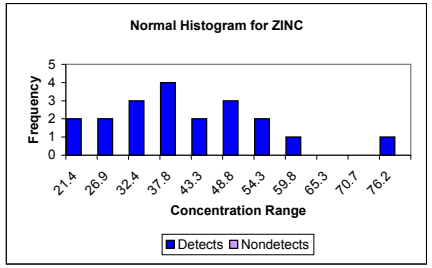
NORMAL



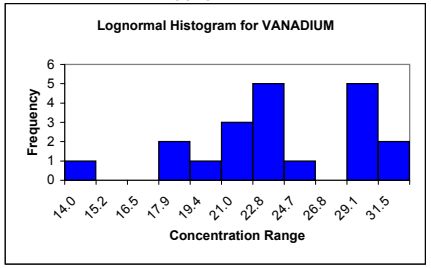


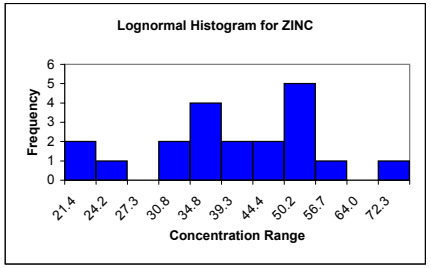
NORMAL WITH NONDETECTS SEPARATED



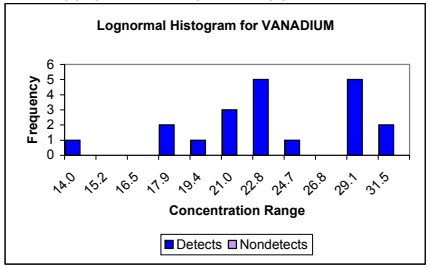


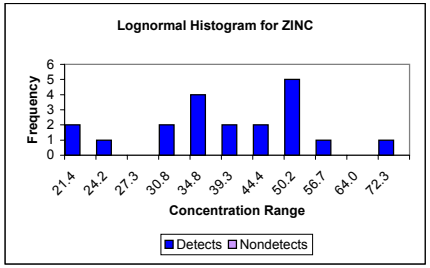
LOGNORMAL





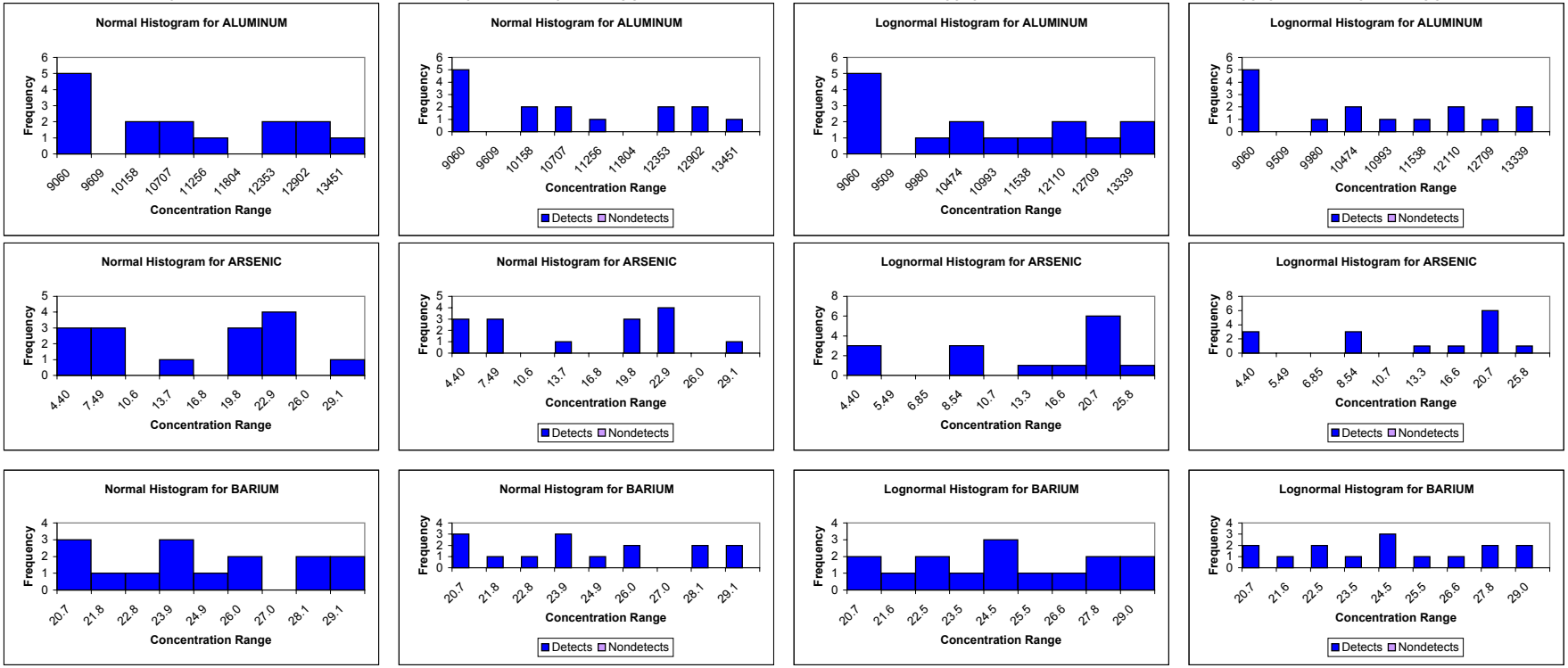
LOGNORMAL WITH NONDETECTS SEPARATED





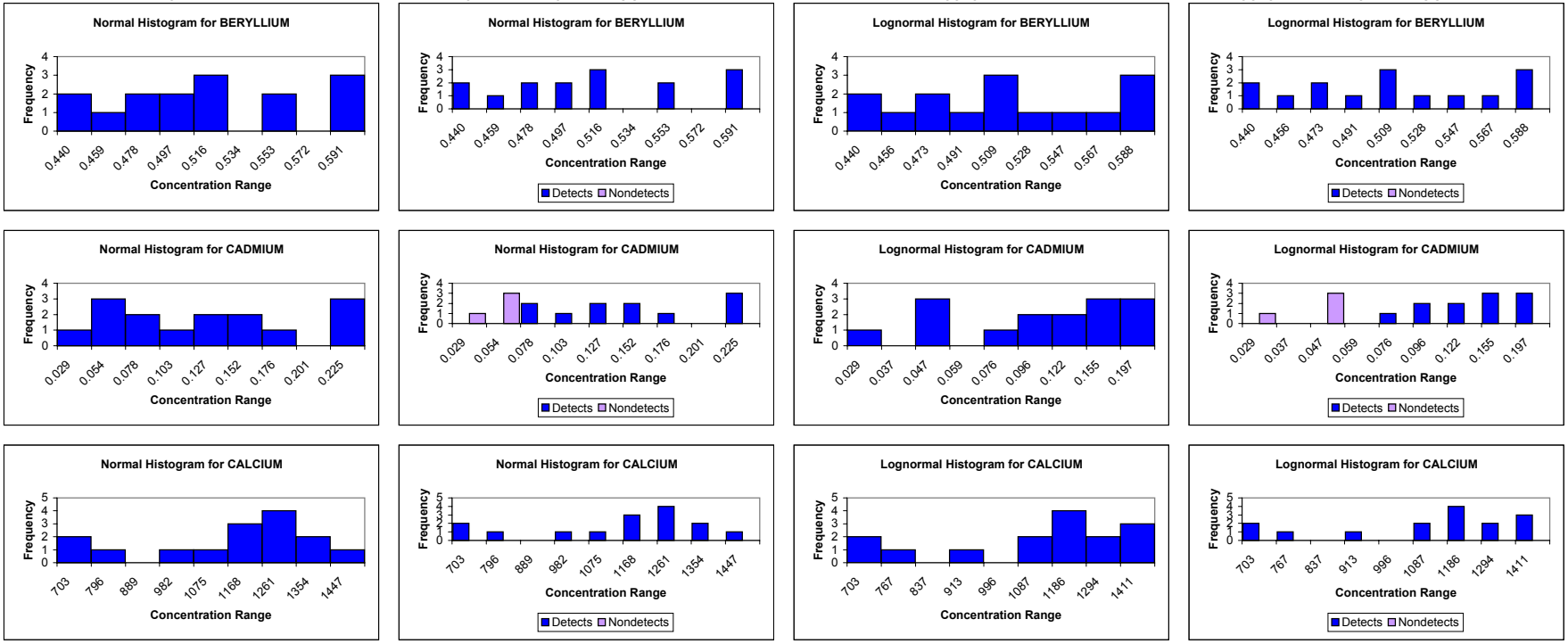
APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



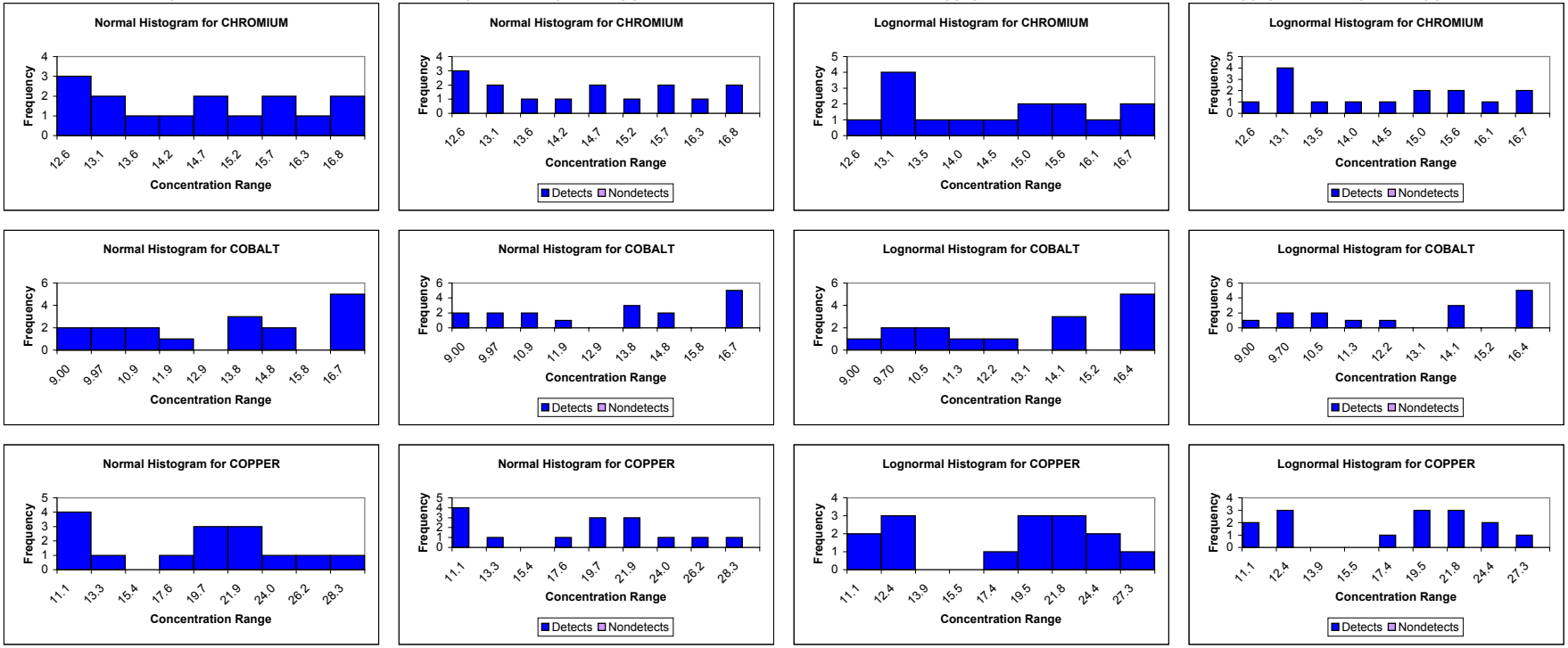
APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



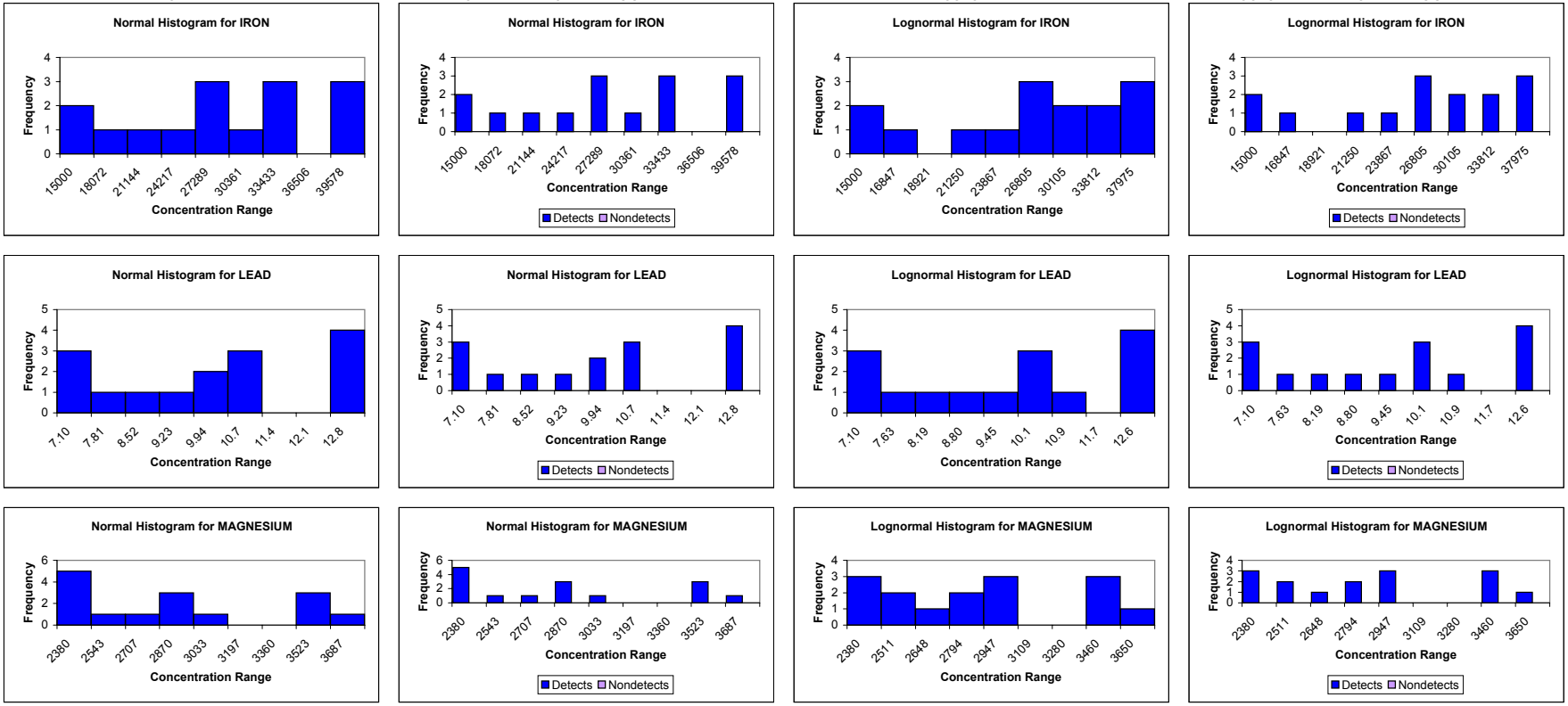
APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



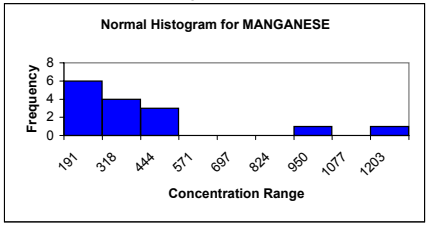
APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

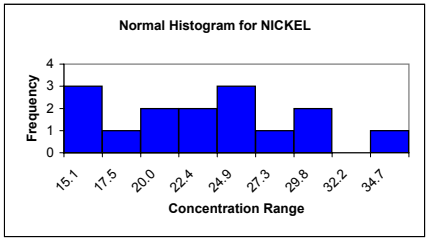
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

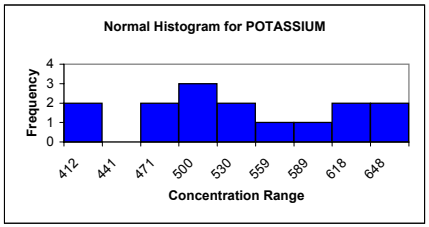


APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

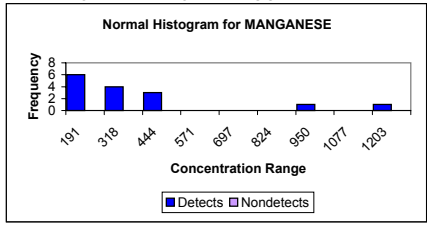
NORMAL

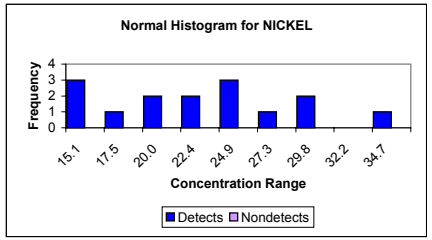


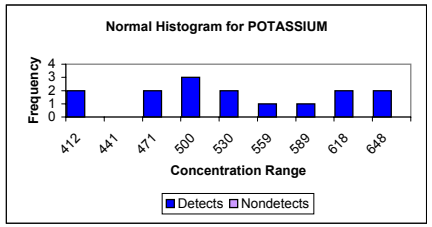




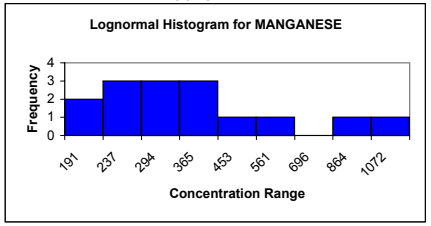
NORMAL WITH NONDETECTS SEPARATED

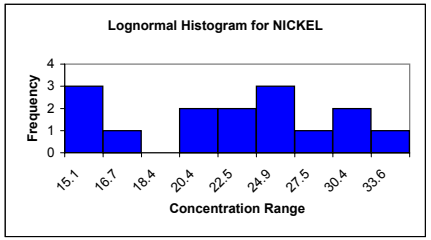


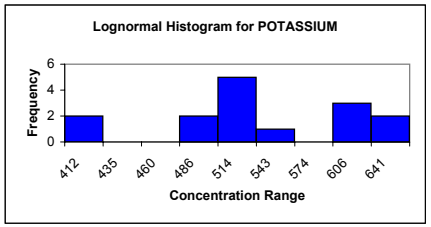




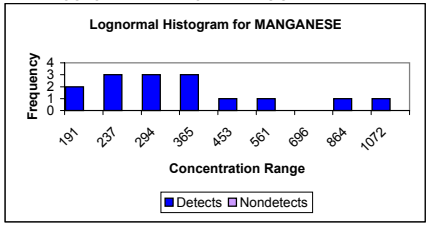
LOGNORMAL

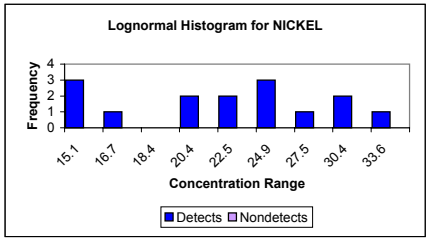


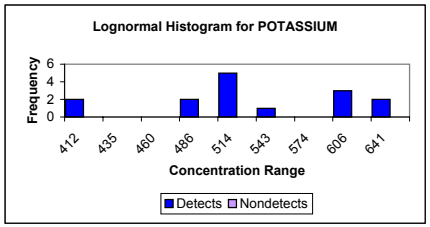




LOGNORMAL WITH NONDETECTS SEPARATED

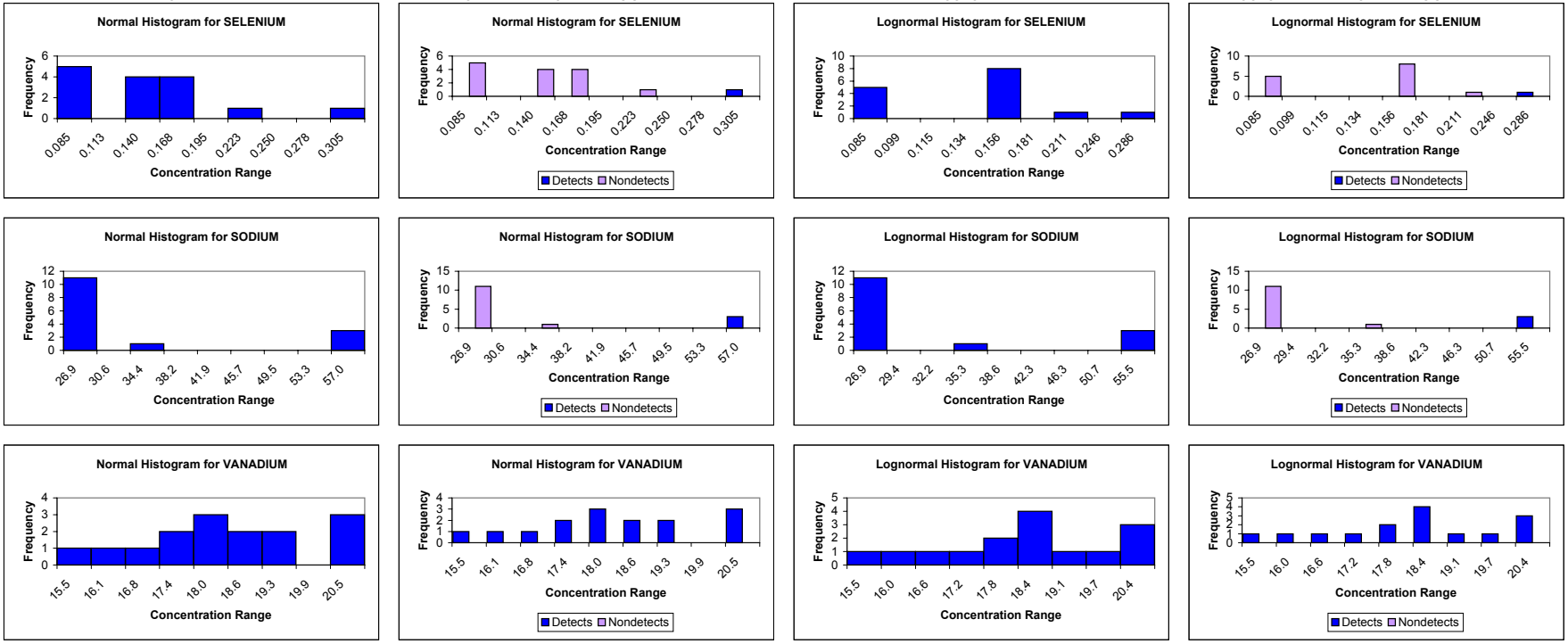






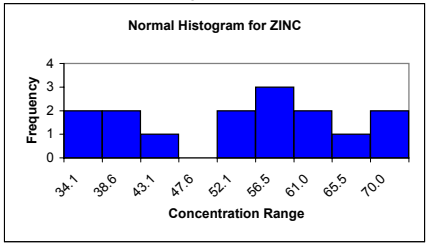
APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

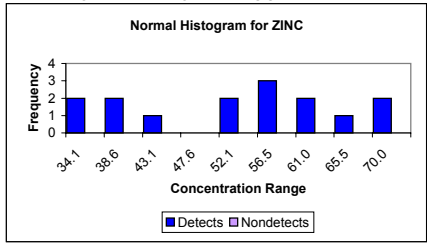


APPENDIX E, FIGURE E4-11
HISTOGRAMS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

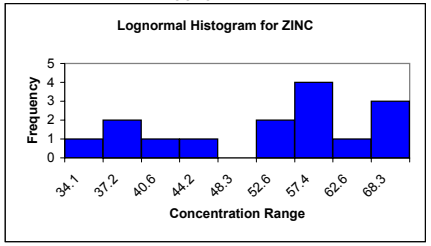
NORMAL



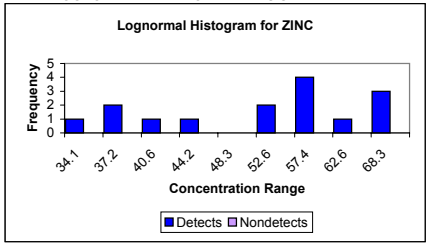
NORMAL WITH NONDETECTS SEPARATED



LOGNORMAL

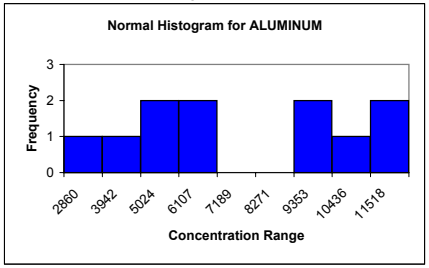


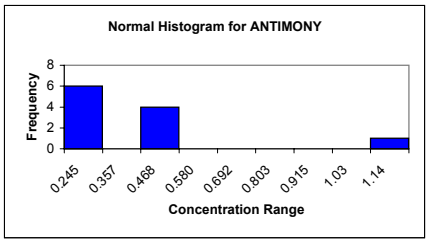
LOGNORMAL WITH NONDETECTS SEPARATED

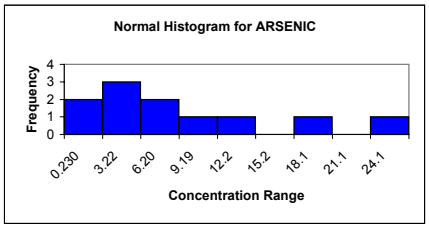


APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

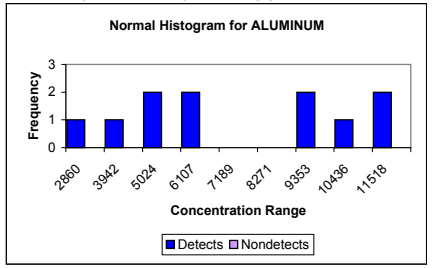
NORMAL

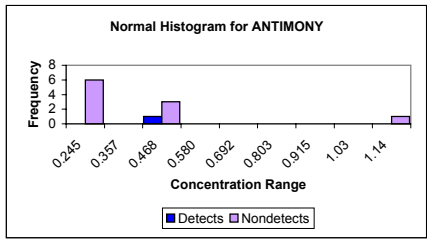


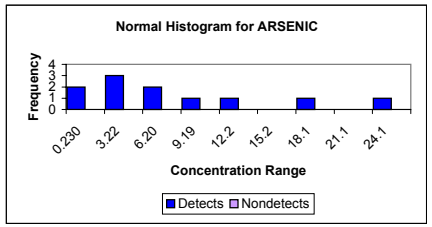




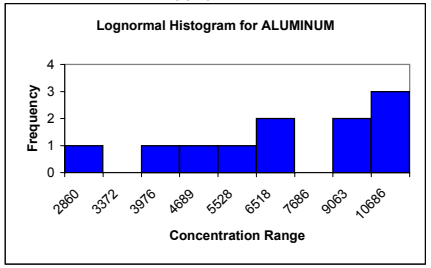
NORMAL WITH NONDETECTS SEPARATED

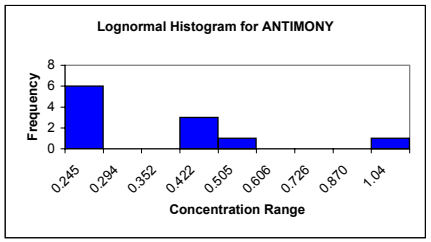


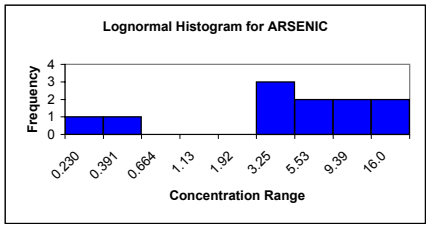




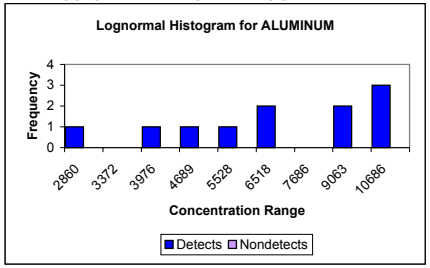
LOGNORMAL

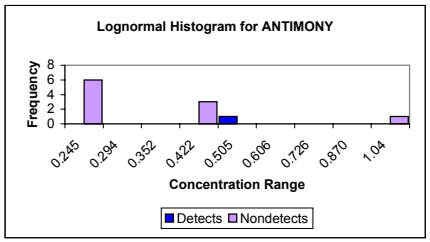


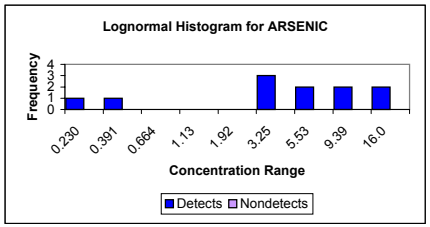




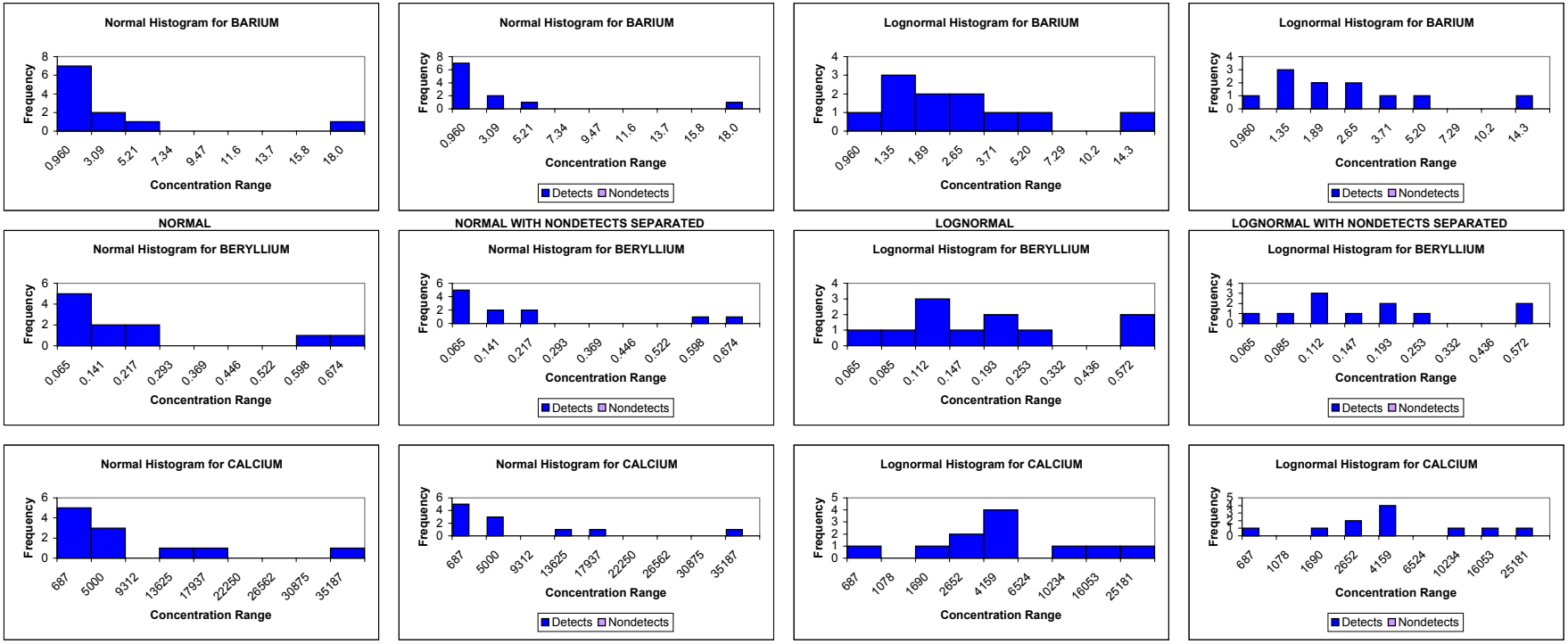
LOGNORMAL WITH NONDETECTS SEPARATED



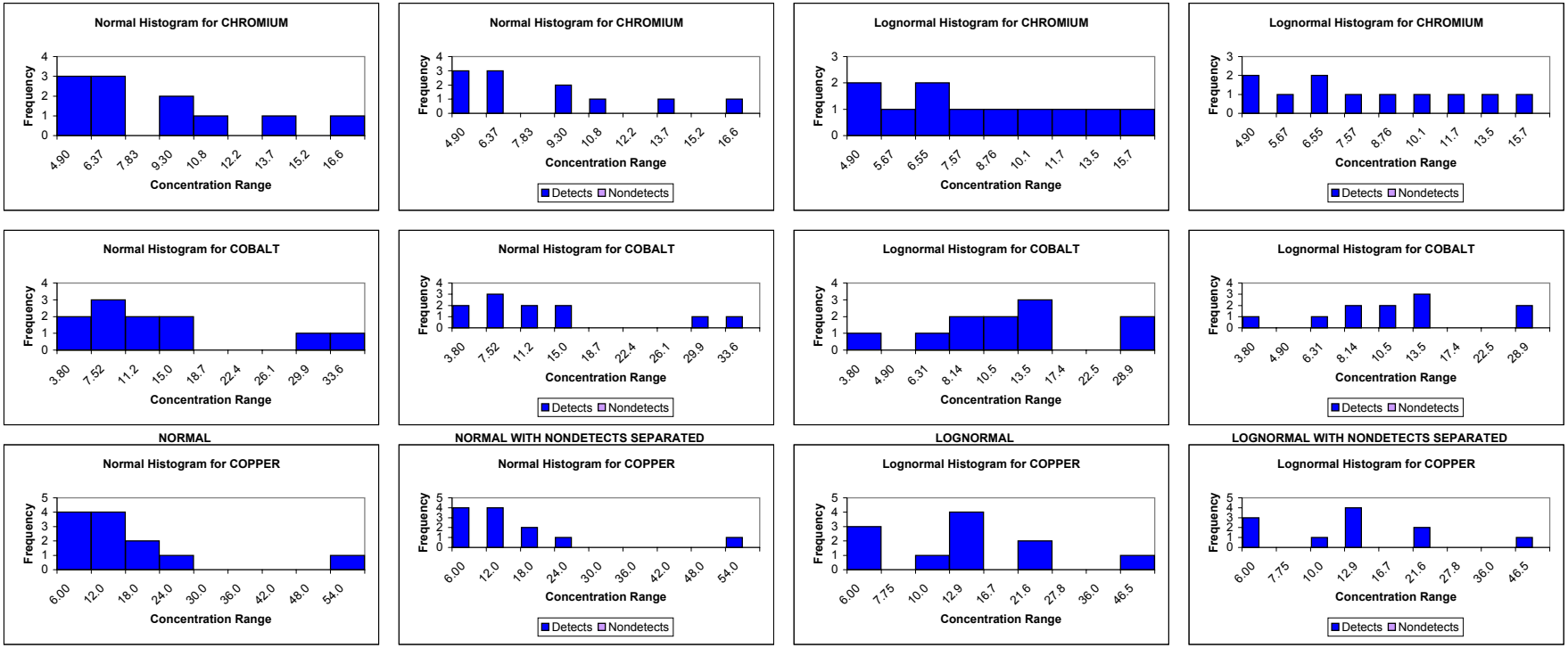




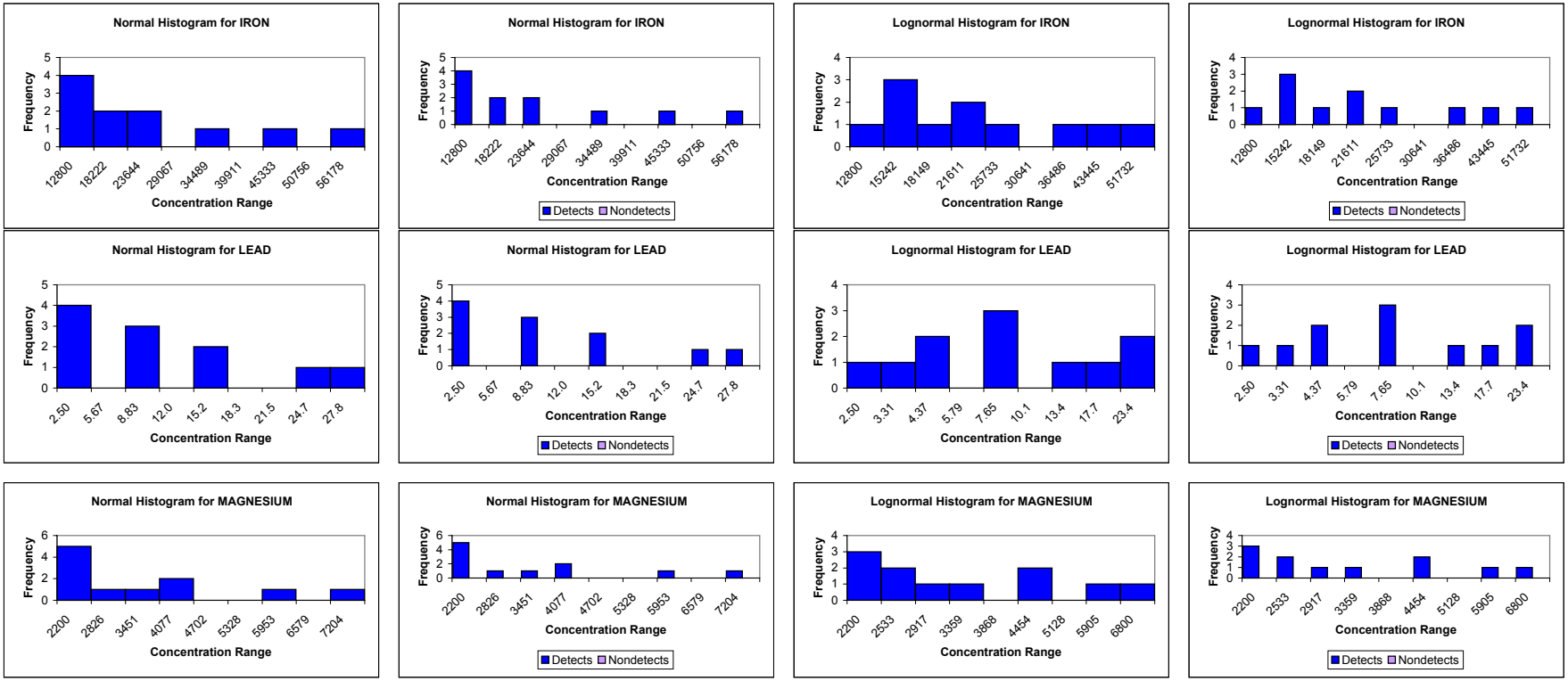
APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

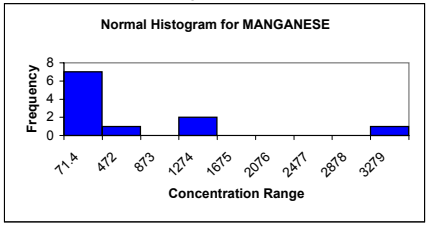


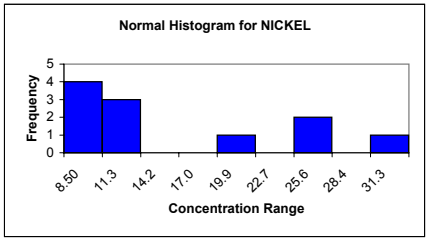
APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

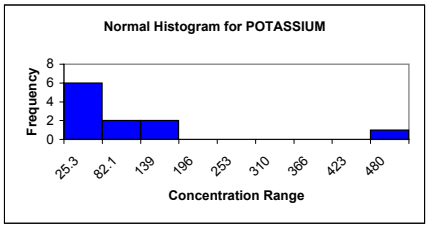


APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

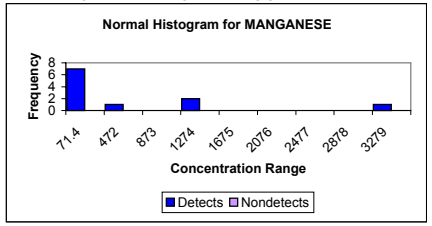
NORMAL

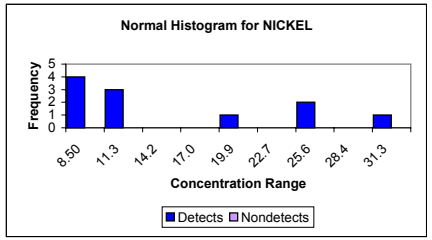


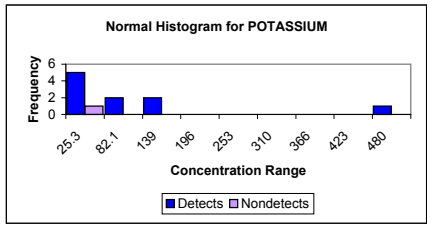




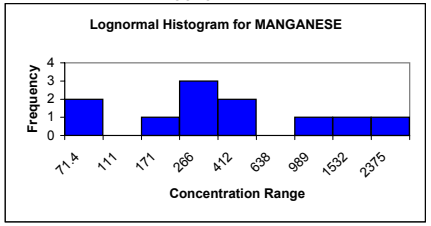
NORMAL WITH NONDETECTS SEPARATED

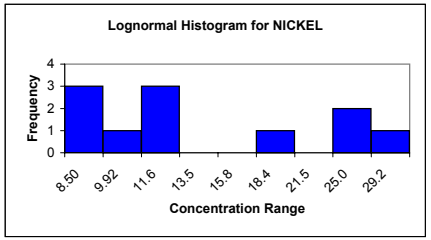


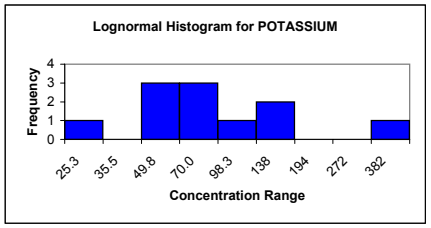




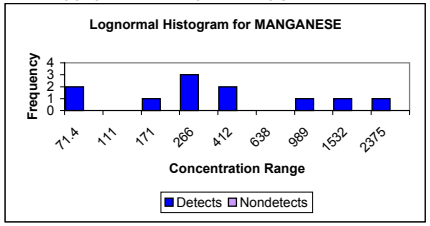
LOGNORMAL

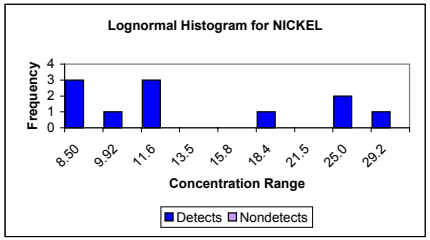


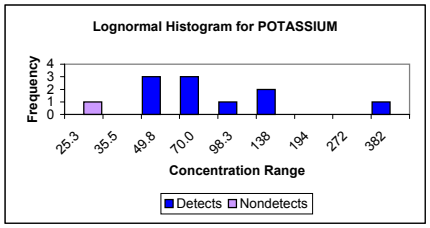




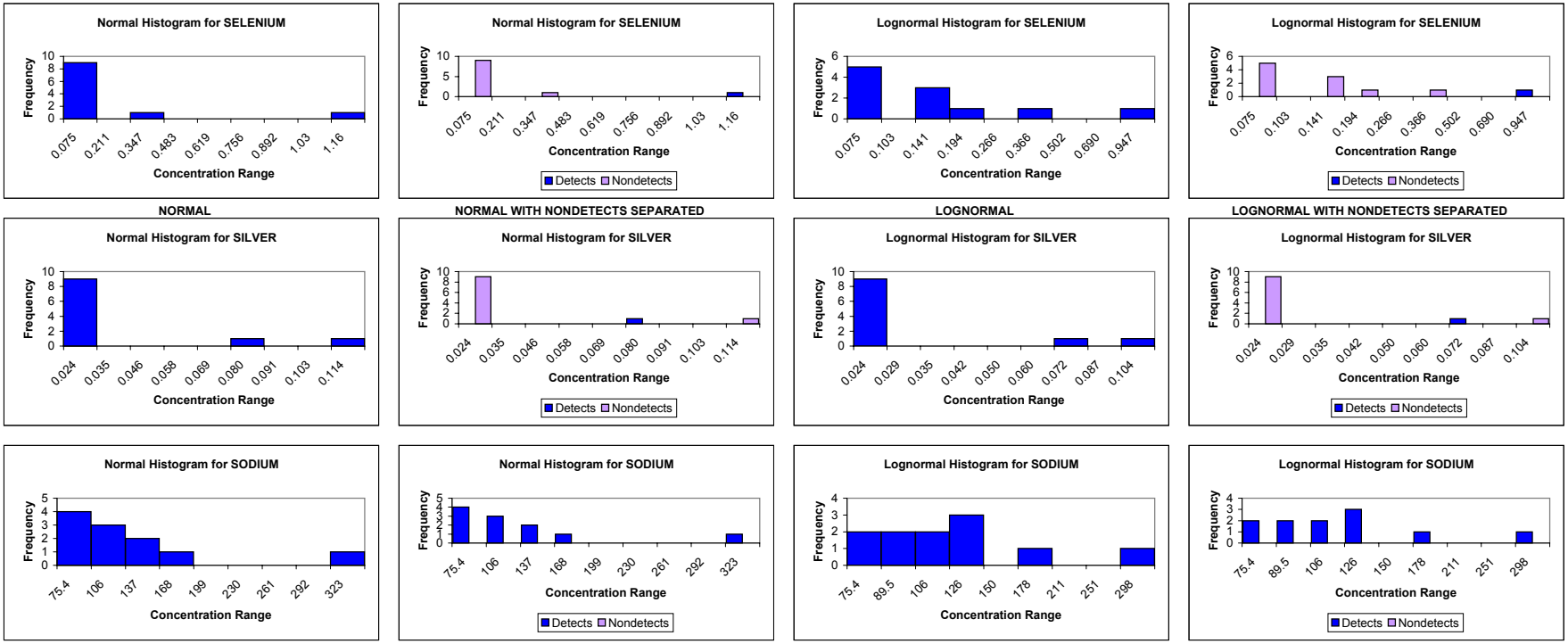
LOGNORMAL WITH NONDETECTS SEPARATED



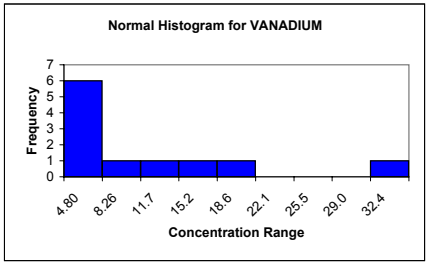


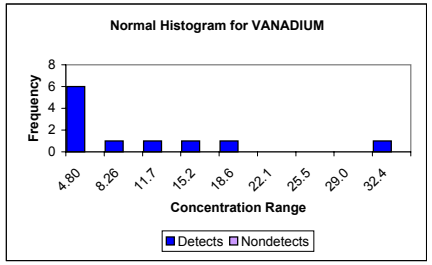


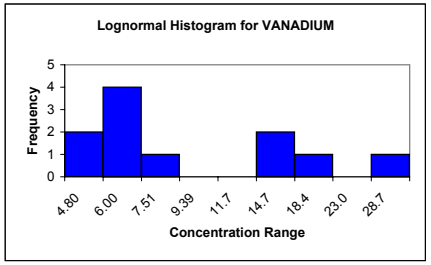
APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

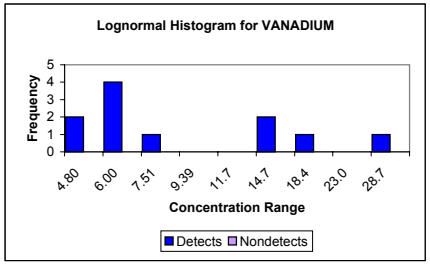


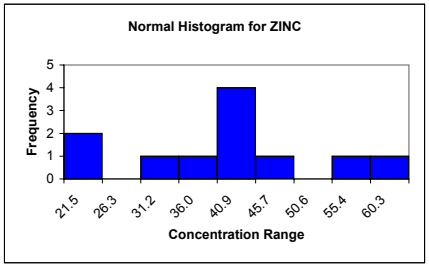
APPENDIX E, FIGURE E4-12
HISTOGRAMS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

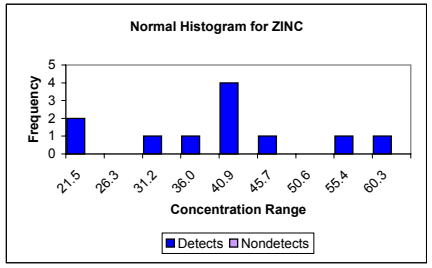


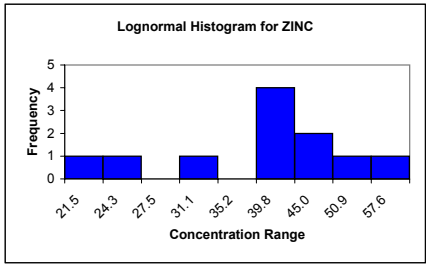


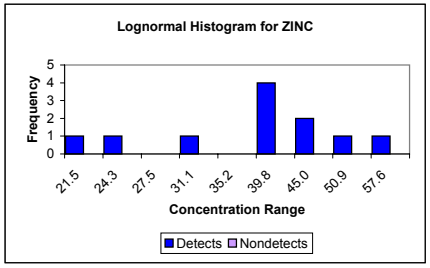






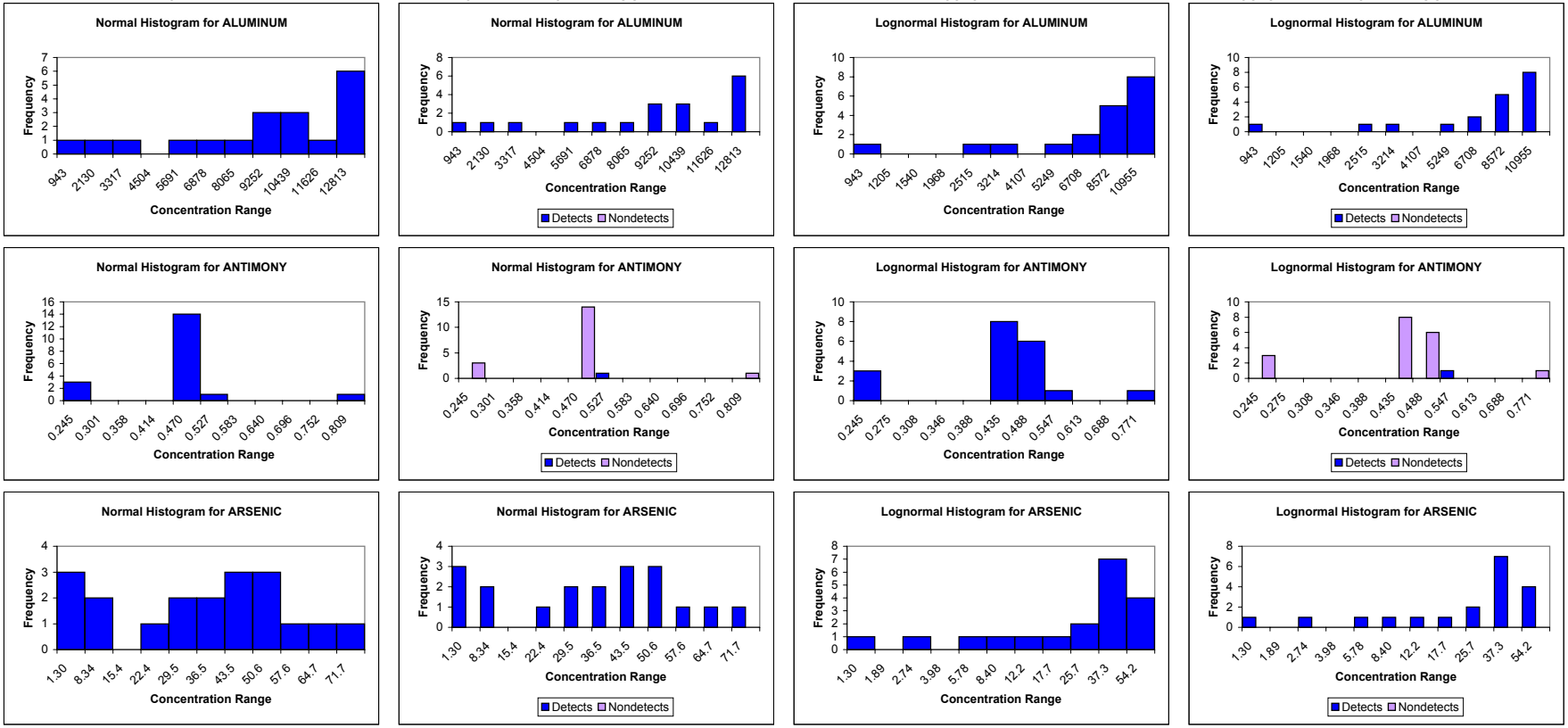






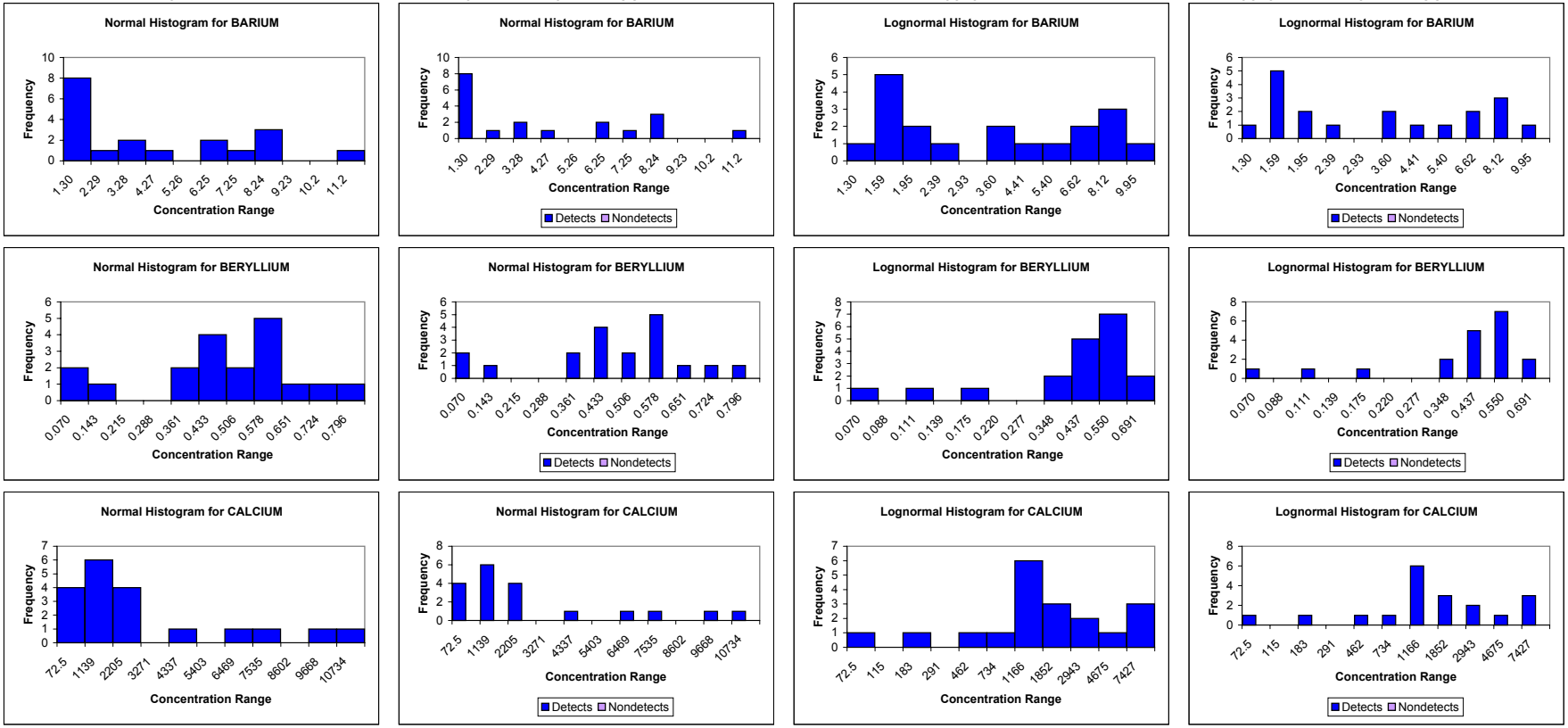
APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**



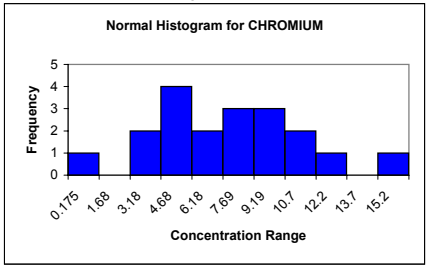
APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

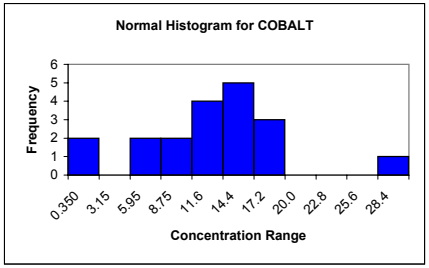
NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

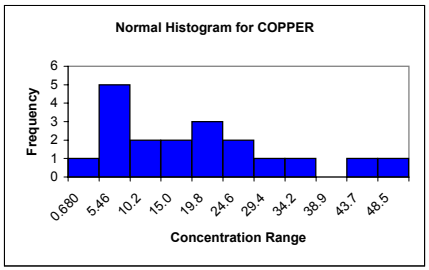


APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

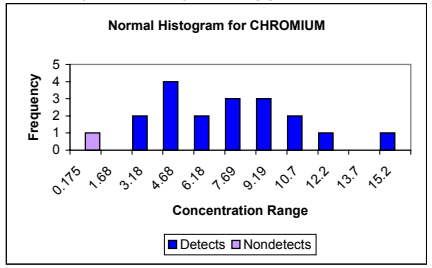
NORMAL

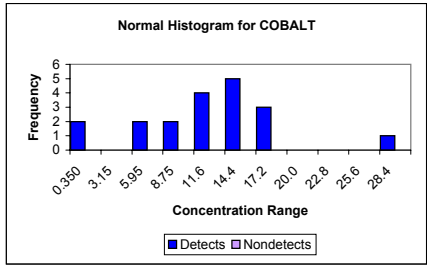


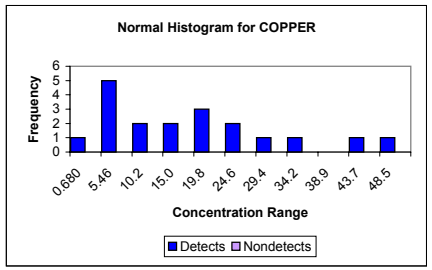




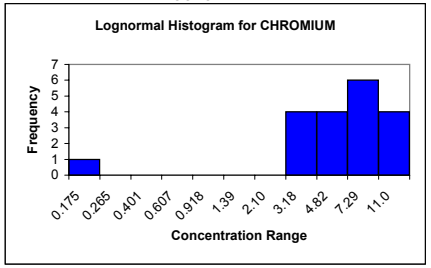
NORMAL WITH NONDETECTS SEPARATED

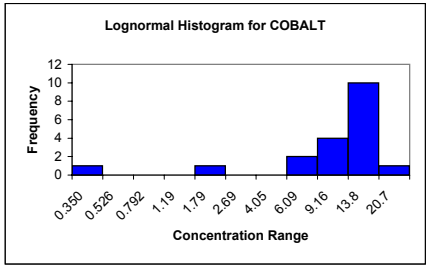


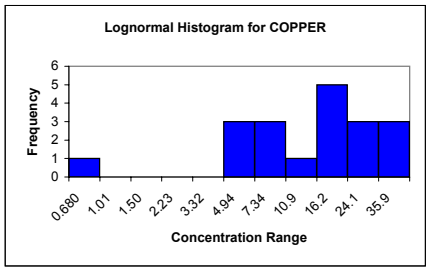




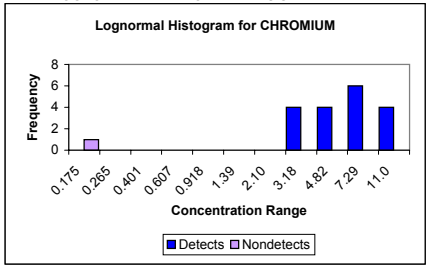
LOGNORMAL

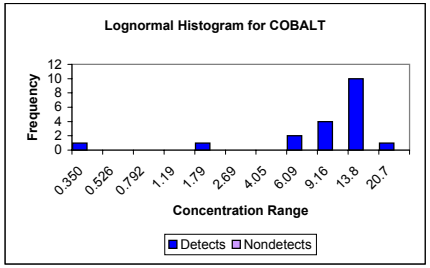


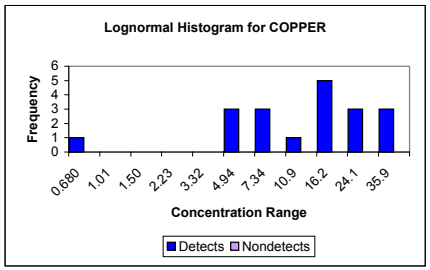




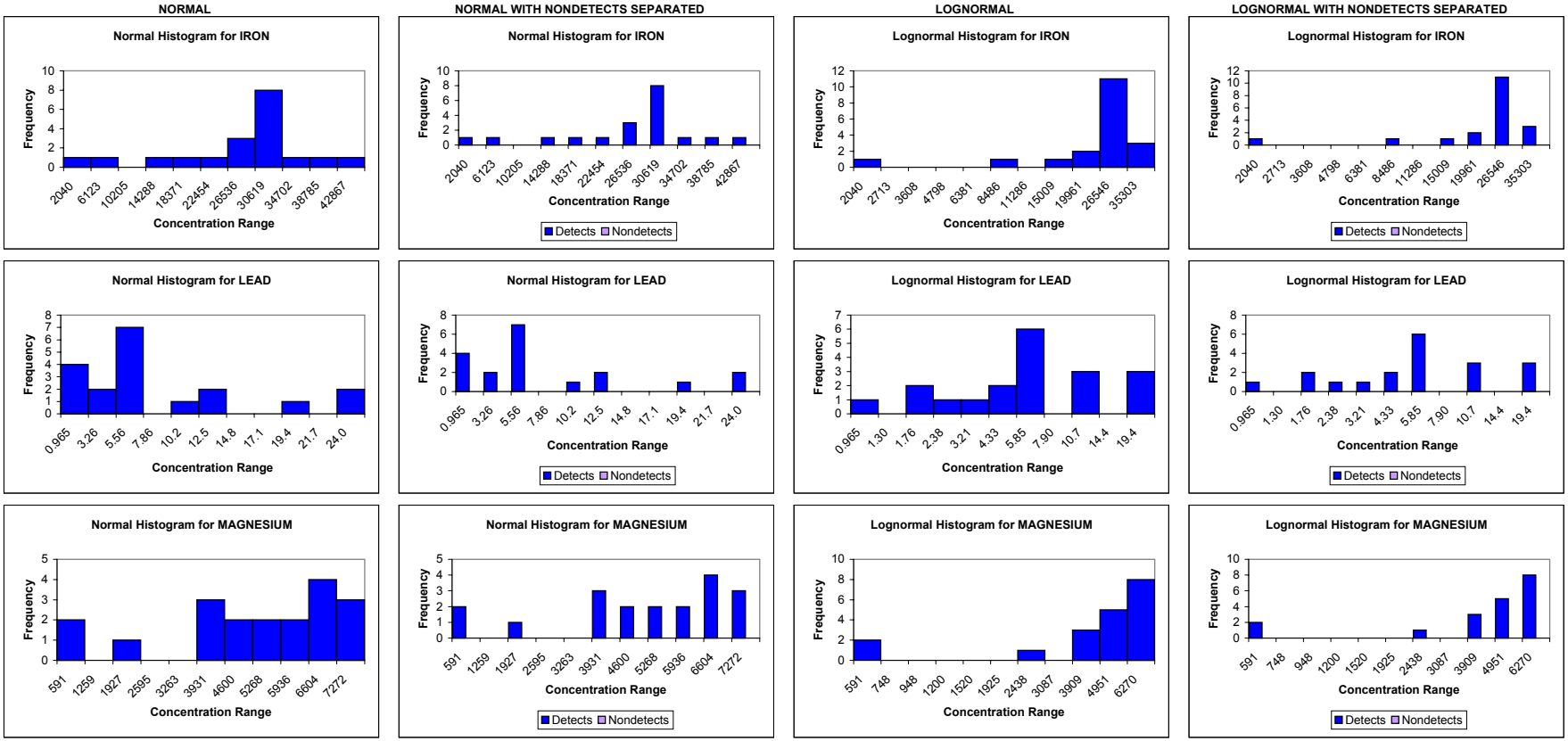
LOGNORMAL WITH NONDETECTS SEPARATED





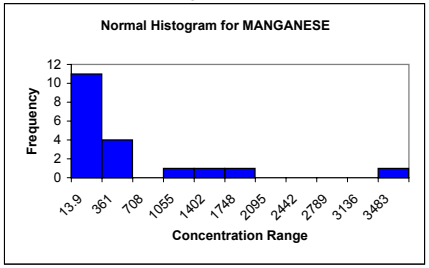


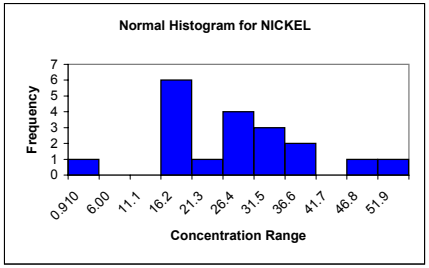
APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

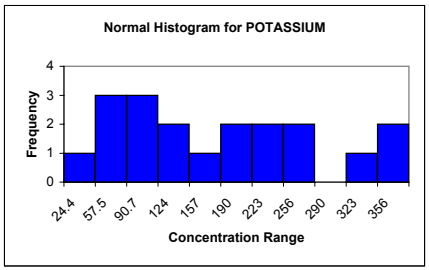


APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

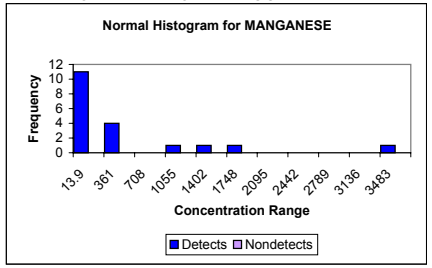
NORMAL

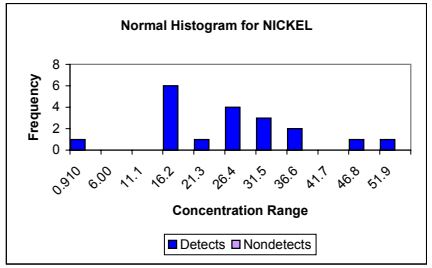


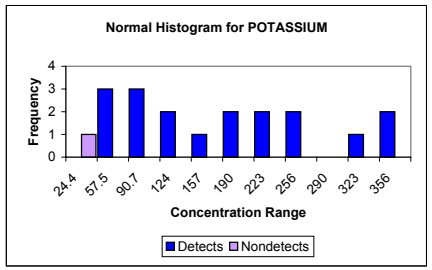




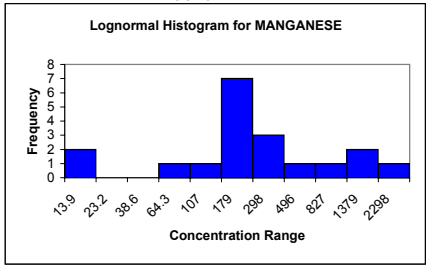
NORMAL WITH NONDETECTS SEPARATED

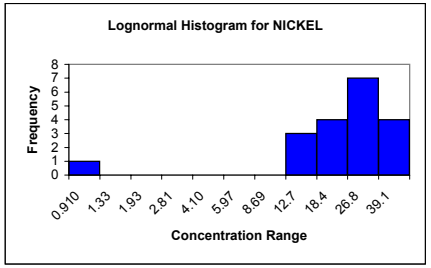


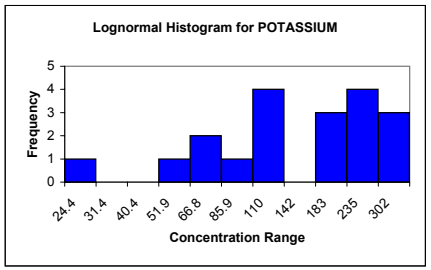




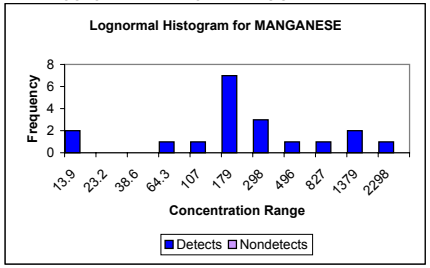
LOGNORMAL

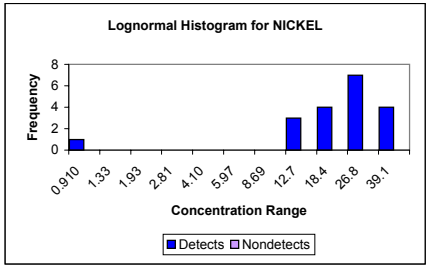


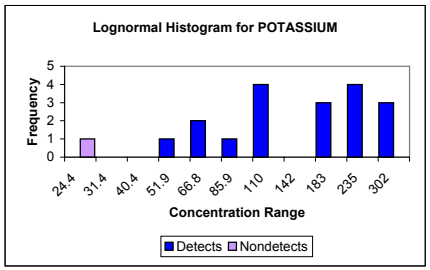




LOGNORMAL WITH NONDETECTS SEPARATED

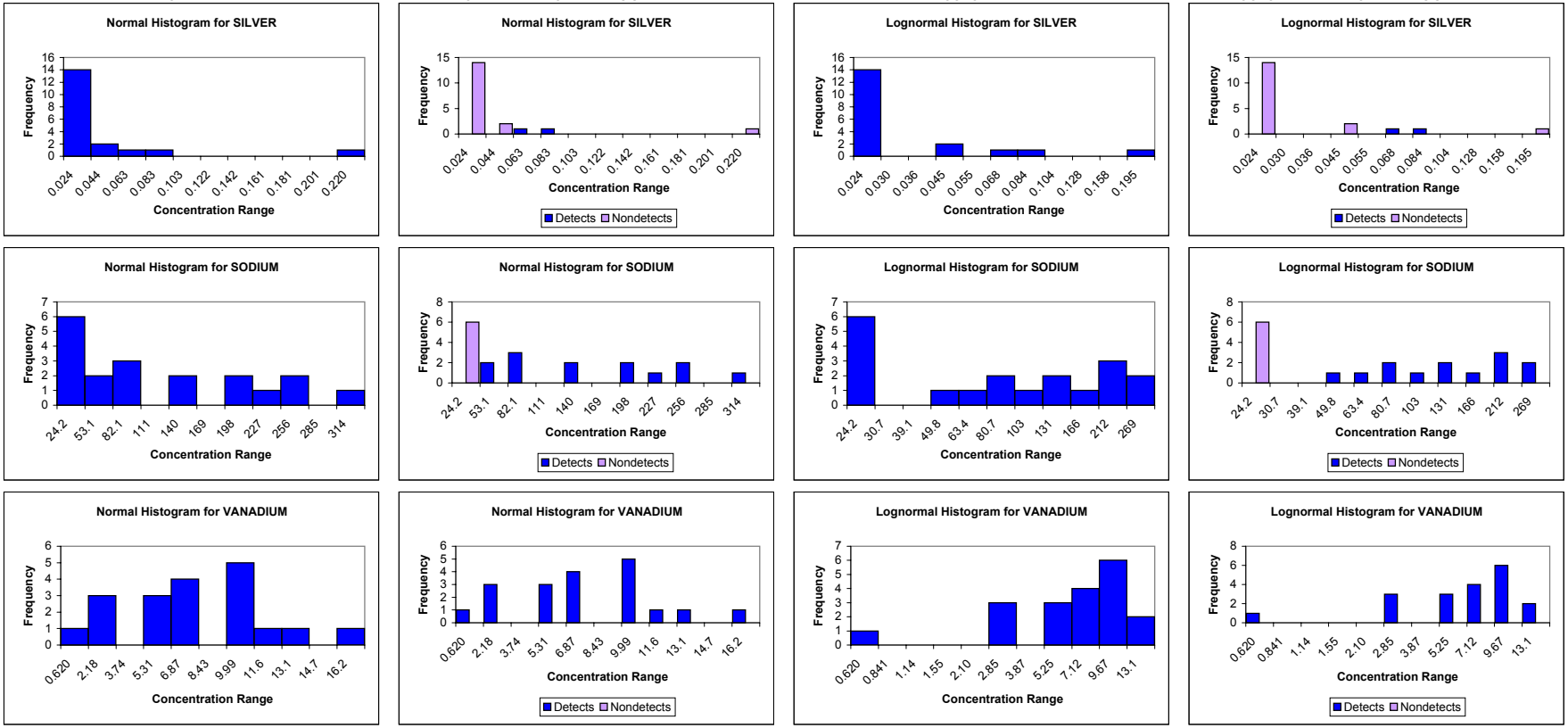






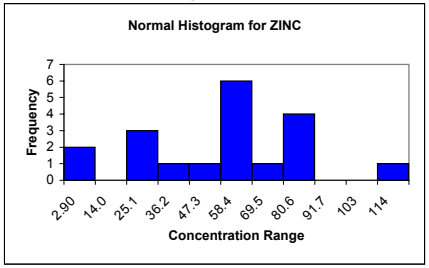
APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL | **NORMAL WITH NONDETECTS SEPARATED** | **LOGNORMAL** | **LOGNORMAL WITH NONDETECTS SEPARATED**

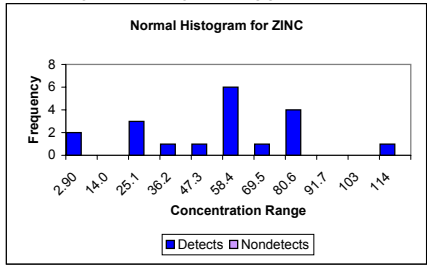


APPENDIX E, FIGURE E4-13
HISTOGRAMS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND REPORT
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

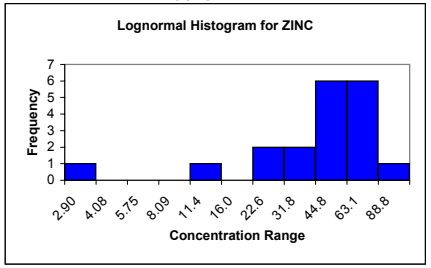
NORMAL



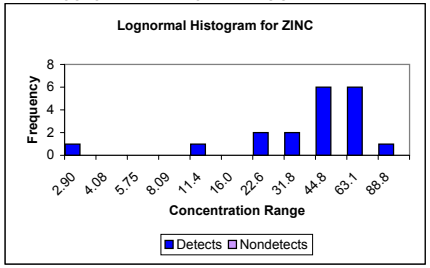
NORMAL WITH NONDETECTS SEPARATED



LOGNORMAL



LOGNORMAL WITH NONDETECTS SEPARATED



APPENDIX E, PART 5

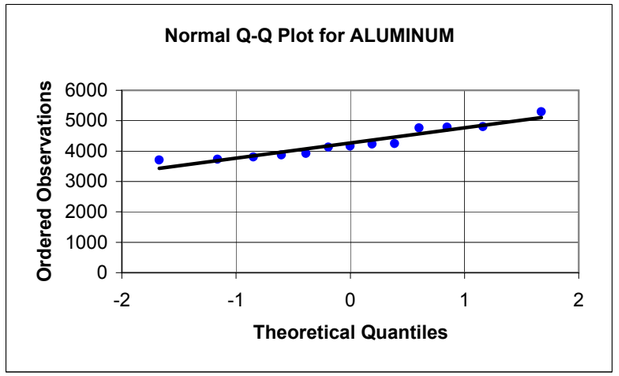
PROBABILITY PLOTS (NORMAL AND LOGNORMAL) FOR EACH SOIL TYPE

APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

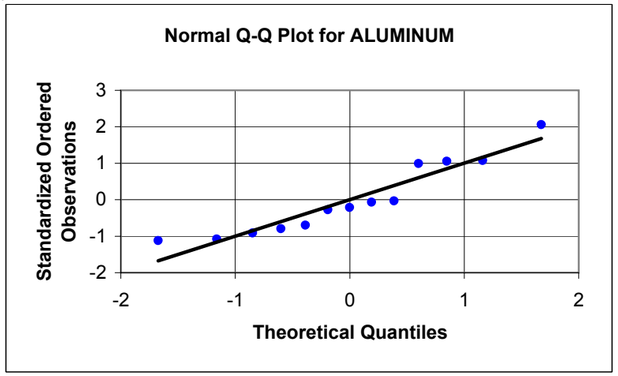
Frequency of Detection	13/13
Mean	4265
Standard Deviation	497
Slope =	498
Y Intercept =	4265
Correlation =	0.953
Shapiro-Wilks Statistics	0.899
Crtitical Value	0.866
Data are normal	



NORMAL - STANDARDIZED DATA

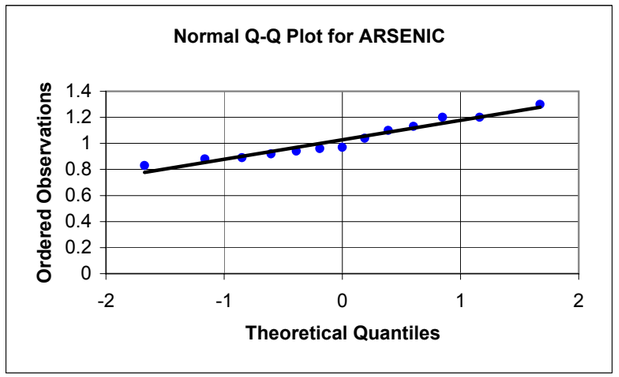
ALUMINUM

Frequency of Detection	13/13
Mean	4265
Standard Deviation	497
Slope =	1.00
Y Intercept =	0
Correlation =	0.953
Shapiro-Wilks Statistics	0.899
Crtitical Value	0.866
Data are normal	



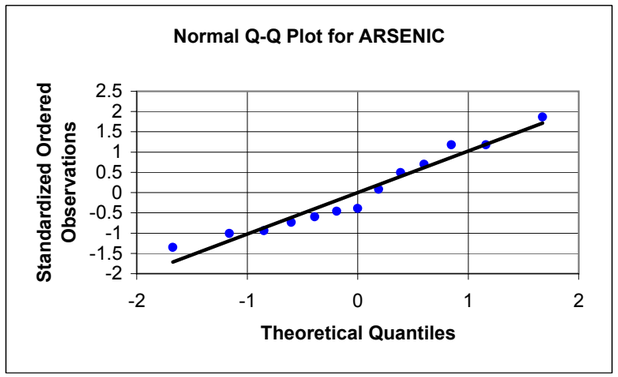
ARSENIC

Frequency of Detection	13/13
Mean	1.03
Standard Deviation	0.146
Slope =	0.150
Y Intercept =	1.03
Correlation =	0.975
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.866
Data are normal	



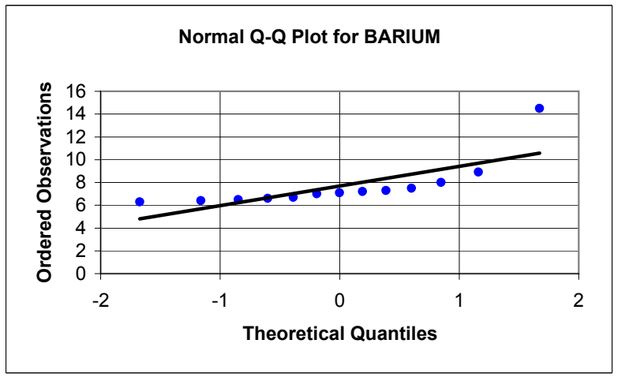
ARSENIC

Frequency of Detection	13/13
Mean	1.03
Standard Deviation	0.146
Slope =	1.03
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.866
Data are normal	



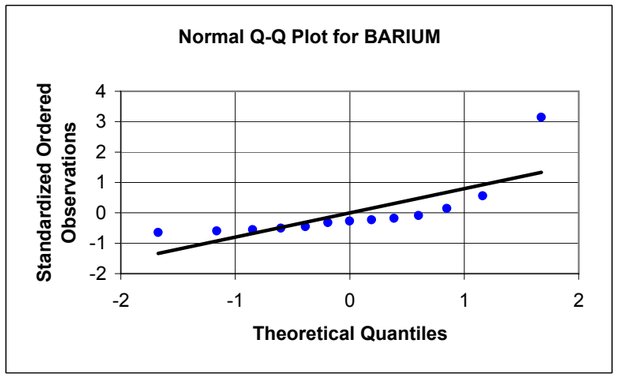
BARIUM

Frequency of Detection	13/13
Mean	7.69
Standard Deviation	2.17
Slope =	1.73
Y Intercept =	7.69
Correlation =	0.757
Shapiro-Wilks Statistics	0.600
Crtitical Value	0.866
Data are not normal	



BARIUM

Frequency of Detection	13/13
Mean	7.69
Standard Deviation	2.17
Slope =	0.797
Y Intercept =	0
Correlation =	0.757
Shapiro-Wilks Statistics	0.600
Crtitical Value	0.866
Data are not normal	

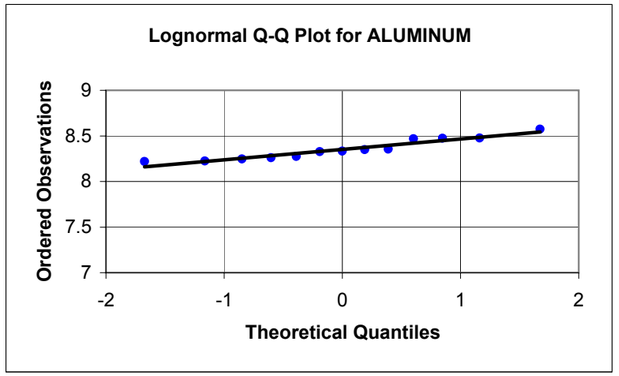


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

ALUMINUM

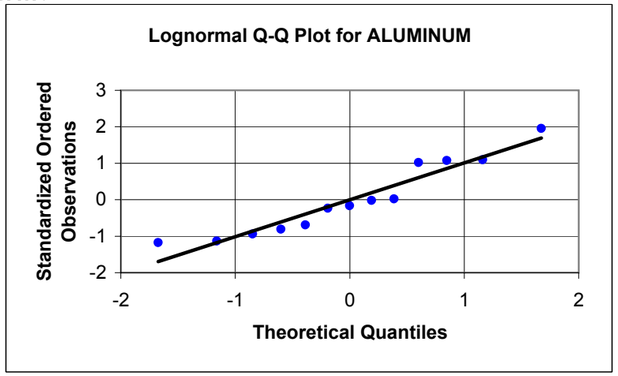
Frequency of Detection	13/13
Mean	8.35
Standard Deviation	0.113
Slope =	0.115
Y Intercept =	8.35
Correlation =	0.961
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.866
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

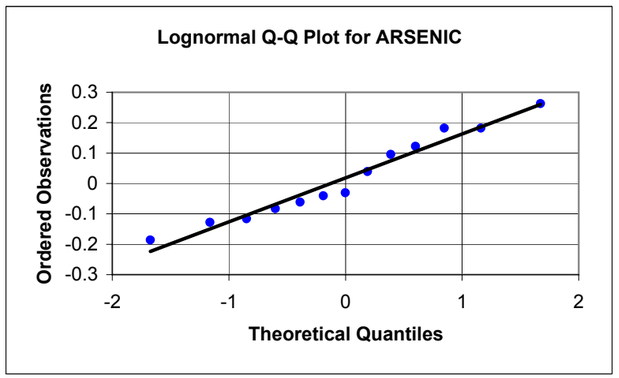
ALUMINUM

Frequency of Detection	13/13
Mean	8.35
Standard Deviation	0.113
Slope =	1.01
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.866
Data are lognormal	



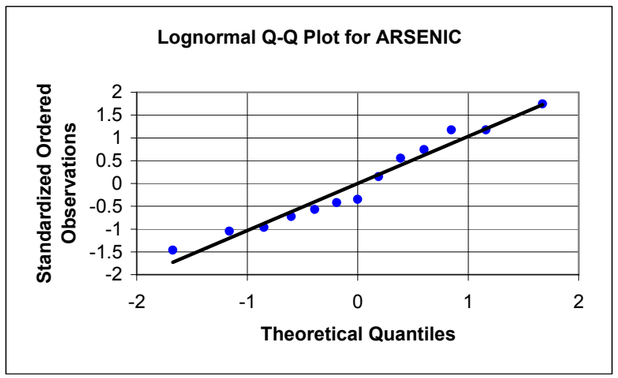
ARSENIC

Frequency of Detection	13/13
Mean	0.018
Standard Deviation	0.140
Slope =	0.144
Y Intercept =	0.018
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.866
Data are lognormal	



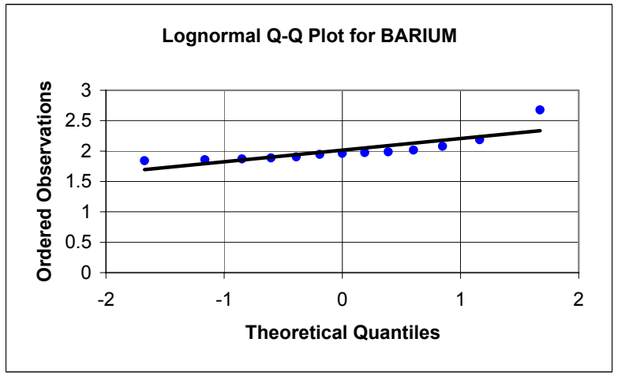
ARSENIC

Frequency of Detection	13/13
Mean	0.018
Standard Deviation	0.140
Slope =	1.03
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.866
Data are lognormal	



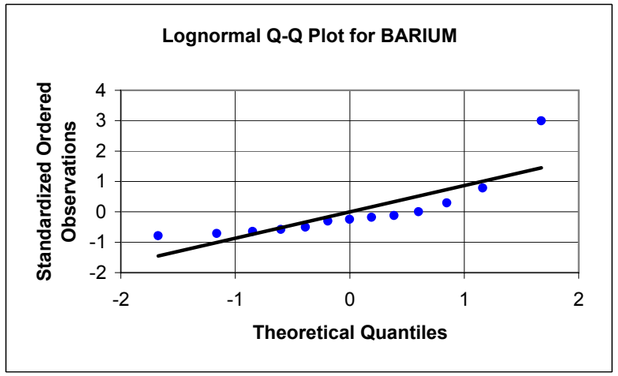
BARIUM

Frequency of Detection	13/13
Mean	2.01
Standard Deviation	0.220
Slope =	0.191
Y Intercept =	2.01
Correlation =	0.823
Shapiro-Wilks Statistics	0.700
Crtitical Value	0.866
Data are not lognormal	



BARIUM

Frequency of Detection	13/13
Mean	2.01
Standard Deviation	0.220
Slope =	0.866
Y Intercept =	0
Correlation =	0.823
Shapiro-Wilks Statistics	0.700
Crtitical Value	0.866
Data are not lognormal	

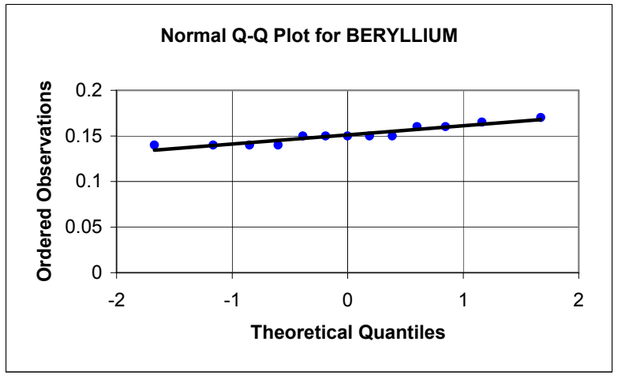


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

BERYLLIUM

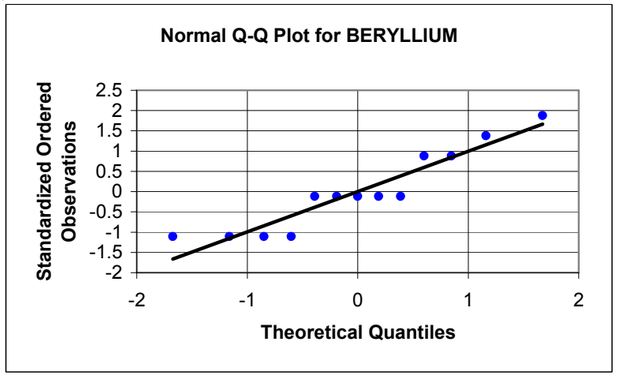
Frequency of Detection	13/13
Mean	0.151
Standard Deviation	0.010
Slope =	0.010
Y Intercept =	0.151
Correlation =	0.946
Shapiro-Wilks Statistics	0.881
Crtitical Value	0.866
Data are normal	



NORMAL - STANDARDIZED DATA

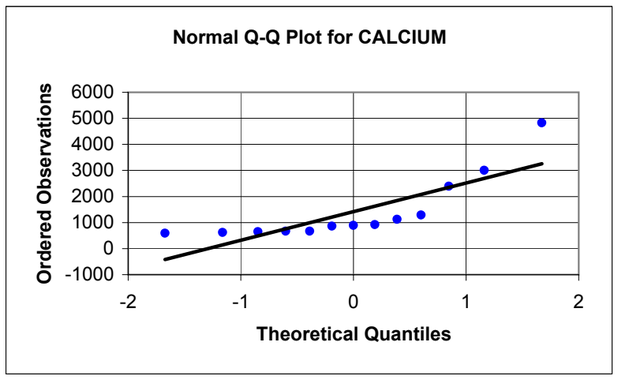
BERYLLIUM

Frequency of Detection	13/13
Mean	0.151
Standard Deviation	0.010
Slope =	0.996
Y Intercept =	0
Correlation =	0.946
Shapiro-Wilks Statistics	0.881
Crtitical Value	0.866
Data are normal	



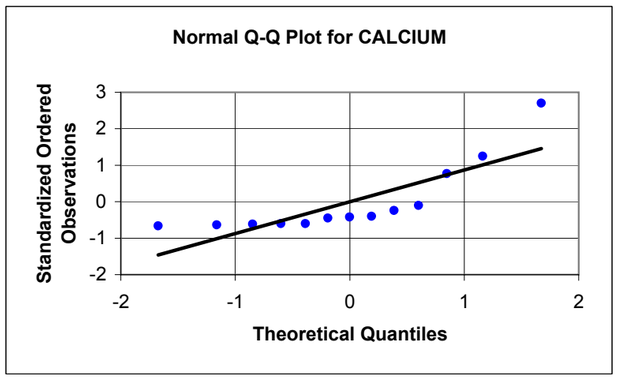
CALCIUM

Frequency of Detection	13/13
Mean	1422
Standard Deviation	1262
Slope =	1099
Y Intercept =	1422
Correlation =	0.828
Shapiro-Wilks Statistics	0.696
Crtitical Value	0.866
Data are not normal	



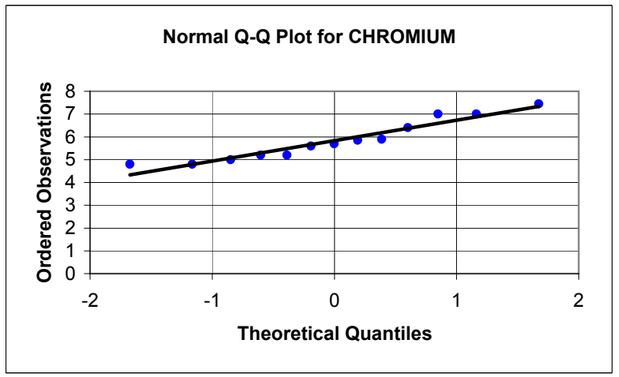
CALCIUM

Frequency of Detection	13/13
Mean	1422
Standard Deviation	1262
Slope =	0.871
Y Intercept =	0
Correlation =	0.828
Shapiro-Wilks Statistics	0.696
Crtitical Value	0.866
Data are not normal	



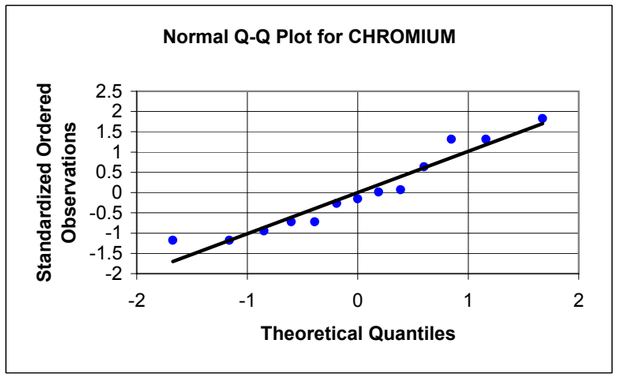
CHROMIUM

Frequency of Detection	13/13
Mean	5.84
Standard Deviation	0.883
Slope =	0.898
Y Intercept =	5.84
Correlation =	0.966
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.866
Data are normal	



CHROMIUM

Frequency of Detection	13/13
Mean	5.84
Standard Deviation	0.883
Slope =	1.02
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.866
Data are normal	

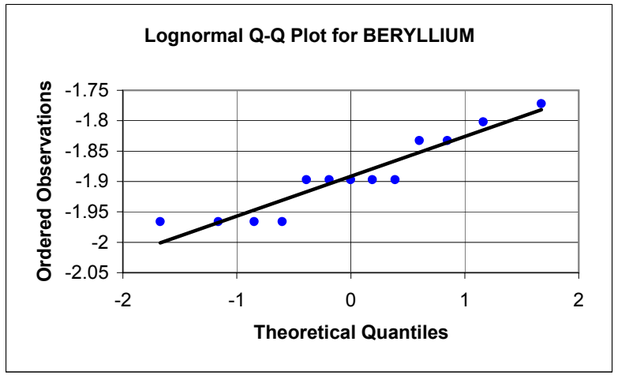


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

BERYLLIUM

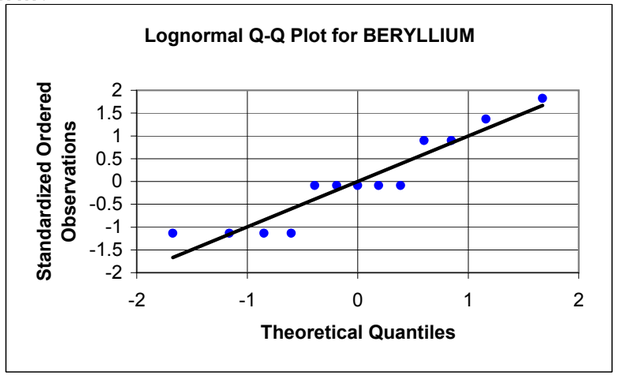
Frequency of Detection	13/13
Mean	-1.891
Standard Deviation	0.066
Slope =	0.065
Y Intercept =	-1.891
Correlation =	0.948
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.866
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

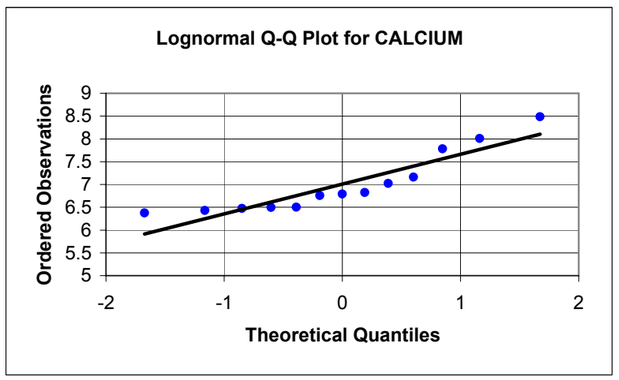
BERYLLIUM

Frequency of Detection	13/13
Mean	-1.891
Standard Deviation	0.066
Slope =	0.997
Y Intercept =	0
Correlation =	0.948
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.866
Data are lognormal	



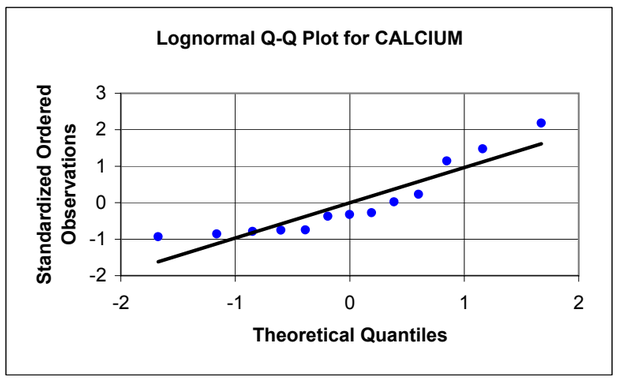
CALCIUM

Frequency of Detection	13/13
Mean	7.01
Standard Deviation	0.676
Slope =	0.653
Y Intercept =	7.01
Correlation =	0.919
Shapiro-Wilks Statistics	0.838
Crtitical Value	0.866
Data are not lognormal	



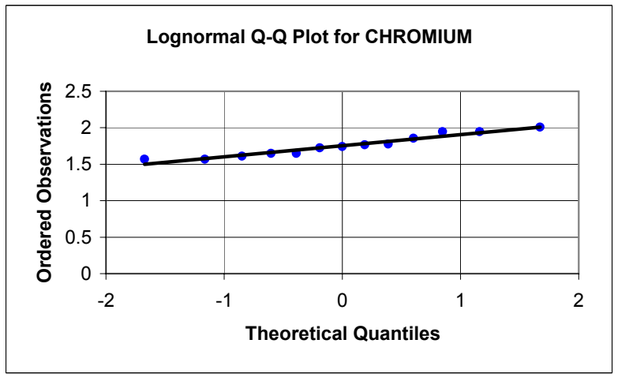
CALCIUM

Frequency of Detection	13/13
Mean	7.01
Standard Deviation	0.676
Slope =	0.967
Y Intercept =	0
Correlation =	0.919
Shapiro-Wilks Statistics	0.838
Crtitical Value	0.866
Data are not lognormal	



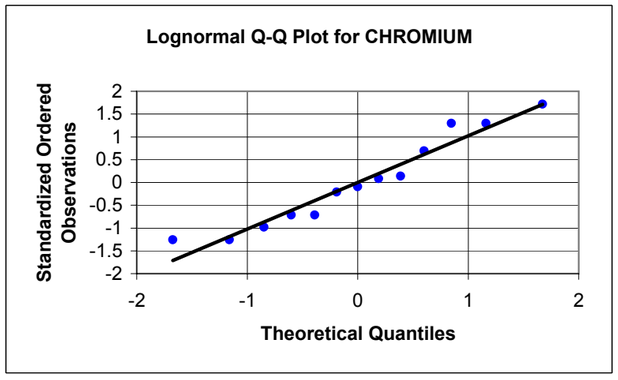
CHROMIUM

Frequency of Detection	13/13
Mean	1.75
Standard Deviation	0.148
Slope =	0.152
Y Intercept =	1.75
Correlation =	0.974
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.866
Data are lognormal	



CHROMIUM

Frequency of Detection	13/13
Mean	1.75
Standard Deviation	0.148
Slope =	1.02
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.866
Data are lognormal	

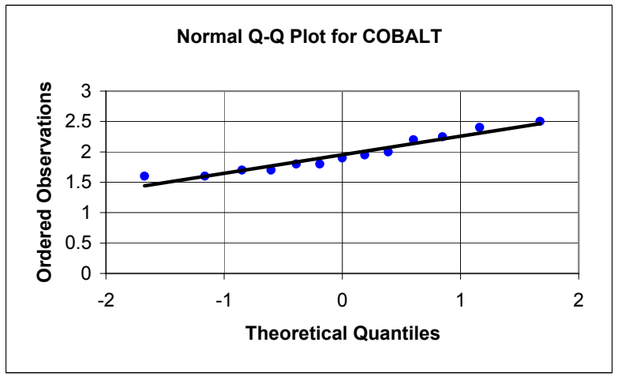


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

COBALT

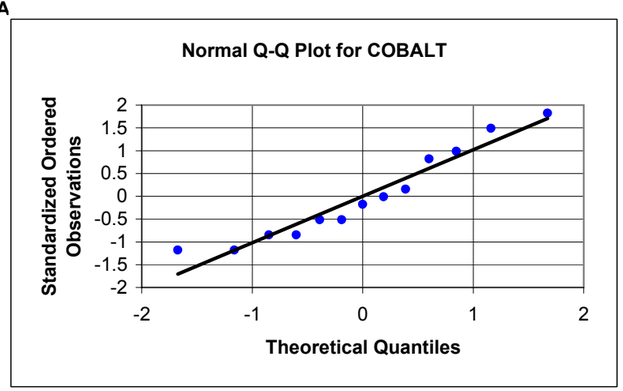
Frequency of Detection	13/13
Mean	1.95
Standard Deviation	0.300
Slope =	0.305
Y Intercept =	1.95
Correlation =	0.968
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.866
Data are normal	



NORMAL - STANDARDIZED DATA

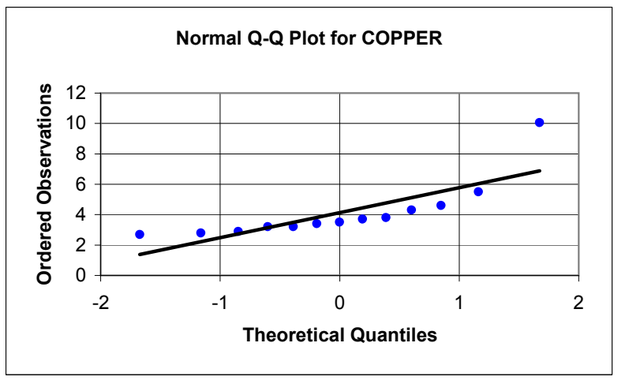
COBALT

Frequency of Detection	13/13
Mean	1.95
Standard Deviation	0.300
Slope =	1.02
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.866
Data are normal	



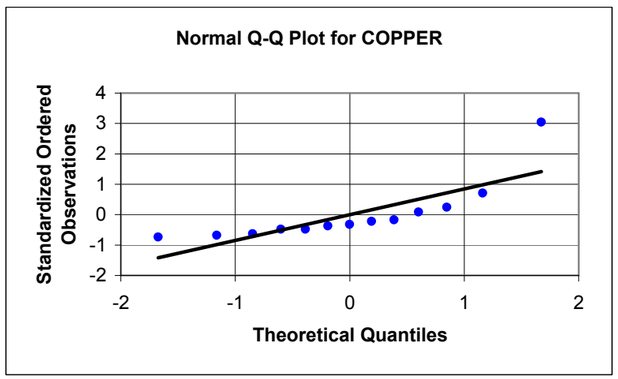
COPPER

Frequency of Detection	13/13
Mean	4.13
Standard Deviation	1.95
Slope =	1.65
Y Intercept =	4.13
Correlation =	0.803
Shapiro-Wilks Statistics	0.670
Crtitical Value	0.866
Data are not normal	



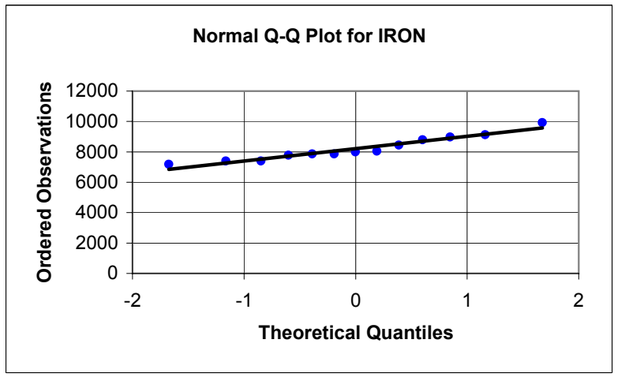
COPPER

Frequency of Detection	13/13
Mean	4.13
Standard Deviation	1.95
Slope =	0.845
Y Intercept =	0
Correlation =	0.803
Shapiro-Wilks Statistics	0.670
Crtitical Value	0.866
Data are not normal	



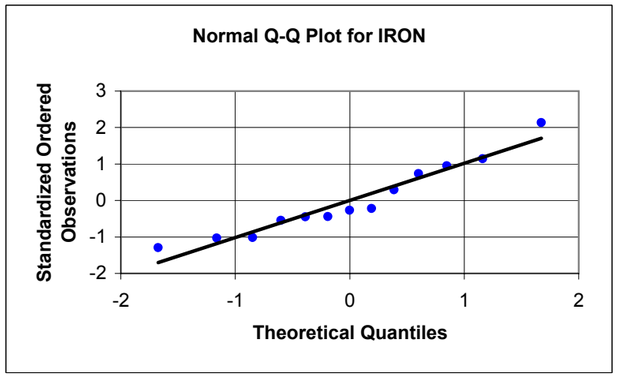
IRON

Frequency of Detection	13/13
Mean	8214
Standard Deviation	799
Slope =	814
Y Intercept =	8214
Correlation =	0.968
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.866
Data are normal	



IRON

Frequency of Detection	13/13
Mean	8214
Standard Deviation	799
Slope =	1.02
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.866
Data are normal	

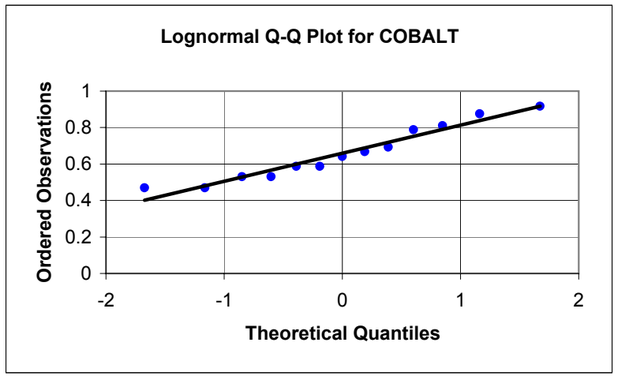


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

COBALT

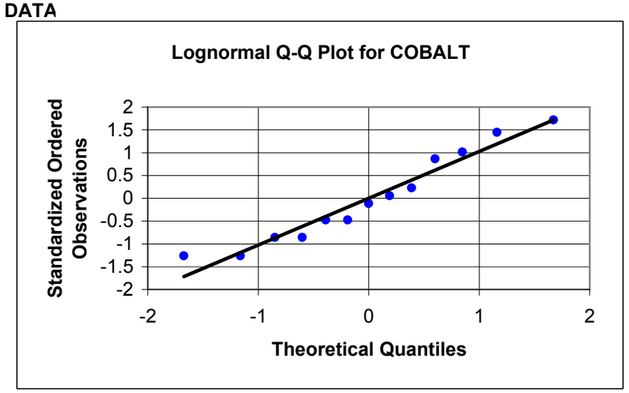
Frequency of Detection	13/13
Mean	0.659
Standard Deviation	0.150
Slope =	0.154
Y Intercept =	0.659
Correlation =	0.976
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.866
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

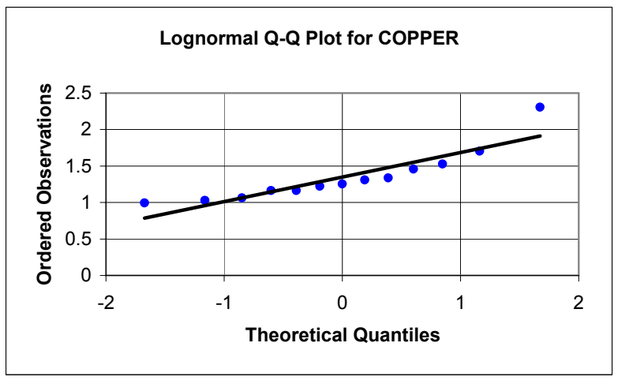
COBALT

Frequency of Detection	13/13
Mean	0.659
Standard Deviation	0.150
Slope =	1.03
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.866
Data are lognormal	



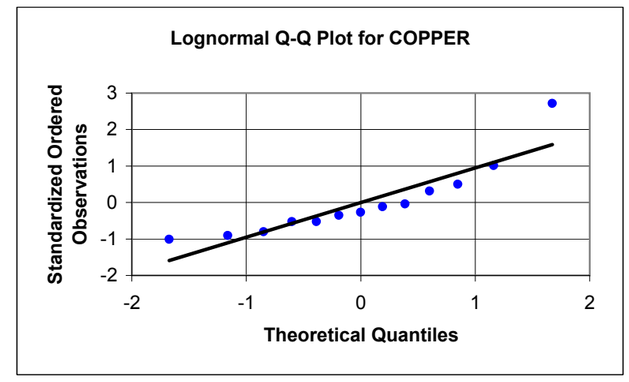
COPPER

Frequency of Detection	13/13
Mean	1.35
Standard Deviation	0.353
Slope =	0.336
Y Intercept =	1.35
Correlation =	0.904
Shapiro-Wilks Statistics	0.831
Crtitical Value	0.866
Data are not lognormal	



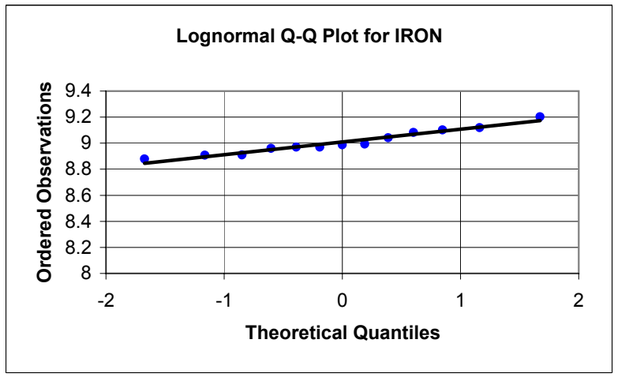
COPPER

Frequency of Detection	13/13
Mean	1.35
Standard Deviation	0.353
Slope =	0.951
Y Intercept =	0
Correlation =	0.904
Shapiro-Wilks Statistics	0.831
Crtitical Value	0.866
Data are not lognormal	



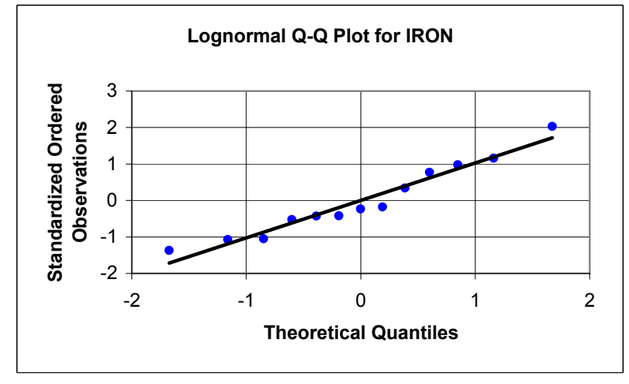
IRON

Frequency of Detection	13/13
Mean	9.01
Standard Deviation	0.095
Slope =	0.098
Y Intercept =	9.01
Correlation =	0.976
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.866
Data are lognormal	



IRON

Frequency of Detection	13/13
Mean	9.01
Standard Deviation	0.095
Slope =	1.03
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.866
Data are lognormal	

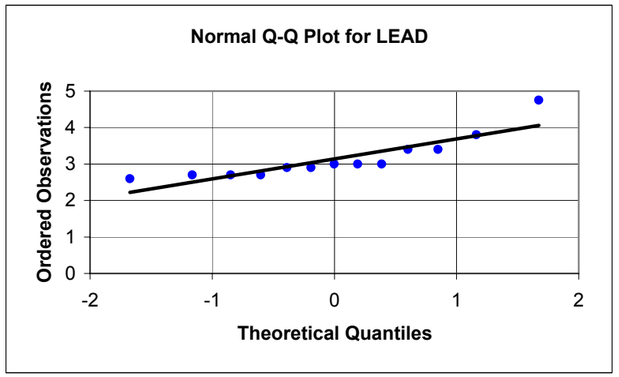


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

LEAD

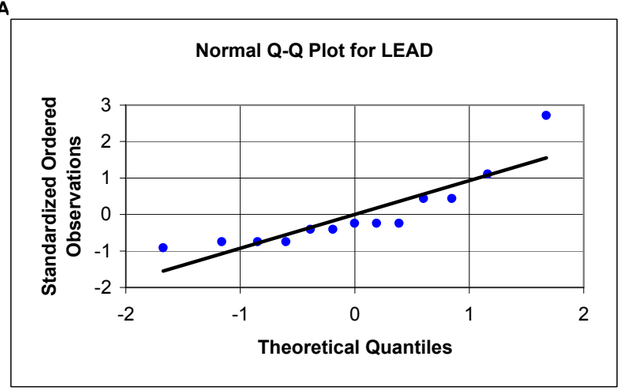
Frequency of Detection	13/13
Mean	3.14
Standard Deviation	0.592
Slope =	0.549
Y Intercept =	3.14
Correlation =	0.881
Shapiro-Wilks Statistics	0.789
Crtitical Value	0.866
Data are not normal	



NORMAL - STANDARDIZED DATA

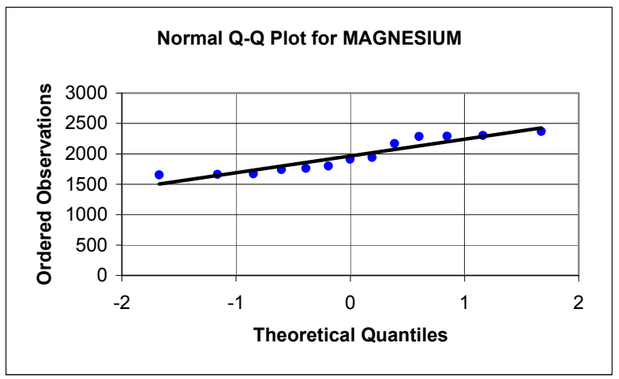
LEAD

Frequency of Detection	13/13
Mean	3.14
Standard Deviation	0.592
Slope =	0.927
Y Intercept =	0
Correlation =	0.881
Shapiro-Wilks Statistics	0.789
Crtitical Value	0.866
Data are not normal	



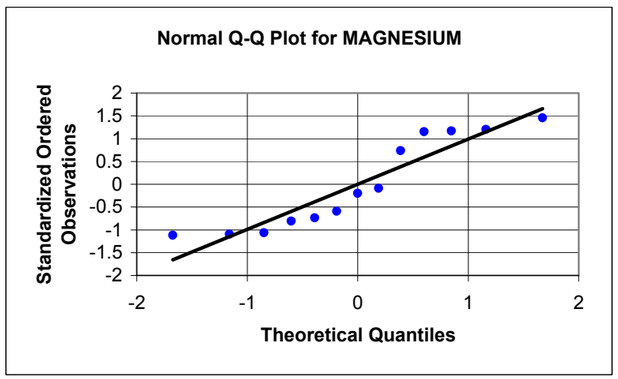
MAGNESIUM

Frequency of Detection	13/13
Mean	1965
Standard Deviation	278
Slope =	275
Y Intercept =	1965
Correlation =	0.941
Shapiro-Wilks Statistics	0.858
Crtitical Value	0.866
Data are not normal	



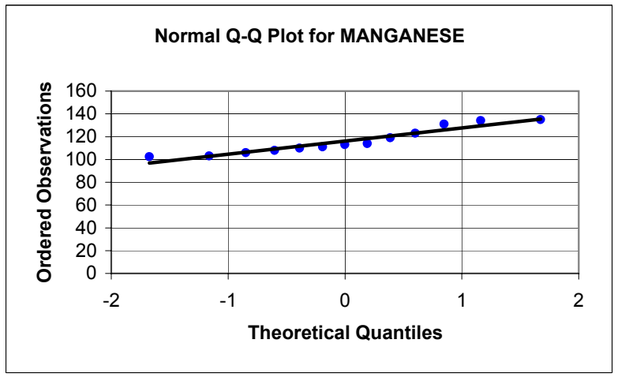
MAGNESIUM

Frequency of Detection	13/13
Mean	1965
Standard Deviation	278
Slope =	0.990
Y Intercept =	0
Correlation =	0.941
Shapiro-Wilks Statistics	0.858
Crtitical Value	0.866
Data are not normal	



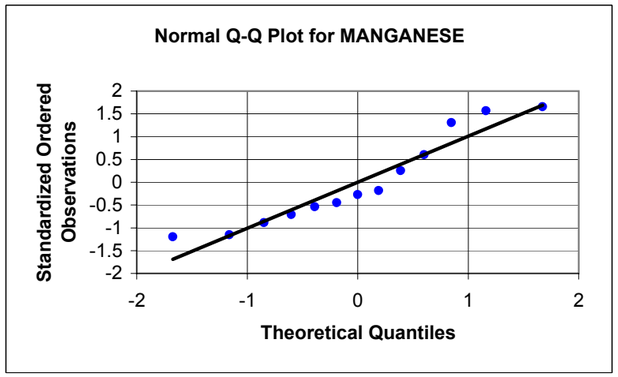
MANGANESE

Frequency of Detection	13/13
Mean	116
Standard Deviation	11.4
Slope =	11.5
Y Intercept =	116
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.866
Data are normal	



MANGANESE

Frequency of Detection	13/13
Mean	116
Standard Deviation	11.4
Slope =	1.01
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.866
Data are normal	

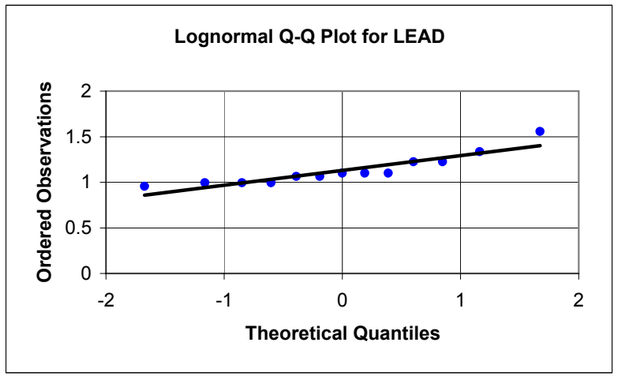


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

LEAD

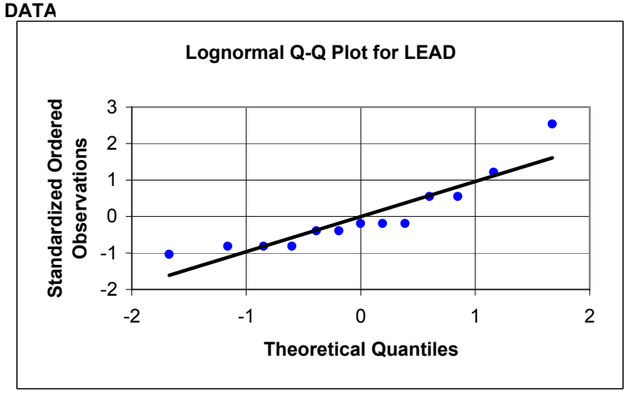
Frequency of Detection	13/13
Mean	1.13
Standard Deviation	0.169
Slope =	0.162
Y Intercept =	1.13
Correlation =	0.915
Shapiro-Wilks Statistics	0.846
Crtitical Value	0.866
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

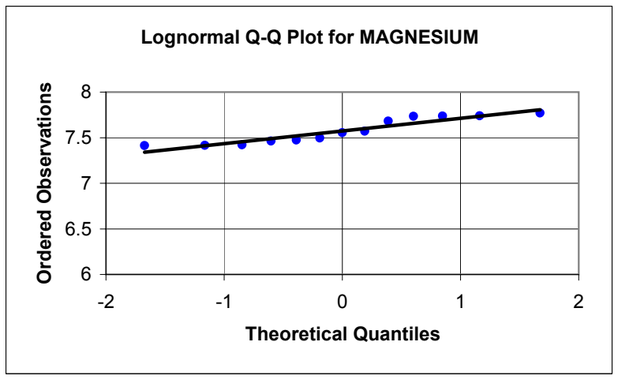
LEAD

Frequency of Detection	13/13
Mean	1.13
Standard Deviation	0.169
Slope =	0.963
Y Intercept =	0
Correlation =	0.915
Shapiro-Wilks Statistics	0.846
Crtitical Value	0.866
Data are not lognormal	



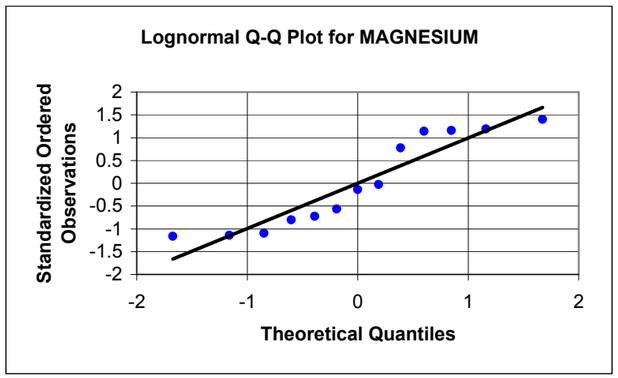
MAGNESIUM

Frequency of Detection	13/13
Mean	7.57
Standard Deviation	0.140
Slope =	0.139
Y Intercept =	7.57
Correlation =	0.945
Shapiro-Wilks Statistics	0.864
Crtitical Value	0.866
Data are not lognormal	



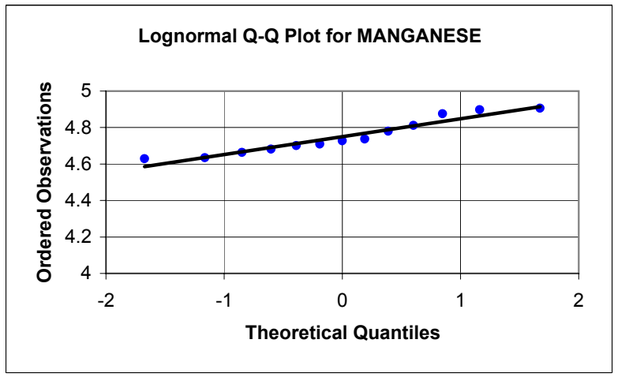
MAGNESIUM

Frequency of Detection	13/13
Mean	7.57
Standard Deviation	0.140
Slope =	0.994
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.864
Crtitical Value	0.866
Data are not lognormal	



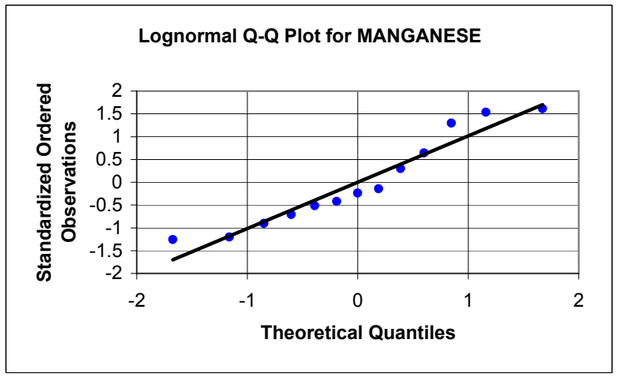
MANGANESE

Frequency of Detection	13/13
Mean	4.75
Standard Deviation	0.096
Slope =	0.098
Y Intercept =	4.75
Correlation =	0.967
Shapiro-Wilks Statistics	0.914
Crtitical Value	0.866
Data are lognormal	



MANGANESE

Frequency of Detection	13/13
Mean	4.75
Standard Deviation	0.096
Slope =	1.02
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.914
Crtitical Value	0.866
Data are lognormal	

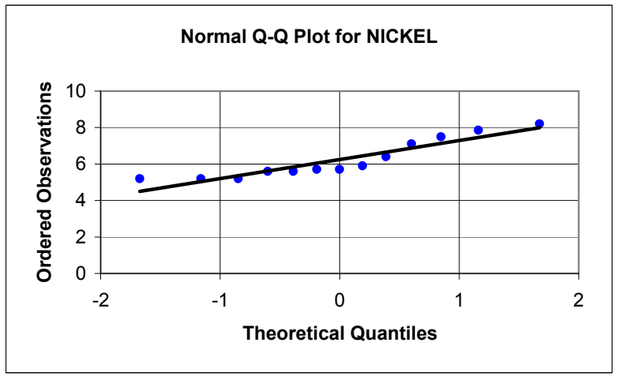


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

NICKEL

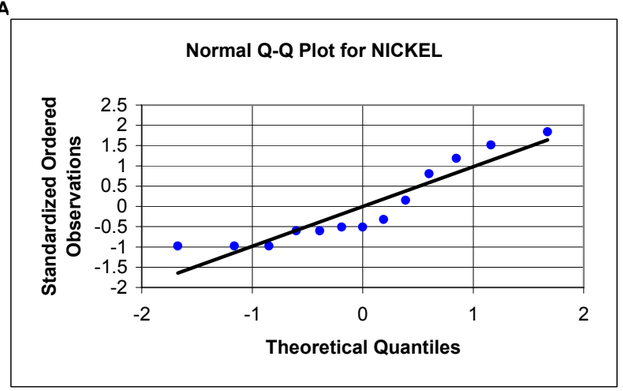
Frequency of Detection	13/13
Mean	6.24
Standard Deviation	1.06
Slope =	1.04
Y Intercept =	6.24
Correlation =	0.933
Shapiro-Wilks Statistics	0.852
Crtitical Value	0.866
Data are not normal	



NORMAL - STANDARDIZED DATA

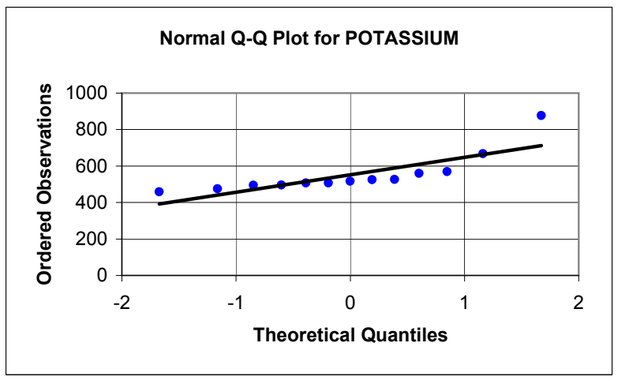
NICKEL

Frequency of Detection	13/13
Mean	6.24
Standard Deviation	1.06
Slope =	0.982
Y Intercept =	0
Correlation =	0.933
Shapiro-Wilks Statistics	0.852
Crtitical Value	0.866
Data are not normal	



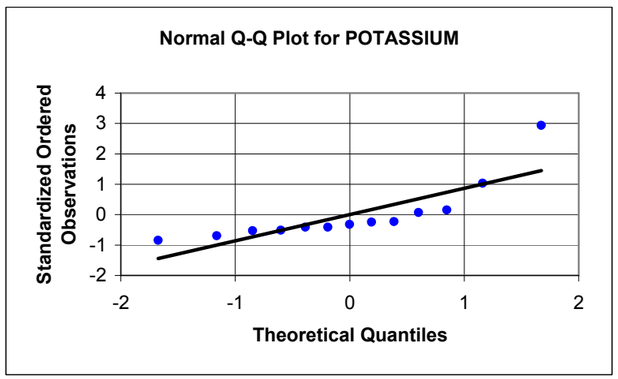
POTASSIUM

Frequency of Detection	13/13
Mean	552
Standard Deviation	111
Slope =	95.6
Y Intercept =	552
Correlation =	0.821
Shapiro-Wilks Statistics	0.698
Crtitical Value	0.866
Data are not normal	



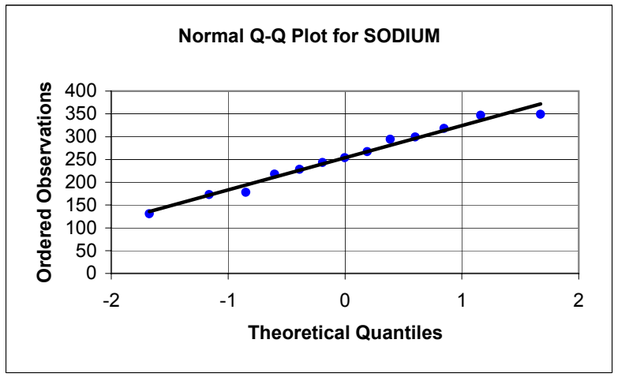
POTASSIUM

Frequency of Detection	13/13
Mean	552
Standard Deviation	111
Slope =	0.864
Y Intercept =	0
Correlation =	0.821
Shapiro-Wilks Statistics	0.698
Crtitical Value	0.866
Data are not normal	



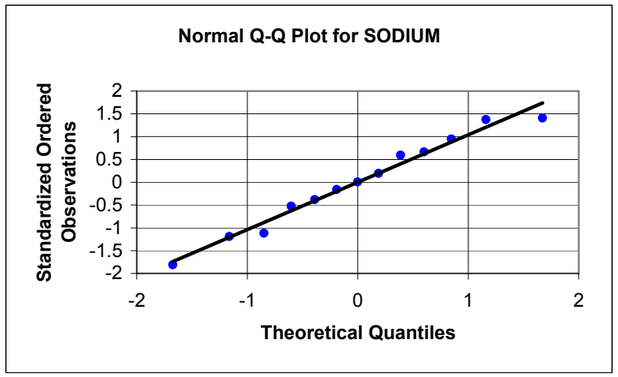
SODIUM

Frequency of Detection	13/13
Mean	254
Standard Deviation	67.8
Slope =	70.6
Y Intercept =	254
Correlation =	0.989
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.866
Data are normal	



SODIUM

Frequency of Detection	13/13
Mean	254
Standard Deviation	67.8
Slope =	1.04
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.866
Data are normal	

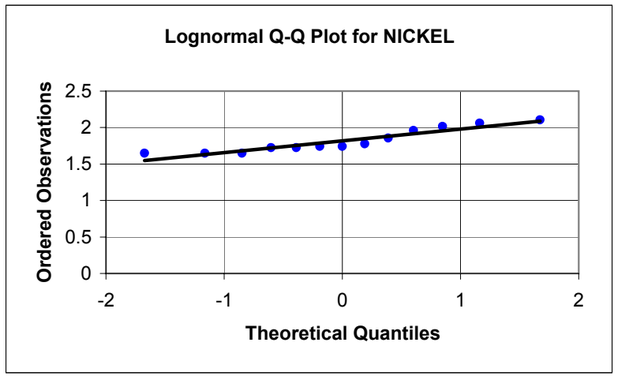


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

NICKEL

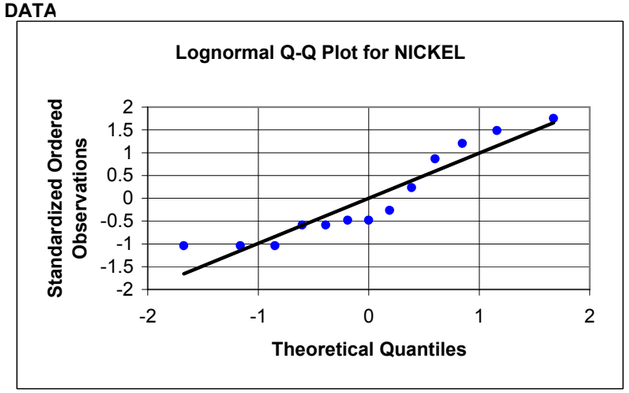
Frequency of Detection	13/13
Mean	1.82
Standard Deviation	0.163
Slope =	0.162
Y Intercept =	1.82
Correlation =	0.942
Shapiro-Wilks Statistics	0.868
Crtitical Value	0.866
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

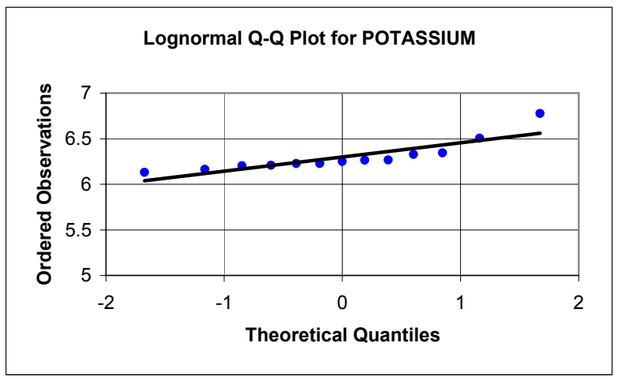
NICKEL

Frequency of Detection	13/13
Mean	1.82
Standard Deviation	0.163
Slope =	0.992
Y Intercept =	0
Correlation =	0.942
Shapiro-Wilks Statistics	0.868
Crtitical Value	0.866
Data are lognormal	



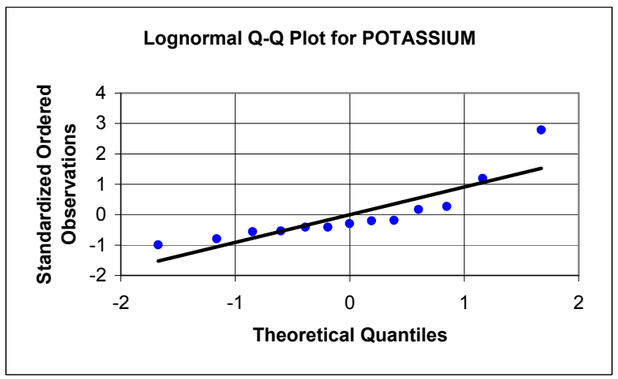
POTASSIUM

Frequency of Detection	13/13
Mean	6.30
Standard Deviation	0.171
Slope =	0.156
Y Intercept =	6.30
Correlation =	0.867
Shapiro-Wilks Statistics	0.771
Crtitical Value	0.866
Data are not lognormal	



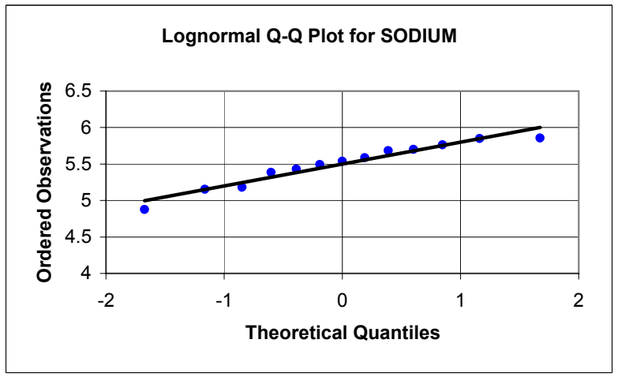
POTASSIUM

Frequency of Detection	13/13
Mean	6.30
Standard Deviation	0.171
Slope =	0.912
Y Intercept =	0
Correlation =	0.867
Shapiro-Wilks Statistics	0.771
Crtitical Value	0.866
Data are not lognormal	



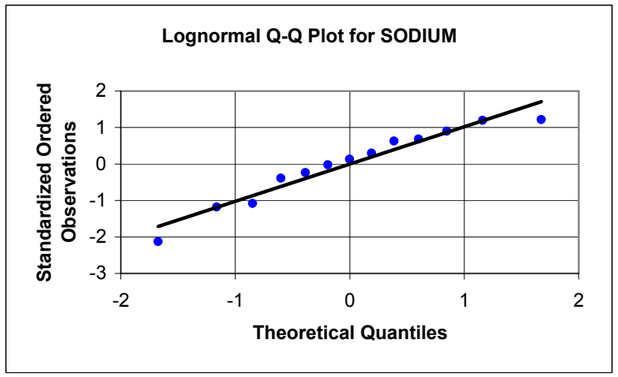
SODIUM

Frequency of Detection	13/13
Mean	5.50
Standard Deviation	0.293
Slope =	0.300
Y Intercept =	5.50
Correlation =	0.972
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.866
Data are lognormal	



SODIUM

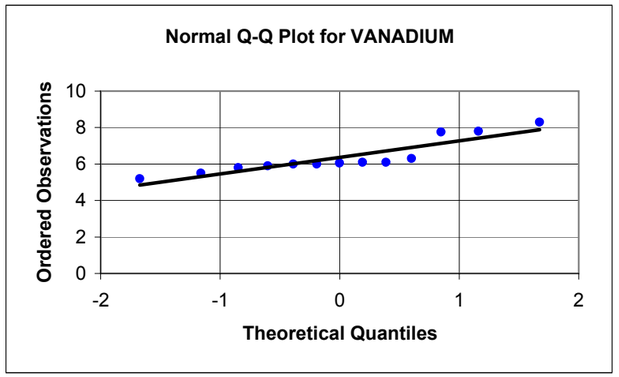
Frequency of Detection	13/13
Mean	5.50
Standard Deviation	0.293
Slope =	1.02
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.866
Data are lognormal	



APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

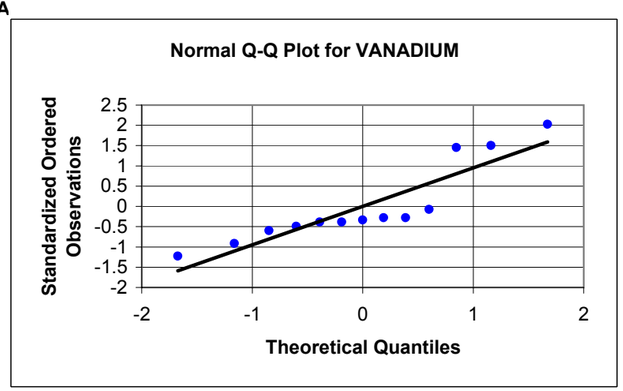
NORMAL - RAW DATA
VANADIUM

Frequency of Detection	13/13
Mean	6.37
Standard Deviation	0.952
Slope =	0.906
Y Intercept =	6.37
Correlation =	0.904
Shapiro-Wilks Statistics	0.817
Crtitical Value	0.866
Data are not normal	



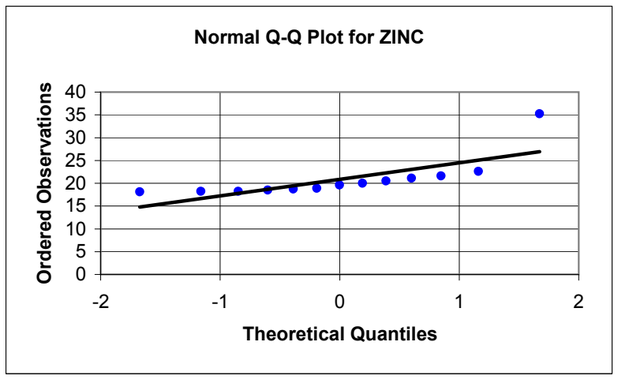
NORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	13/13
Mean	6.37
Standard Deviation	0.952
Slope =	0.951
Y Intercept =	0
Correlation =	0.904
Shapiro-Wilks Statistics	0.817
Crtitical Value	0.866
Data are not normal	



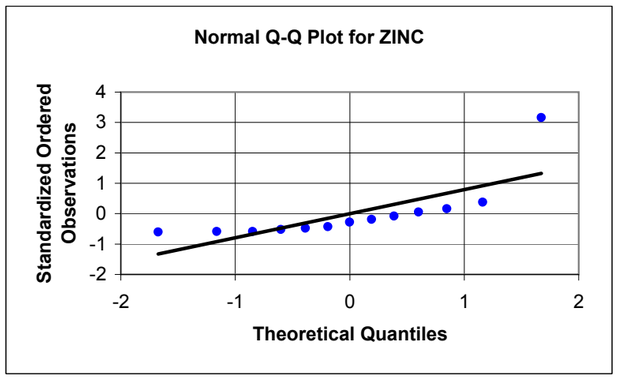
ZINC

Frequency of Detection	13/13
Mean	20.9
Standard Deviation	4.56
Slope =	3.61
Y Intercept =	20.9
Correlation =	0.754
Shapiro-Wilks Statistics	0.595
Crtitical Value	0.866
Data are not normal	



ZINC

Frequency of Detection	13/13
Mean	20.9
Standard Deviation	4.56
Slope =	0.793
Y Intercept =	0
Correlation =	0.754
Shapiro-Wilks Statistics	0.595
Crtitical Value	0.866
Data are not normal	

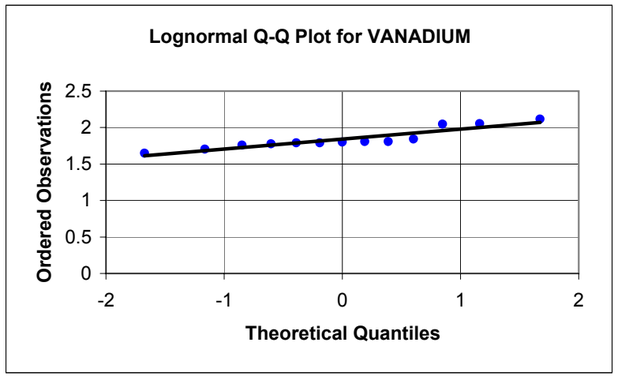


APPENDIX E5, FIGURE E5-1
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

VANADIUM

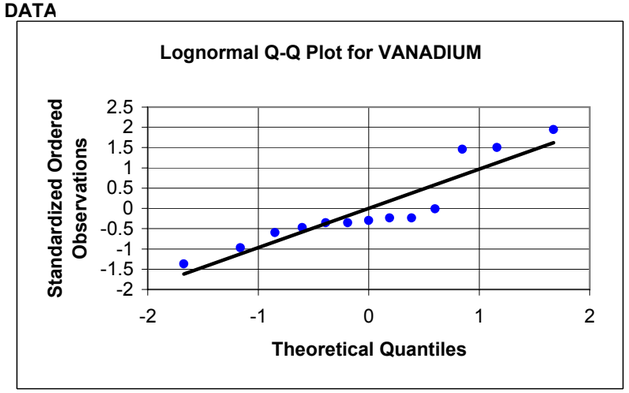
Frequency of Detection	13/13
Mean	1.84
Standard Deviation	0.141
Slope =	0.137
Y Intercept =	1.84
Correlation =	0.921
Shapiro-Wilks Statistics	0.848
Crtitical Value	0.866
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

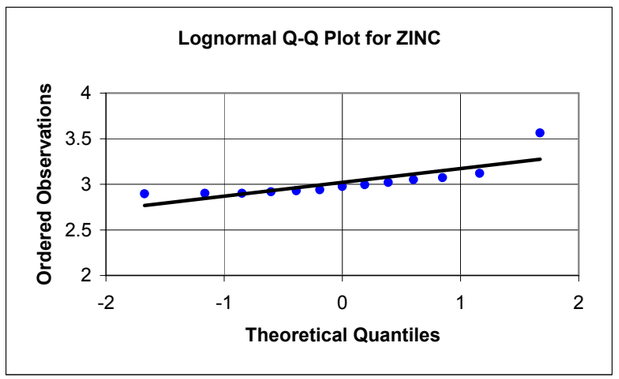
VANADIUM

Frequency of Detection	13/13
Mean	1.84
Standard Deviation	0.141
Slope =	0.969
Y Intercept =	0
Correlation =	0.921
Shapiro-Wilks Statistics	0.848
Crtitical Value	0.866
Data are not lognormal	



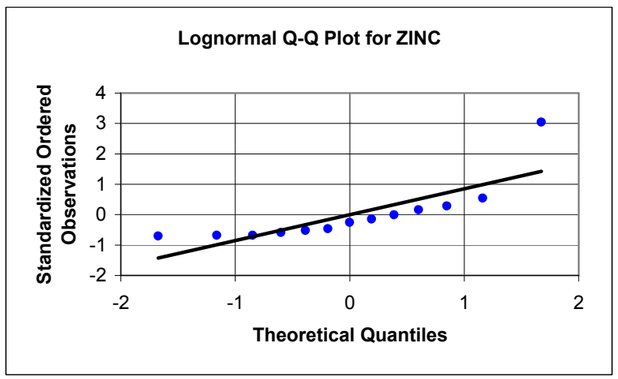
ZINC

Frequency of Detection	13/13
Mean	3.02
Standard Deviation	0.178
Slope =	0.151
Y Intercept =	3.02
Correlation =	0.808
Shapiro-Wilks Statistics	0.676
Crtitical Value	0.866
Data are not lognormal	



ZINC

Frequency of Detection	13/13
Mean	3.02
Standard Deviation	0.178
Slope =	0.851
Y Intercept =	0
Correlation =	0.808
Shapiro-Wilks Statistics	0.676
Crtitical Value	0.866
Data are not lognormal	

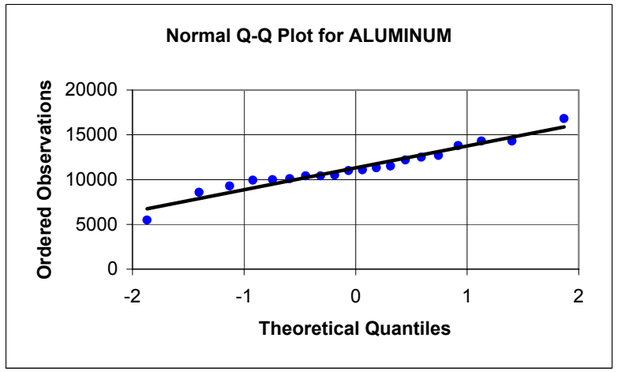


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

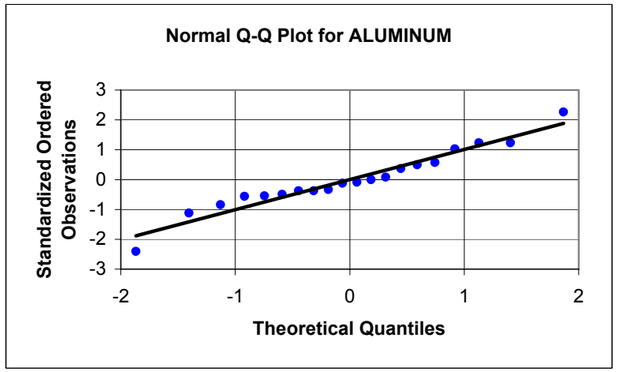
Frequency of Detection	20/20
Mean	11307
Standard Deviation	2424
Slope =	2448
Y Intercept =	11307
Correlation =	0.973
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

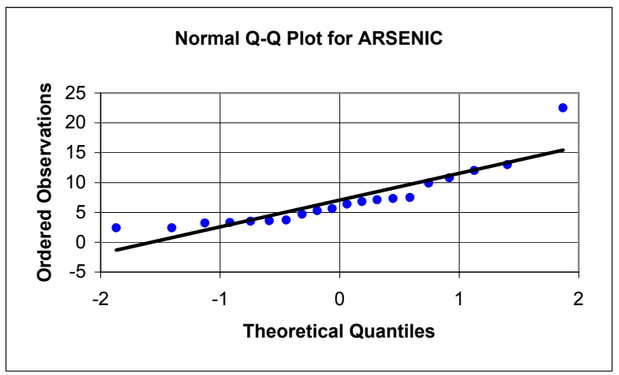
ALUMINUM

Frequency of Detection	20/20
Mean	11307
Standard Deviation	2424
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



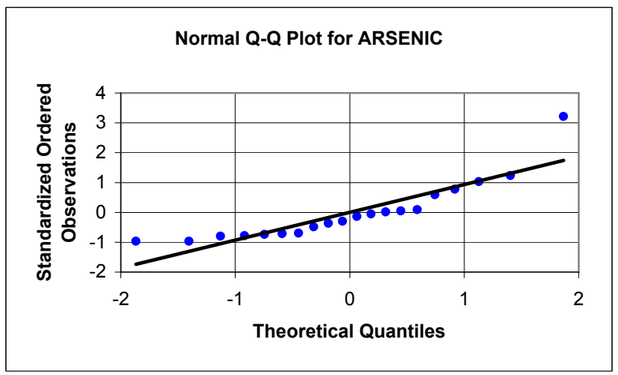
ARSENIC

Frequency of Detection	20/20
Mean	7.05
Standard Deviation	4.81
Slope =	4.48
Y Intercept =	7.05
Correlation =	0.897
Shapiro-Wilks Statistics	0.816
Crtitical Value	0.905
Data are not normal	



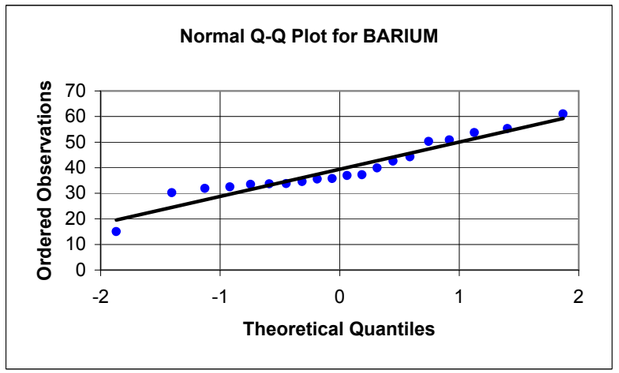
ARSENIC

Frequency of Detection	20/20
Mean	7.05
Standard Deviation	4.81
Slope =	0.931
Y Intercept =	0
Correlation =	0.897
Shapiro-Wilks Statistics	0.816
Crtitical Value	0.905
Data are not normal	



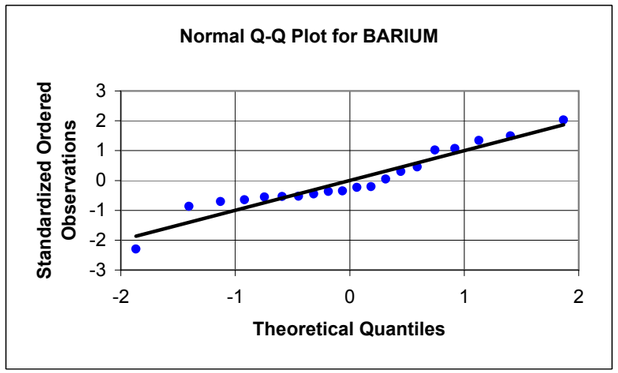
BARIUM

Frequency of Detection	20/20
Mean	39.4
Standard Deviation	10.6
Slope =	10.6
Y Intercept =	39.4
Correlation =	0.961
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	



BARIUM

Frequency of Detection	20/20
Mean	39.4
Standard Deviation	10.6
Slope =	0.998
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	

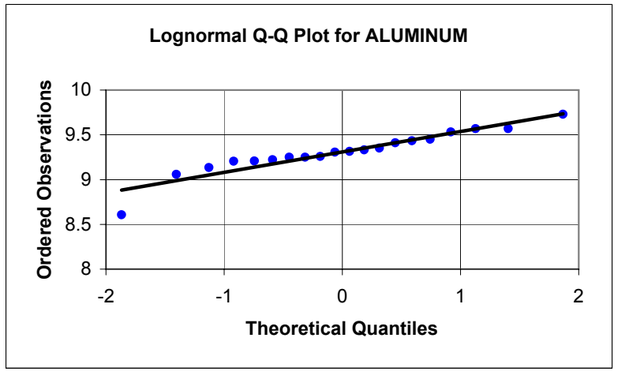


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

ALUMINUM

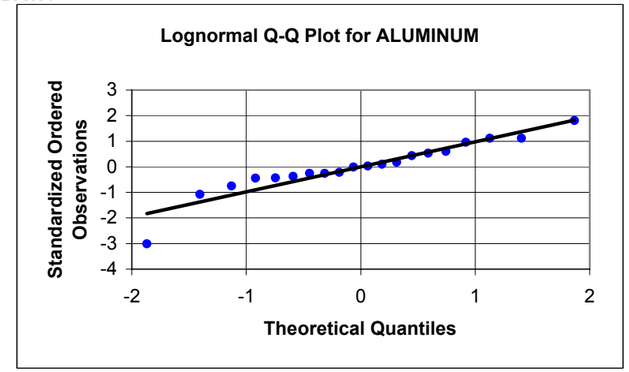
Frequency of Detection	20/20
Mean	9.31
Standard Deviation	0.233
Slope =	0.228
Y Intercept =	9.31
Correlation =	0.943
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

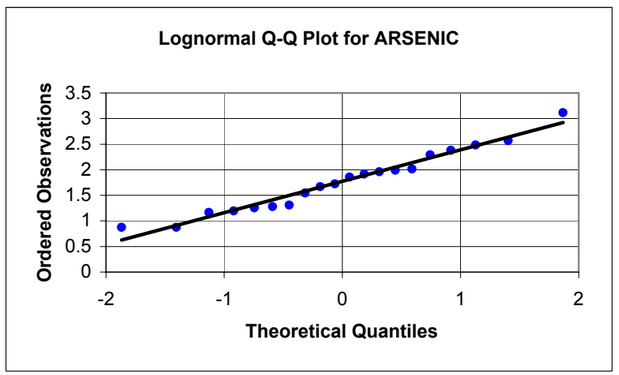
ALUMINUM

Frequency of Detection	20/20
Mean	9.31
Standard Deviation	0.233
Slope =	0.979
Y Intercept =	0
Correlation =	0.943
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are lognormal	



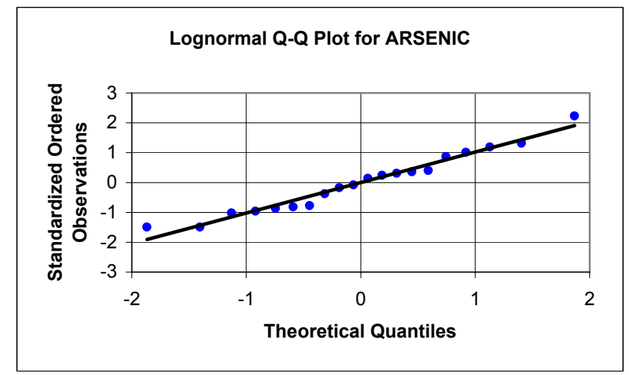
ARSENIC

Frequency of Detection	20/20
Mean	1.77
Standard Deviation	0.600
Slope =	0.614
Y Intercept =	1.77
Correlation =	0.985
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.905
Data are lognormal	



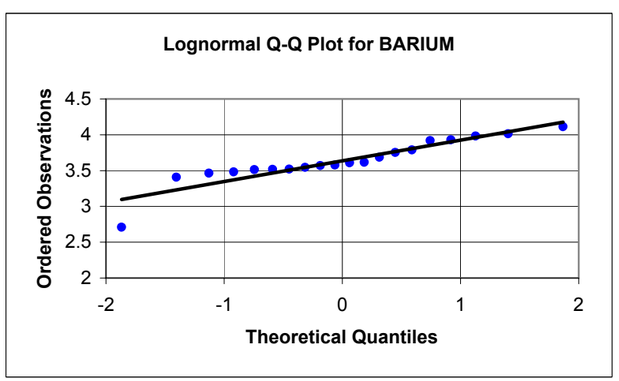
ARSENIC

Frequency of Detection	20/20
Mean	1.77
Standard Deviation	0.600
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.905
Data are lognormal	



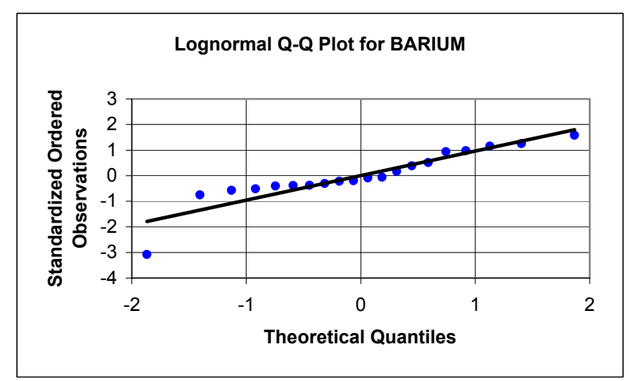
BARIUM

Frequency of Detection	20/20
Mean	3.64
Standard Deviation	0.301
Slope =	0.289
Y Intercept =	3.64
Correlation =	0.924
Shapiro-Wilks Statistics	0.874
Crtitical Value	0.905
Data are not lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.64
Standard Deviation	0.301
Slope =	0.959
Y Intercept =	0
Correlation =	0.924
Shapiro-Wilks Statistics	0.874
Crtitical Value	0.905
Data are not lognormal	

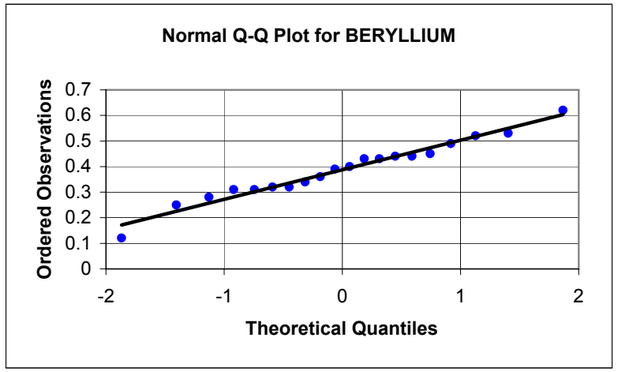


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

BERYLLIUM

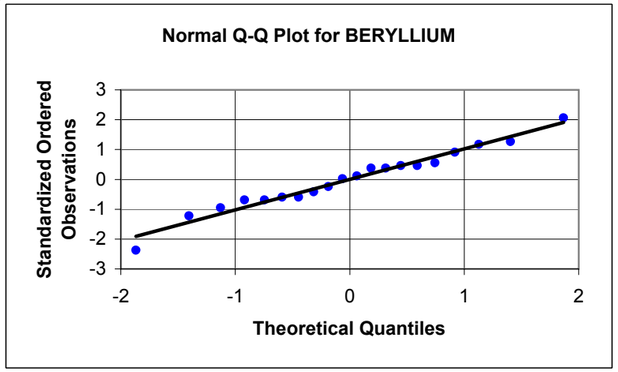
Frequency of Detection	20/20
Mean	0.388
Standard Deviation	0.113
Slope =	0.115
Y Intercept =	0.388
Correlation =	0.985
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

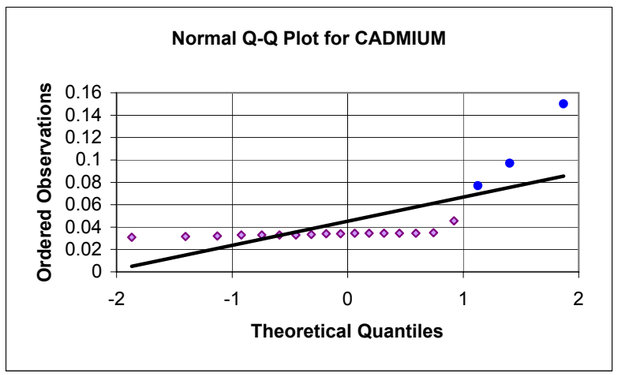
BERYLLIUM

Frequency of Detection	20/20
Mean	0.388
Standard Deviation	0.113
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are normal	



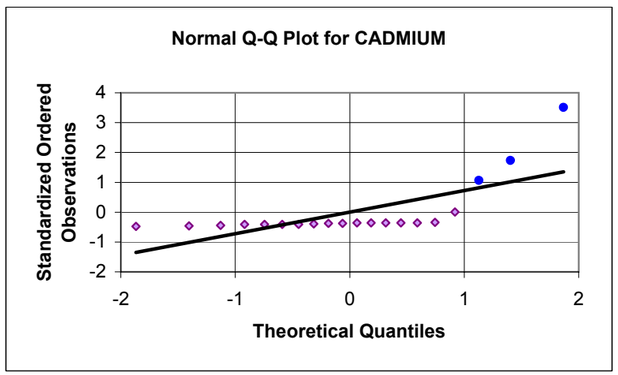
CADMIUM

Frequency of Detection	3/20
Mean	0.045
Standard Deviation	0.030
Slope =	0.022
Y Intercept =	0.045
Correlation =	0.696
Shapiro-Wilks Statistics	0.505
Crtitical Value	0.905
Data are not normal	



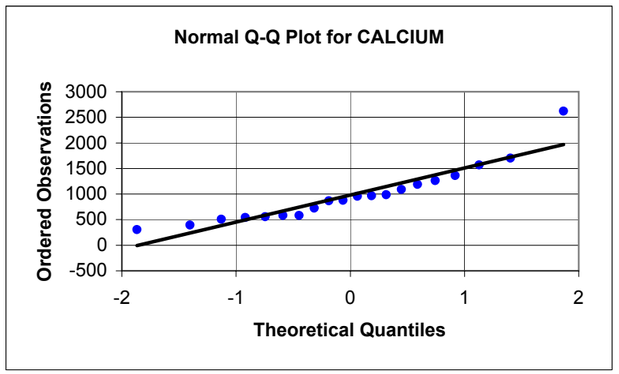
CADMIUM

Frequency of Detection	3/20
Mean	0.045
Standard Deviation	0.030
Slope =	0.723
Y Intercept =	0
Correlation =	0.696
Shapiro-Wilks Statistics	0.505
Crtitical Value	0.905
Data are not normal	



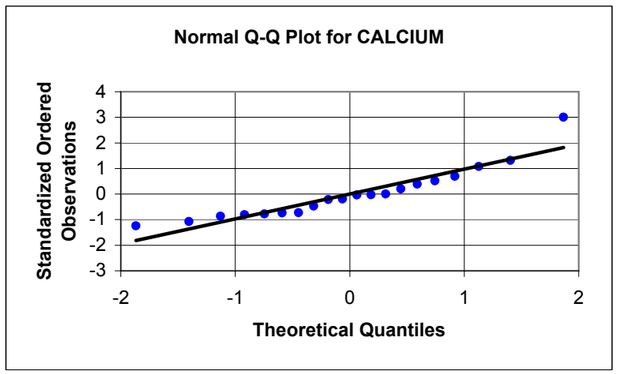
CALCIUM

Frequency of Detection	20/20
Mean	981
Standard Deviation	545
Slope =	529
Y Intercept =	981
Correlation =	0.935
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.905
Data are not normal	



CALCIUM

Frequency of Detection	20/20
Mean	981
Standard Deviation	545
Slope =	0.971
Y Intercept =	0
Correlation =	0.935
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.905
Data are not normal	

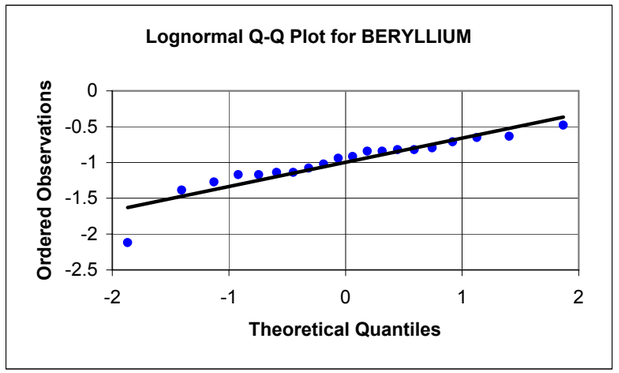


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

BERYLLIUM

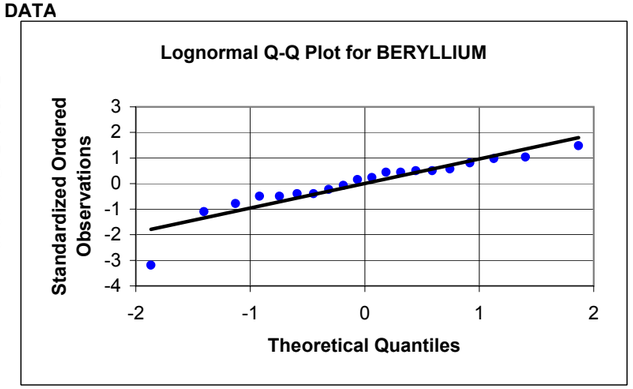
Frequency of Detection	20/20
Mean	-0.998
Standard Deviation	0.352
Slope =	0.338
Y Intercept =	-0.998
Correlation =	0.925
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

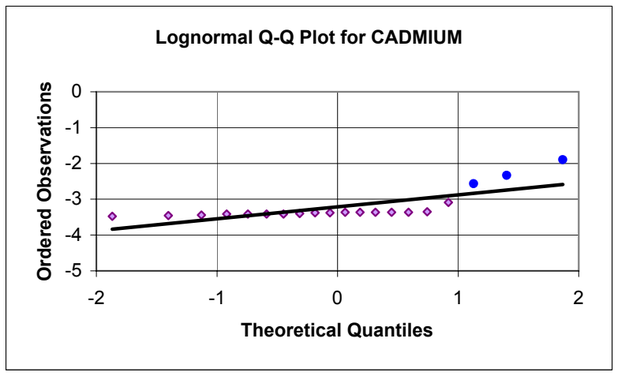
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.998
Standard Deviation	0.352
Slope =	0.960
Y Intercept =	0
Correlation =	0.925
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.905
Data are not lognormal	



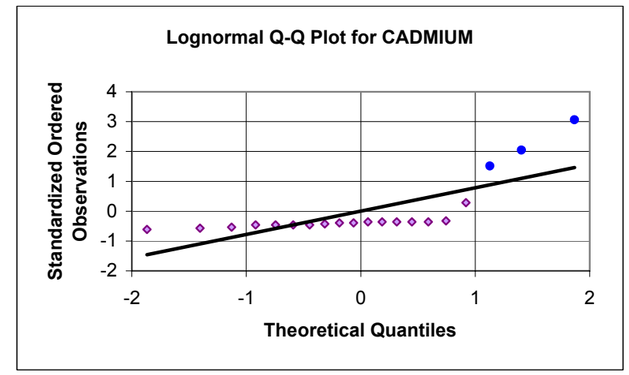
CADMIUM

Frequency of Detection	3/20
Mean	-3.212
Standard Deviation	0.430
Slope =	0.335
Y Intercept =	-3.212
Correlation =	0.752
Shapiro-Wilks Statistics	0.578
Crtitical Value	0.905
Data are not lognormal	



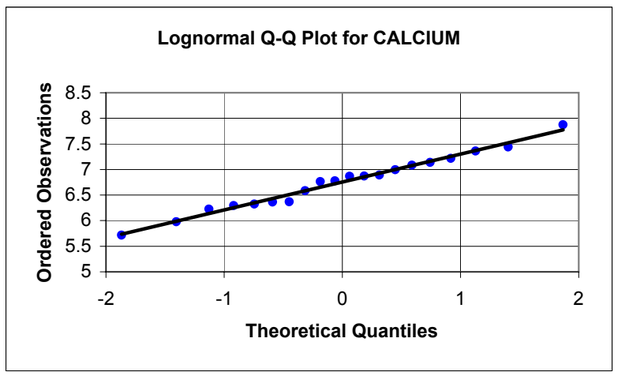
CADMIUM

Frequency of Detection	3/20
Mean	-3.212
Standard Deviation	0.430
Slope =	0.780
Y Intercept =	0
Correlation =	0.752
Shapiro-Wilks Statistics	0.578
Crtitical Value	0.905
Data are not lognormal	



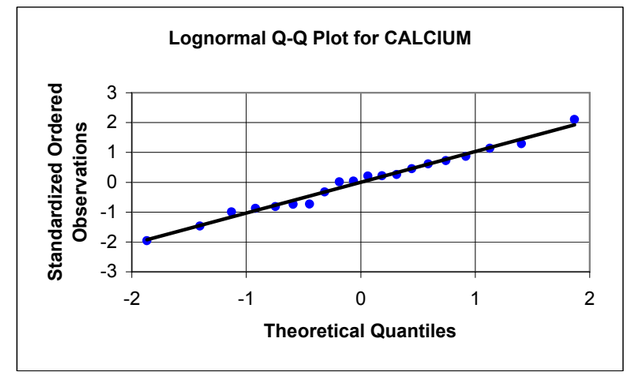
CALCIUM

Frequency of Detection	20/20
Mean	6.76
Standard Deviation	0.530
Slope =	0.546
Y Intercept =	6.76
Correlation =	0.993
Shapiro-Wilks Statistics	0.988
Crtitical Value	0.905
Data are lognormal	



CALCIUM

Frequency of Detection	20/20
Mean	6.76
Standard Deviation	0.530
Slope =	1.03
Y Intercept =	0
Correlation =	0.993
Shapiro-Wilks Statistics	0.988
Crtitical Value	0.905
Data are lognormal	

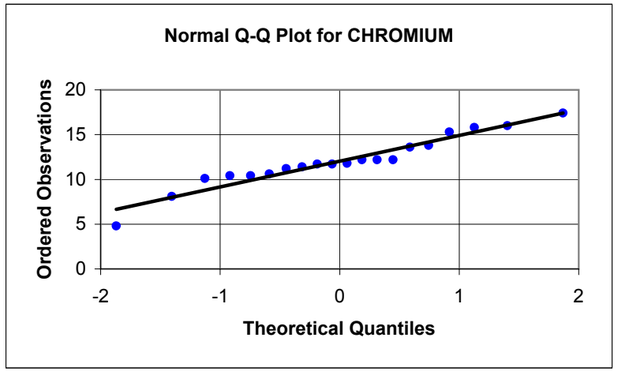


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

CHROMIUM

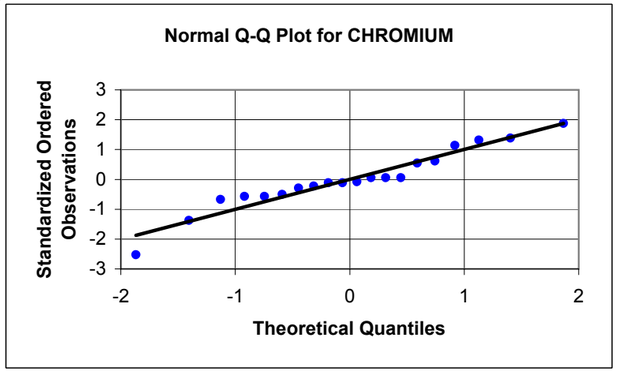
Frequency of Detection	20/20
Mean	12.0
Standard Deviation	2.86
Slope =	2.87
Y Intercept =	12.0
Correlation =	0.968
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

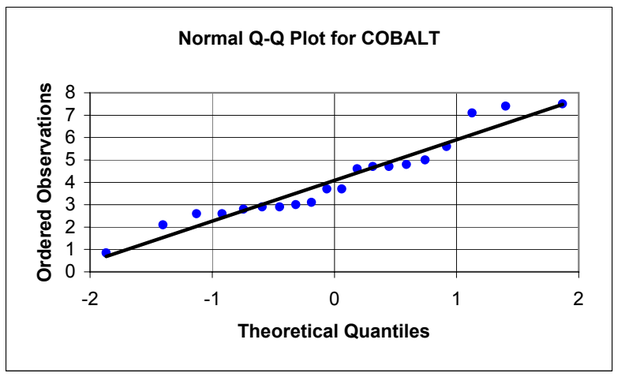
CHROMIUM

Frequency of Detection	20/20
Mean	12.0
Standard Deviation	2.86
Slope =	1.00
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are normal	



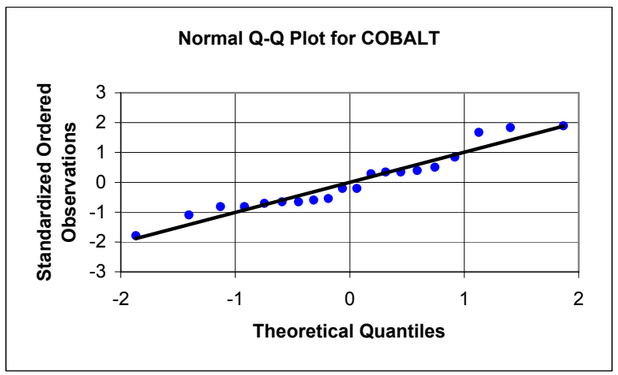
COBALT

Frequency of Detection	20/20
Mean	4.08
Standard Deviation	1.81
Slope =	1.82
Y Intercept =	4.08
Correlation =	0.969
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	



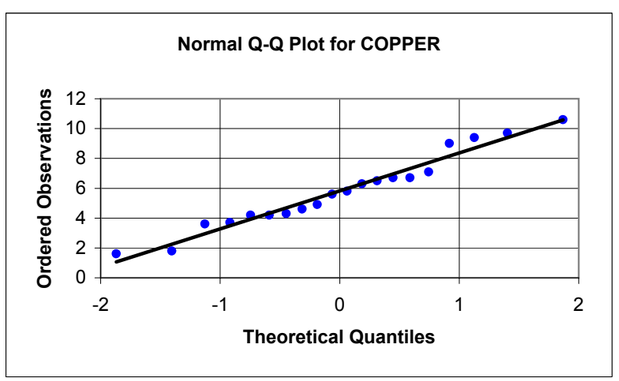
COBALT

Frequency of Detection	20/20
Mean	4.08
Standard Deviation	1.81
Slope =	1.01
Y Intercept =	0
Correlation =	0.969
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	



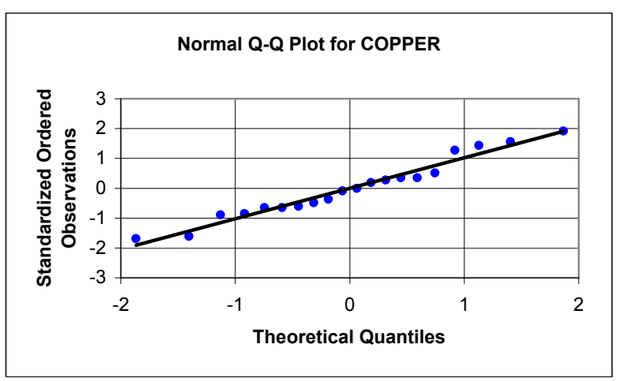
COPPER

Frequency of Detection	20/20
Mean	5.82
Standard Deviation	2.49
Slope =	2.55
Y Intercept =	5.82
Correlation =	0.984
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	



COPPER

Frequency of Detection	20/20
Mean	5.82
Standard Deviation	2.49
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	

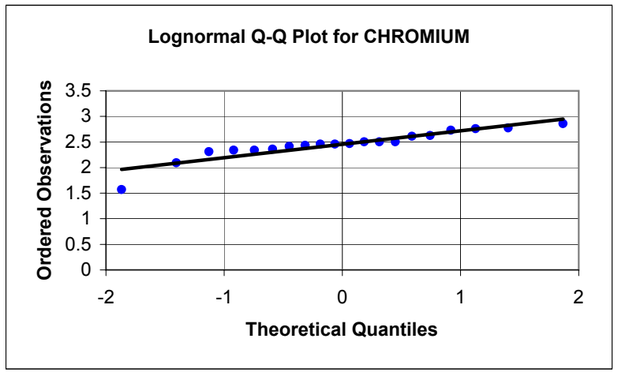


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

CHROMIUM

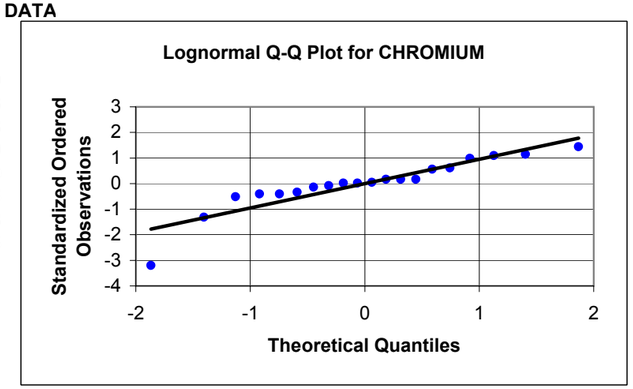
Frequency of Detection	20/20
Mean	2.46
Standard Deviation	0.278
Slope =	0.263
Y Intercept =	2.46
Correlation =	0.915
Shapiro-Wilks Statistics	0.858
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

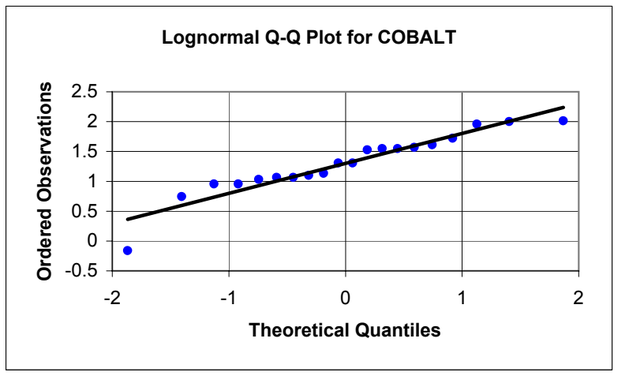
CHROMIUM

Frequency of Detection	20/20
Mean	2.46
Standard Deviation	0.278
Slope =	0.949
Y Intercept =	0
Correlation =	0.915
Shapiro-Wilks Statistics	0.858
Crtitical Value	0.905
Data are not lognormal	



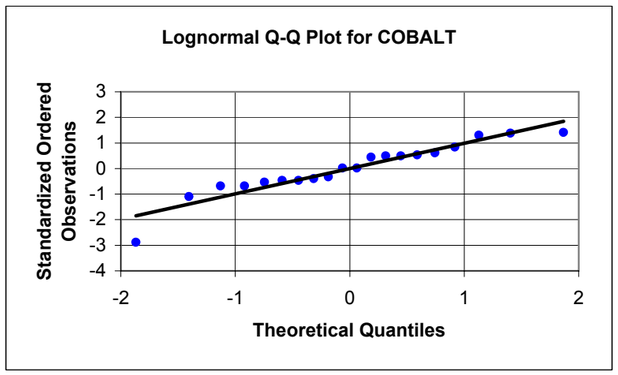
COBALT

Frequency of Detection	20/20
Mean	1.30
Standard Deviation	0.508
Slope =	0.501
Y Intercept =	1.30
Correlation =	0.950
Shapiro-Wilks Statistics	0.914
Crtitical Value	0.905
Data are lognormal	



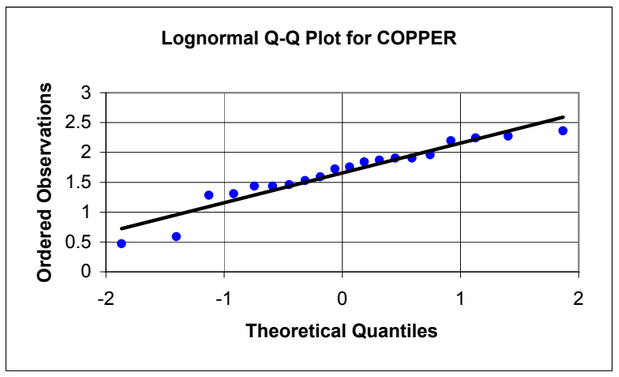
COBALT

Frequency of Detection	20/20
Mean	1.30
Standard Deviation	0.508
Slope =	0.986
Y Intercept =	0
Correlation =	0.950
Shapiro-Wilks Statistics	0.914
Crtitical Value	0.905
Data are lognormal	



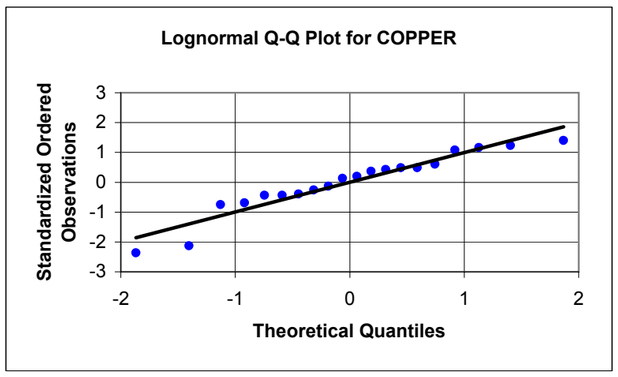
COPPER

Frequency of Detection	20/20
Mean	1.66
Standard Deviation	0.502
Slope =	0.500
Y Intercept =	1.66
Correlation =	0.960
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.905
Data are lognormal	



COPPER

Frequency of Detection	20/20
Mean	1.66
Standard Deviation	0.502
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.905
Data are lognormal	

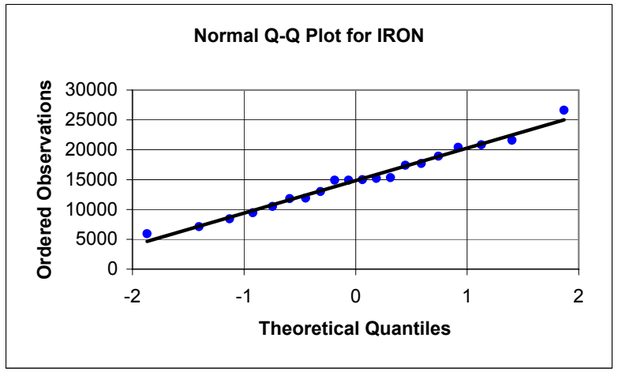


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

IRON

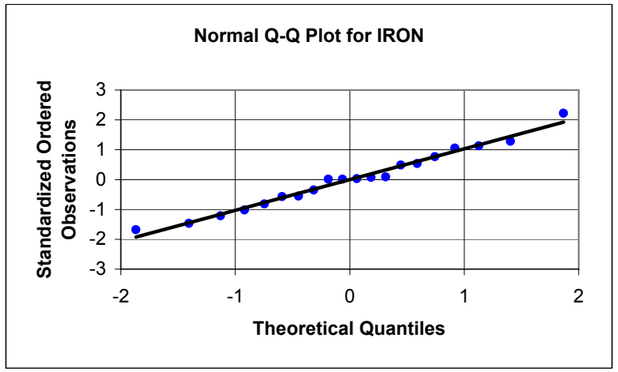
Frequency of Detection	20/20
Mean	14840
Standard Deviation	5290
Slope =	5443
Y Intercept =	14840
Correlation =	0.991
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

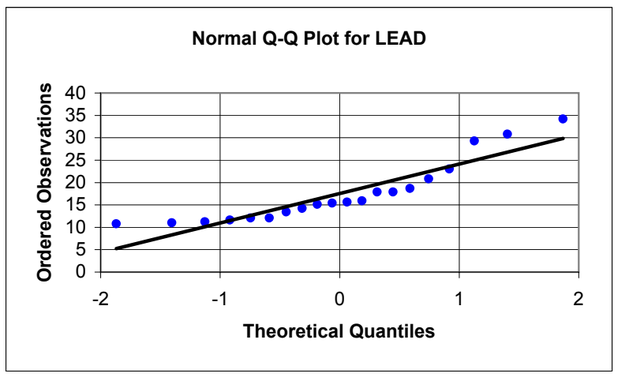
IRON

Frequency of Detection	20/20
Mean	14840
Standard Deviation	5290
Slope =	1.03
Y Intercept =	0
Correlation =	0.991
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are normal	



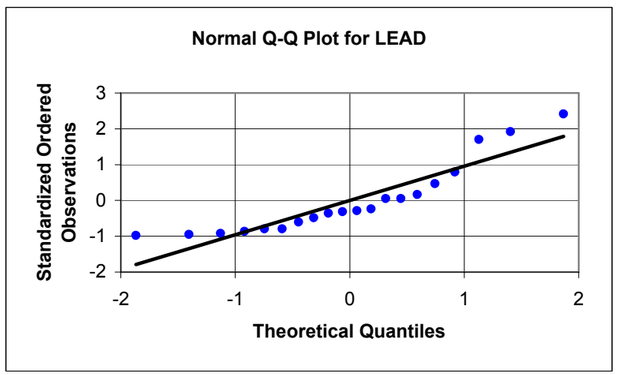
LEAD

Frequency of Detection	20/20
Mean	17.6
Standard Deviation	6.89
Slope =	6.58
Y Intercept =	17.6
Correlation =	0.921
Shapiro-Wilks Statistics	0.842
Crtitical Value	0.905
Data are not normal	



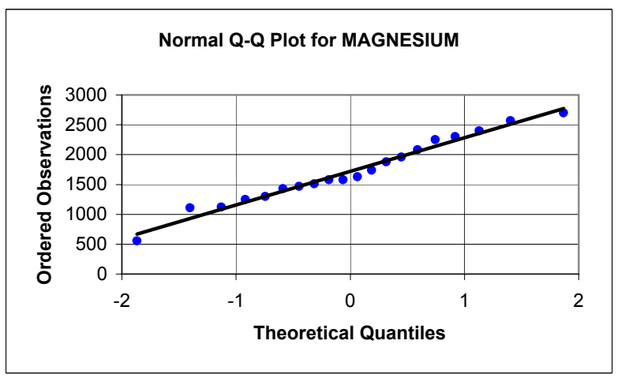
LEAD

Frequency of Detection	20/20
Mean	17.6
Standard Deviation	6.89
Slope =	0.956
Y Intercept =	0
Correlation =	0.921
Shapiro-Wilks Statistics	0.842
Crtitical Value	0.905
Data are not normal	



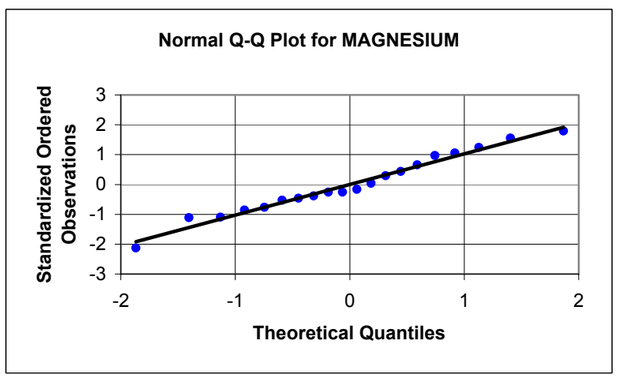
MAGNESIUM

Frequency of Detection	20/20
Mean	1721
Standard Deviation	548
Slope =	563
Y Intercept =	1721
Correlation =	0.990
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	



MAGNESIUM

Frequency of Detection	20/20
Mean	1721
Standard Deviation	548
Slope =	1.03
Y Intercept =	0
Correlation =	0.990
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	

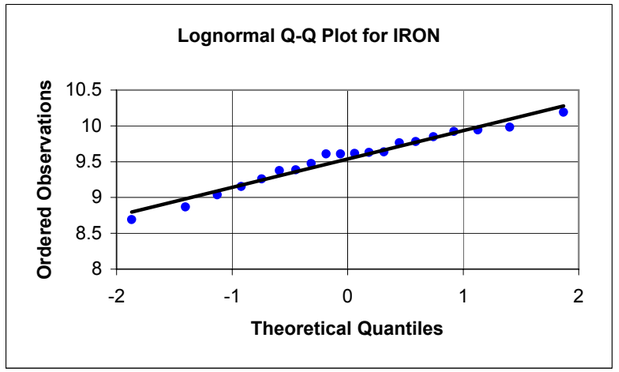


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

IRON

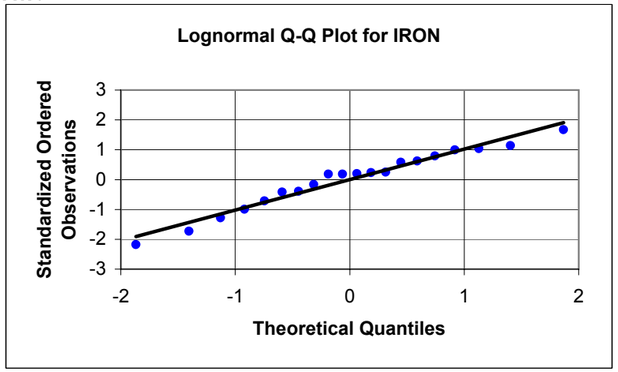
Frequency of Detection	20/20
Mean	9.54
Standard Deviation	0.389
Slope =	0.397
Y Intercept =	9.54
Correlation =	0.983
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

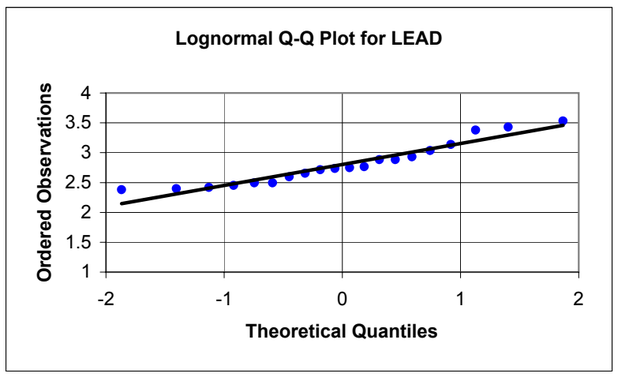
IRON

Frequency of Detection	20/20
Mean	9.54
Standard Deviation	0.389
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	



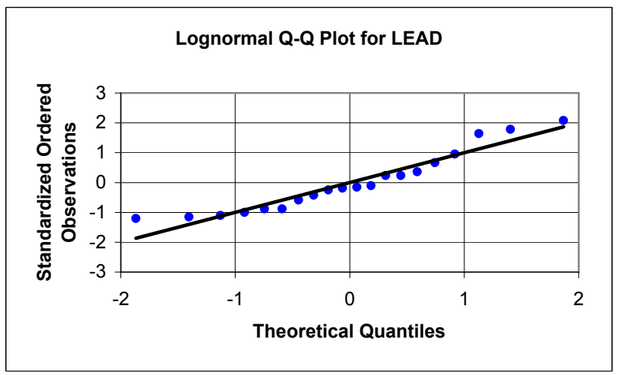
LEAD

Frequency of Detection	20/20
Mean	2.80
Standard Deviation	0.351
Slope =	0.351
Y Intercept =	2.80
Correlation =	0.963
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



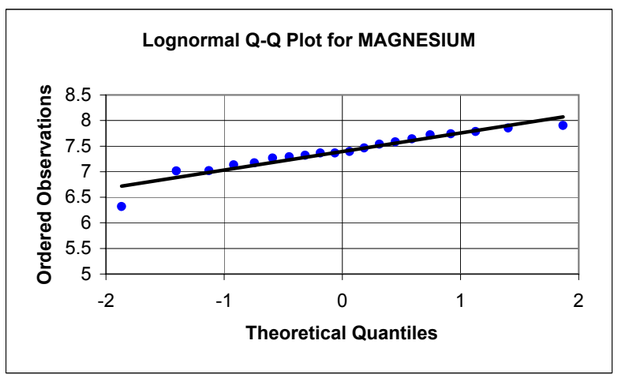
LEAD

Frequency of Detection	20/20
Mean	2.80
Standard Deviation	0.351
Slope =	1.00
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



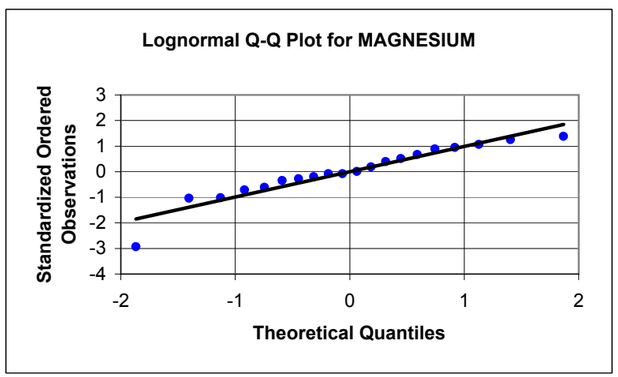
MAGNESIUM

Frequency of Detection	20/20
Mean	7.39
Standard Deviation	0.367
Slope =	0.363
Y Intercept =	7.39
Correlation =	0.953
Shapiro-Wilks Statistics	0.919
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

Frequency of Detection	20/20
Mean	7.39
Standard Deviation	0.367
Slope =	0.989
Y Intercept =	0
Correlation =	0.953
Shapiro-Wilks Statistics	0.919
Crtitical Value	0.905
Data are lognormal	

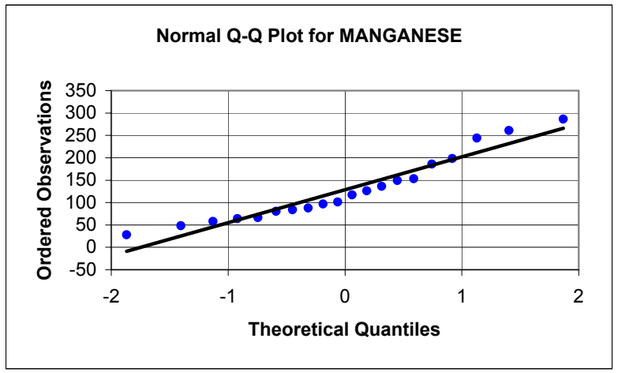


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

MANGANESE

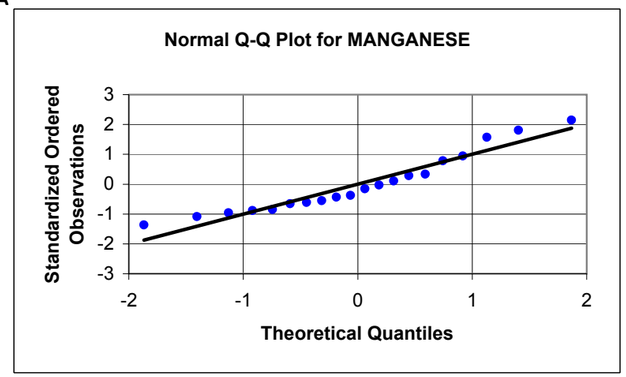
Frequency of Detection	20/20
Mean	128
Standard Deviation	73.5
Slope =	73.6
Y Intercept =	128
Correlation =	0.965
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

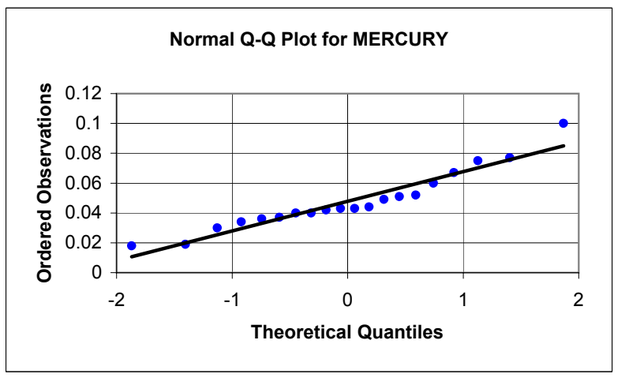
MANGANESE

Frequency of Detection	20/20
Mean	128
Standard Deviation	73.5
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are normal	



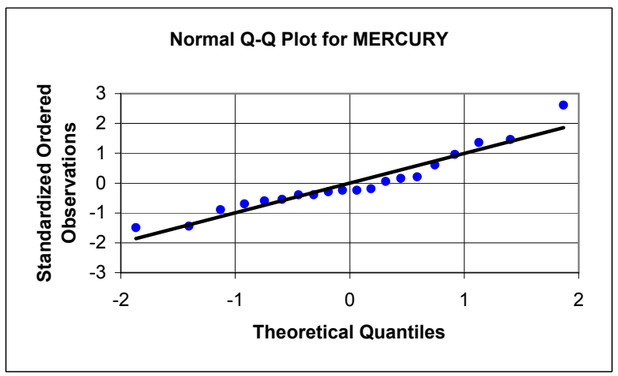
MERCURY

Frequency of Detection	20/20
Mean	0.048
Standard Deviation	0.020
Slope =	0.020
Y Intercept =	0.048
Correlation =	0.960
Shapiro-Wilks Statistics	0.928
Crtitical Value	0.905
Data are normal	



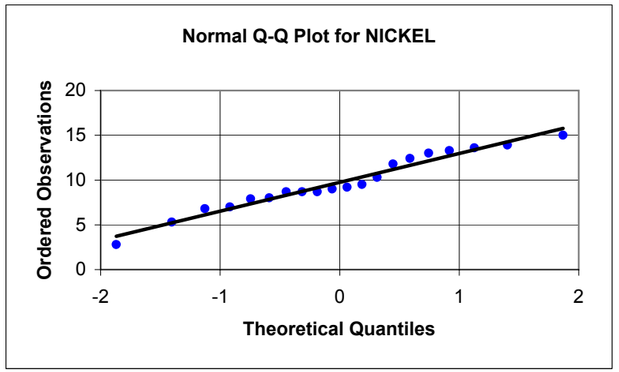
MERCURY

Frequency of Detection	20/20
Mean	0.048
Standard Deviation	0.020
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.928
Crtitical Value	0.905
Data are normal	



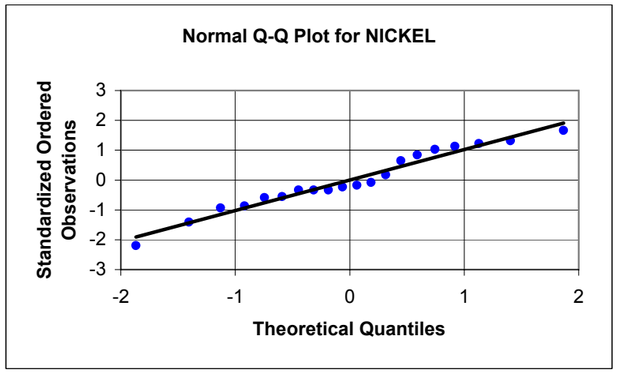
NICKEL

Frequency of Detection	20/20
Mean	9.75
Standard Deviation	3.16
Slope =	3.22
Y Intercept =	9.75
Correlation =	0.982
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are normal	



NICKEL

Frequency of Detection	20/20
Mean	9.75
Standard Deviation	3.16
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are normal	

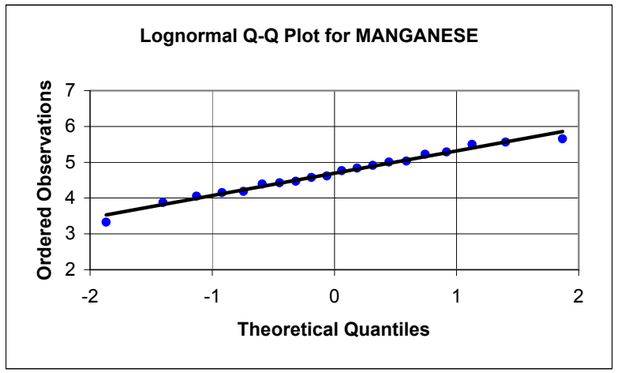


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

MANGANESE

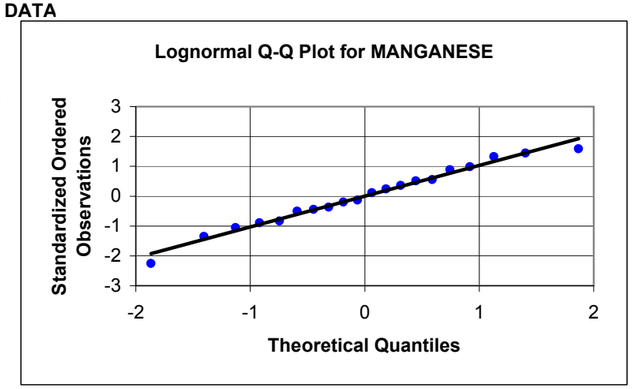
Frequency of Detection	20/20
Mean	4.69
Standard Deviation	0.606
Slope =	0.623
Y Intercept =	4.69
Correlation =	0.992
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

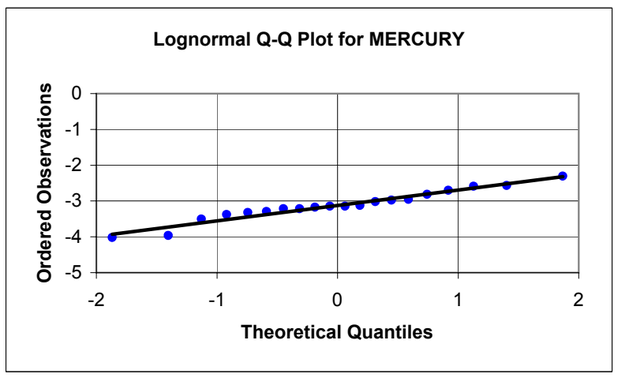
MANGANESE

Frequency of Detection	20/20
Mean	4.69
Standard Deviation	0.606
Slope =	1.03
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are lognormal	



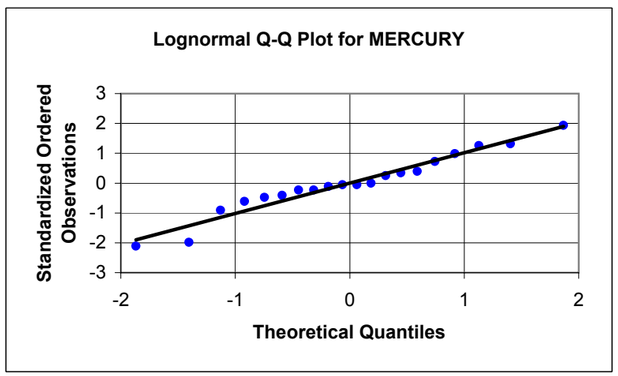
MERCURY

Frequency of Detection	20/20
Mean	-3.122
Standard Deviation	0.424
Slope =	0.430
Y Intercept =	-3.122
Correlation =	0.978
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.905
Data are lognormal	



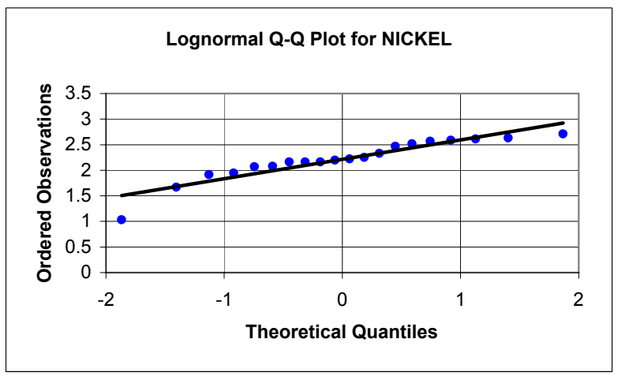
MERCURY

Frequency of Detection	20/20
Mean	-3.122
Standard Deviation	0.424
Slope =	1.01
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.905
Data are lognormal	



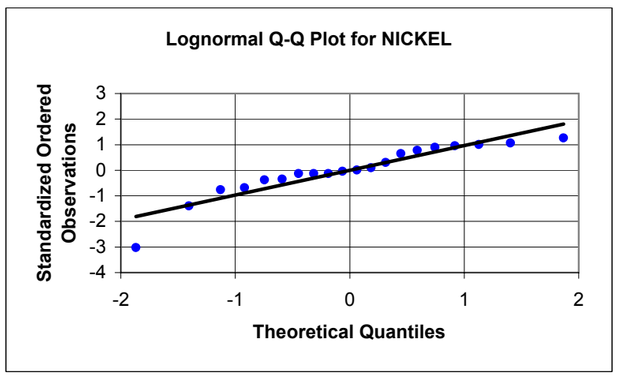
NICKEL

Frequency of Detection	20/20
Mean	2.21
Standard Deviation	0.392
Slope =	0.380
Y Intercept =	2.21
Correlation =	0.933
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.905
Data are not lognormal	



NICKEL

Frequency of Detection	20/20
Mean	2.21
Standard Deviation	0.392
Slope =	0.969
Y Intercept =	0
Correlation =	0.933
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.905
Data are not lognormal	

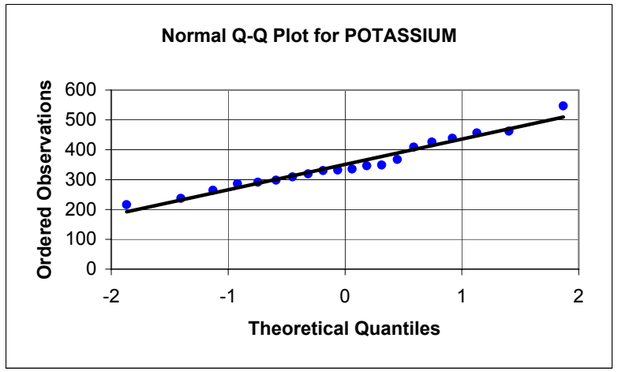


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

POTASSIUM

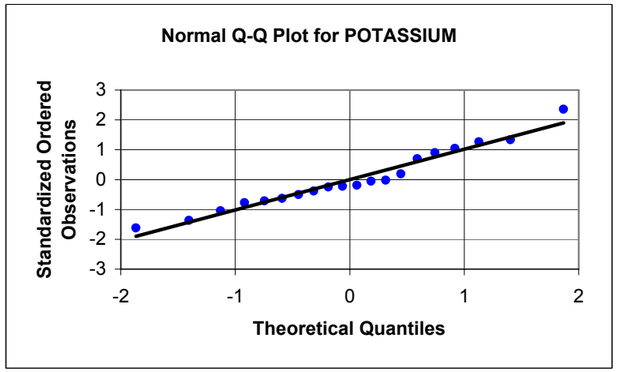
Frequency of Detection	20/20
Mean	351
Standard Deviation	83.3
Slope =	84.8
Y Intercept =	351
Correlation =	0.980
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

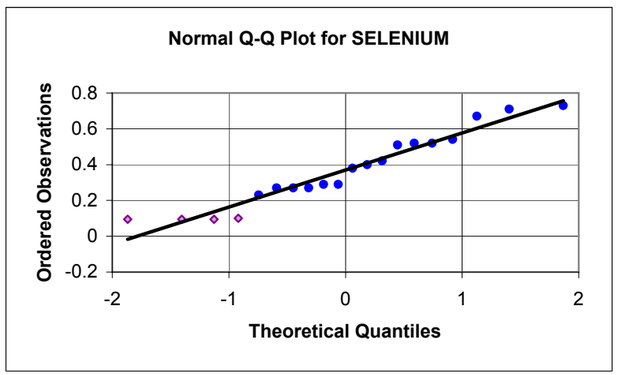
POTASSIUM

Frequency of Detection	20/20
Mean	351
Standard Deviation	83.3
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



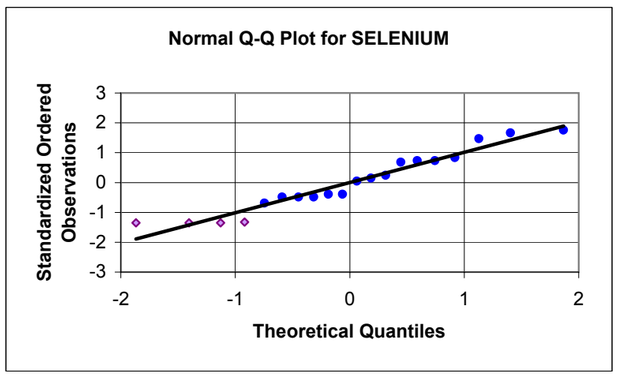
SELENIUM

Frequency of Detection	16/20
Mean	0.370
Standard Deviation	0.204
Slope =	0.207
Y Intercept =	0.370
Correlation =	0.974
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.905
Data are normal	



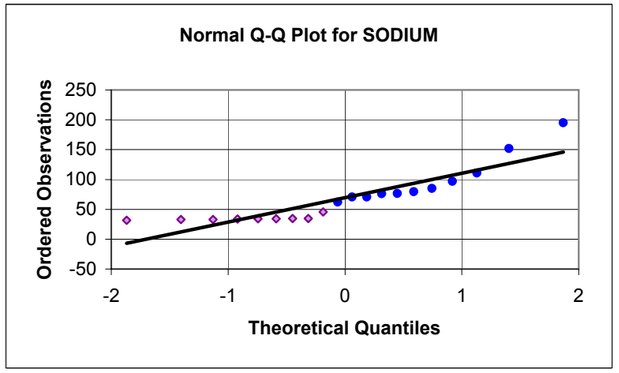
SELENIUM

Frequency of Detection	16/20
Mean	0.370
Standard Deviation	0.204
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.905
Data are normal	



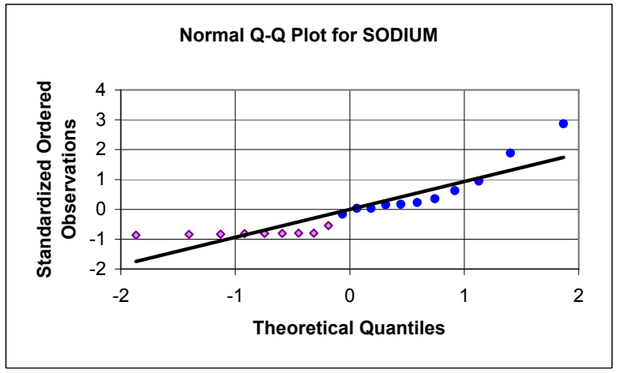
SODIUM

Frequency of Detection	11/20
Mean	69.5
Standard Deviation	43.8
Slope =	40.8
Y Intercept =	69.5
Correlation =	0.898
Shapiro-Wilks Statistics	0.810
Crtitical Value	0.905
Data are not normal	



SODIUM

Frequency of Detection	11/20
Mean	69.5
Standard Deviation	43.8
Slope =	0.932
Y Intercept =	0
Correlation =	0.898
Shapiro-Wilks Statistics	0.810
Crtitical Value	0.905
Data are not normal	

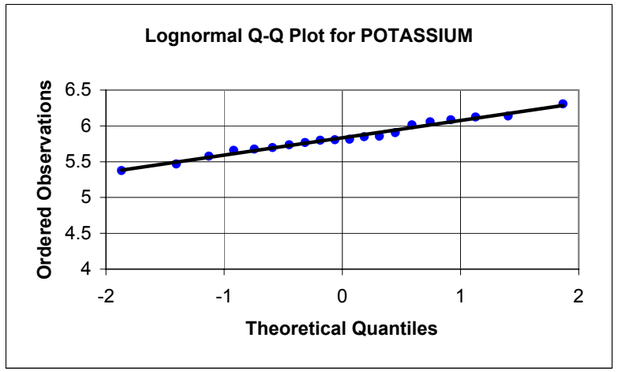


APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

POTASSIUM

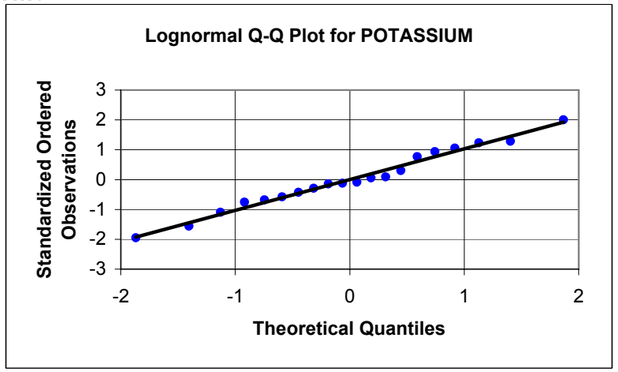
Frequency of Detection	20/20
Mean	5.83
Standard Deviation	0.235
Slope =	0.242
Y Intercept =	5.83
Correlation =	0.992
Shapiro-Wilks Statistics	0.985
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

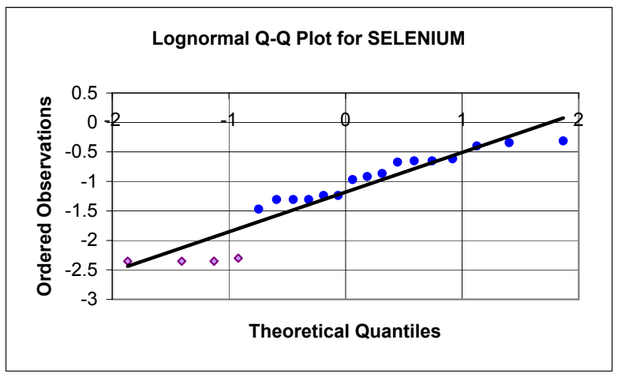
POTASSIUM

Frequency of Detection	20/20
Mean	5.83
Standard Deviation	0.235
Slope =	1.03
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.985
Crtitical Value	0.905
Data are lognormal	



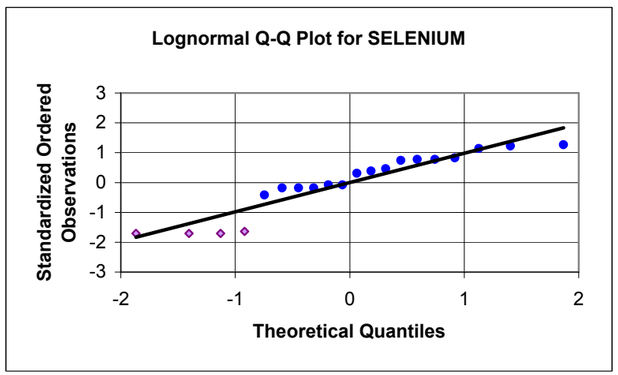
SELENIUM

Frequency of Detection	16/20
Mean	-1.182
Standard Deviation	0.686
Slope =	0.674
Y Intercept =	-1.182
Correlation =	0.947
Shapiro-Wilks Statistics	0.879
Crtitical Value	0.905
Data are not lognormal	



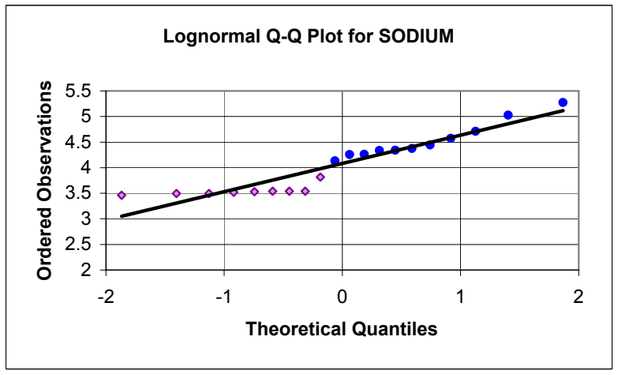
SELENIUM

Frequency of Detection	16/20
Mean	-1.182
Standard Deviation	0.686
Slope =	0.983
Y Intercept =	0
Correlation =	0.947
Shapiro-Wilks Statistics	0.879
Crtitical Value	0.905
Data are not lognormal	



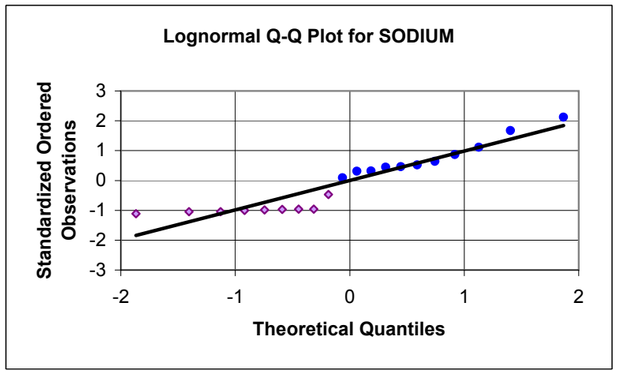
SODIUM

Frequency of Detection	11/20
Mean	4.08
Standard Deviation	0.562
Slope =	0.552
Y Intercept =	4.08
Correlation =	0.947
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.905
Data are not lognormal	



SODIUM

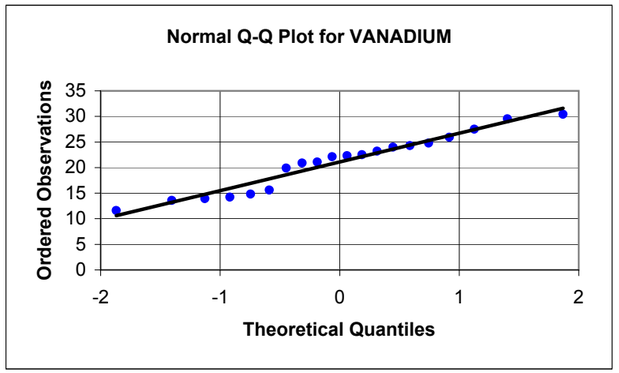
Frequency of Detection	11/20
Mean	4.08
Standard Deviation	0.562
Slope =	0.983
Y Intercept =	0
Correlation =	0.947
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.905
Data are not lognormal	



APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

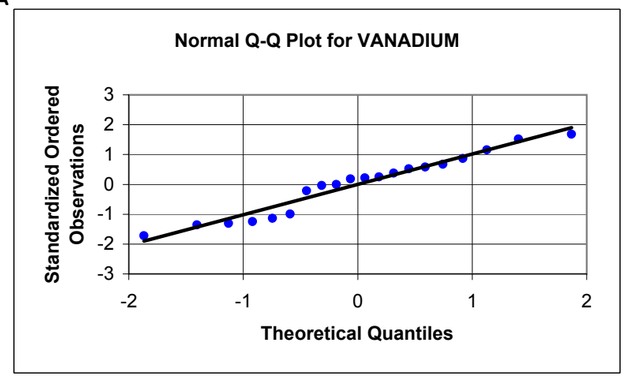
NORMAL - RAW DATA
VANADIUM

Frequency of Detection	20/20
Mean	21.1
Standard Deviation	5.52
Slope =	5.61
Y Intercept =	21.1
Correlation =	0.979
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are normal	



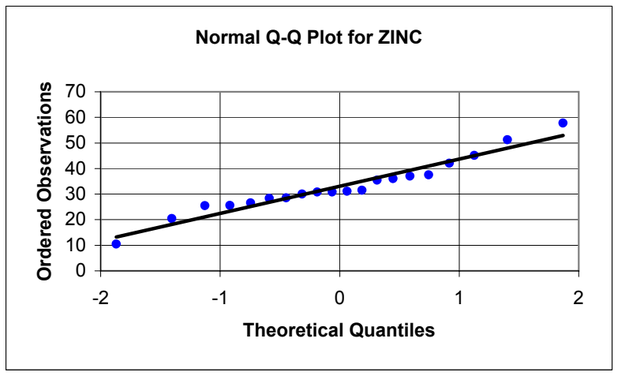
NORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	20/20
Mean	21.1
Standard Deviation	5.52
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are normal	



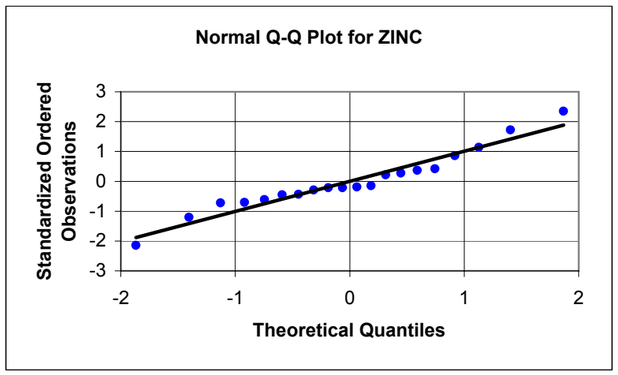
ZINC

Frequency of Detection	20/20
Mean	33.1
Standard Deviation	10.5
Slope =	10.6
Y Intercept =	33.1
Correlation =	0.971
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.905
Data are normal	



ZINC

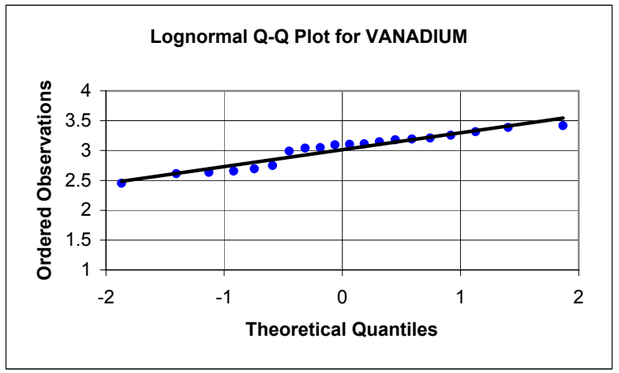
Frequency of Detection	20/20
Mean	33.1
Standard Deviation	10.5
Slope =	1.01
Y Intercept =	0
Correlation =	0.971
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.905
Data are normal	



APPENDIX E5, FIGURE E5-2
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

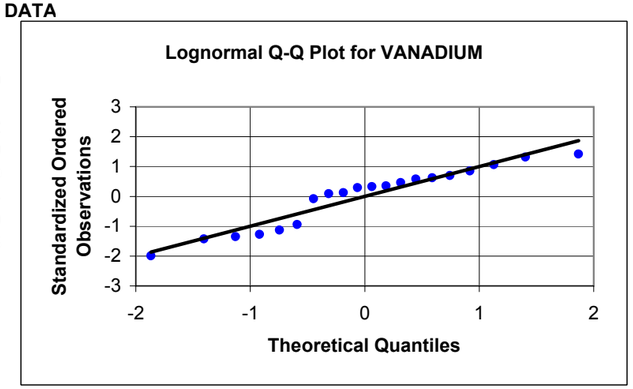
LOGNORMAL - RAW DATA
VANADIUM

Frequency of Detection	20/20
Mean	3.01
Standard Deviation	0.282
Slope =	0.283
Y Intercept =	3.01
Correlation =	0.964
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



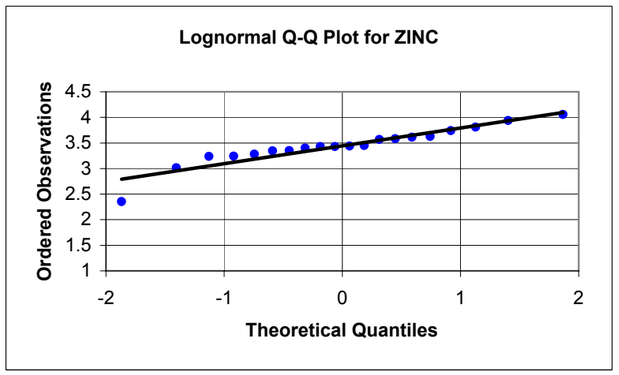
LOGNORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	20/20
Mean	3.01
Standard Deviation	0.282
Slope =	1.00
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



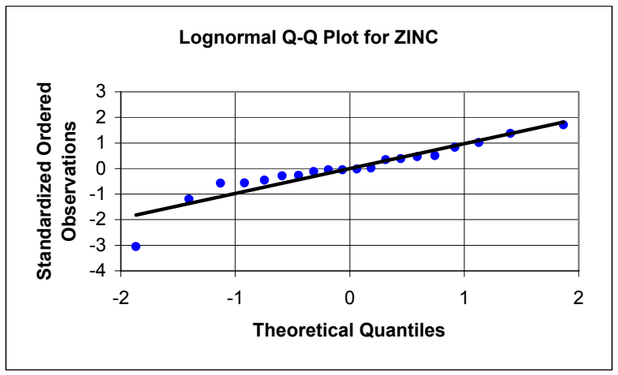
ZINC

Frequency of Detection	20/20
Mean	3.44
Standard Deviation	0.358
Slope =	0.349
Y Intercept =	3.44
Correlation =	0.938
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.905
Data are not lognormal	



ZINC

Frequency of Detection	20/20
Mean	3.44
Standard Deviation	0.358
Slope =	0.973
Y Intercept =	0
Correlation =	0.938
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.905
Data are not lognormal	

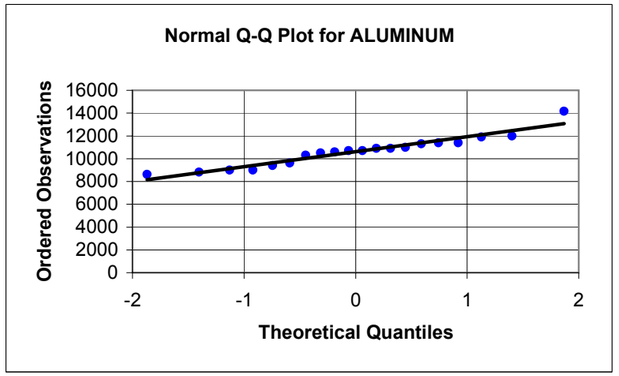


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

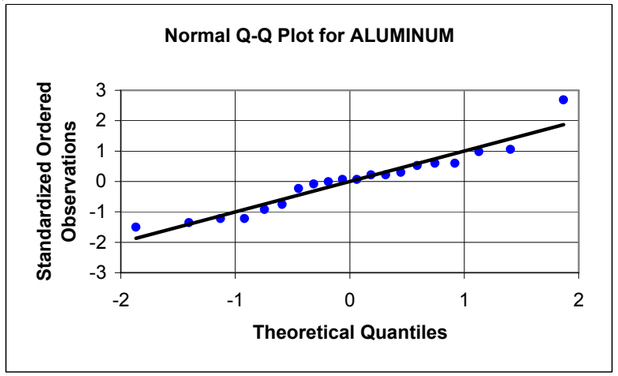
Frequency of Detection	20/20
Mean	10610
Standard Deviation	1320
Slope =	1318
Y Intercept =	10610
Correlation =	0.962
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

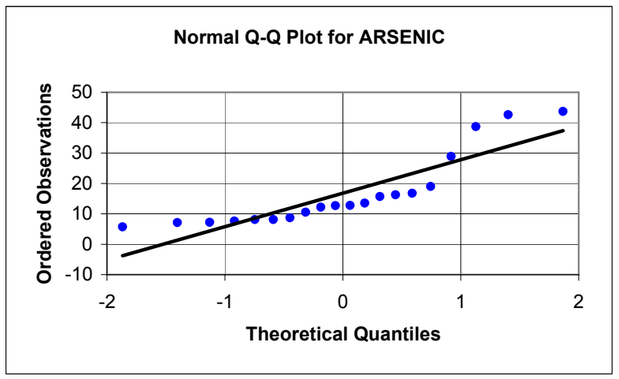
ALUMINUM

Frequency of Detection	20/20
Mean	10610
Standard Deviation	1320
Slope =	0.999
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.905
Data are normal	



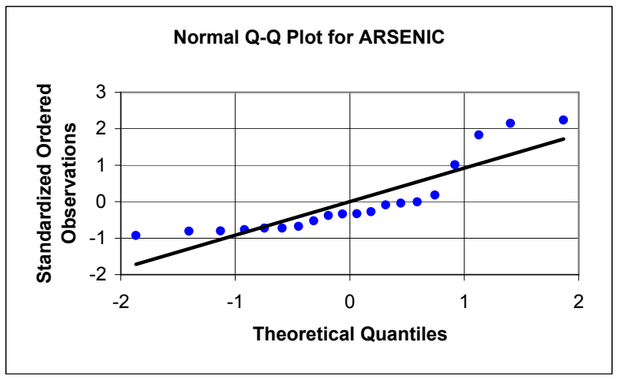
ARSENIC

Frequency of Detection	20/20
Mean	16.8
Standard Deviation	12.0
Slope =	11.0
Y Intercept =	16.8
Correlation =	0.885
Shapiro-Wilks Statistics	0.777
Crtitical Value	0.905
Data are not normal	



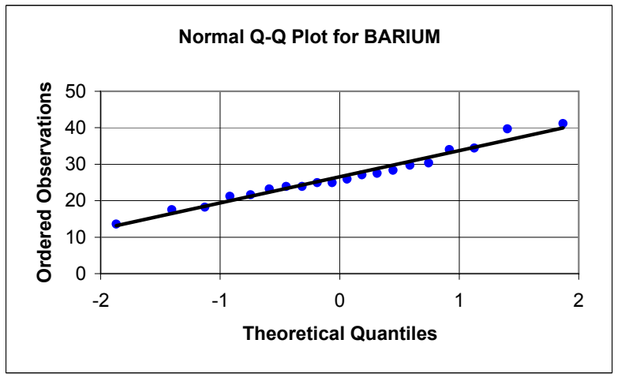
ARSENIC

Frequency of Detection	20/20
Mean	16.8
Standard Deviation	12.0
Slope =	0.919
Y Intercept =	0
Correlation =	0.885
Shapiro-Wilks Statistics	0.777
Crtitical Value	0.905
Data are not normal	



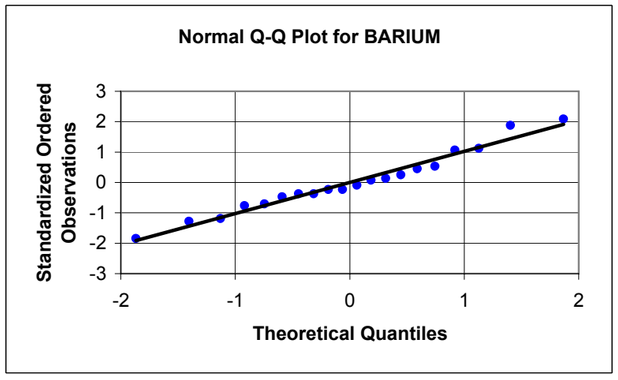
BARIUM

Frequency of Detection	20/20
Mean	26.6
Standard Deviation	7.01
Slope =	7.17
Y Intercept =	26.6
Correlation =	0.985
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	



BARIUM

Frequency of Detection	20/20
Mean	26.6
Standard Deviation	7.01
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	

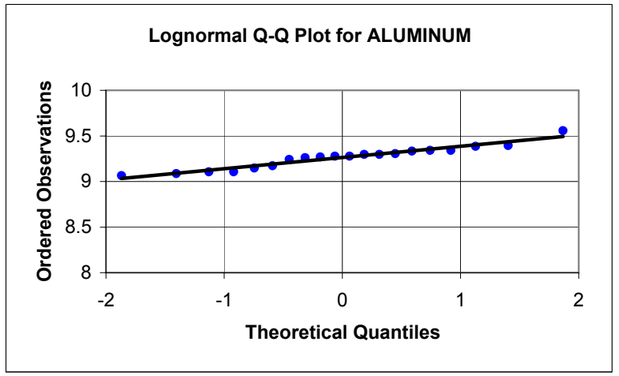


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

ALUMINUM

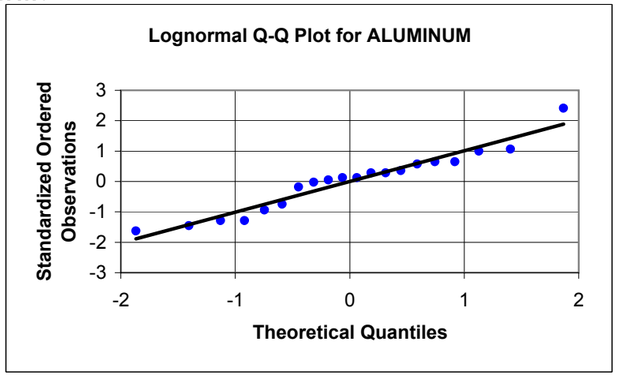
Frequency of Detection	20/20
Mean	9.26
Standard Deviation	0.122
Slope =	0.123
Y Intercept =	9.26
Correlation =	0.972
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

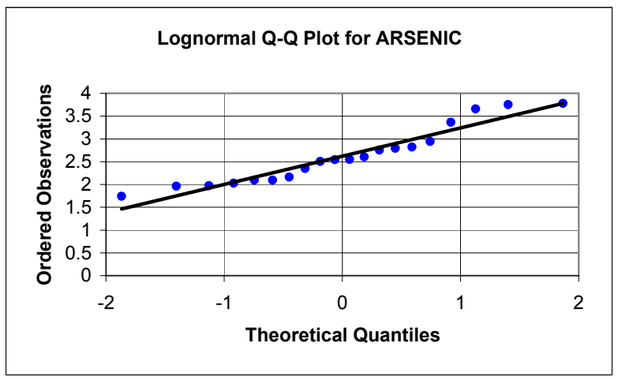
ALUMINUM

Frequency of Detection	20/20
Mean	9.26
Standard Deviation	0.122
Slope =	1.01
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.905
Data are lognormal	



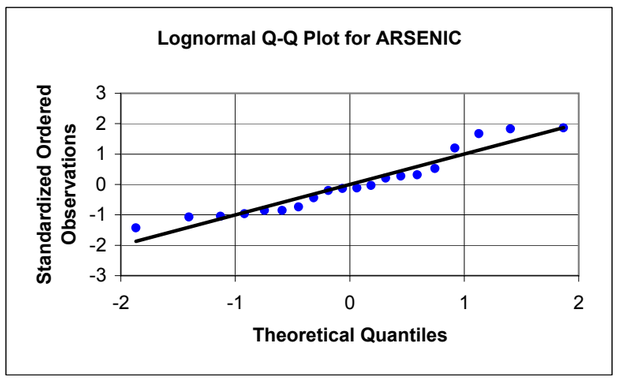
ARSENIC

Frequency of Detection	20/20
Mean	2.62
Standard Deviation	0.619
Slope =	0.620
Y Intercept =	2.62
Correlation =	0.965
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



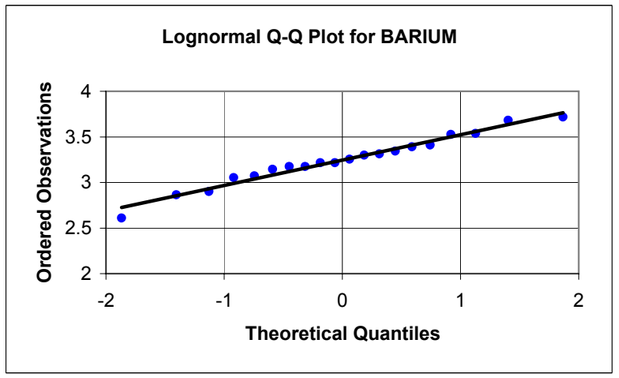
ARSENIC

Frequency of Detection	20/20
Mean	2.62
Standard Deviation	0.619
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



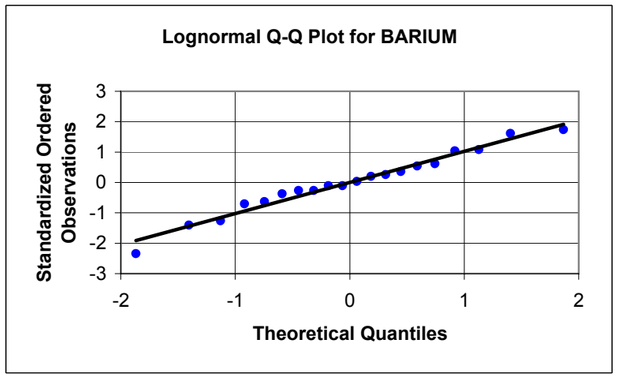
BARIUM

Frequency of Detection	20/20
Mean	3.25
Standard Deviation	0.271
Slope =	0.278
Y Intercept =	3.25
Correlation =	0.987
Shapiro-Wilks Statistics	0.978
Crtitical Value	0.905
Data are lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.25
Standard Deviation	0.271
Slope =	1.02
Y Intercept =	0
Correlation =	0.987
Shapiro-Wilks Statistics	0.978
Crtitical Value	0.905
Data are lognormal	

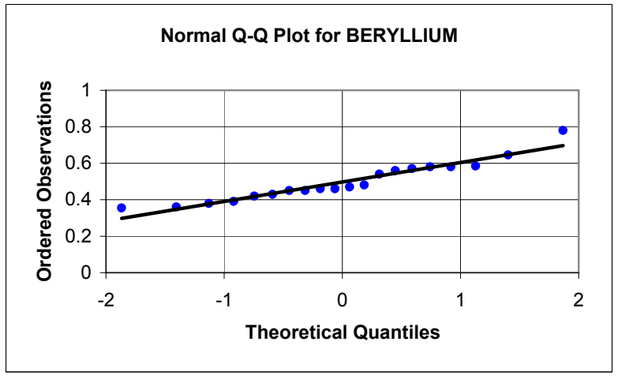


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

BERYLLIUM

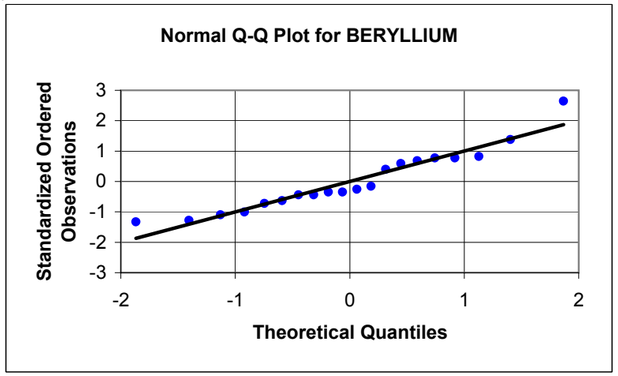
Frequency of Detection	20/20
Mean	0.497
Standard Deviation	0.107
Slope =	0.107
Y Intercept =	0.497
Correlation =	0.962
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

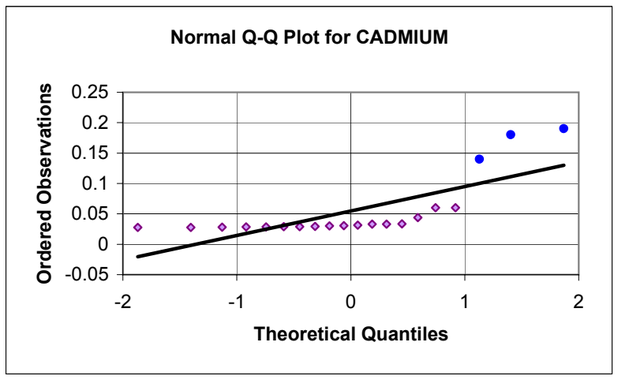
BERYLLIUM

Frequency of Detection	20/20
Mean	0.497
Standard Deviation	0.107
Slope =	0.999
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are normal	



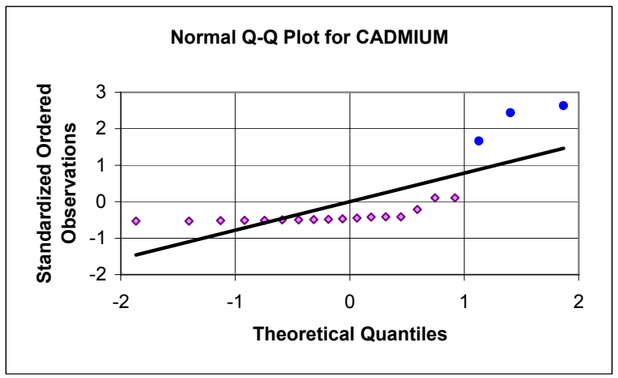
CADMIUM

Frequency of Detection	3/20
Mean	0.055
Standard Deviation	0.051
Slope =	0.040
Y Intercept =	0.055
Correlation =	0.754
Shapiro-Wilks Statistics	0.573
Crtitical Value	0.905
Data are not normal	



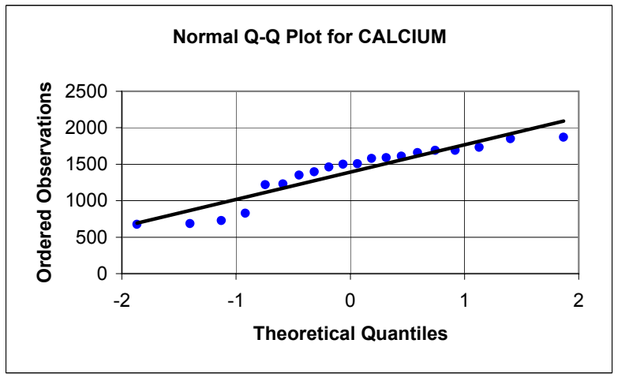
CADMIUM

Frequency of Detection	3/20
Mean	0.055
Standard Deviation	0.051
Slope =	0.783
Y Intercept =	0
Correlation =	0.754
Shapiro-Wilks Statistics	0.573
Crtitical Value	0.905
Data are not normal	



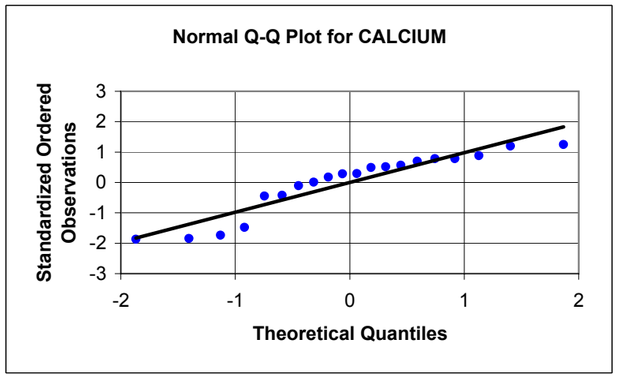
CALCIUM

Frequency of Detection	20/20
Mean	1392
Standard Deviation	383
Slope =	374
Y Intercept =	1392
Correlation =	0.941
Shapiro-Wilks Statistics	0.873
Crtitical Value	0.905
Data are not normal	



CALCIUM

Frequency of Detection	20/20
Mean	1392
Standard Deviation	383
Slope =	0.977
Y Intercept =	0
Correlation =	0.941
Shapiro-Wilks Statistics	0.873
Crtitical Value	0.905
Data are not normal	

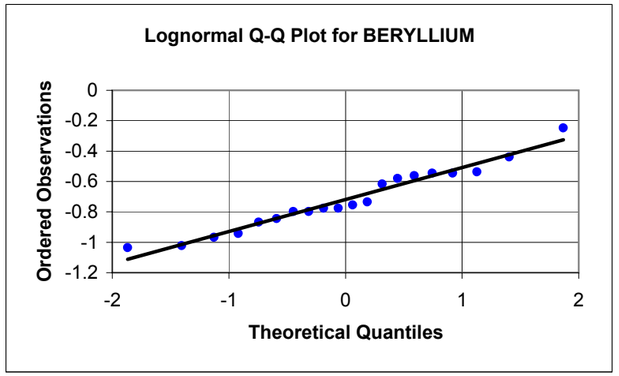


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

BERYLLIUM

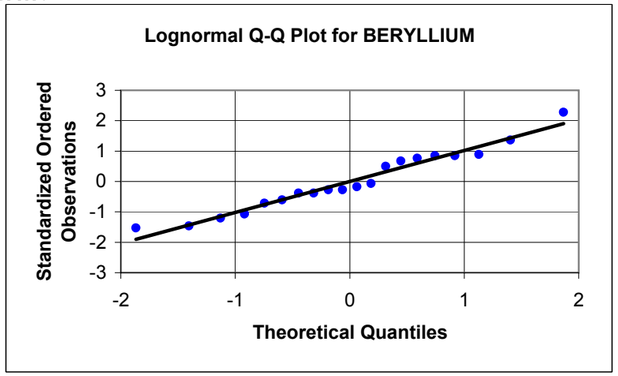
Frequency of Detection	20/20
Mean	-0.719
Standard Deviation	0.207
Slope =	0.210
Y Intercept =	-0.719
Correlation =	0.982
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

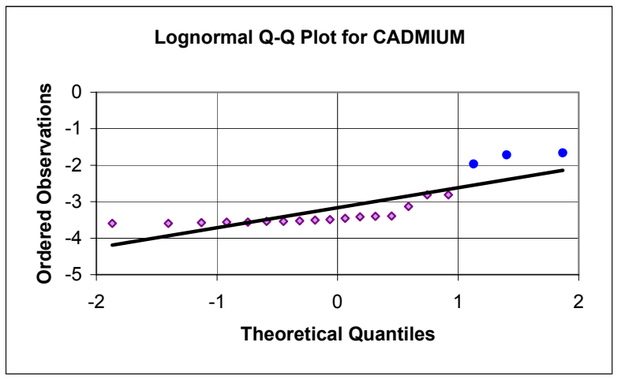
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.719
Standard Deviation	0.207
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	



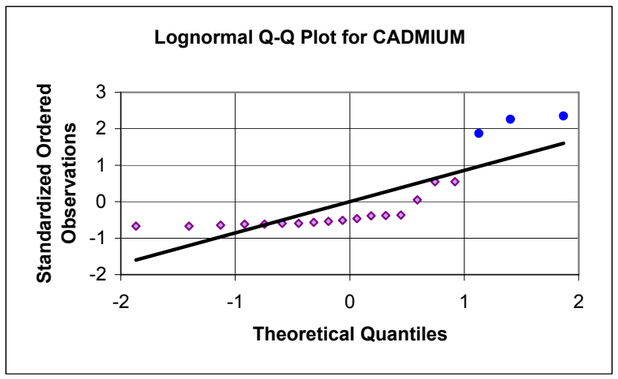
CADMIUM

Frequency of Detection	3/20
Mean	-3.162
Standard Deviation	0.640
Slope =	0.548
Y Intercept =	-3.162
Correlation =	0.825
Shapiro-Wilks Statistics	0.676
Crtitical Value	0.905
Data are not lognormal	



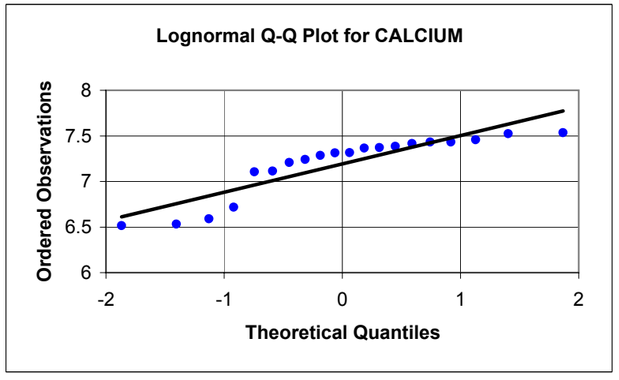
CADMIUM

Frequency of Detection	3/20
Mean	-3.162
Standard Deviation	0.640
Slope =	0.856
Y Intercept =	0
Correlation =	0.825
Shapiro-Wilks Statistics	0.676
Crtitical Value	0.905
Data are not lognormal	



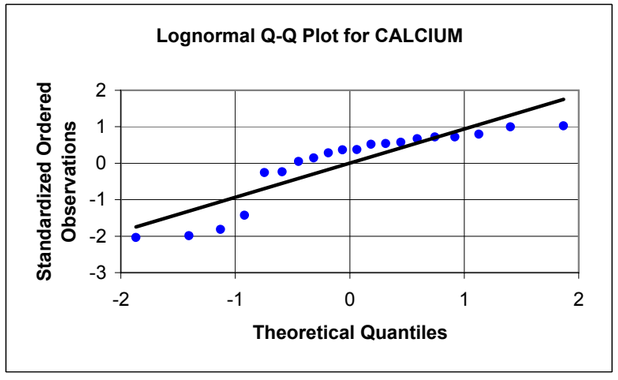
CALCIUM

Frequency of Detection	20/20
Mean	7.19
Standard Deviation	0.332
Slope =	0.311
Y Intercept =	7.19
Correlation =	0.901
Shapiro-Wilks Statistics	0.802
Crtitical Value	0.905
Data are not lognormal	



CALCIUM

Frequency of Detection	20/20
Mean	7.19
Standard Deviation	0.332
Slope =	0.936
Y Intercept =	0
Correlation =	0.901
Shapiro-Wilks Statistics	0.802
Crtitical Value	0.905
Data are not lognormal	

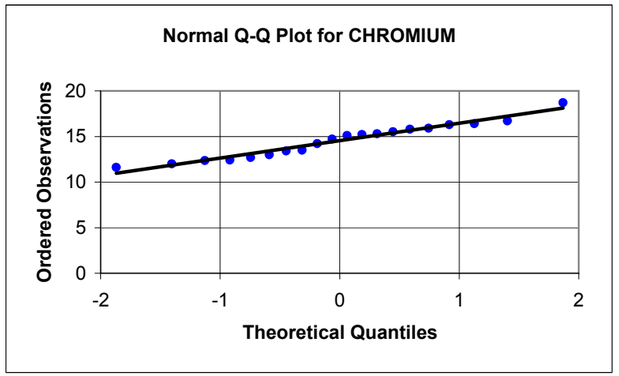


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

CHROMIUM

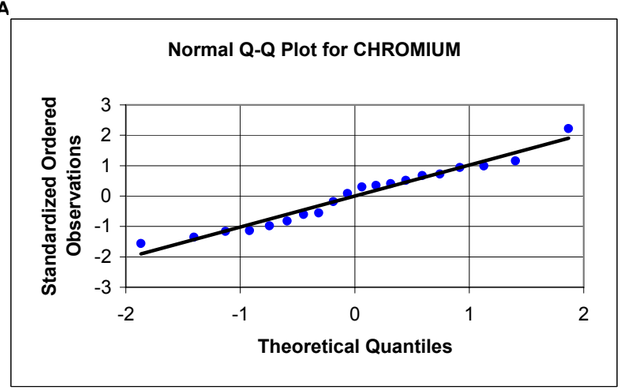
Frequency of Detection	20/20
Mean	14.5
Standard Deviation	1.88
Slope =	1.91
Y Intercept =	14.5
Correlation =	0.983
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

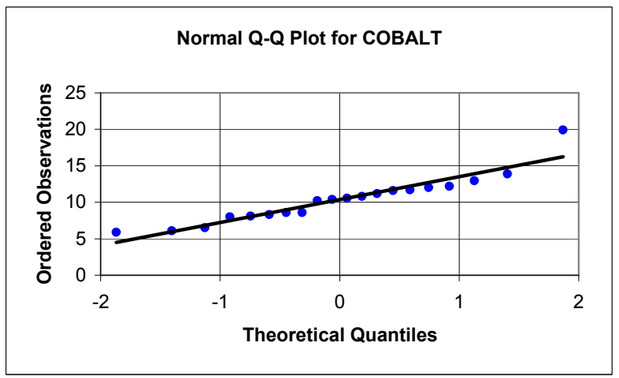
CHROMIUM

Frequency of Detection	20/20
Mean	14.5
Standard Deviation	1.88
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	



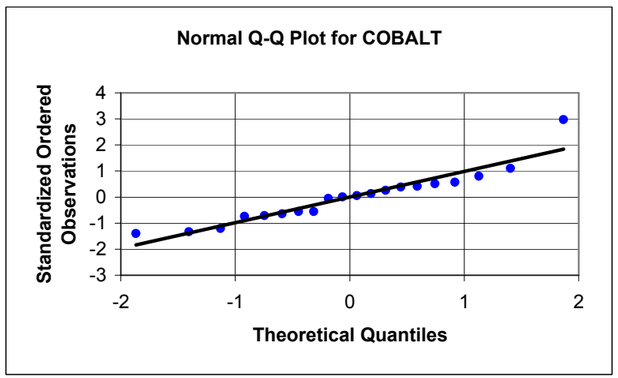
COBALT

Frequency of Detection	20/20
Mean	10.4
Standard Deviation	3.20
Slope =	3.14
Y Intercept =	10.4
Correlation =	0.946
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.905
Data are normal	



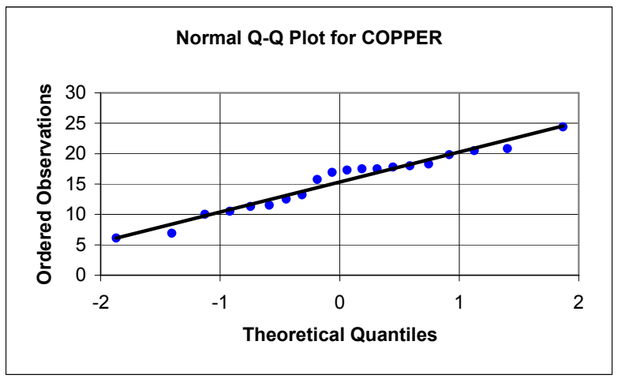
COBALT

Frequency of Detection	20/20
Mean	10.4
Standard Deviation	3.20
Slope =	0.982
Y Intercept =	0
Correlation =	0.946
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.905
Data are normal	



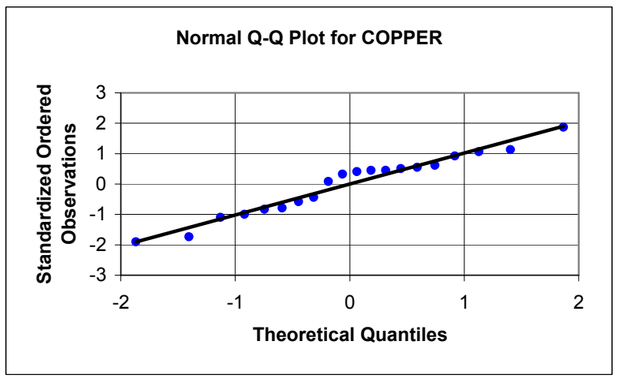
COPPER

Frequency of Detection	20/20
Mean	15.3
Standard Deviation	4.86
Slope =	4.95
Y Intercept =	15.3
Correlation =	0.981
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are normal	



COPPER

Frequency of Detection	20/20
Mean	15.3
Standard Deviation	4.86
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are normal	

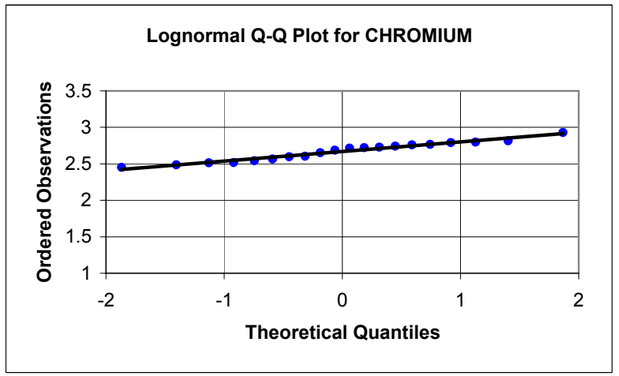


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

CHROMIUM

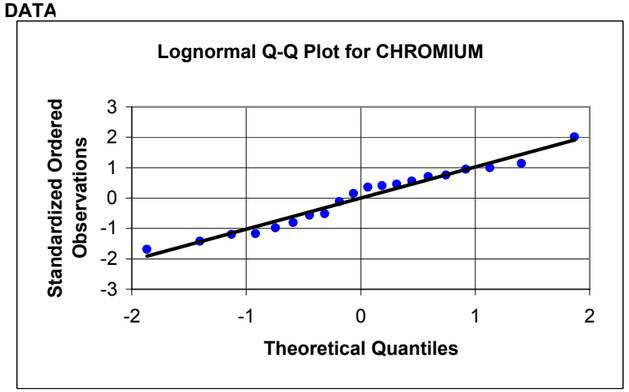
Frequency of Detection	20/20
Mean	2.67
Standard Deviation	0.129
Slope =	0.132
Y Intercept =	2.67
Correlation =	0.984
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

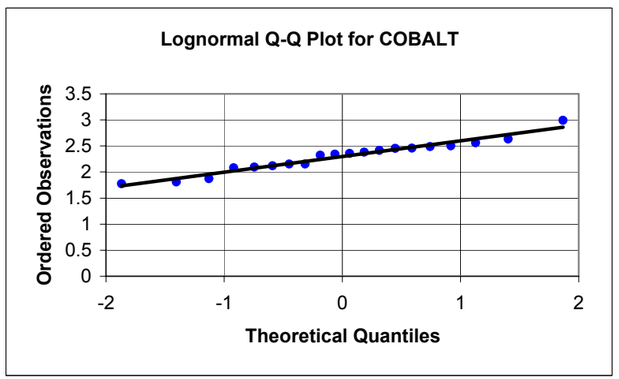
CHROMIUM

Frequency of Detection	20/20
Mean	2.67
Standard Deviation	0.129
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are lognormal	



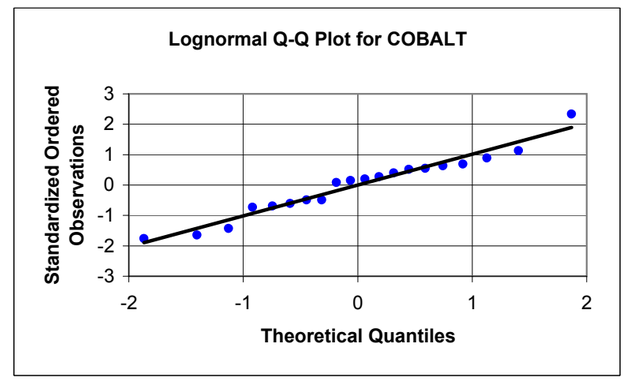
COBALT

Frequency of Detection	20/20
Mean	2.30
Standard Deviation	0.297
Slope =	0.301
Y Intercept =	2.30
Correlation =	0.979
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	



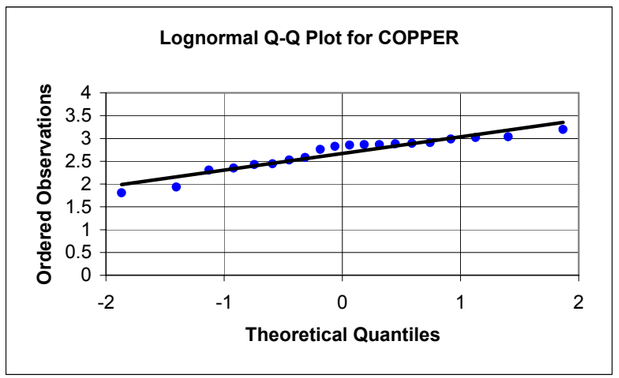
COBALT

Frequency of Detection	20/20
Mean	2.30
Standard Deviation	0.297
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	



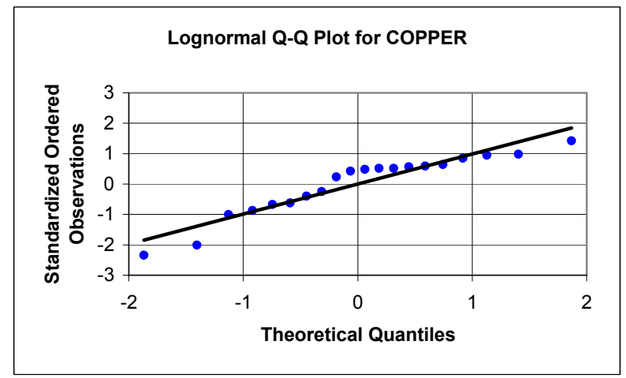
COPPER

Frequency of Detection	20/20
Mean	2.67
Standard Deviation	0.369
Slope =	0.364
Y Intercept =	2.67
Correlation =	0.952
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.905
Data are lognormal	



COPPER

Frequency of Detection	20/20
Mean	2.67
Standard Deviation	0.369
Slope =	0.988
Y Intercept =	0
Correlation =	0.952
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.905
Data are lognormal	

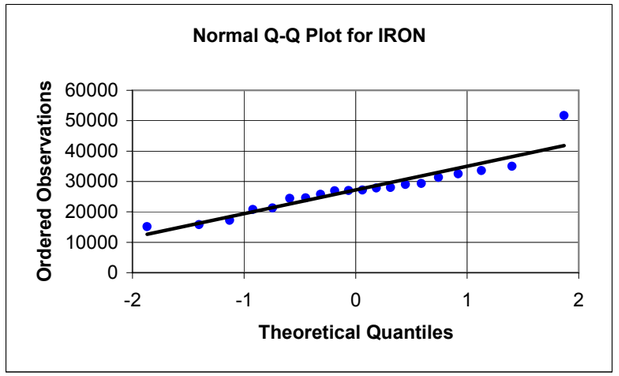


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

IRON

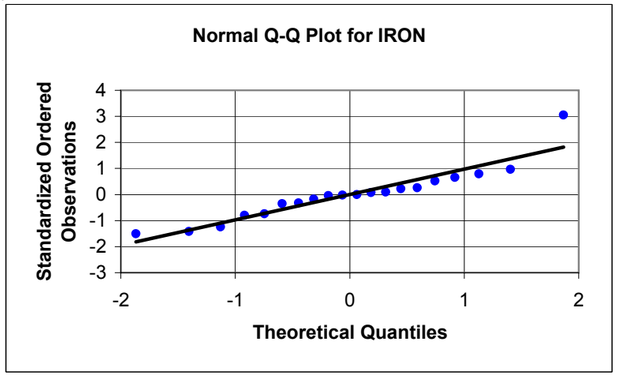
Frequency of Detection	20/20
Mean	27218
Standard Deviation	8029
Slope =	7814
Y Intercept =	27218
Correlation =	0.938
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

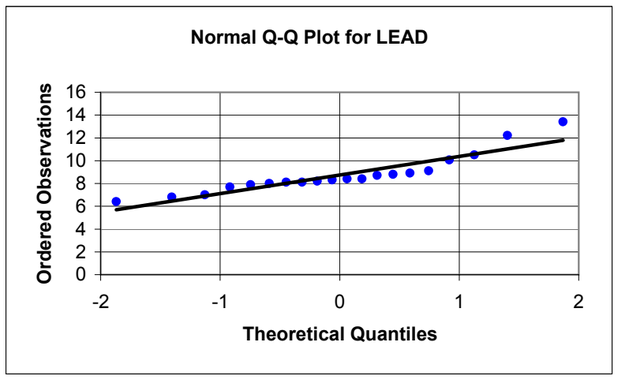
IRON

Frequency of Detection	20/20
Mean	27218
Standard Deviation	8029
Slope =	0.973
Y Intercept =	0
Correlation =	0.938
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.905
Data are not normal	



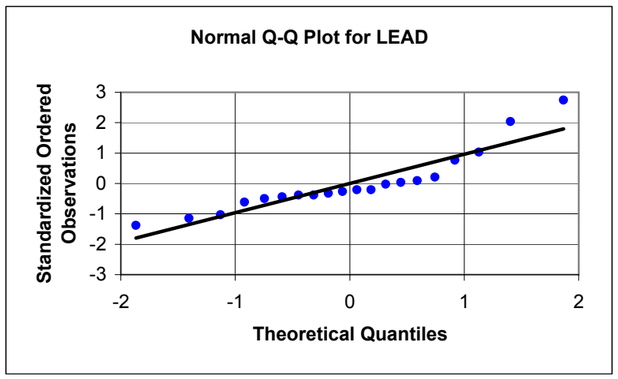
LEAD

Frequency of Detection	20/20
Mean	8.75
Standard Deviation	1.70
Slope =	1.63
Y Intercept =	8.75
Correlation =	0.924
Shapiro-Wilks Statistics	0.865
Crtitical Value	0.905
Data are not normal	



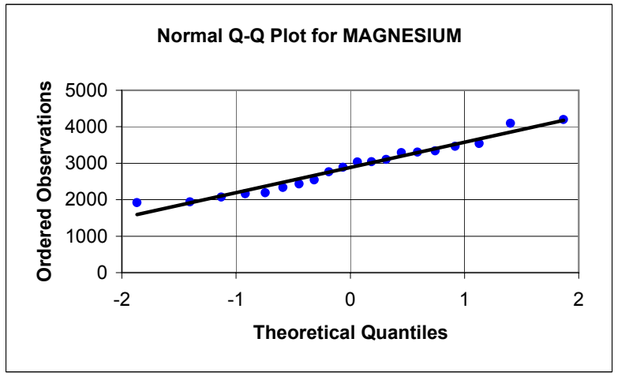
LEAD

Frequency of Detection	20/20
Mean	8.75
Standard Deviation	1.70
Slope =	0.960
Y Intercept =	0
Correlation =	0.924
Shapiro-Wilks Statistics	0.865
Crtitical Value	0.905
Data are not normal	



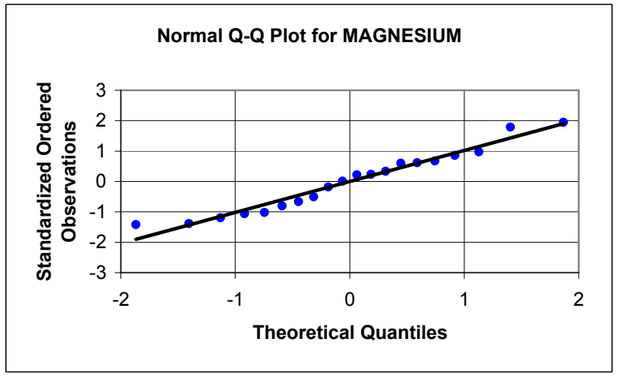
MAGNESIUM

Frequency of Detection	20/20
Mean	2882
Standard Deviation	678
Slope =	691
Y Intercept =	2882
Correlation =	0.982
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are normal	



MAGNESIUM

Frequency of Detection	20/20
Mean	2882
Standard Deviation	678
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are normal	

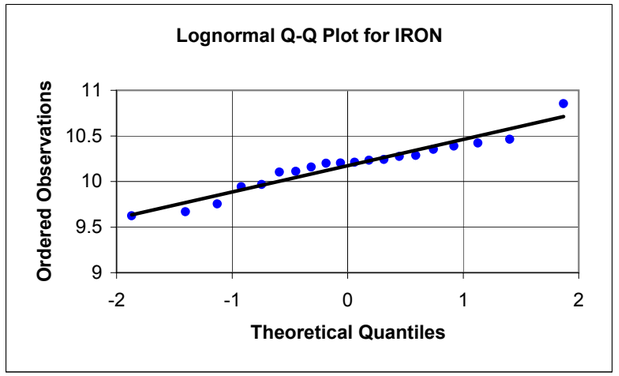


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

IRON

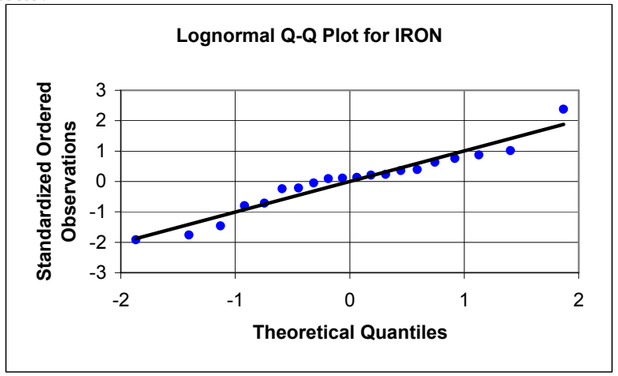
Frequency of Detection	20/20
Mean	10.2
Standard Deviation	0.287
Slope =	0.288
Y Intercept =	10.2
Correlation =	0.968
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

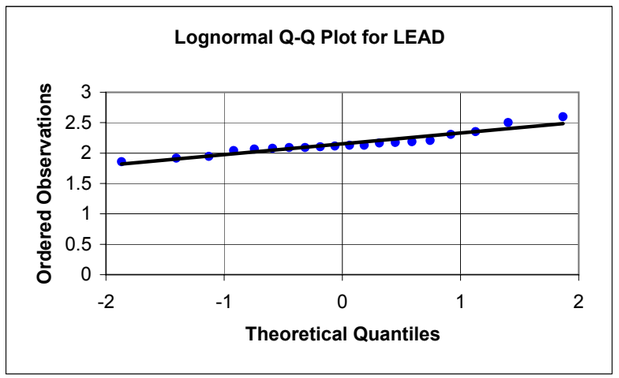
IRON

Frequency of Detection	20/20
Mean	10.2
Standard Deviation	0.287
Slope =	1.01
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.905
Data are lognormal	



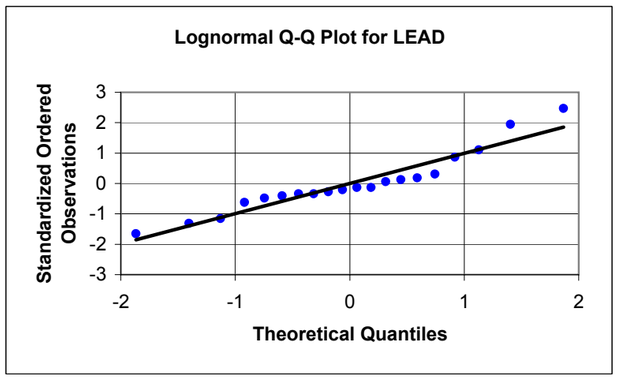
LEAD

Frequency of Detection	20/20
Mean	2.15
Standard Deviation	0.179
Slope =	0.178
Y Intercept =	2.15
Correlation =	0.957
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.905
Data are lognormal	



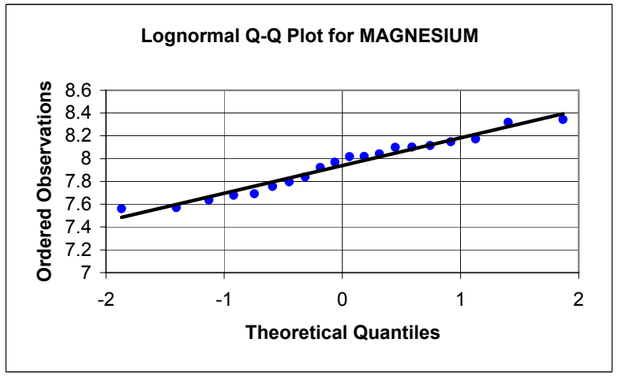
LEAD

Frequency of Detection	20/20
Mean	2.15
Standard Deviation	0.179
Slope =	0.993
Y Intercept =	0
Correlation =	0.957
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.905
Data are lognormal	



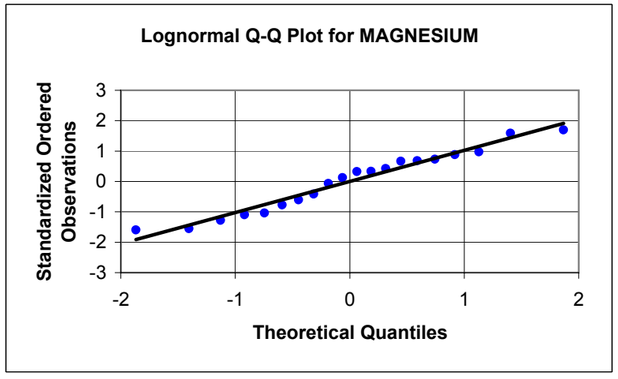
MAGNESIUM

Frequency of Detection	20/20
Mean	7.94
Standard Deviation	0.238
Slope =	0.243
Y Intercept =	7.94
Correlation =	0.984
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

Frequency of Detection	20/20
Mean	7.94
Standard Deviation	0.238
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	

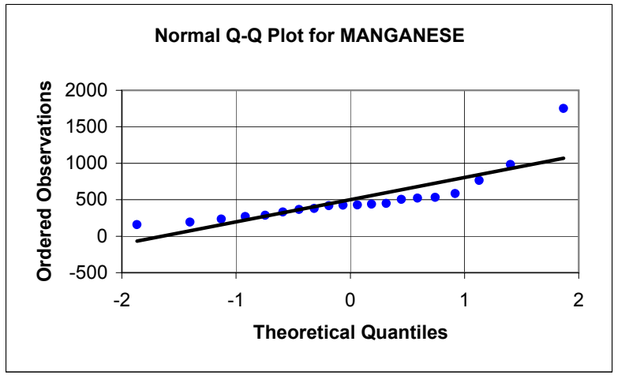


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

MANGANESE

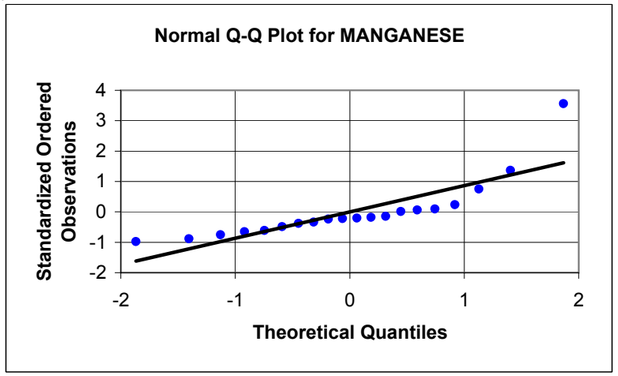
Frequency of Detection	20/20
Mean	501
Standard Deviation	351
Slope =	304
Y Intercept =	501
Correlation =	0.834
Shapiro-Wilks Statistics	0.718
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

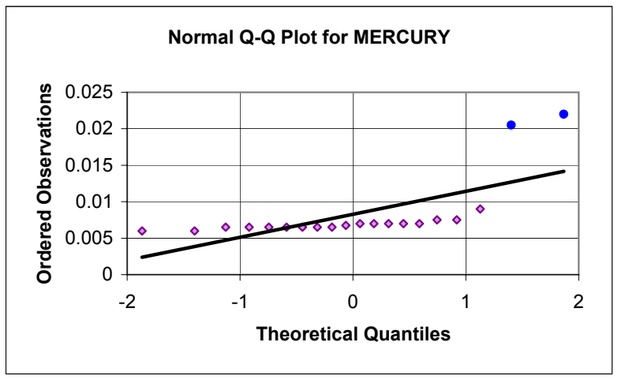
MANGANESE

Frequency of Detection	20/20
Mean	501
Standard Deviation	351
Slope =	0.865
Y Intercept =	0
Correlation =	0.834
Shapiro-Wilks Statistics	0.718
Crtitical Value	0.905
Data are not normal	



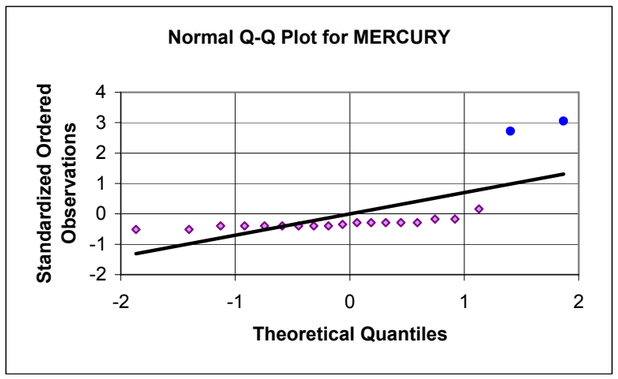
MERCURY

Frequency of Detection	2/20
Mean	0.008
Standard Deviation	0.004
Slope =	0.003
Y Intercept =	0.008
Correlation =	0.676
Shapiro-Wilks Statistics	0.472
Crtitical Value	0.905
Data are not normal	



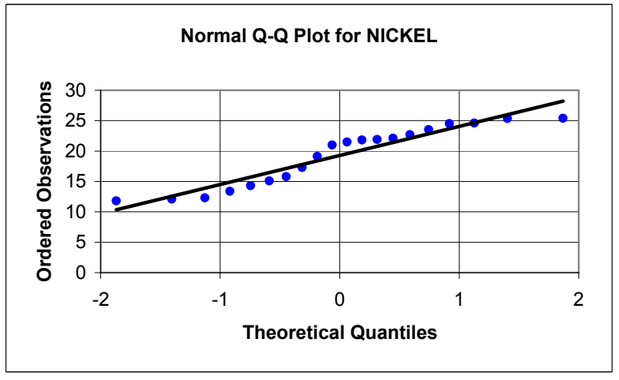
MERCURY

Frequency of Detection	2/20
Mean	0.008
Standard Deviation	0.004
Slope =	0.702
Y Intercept =	0
Correlation =	0.676
Shapiro-Wilks Statistics	0.472
Crtitical Value	0.905
Data are not normal	



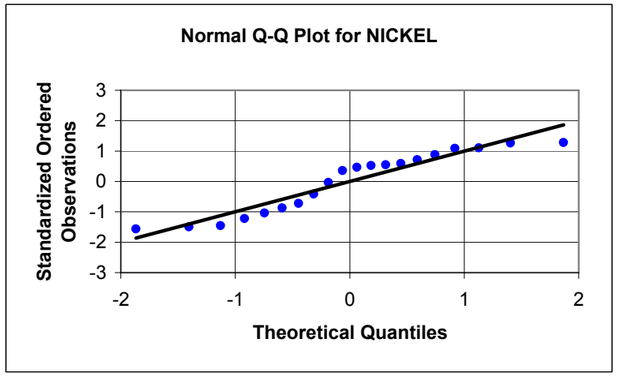
NICKEL

Frequency of Detection	20/20
Mean	19.3
Standard Deviation	4.80
Slope =	4.78
Y Intercept =	19.3
Correlation =	0.959
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	



NICKEL

Frequency of Detection	20/20
Mean	19.3
Standard Deviation	4.80
Slope =	0.995
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	

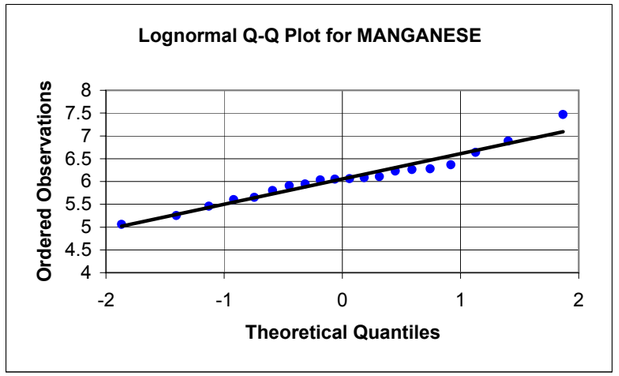


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

MANGANESE

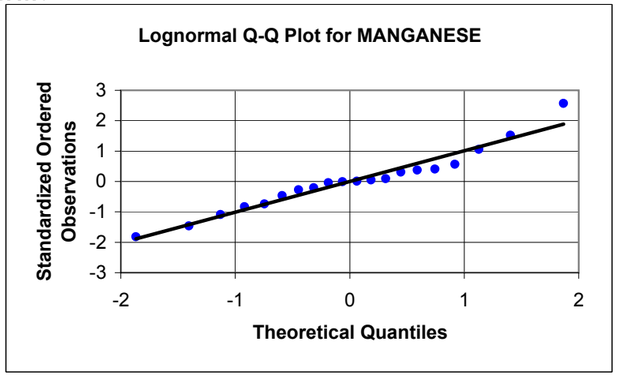
Frequency of Detection	20/20
Mean	6.06
Standard Deviation	0.549
Slope =	0.554
Y Intercept =	6.06
Correlation =	0.974
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

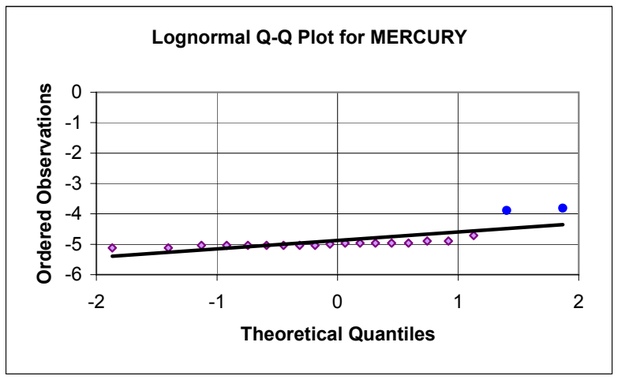
MANGANESE

Frequency of Detection	20/20
Mean	6.06
Standard Deviation	0.549
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.905
Data are lognormal	



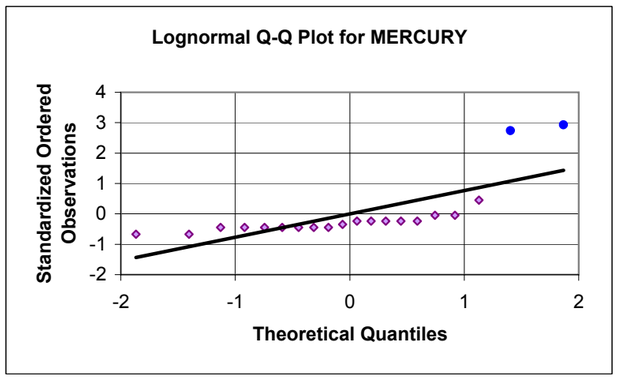
MERCURY

Frequency of Detection	2/20
Mean	-4.875
Standard Deviation	0.361
Slope =	0.276
Y Intercept =	-4.875
Correlation =	0.738
Shapiro-Wilks Statistics	0.557
Crtitical Value	0.905
Data are not lognormal	



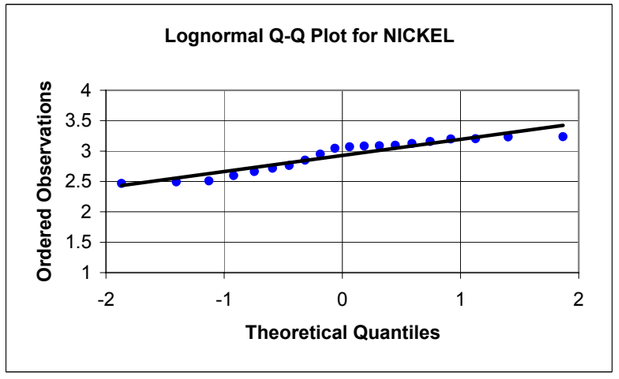
MERCURY

Frequency of Detection	2/20
Mean	-4.875
Standard Deviation	0.361
Slope =	0.766
Y Intercept =	0
Correlation =	0.738
Shapiro-Wilks Statistics	0.557
Crtitical Value	0.905
Data are not lognormal	



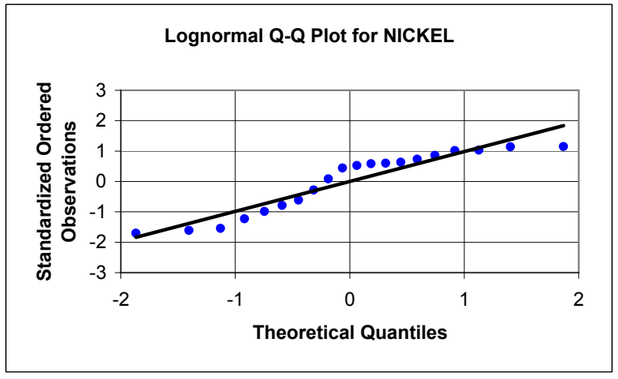
NICKEL

Frequency of Detection	20/20
Mean	2.93
Standard Deviation	0.269
Slope =	0.265
Y Intercept =	2.93
Correlation =	0.948
Shapiro-Wilks Statistics	0.879
Crtitical Value	0.905
Data are not lognormal	



NICKEL

Frequency of Detection	20/20
Mean	2.93
Standard Deviation	0.269
Slope =	0.984
Y Intercept =	0
Correlation =	0.948
Shapiro-Wilks Statistics	0.879
Crtitical Value	0.905
Data are not lognormal	

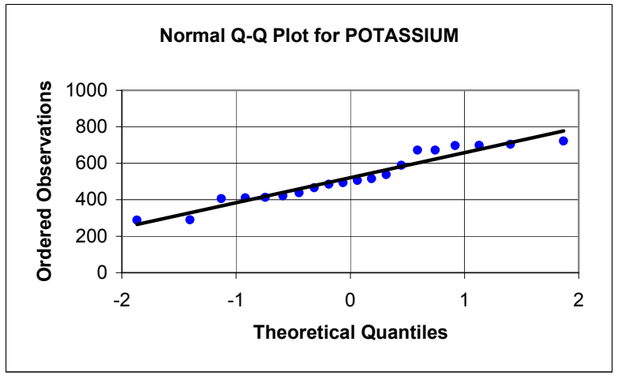


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

POTASSIUM

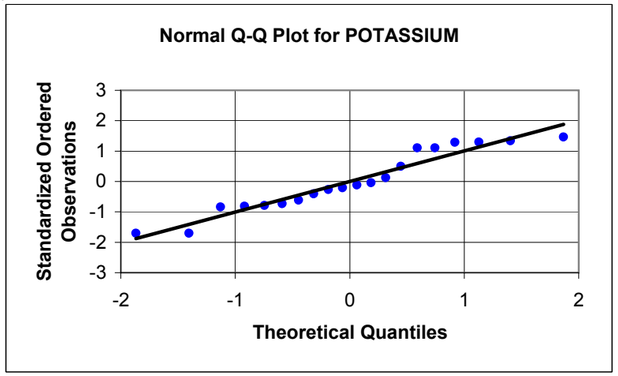
Frequency of Detection	20/20
Mean	521
Standard Deviation	136
Slope =	137
Y Intercept =	521
Correlation =	0.969
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

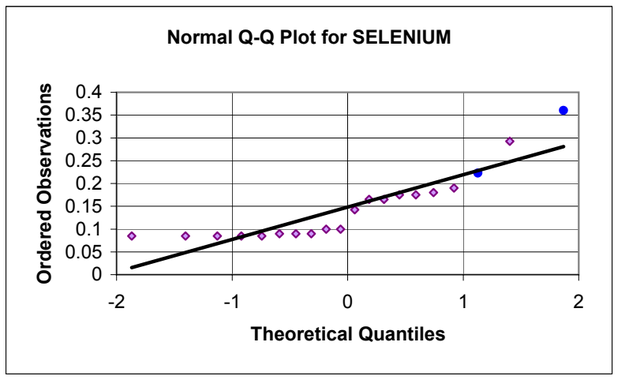
POTASSIUM

Frequency of Detection	20/20
Mean	521
Standard Deviation	136
Slope =	1.01
Y Intercept =	0
Correlation =	0.969
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	



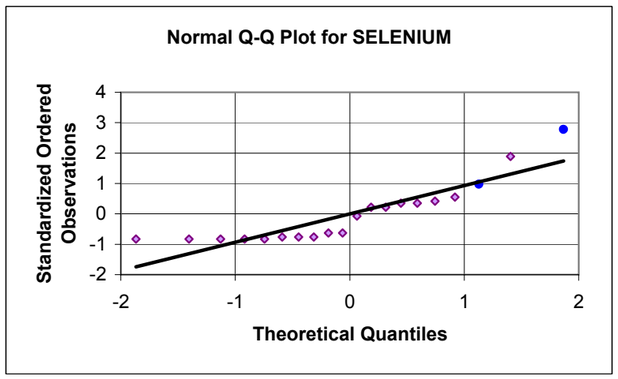
SELENIUM

Frequency of Detection	2/20
Mean	0.148
Standard Deviation	0.076
Slope =	0.071
Y Intercept =	0.148
Correlation =	0.897
Shapiro-Wilks Statistics	0.805
Crtitical Value	0.905
Data are not normal	



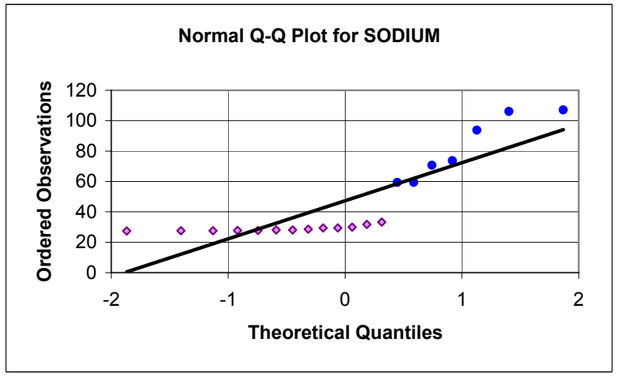
SELENIUM

Frequency of Detection	2/20
Mean	0.148
Standard Deviation	0.076
Slope =	0.931
Y Intercept =	0
Correlation =	0.897
Shapiro-Wilks Statistics	0.805
Crtitical Value	0.905
Data are not normal	



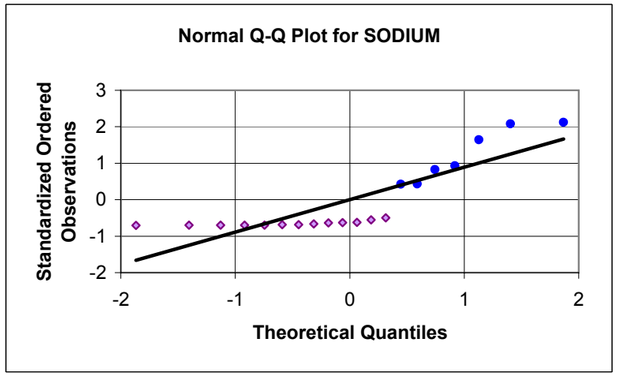
SODIUM

Frequency of Detection	7/20
Mean	47.3
Standard Deviation	28.2
Slope =	25.1
Y Intercept =	47.3
Correlation =	0.856
Shapiro-Wilks Statistics	0.722
Crtitical Value	0.905
Data are not normal	



SODIUM

Frequency of Detection	7/20
Mean	47.3
Standard Deviation	28.2
Slope =	0.889
Y Intercept =	0
Correlation =	0.856
Shapiro-Wilks Statistics	0.722
Crtitical Value	0.905
Data are not normal	

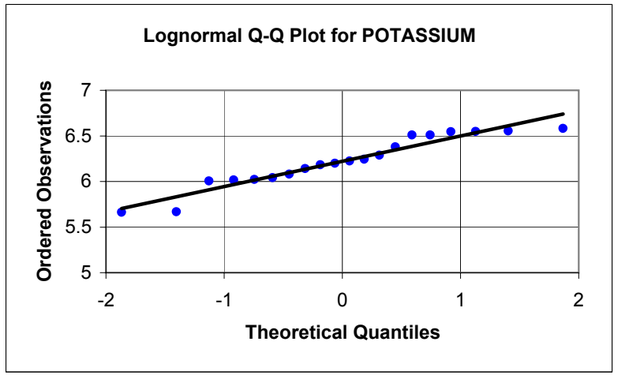


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

POTASSIUM

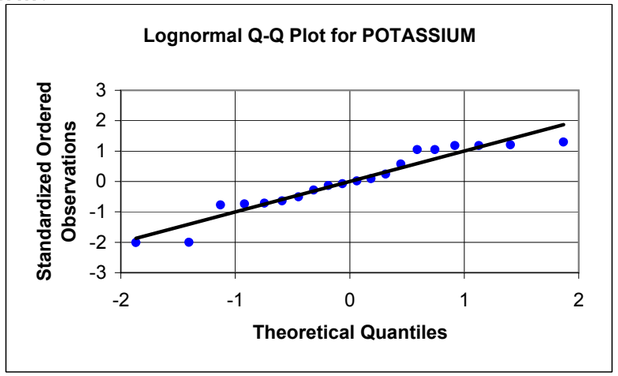
Frequency of Detection	20/20
Mean	6.22
Standard Deviation	0.277
Slope =	0.277
Y Intercept =	6.22
Correlation =	0.965
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

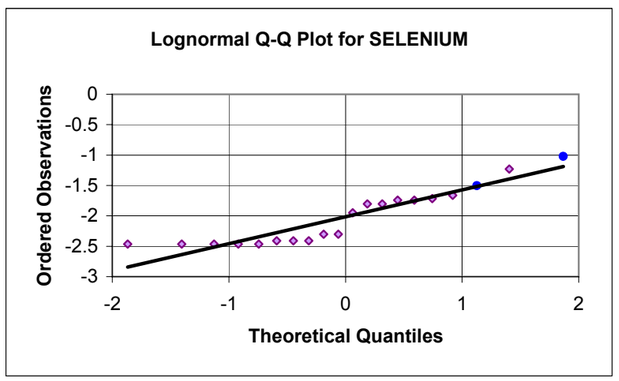
POTASSIUM

Frequency of Detection	20/20
Mean	6.22
Standard Deviation	0.277
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



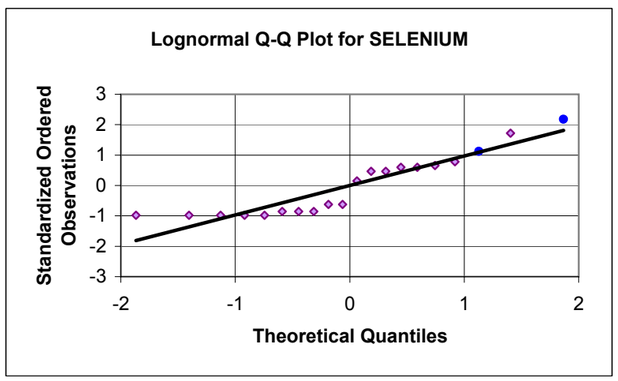
SELENIUM

Frequency of Detection	2/20
Mean	-2.016
Standard Deviation	0.457
Slope =	0.443
Y Intercept =	-2.016
Correlation =	0.934
Shapiro-Wilks Statistics	0.860
Crtitical Value	0.905
Data are not lognormal	



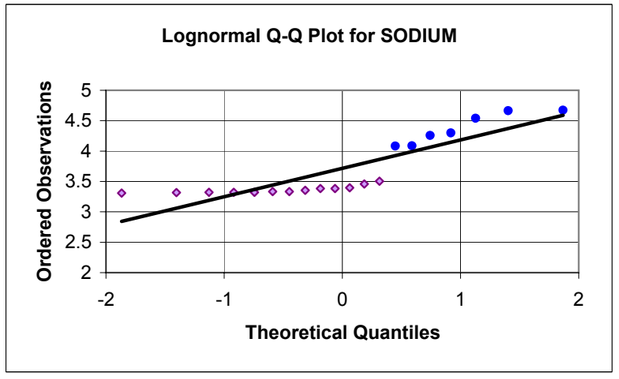
SELENIUM

Frequency of Detection	2/20
Mean	-2.016
Standard Deviation	0.457
Slope =	0.969
Y Intercept =	0
Correlation =	0.934
Shapiro-Wilks Statistics	0.860
Crtitical Value	0.905
Data are not lognormal	



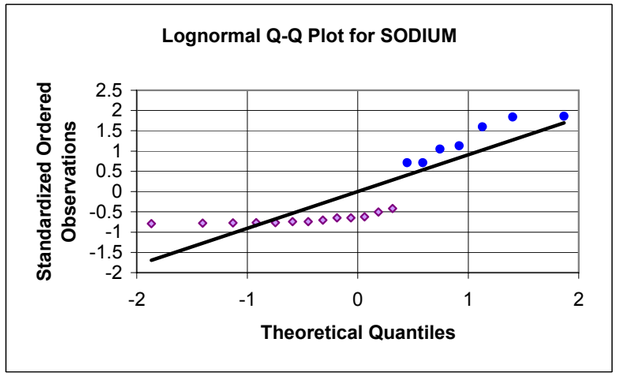
SODIUM

Frequency of Detection	7/20
Mean	3.72
Standard Deviation	0.515
Slope =	0.468
Y Intercept =	3.72
Correlation =	0.875
Shapiro-Wilks Statistics	0.748
Crtitical Value	0.905
Data are not lognormal	



SODIUM

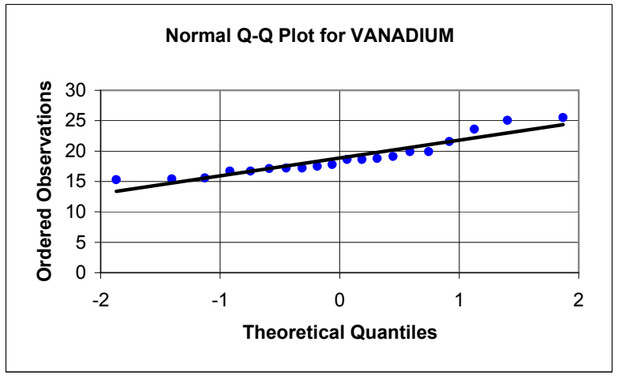
Frequency of Detection	7/20
Mean	3.72
Standard Deviation	0.515
Slope =	0.908
Y Intercept =	0
Correlation =	0.875
Shapiro-Wilks Statistics	0.748
Crtitical Value	0.905
Data are not lognormal	



APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

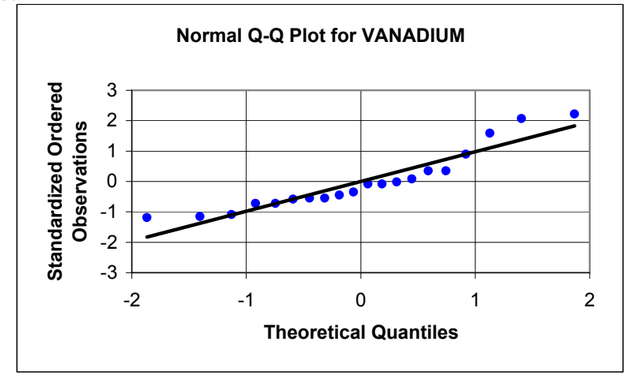
NORMAL - RAW DATA
VANADIUM

Frequency of Detection	20/20
Mean	18.9
Standard Deviation	3.00
Slope =	2.93
Y Intercept =	18.9
Correlation =	0.943
Shapiro-Wilks Statistics	0.882
Crtitical Value	0.905
Data are not normal	



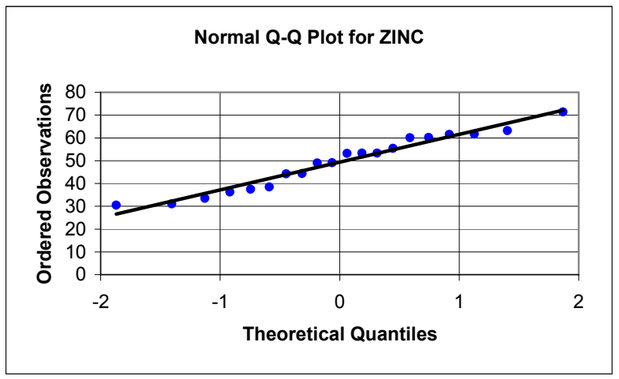
NORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	20/20
Mean	18.9
Standard Deviation	3.00
Slope =	0.979
Y Intercept =	0
Correlation =	0.943
Shapiro-Wilks Statistics	0.882
Crtitical Value	0.905
Data are not normal	



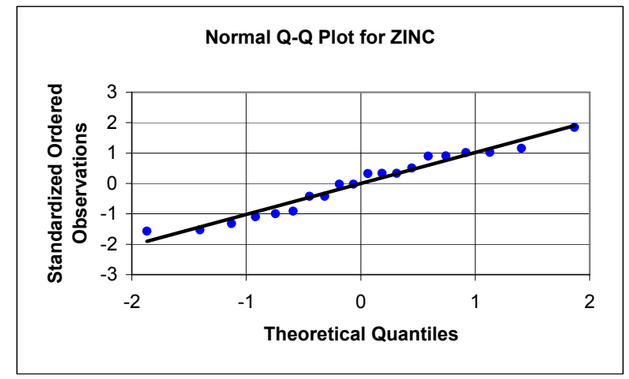
ZINC

Frequency of Detection	20/20
Mean	49.3
Standard Deviation	12.0
Slope =	12.2
Y Intercept =	49.3
Correlation =	0.982
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are normal	



ZINC

Frequency of Detection	20/20
Mean	49.3
Standard Deviation	12.0
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are normal	

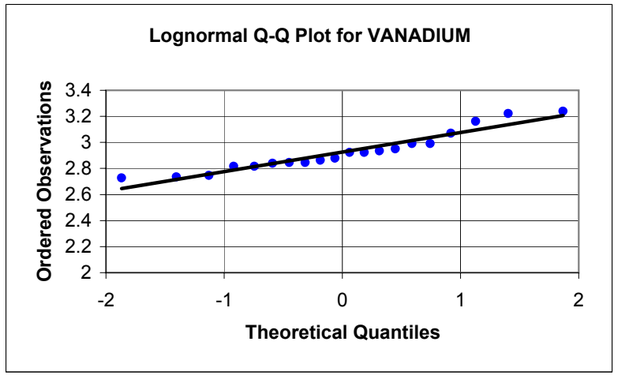


APPENDIX E5, FIGURE E5-3
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

VANADIUM

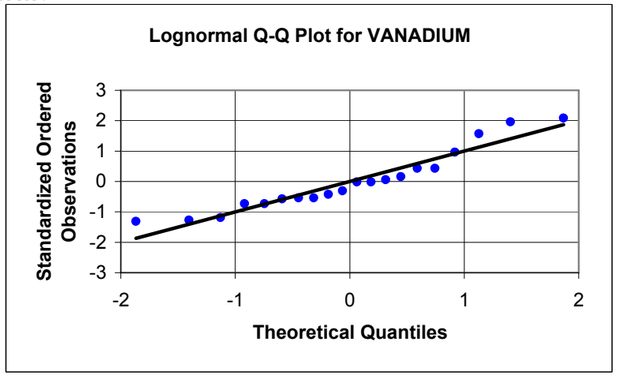
Frequency of Detection	20/20
Mean	2.93
Standard Deviation	0.150
Slope =	0.150
Y Intercept =	2.93
Correlation =	0.962
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

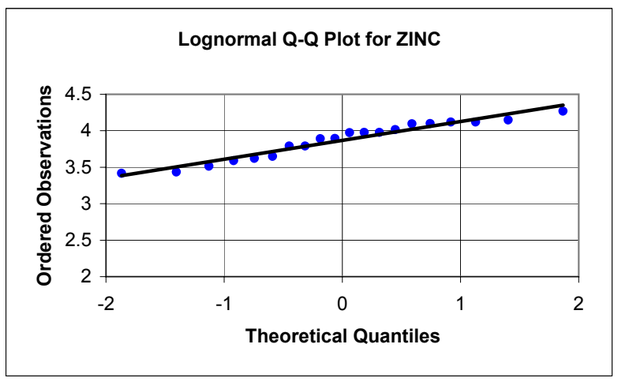
VANADIUM

Frequency of Detection	20/20
Mean	2.93
Standard Deviation	0.150
Slope =	0.999
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



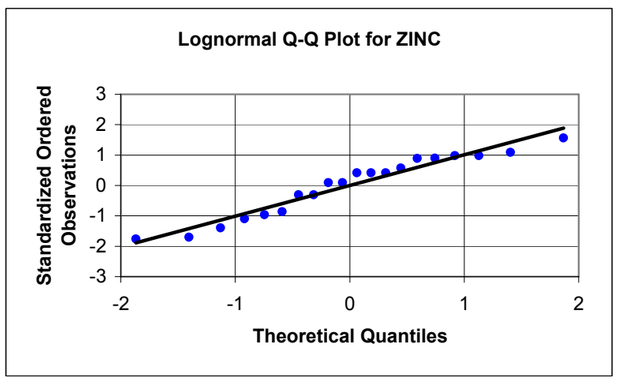
ZINC

Frequency of Detection	20/20
Mean	3.87
Standard Deviation	0.256
Slope =	0.259
Y Intercept =	3.87
Correlation =	0.974
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are lognormal	



ZINC

Frequency of Detection	20/20
Mean	3.87
Standard Deviation	0.256
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are lognormal	

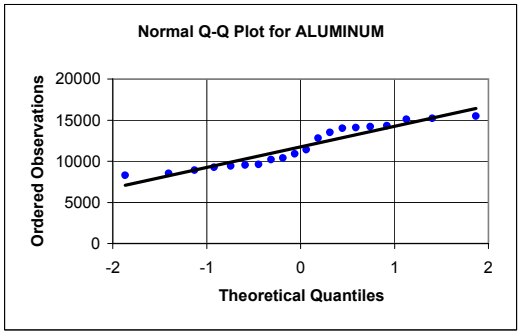


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

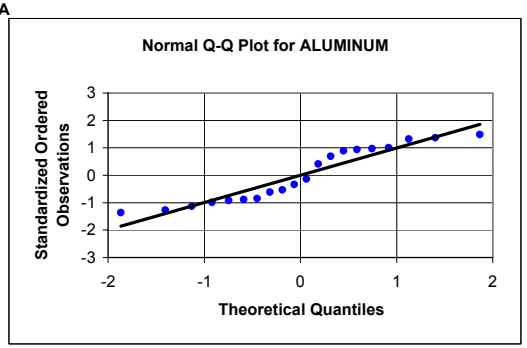
Frequency of Detection	20/20
Mean	11758
Standard Deviation	2524
Slope =	2505
Y Intercept =	11758
Correlation =	0.956
Shapiro-Wilks Statistics	0.893
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

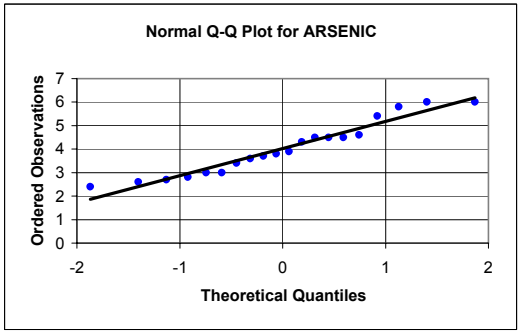
ALUMINUM

Frequency of Detection	20/20
Mean	11758
Standard Deviation	2524
Slope =	0.992
Y Intercept =	0
Correlation =	0.956
Shapiro-Wilks Statistics	0.893
Crtitical Value	0.905
Data are not normal	



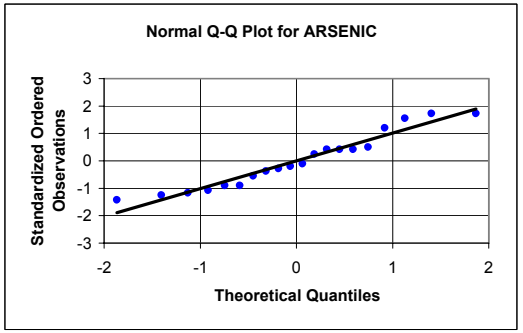
ARSENIC

Frequency of Detection	20/20
Mean	4.03
Standard Deviation	1.14
Slope =	1.15
Y Intercept =	4.03
Correlation =	0.975
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	



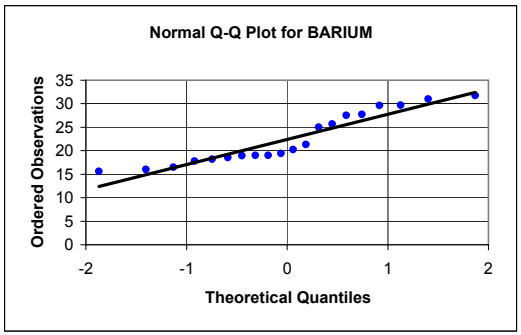
ARSENIC

Frequency of Detection	20/20
Mean	4.03
Standard Deviation	1.14
Slope =	1.01
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.905
Data are normal	



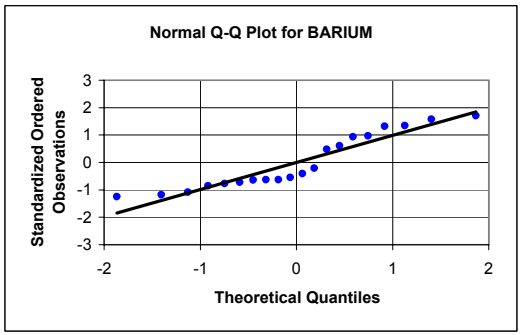
BARIUM

Frequency of Detection	20/20
Mean	22.4
Standard Deviation	5.45
Slope =	5.37
Y Intercept =	22.4
Correlation =	0.949
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.905
Data are not normal	



BARIUM

Frequency of Detection	20/20
Mean	22.4
Standard Deviation	5.45
Slope =	0.985
Y Intercept =	0
Correlation =	0.949
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.905
Data are not normal	

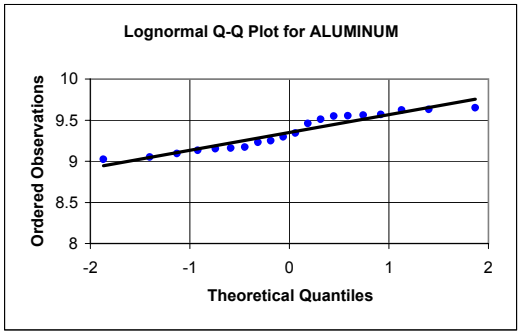


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

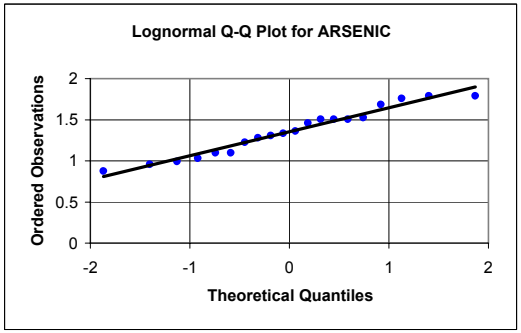
ALUMINUM

Frequency of Detection	20/20
Mean	9.35
Standard Deviation	0.217
Slope =	0.216
Y Intercept =	9.35
Correlation =	0.959
Shapiro-Wilks Statistics	0.899
Crtitical Value	0.905
Data are not lognormal	



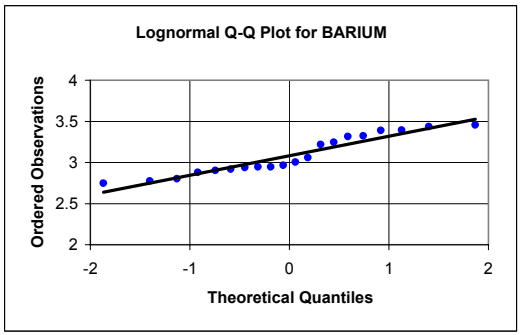
ARSENIC

Frequency of Detection	20/20
Mean	1.35
Standard Deviation	0.285
Slope =	0.291
Y Intercept =	1.35
Correlation =	0.984
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



BARIUM

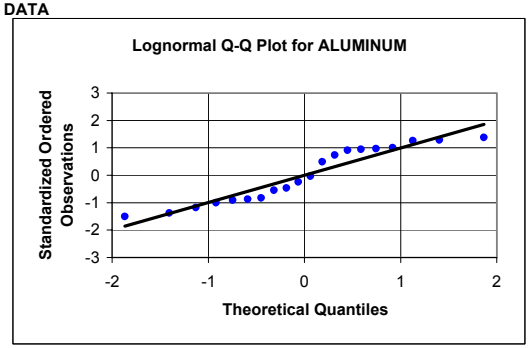
Frequency of Detection	20/20
Mean	3.08
Standard Deviation	0.238
Slope =	0.237
Y Intercept =	3.08
Correlation =	0.960
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

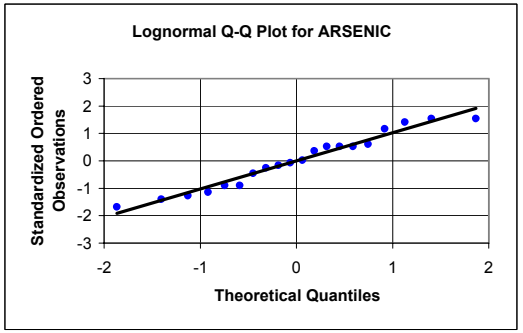
ALUMINUM

Frequency of Detection	20/20
Mean	9.35
Standard Deviation	0.217
Slope =	0.996
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.899
Crtitical Value	0.905
Data are not lognormal	



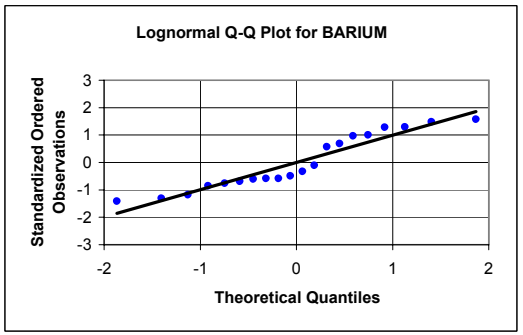
ARSENIC

Frequency of Detection	20/20
Mean	1.35
Standard Deviation	0.285
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.08
Standard Deviation	0.238
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not lognormal	

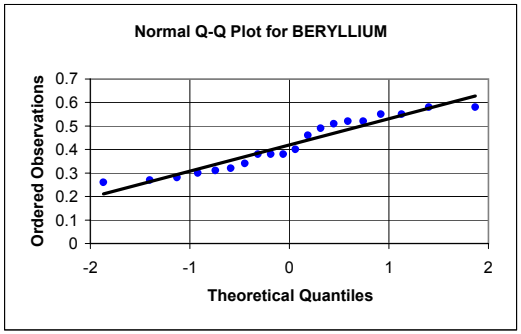


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

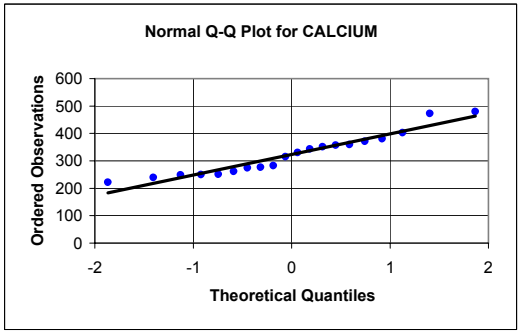
BERYLLIUM

Frequency of Detection	20/20
Mean	0.419
Standard Deviation	0.111
Slope =	0.112
Y Intercept =	0.419
Correlation =	0.966
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are normal	



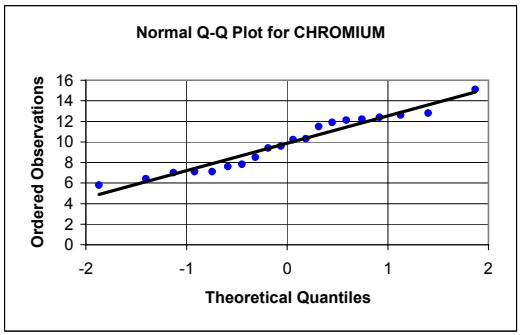
CALCIUM

Frequency of Detection	20/20
Mean	323
Standard Deviation	74.7
Slope =	75.1
Y Intercept =	323
Correlation =	0.968
Shapiro-Wilks Statistics	0.928
Crtitical Value	0.905
Data are normal	



CHROMIUM

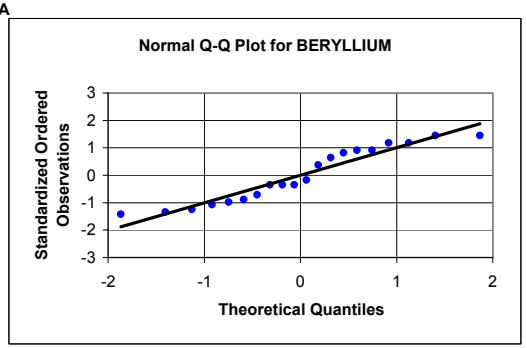
Frequency of Detection	20/20
Mean	9.87
Standard Deviation	2.63
Slope =	2.66
Y Intercept =	9.87
Correlation =	0.977
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

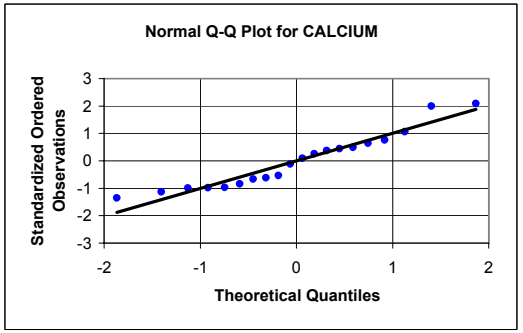
BERYLLIUM

Frequency of Detection	20/20
Mean	0.419
Standard Deviation	0.111
Slope =	1.00
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are normal	



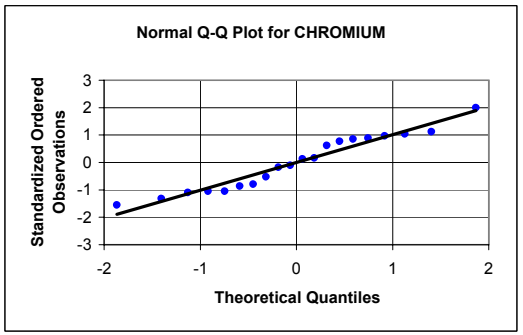
CALCIUM

Frequency of Detection	20/20
Mean	323
Standard Deviation	74.7
Slope =	1.00
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.928
Crtitical Value	0.905
Data are normal	



CHROMIUM

Frequency of Detection	20/20
Mean	9.87
Standard Deviation	2.63
Slope =	1.01
Y Intercept =	0
Correlation =	0.977
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are normal	

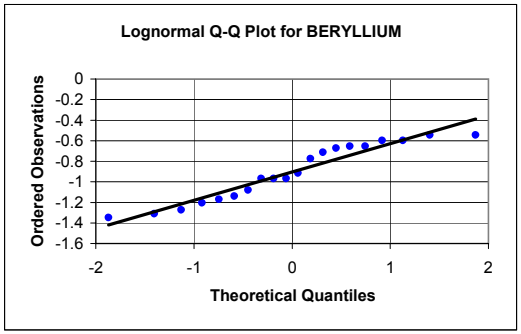


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

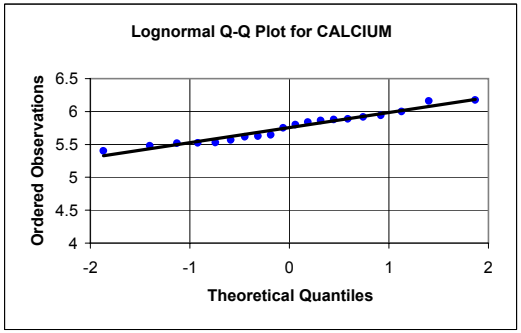
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.905
Standard Deviation	0.275
Slope =	0.276
Y Intercept =	-0.905
Correlation =	0.967
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are lognormal	



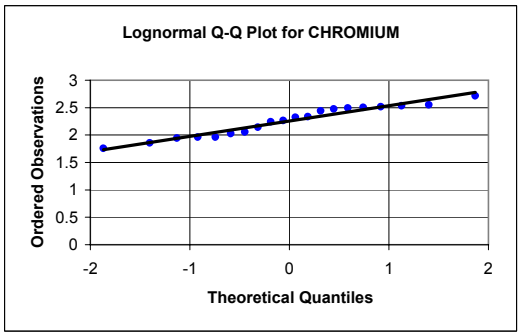
CALCIUM

Frequency of Detection	20/20
Mean	5.75
Standard Deviation	0.225
Slope =	0.229
Y Intercept =	5.75
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are lognormal	



CHROMIUM

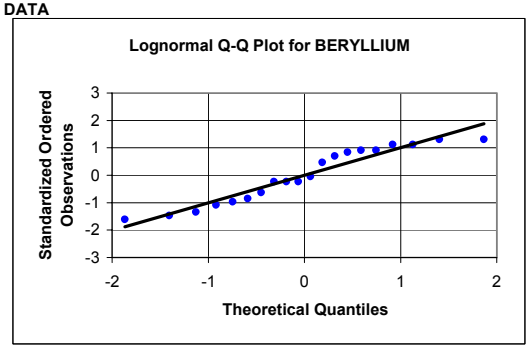
Frequency of Detection	20/20
Mean	2.25
Standard Deviation	0.275
Slope =	0.279
Y Intercept =	2.25
Correlation =	0.977
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

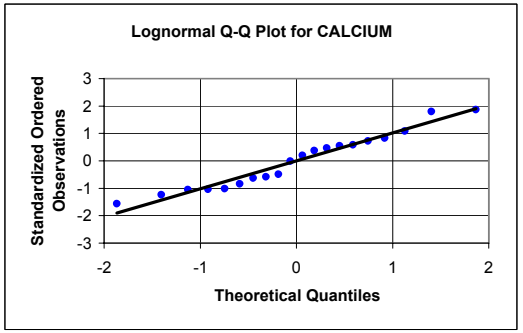
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.905
Standard Deviation	0.275
Slope =	1.00
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are lognormal	



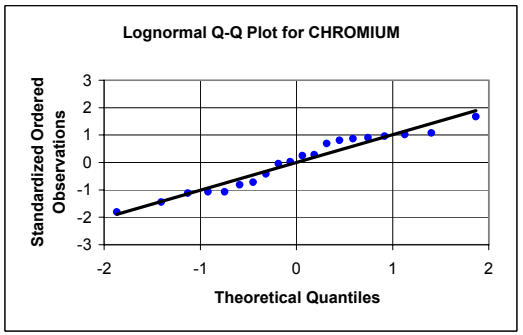
CALCIUM

Frequency of Detection	20/20
Mean	5.75
Standard Deviation	0.225
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are lognormal	



CHROMIUM

Frequency of Detection	20/20
Mean	2.25
Standard Deviation	0.275
Slope =	1.01
Y Intercept =	0
Correlation =	0.977
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.905
Data are lognormal	

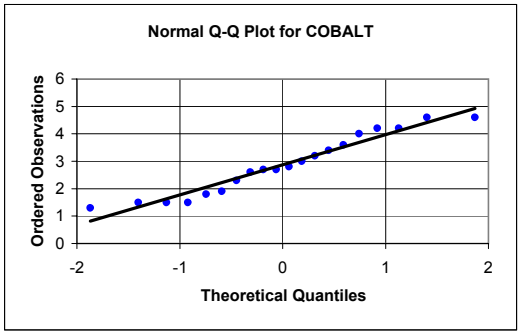


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

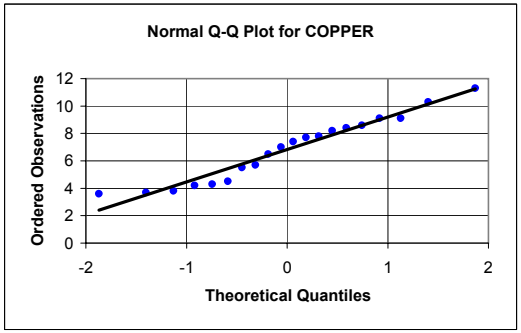
COBALT

Frequency of Detection	20/20
Mean	2.87
Standard Deviation	1.09
Slope =	1.10
Y Intercept =	2.87
Correlation =	0.978
Shapiro-Wilks Statistics	0.937
Crtitical Value	0.905
Data are normal	



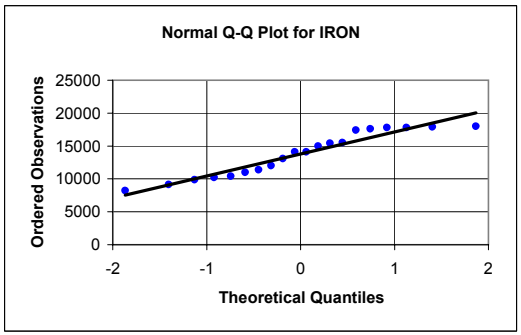
COPPER

Frequency of Detection	20/20
Mean	6.84
Standard Deviation	2.33
Slope =	2.37
Y Intercept =	6.84
Correlation =	0.979
Shapiro-Wilks Statistics	0.945
Crtitical Value	0.905
Data are normal	



IRON

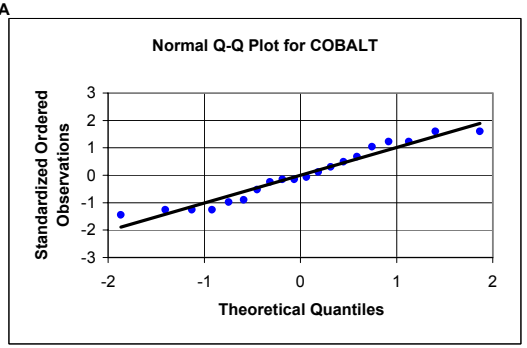
Frequency of Detection	20/20
Mean	13797
Standard Deviation	3332
Slope =	3338
Y Intercept =	13797
Correlation =	0.965
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

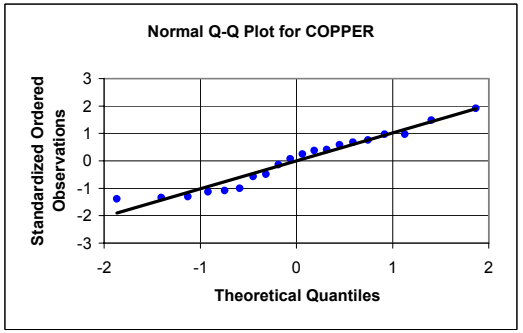
COBALT

Frequency of Detection	20/20
Mean	2.87
Standard Deviation	1.09
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.937
Crtitical Value	0.905
Data are normal	



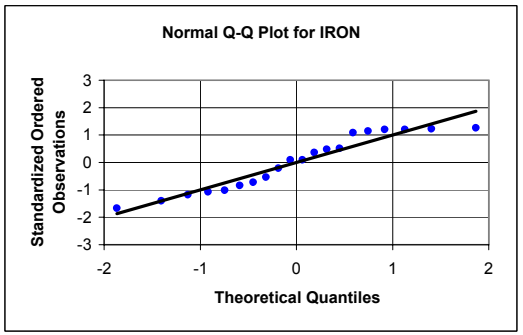
COPPER

Frequency of Detection	20/20
Mean	6.84
Standard Deviation	2.33
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.945
Crtitical Value	0.905
Data are normal	



IRON

Frequency of Detection	20/20
Mean	13797
Standard Deviation	3332
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are normal	

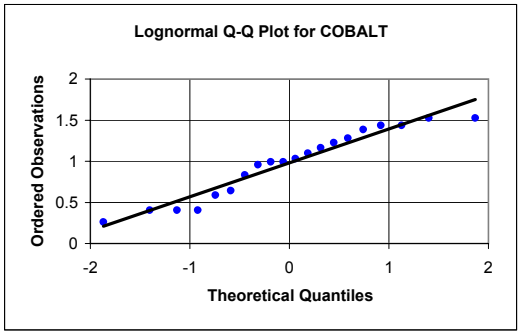


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

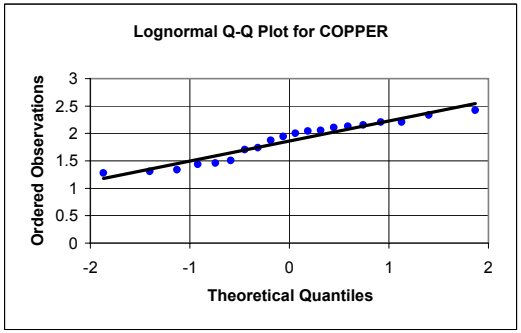
COBALT

Frequency of Detection	20/20
Mean	0.979
Standard Deviation	0.409
Slope =	0.413
Y Intercept =	0.979
Correlation =	0.973
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are lognormal	



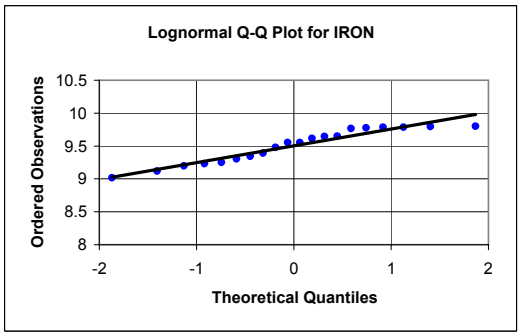
COPPER

Frequency of Detection	20/20
Mean	1.86
Standard Deviation	0.364
Slope =	0.367
Y Intercept =	1.86
Correlation =	0.970
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are lognormal	



IRON

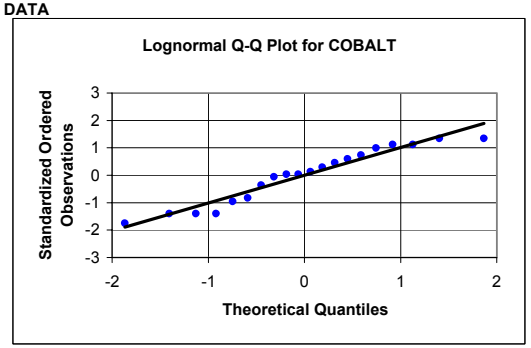
Frequency of Detection	20/20
Mean	9.50
Standard Deviation	0.254
Slope =	0.254
Y Intercept =	9.50
Correlation =	0.964
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

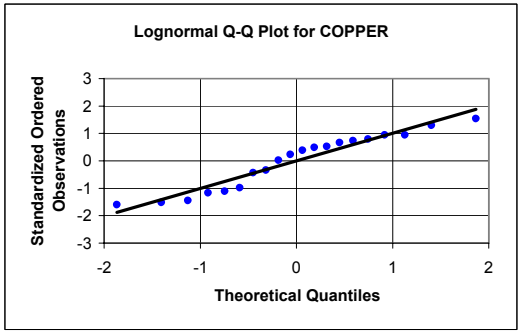
COBALT

Frequency of Detection	20/20
Mean	0.979
Standard Deviation	0.409
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are lognormal	



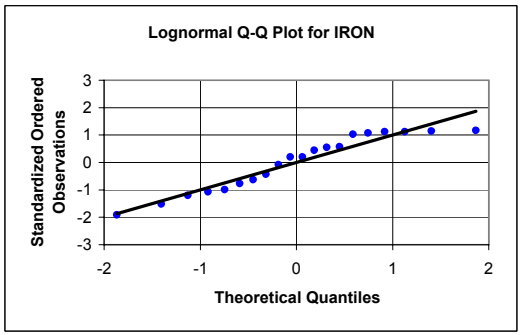
COPPER

Frequency of Detection	20/20
Mean	1.86
Standard Deviation	0.364
Slope =	1.01
Y Intercept =	0
Correlation =	0.970
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are lognormal	



IRON

Frequency of Detection	20/20
Mean	9.50
Standard Deviation	0.254
Slope =	1.00
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.905
Data are lognormal	

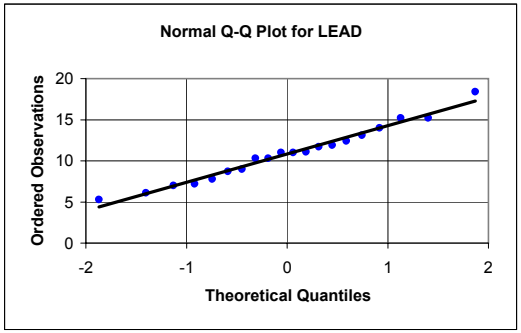


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

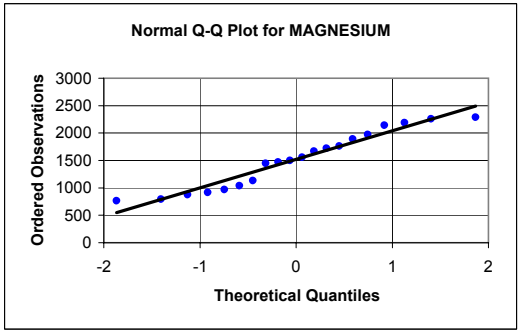
LEAD

Frequency of Detection	20/20
Mean	10.8
Standard Deviation	3.35
Slope =	3.45
Y Intercept =	10.8
Correlation =	0.990
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	



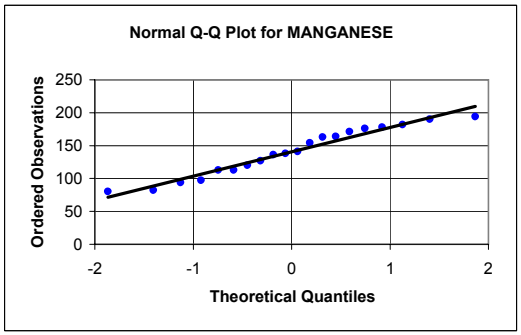
MAGNESIUM

Frequency of Detection	20/20
Mean	1518
Standard Deviation	513
Slope =	520
Y Intercept =	1518
Correlation =	0.976
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.905
Data are normal	



MANGANESE

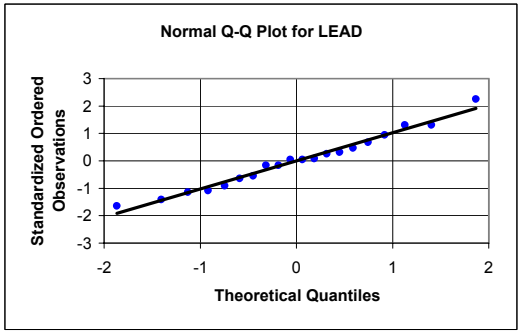
Frequency of Detection	20/20
Mean	141
Standard Deviation	36.3
Slope =	37.0
Y Intercept =	141
Correlation =	0.982
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

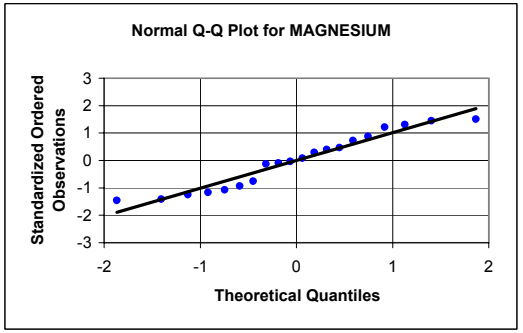
LEAD

Frequency of Detection	20/20
Mean	10.8
Standard Deviation	3.35
Slope =	1.03
Y Intercept =	0
Correlation =	0.990
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	



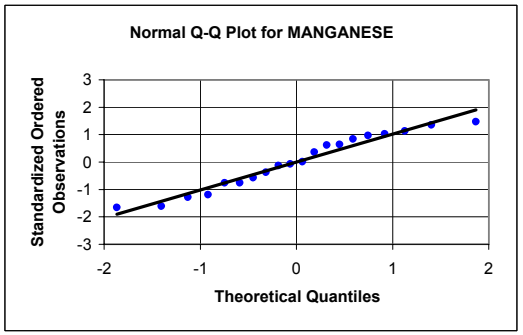
MAGNESIUM

Frequency of Detection	20/20
Mean	1518
Standard Deviation	513
Slope =	1.01
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.905
Data are normal	



MANGANESE

Frequency of Detection	20/20
Mean	141
Standard Deviation	36.3
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are normal	

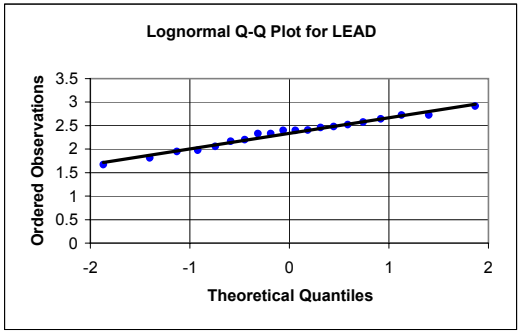


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

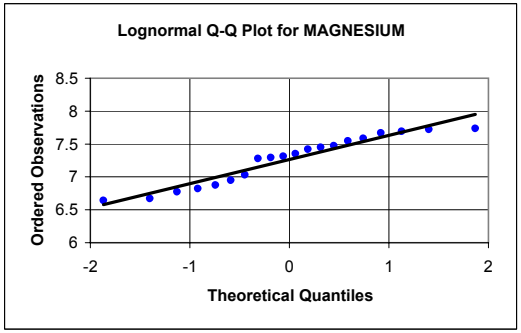
LEAD

Frequency of Detection	20/20
Mean	2.33
Standard Deviation	0.324
Slope =	0.333
Y Intercept =	2.33
Correlation =	0.989
Shapiro-Wilks Statistics	0.976
Crtitical Value	0.905
Data are lognormal	



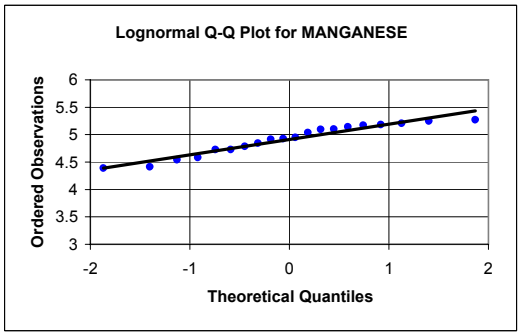
MAGNESIUM

Frequency of Detection	20/20
Mean	7.26
Standard Deviation	0.367
Slope =	0.368
Y Intercept =	7.26
Correlation =	0.967
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.905
Data are lognormal	



MANGANESE

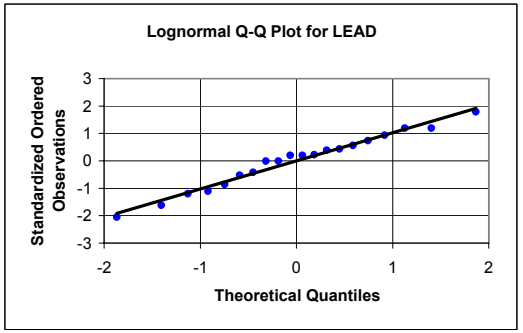
Frequency of Detection	20/20
Mean	4.91
Standard Deviation	0.277
Slope =	0.280
Y Intercept =	4.91
Correlation =	0.971
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

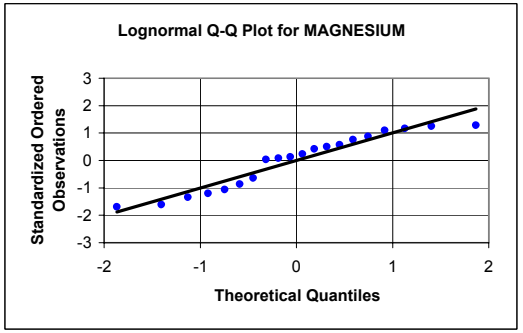
LEAD

Frequency of Detection	20/20
Mean	2.33
Standard Deviation	0.324
Slope =	1.03
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.976
Crtitical Value	0.905
Data are lognormal	



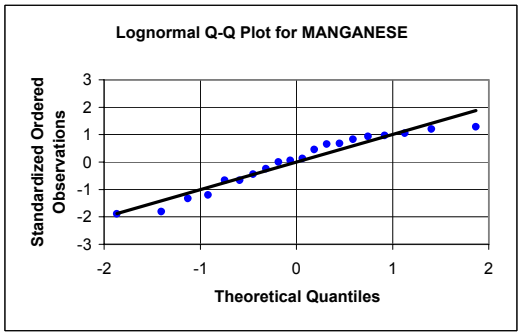
MAGNESIUM

Frequency of Detection	20/20
Mean	7.26
Standard Deviation	0.367
Slope =	1.00
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.905
Data are lognormal	



MANGANESE

Frequency of Detection	20/20
Mean	4.91
Standard Deviation	0.277
Slope =	1.01
Y Intercept =	0
Correlation =	0.971
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.905
Data are lognormal	

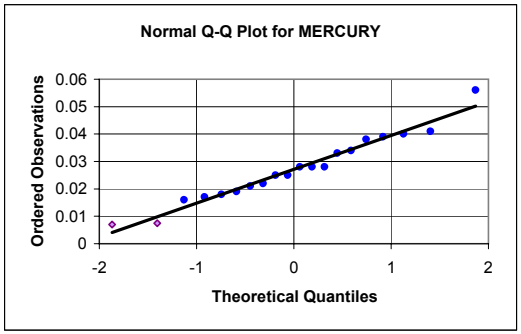


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

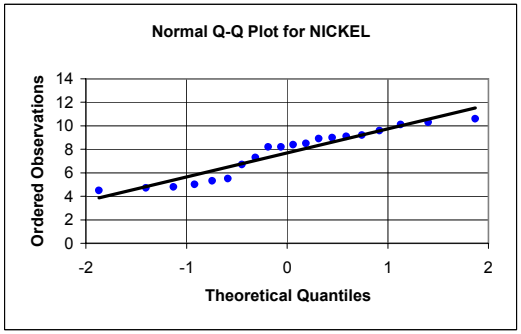
MERCURY

Frequency of Detection	18/20
Mean	0.027
Standard Deviation	0.012
Slope =	0.012
Y Intercept =	0.027
Correlation =	0.984
Shapiro-Wilks Statistics	0.971
Crtitical Value	0.905
Data are normal	



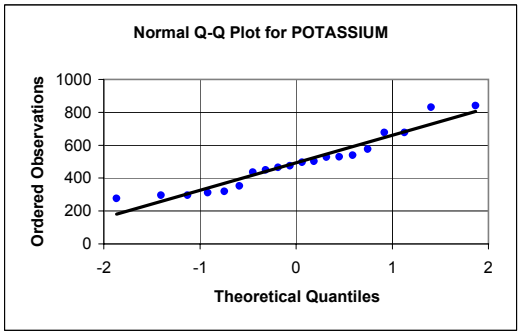
NICKEL

Frequency of Detection	20/20
Mean	7.70
Standard Deviation	2.05
Slope =	2.05
Y Intercept =	7.70
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.905
Data are not normal	



POTASSIUM

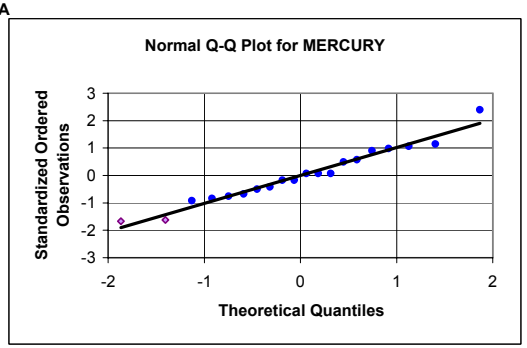
Frequency of Detection	20/20
Mean	494
Standard Deviation	167
Slope =	167
Y Intercept =	494
Correlation =	0.966
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

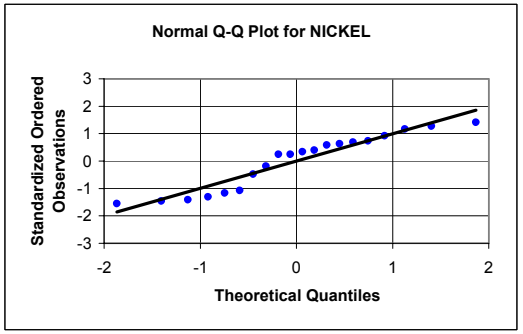
MERCURY

Frequency of Detection	18/20
Mean	0.027
Standard Deviation	0.012
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.971
Crtitical Value	0.905
Data are normal	



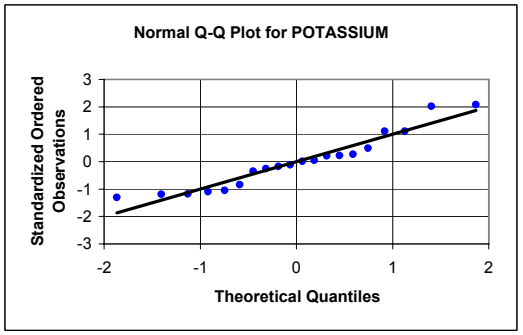
NICKEL

Frequency of Detection	20/20
Mean	7.70
Standard Deviation	2.05
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.905
Data are not normal	



POTASSIUM

Frequency of Detection	20/20
Mean	494
Standard Deviation	167
Slope =	1.00
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.905
Data are normal	

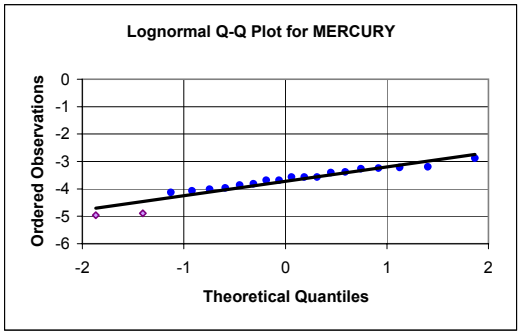


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

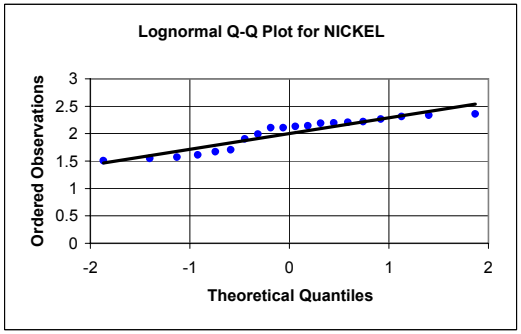
MERCURY

Frequency of Detection	18/20
Mean	-3.722
Standard Deviation	0.529
Slope =	0.526
Y Intercept =	-3.722
Correlation =	0.957
Shapiro-Wilks Statistics	0.918
Crtitical Value	0.905
Data are lognormal	



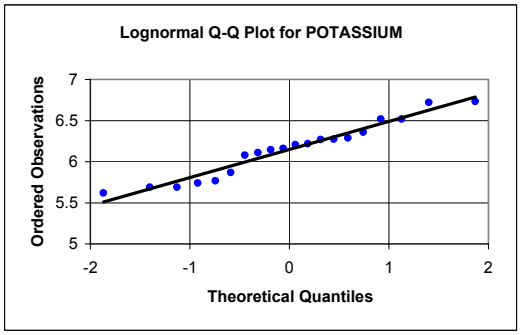
NICKEL

Frequency of Detection	20/20
Mean	2.00
Standard Deviation	0.293
Slope =	0.286
Y Intercept =	2.00
Correlation =	0.943
Shapiro-Wilks Statistics	0.872
Crtitical Value	0.905
Data are not lognormal	



POTASSIUM

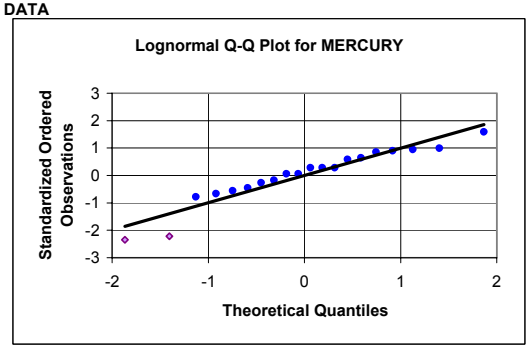
Frequency of Detection	20/20
Mean	6.15
Standard Deviation	0.336
Slope =	0.342
Y Intercept =	6.15
Correlation =	0.979
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

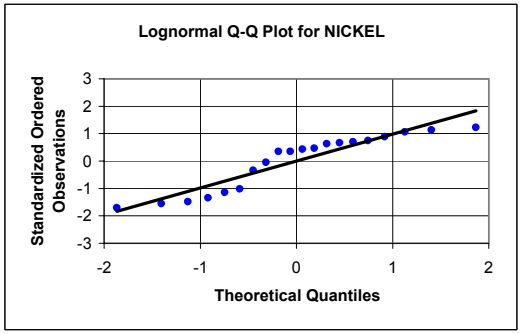
MERCURY

Frequency of Detection	18/20
Mean	-3.722
Standard Deviation	0.529
Slope =	0.993
Y Intercept =	0
Correlation =	0.957
Shapiro-Wilks Statistics	0.918
Crtitical Value	0.905
Data are lognormal	



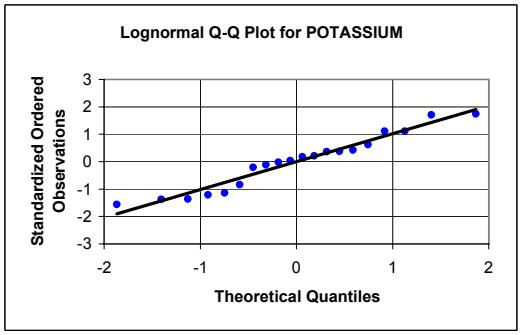
NICKEL

Frequency of Detection	20/20
Mean	2.00
Standard Deviation	0.293
Slope =	0.979
Y Intercept =	0
Correlation =	0.943
Shapiro-Wilks Statistics	0.872
Crtitical Value	0.905
Data are not lognormal	



POTASSIUM

Frequency of Detection	20/20
Mean	6.15
Standard Deviation	0.336
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are lognormal	

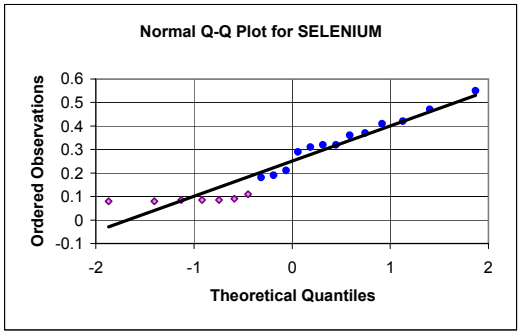


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

SELENIUM

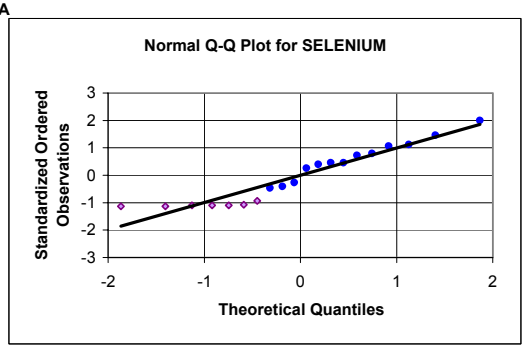
Frequency of Detection	13/20
Mean	0.251
Standard Deviation	0.150
Slope =	0.150
Y Intercept =	0.251
Correlation =	0.959
Shapiro-Wilks Statistics	0.904
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

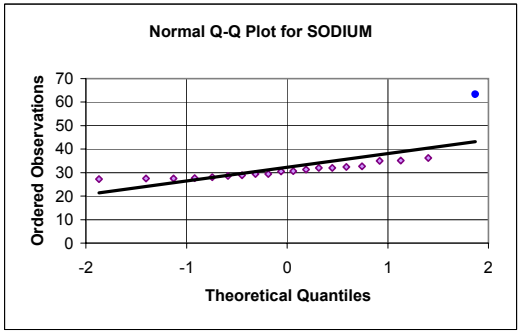
SELENIUM

Frequency of Detection	13/20
Mean	0.251
Standard Deviation	0.150
Slope =	0.996
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.904
Crtitical Value	0.905
Data are not normal	



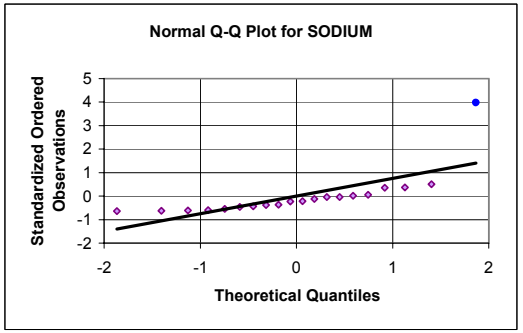
SODIUM

Frequency of Detection	1/20
Mean	32.3
Standard Deviation	7.79
Slope =	5.85
Y Intercept =	32.3
Correlation =	0.724
Shapiro-Wilks Statistics	0.553
Crtitical Value	0.905
Data are not normal	



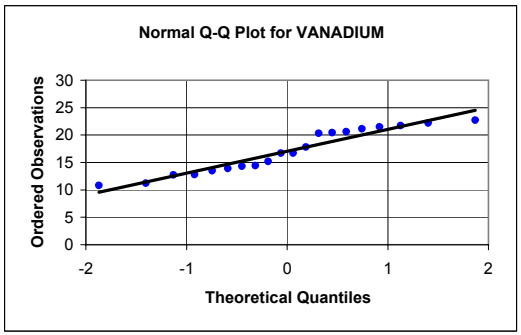
SODIUM

Frequency of Detection	1/20
Mean	32.3
Standard Deviation	7.79
Slope =	0.752
Y Intercept =	0
Correlation =	0.724
Shapiro-Wilks Statistics	0.553
Crtitical Value	0.905
Data are not normal	



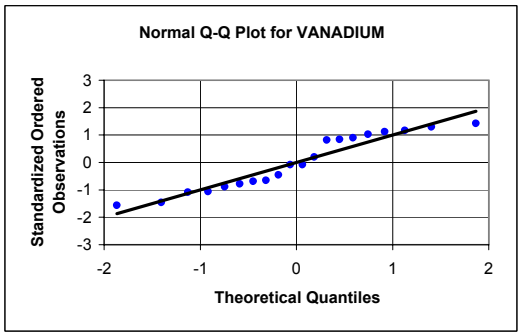
VANADIUM

Frequency of Detection	20/20
Mean	17.0
Standard Deviation	3.99
Slope =	4.00
Y Intercept =	17.0
Correlation =	0.966
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.905
Data are normal	



VANADIUM

Frequency of Detection	20/20
Mean	17.0
Standard Deviation	3.99
Slope =	1.00
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.905
Data are normal	

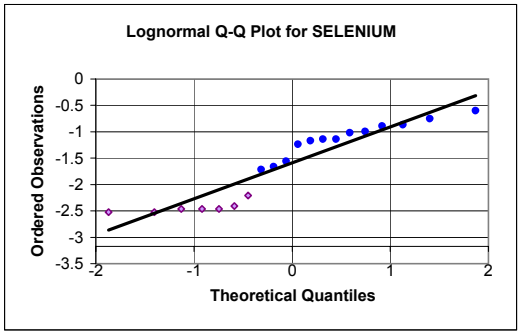


APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

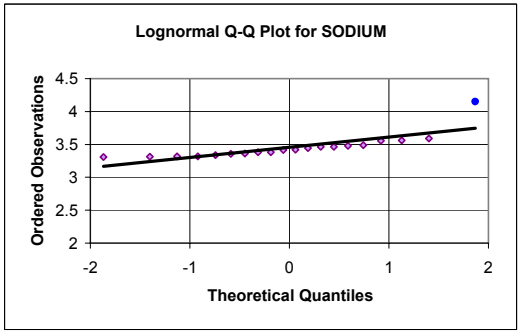
SELENIUM

Frequency of Detection	13/20
Mean	-1.591
Standard Deviation	0.696
Slope =	0.682
Y Intercept =	-1.591
Correlation =	0.944
Shapiro-Wilks Statistics	0.869
Crtitical Value	0.905
Data are not lognormal	



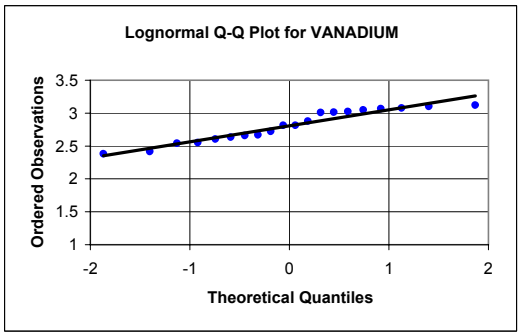
SODIUM

Frequency of Detection	1/20
Mean	3.46
Standard Deviation	0.185
Slope =	0.155
Y Intercept =	3.46
Correlation =	0.806
Shapiro-Wilks Statistics	0.674
Crtitical Value	0.905
Data are not lognormal	



VANADIUM

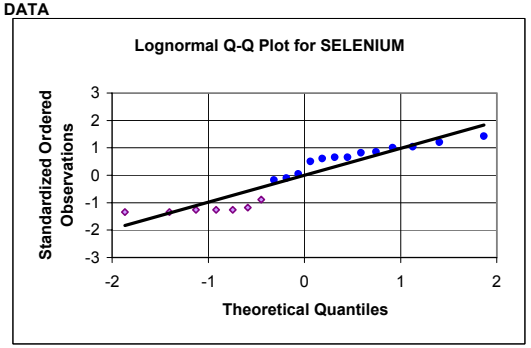
Frequency of Detection	20/20
Mean	2.81
Standard Deviation	0.242
Slope =	0.243
Y Intercept =	2.81
Correlation =	0.967
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

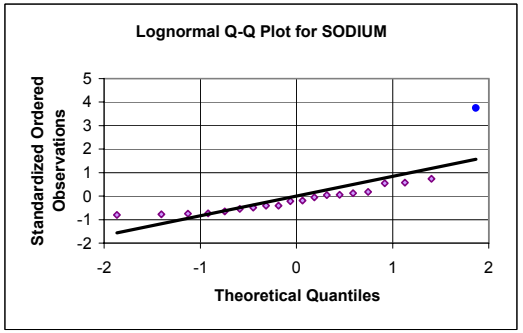
SELENIUM

Frequency of Detection	13/20
Mean	-1.591
Standard Deviation	0.696
Slope =	0.980
Y Intercept =	0
Correlation =	0.944
Shapiro-Wilks Statistics	0.869
Crtitical Value	0.905
Data are not lognormal	



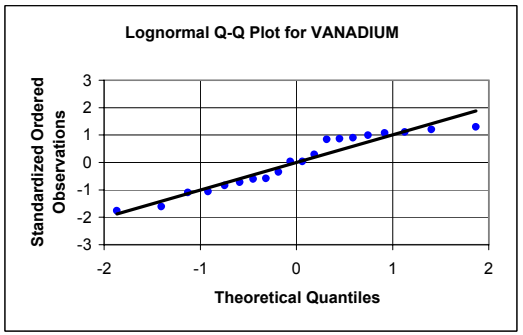
SODIUM

Frequency of Detection	1/20
Mean	3.46
Standard Deviation	0.185
Slope =	0.837
Y Intercept =	0
Correlation =	0.806
Shapiro-Wilks Statistics	0.674
Crtitical Value	0.905
Data are not lognormal	



VANADIUM

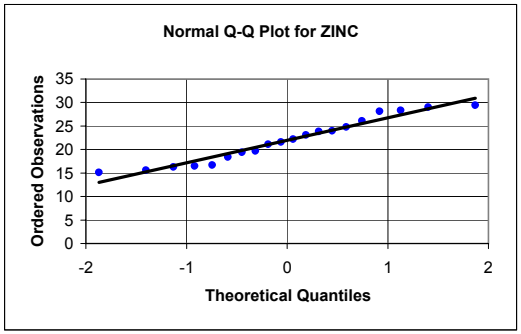
Frequency of Detection	20/20
Mean	2.81
Standard Deviation	0.242
Slope =	1.00
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

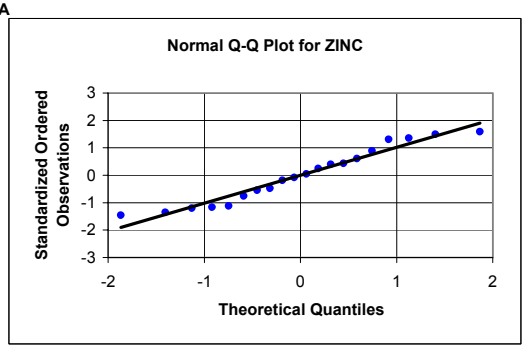
NORMAL - RAW DATA
ZINC

Frequency of Detection	20/20
Mean	22.0
Standard Deviation	4.70
Slope =	4.78
Y Intercept =	22.0
Correlation =	0.980
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA
ZINC

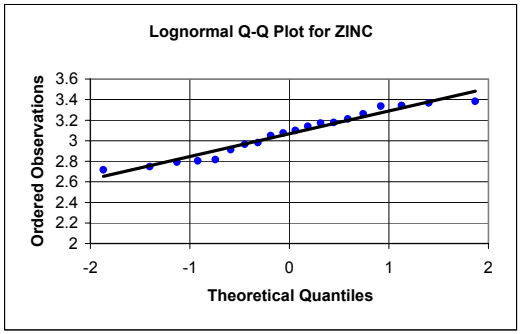
Frequency of Detection	20/20
Mean	22.0
Standard Deviation	4.70
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are normal	



APPENDIX E5, FIGURE E5-4
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

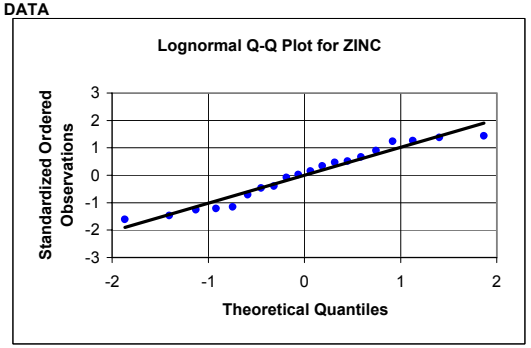
LOGNORMAL - RAW DATA
ZINC

Frequency of Detection	20/20
Mean	3.07
Standard Deviation	0.218
Slope =	0.222
Y Intercept =	3.07
Correlation =	0.980
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA
ZINC

Frequency of Detection	20/20
Mean	3.07
Standard Deviation	0.218
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are lognormal	

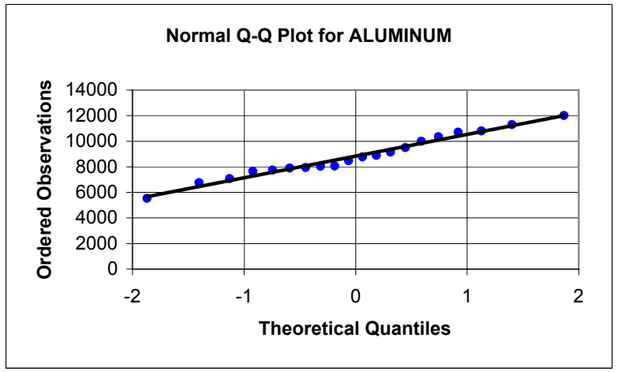


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

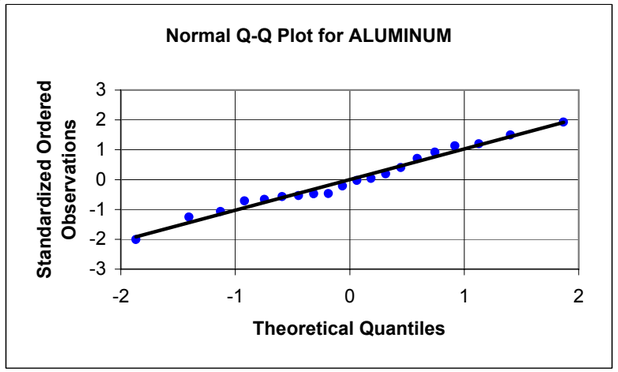
Frequency of Detection	20/20
Mean	8829
Standard Deviation	1650
Slope =	1695
Y Intercept =	8829
Correlation =	0.990
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

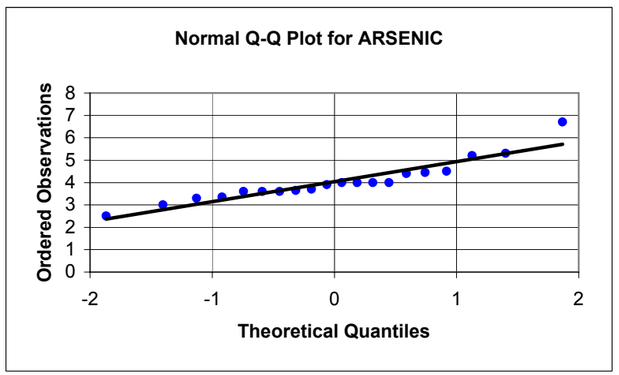
ALUMINUM

Frequency of Detection	20/20
Mean	8829
Standard Deviation	1650
Slope =	1.03
Y Intercept =	0
Correlation =	0.990
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are normal	



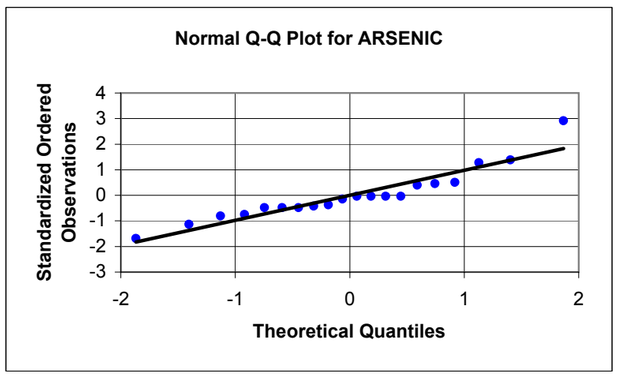
ARSENIC

Frequency of Detection	20/20
Mean	4.04
Standard Deviation	0.914
Slope =	0.892
Y Intercept =	4.04
Correlation =	0.940
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not normal	



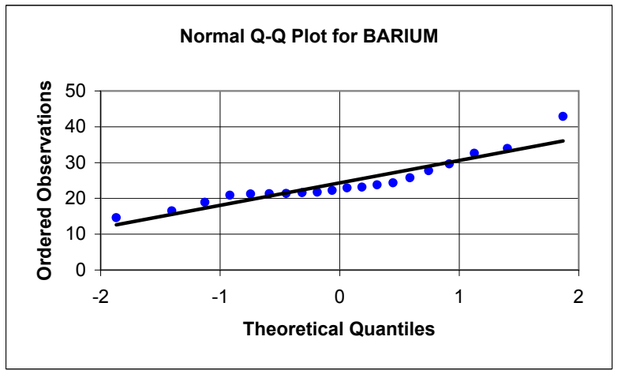
ARSENIC

Frequency of Detection	20/20
Mean	4.04
Standard Deviation	0.914
Slope =	0.976
Y Intercept =	0
Correlation =	0.940
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not normal	



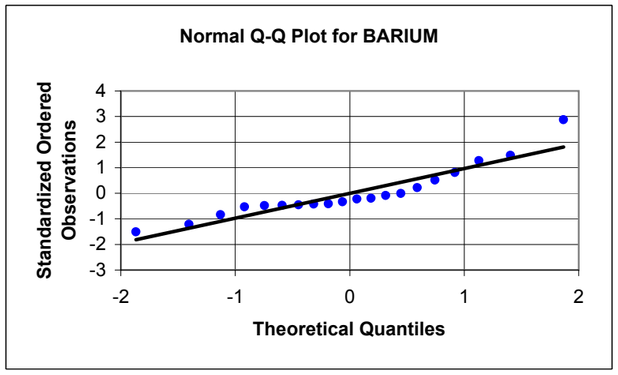
BARIUM

Frequency of Detection	20/20
Mean	24.3
Standard Deviation	6.46
Slope =	6.27
Y Intercept =	24.3
Correlation =	0.934
Shapiro-Wilks Statistics	0.887
Crtitical Value	0.905
Data are not normal	



BARIUM

Frequency of Detection	20/20
Mean	24.3
Standard Deviation	6.46
Slope =	0.970
Y Intercept =	0
Correlation =	0.934
Shapiro-Wilks Statistics	0.887
Crtitical Value	0.905
Data are not normal	

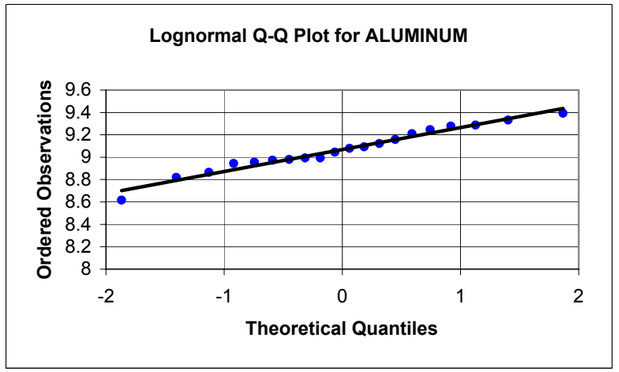


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

ALUMINUM

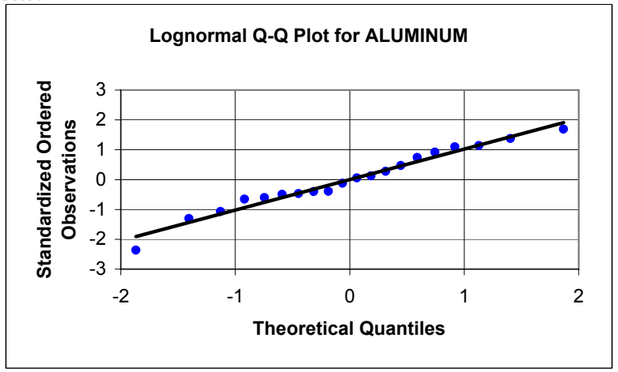
Frequency of Detection	20/20
Mean	9.07
Standard Deviation	0.191
Slope =	0.196
Y Intercept =	9.07
Correlation =	0.986
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

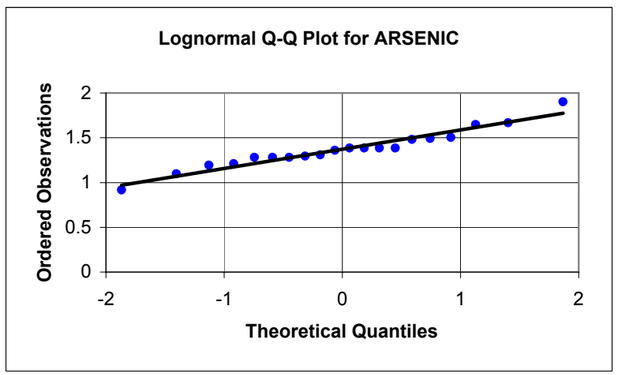
ALUMINUM

Frequency of Detection	20/20
Mean	9.07
Standard Deviation	0.191
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.905
Data are lognormal	



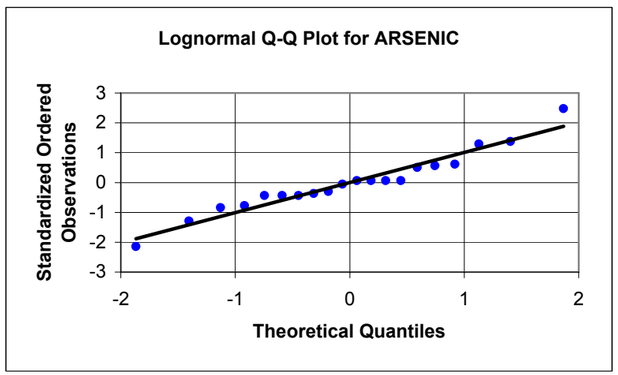
ARSENIC

Frequency of Detection	20/20
Mean	1.37
Standard Deviation	0.213
Slope =	0.215
Y Intercept =	1.37
Correlation =	0.971
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are lognormal	



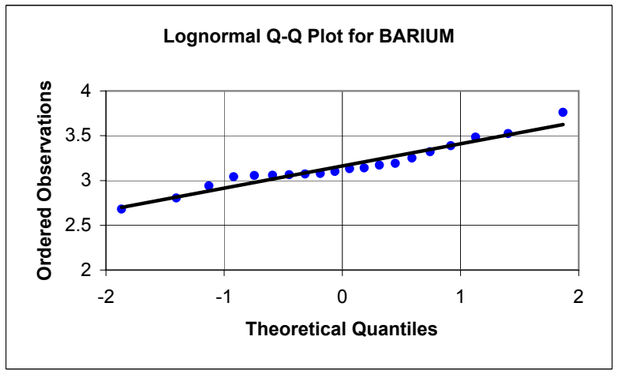
ARSENIC

Frequency of Detection	20/20
Mean	1.37
Standard Deviation	0.213
Slope =	1.01
Y Intercept =	0
Correlation =	0.971
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are lognormal	



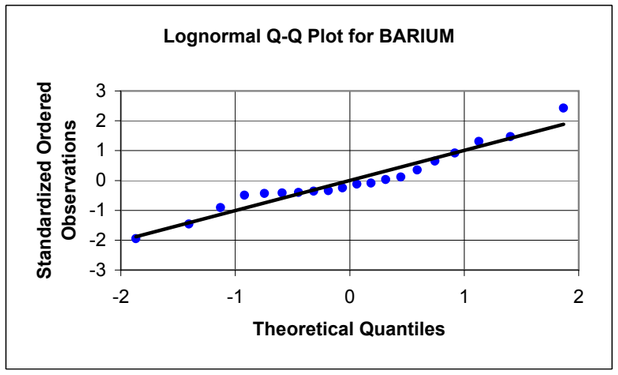
BARIUM

Frequency of Detection	20/20
Mean	3.16
Standard Deviation	0.246
Slope =	0.248
Y Intercept =	3.16
Correlation =	0.970
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.16
Standard Deviation	0.246
Slope =	1.01
Y Intercept =	0
Correlation =	0.970
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are lognormal	

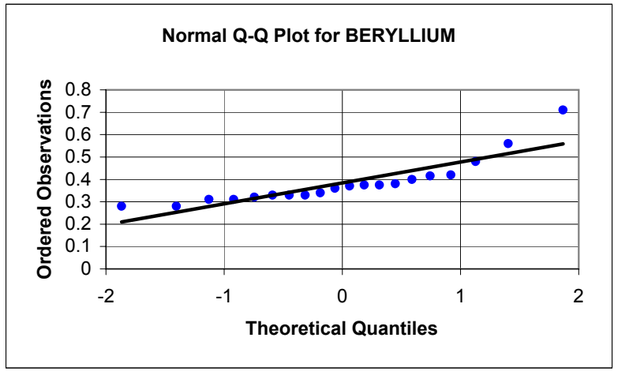


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

BERYLLIUM

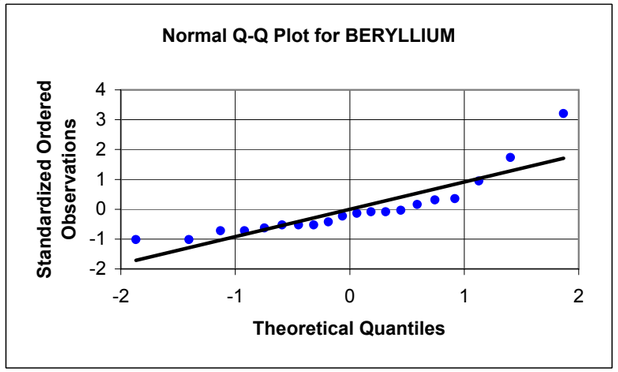
Frequency of Detection	20/20
Mean	0.384
Standard Deviation	0.102
Slope =	0.093
Y Intercept =	0.384
Correlation =	0.882
Shapiro-Wilks Statistics	0.792
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

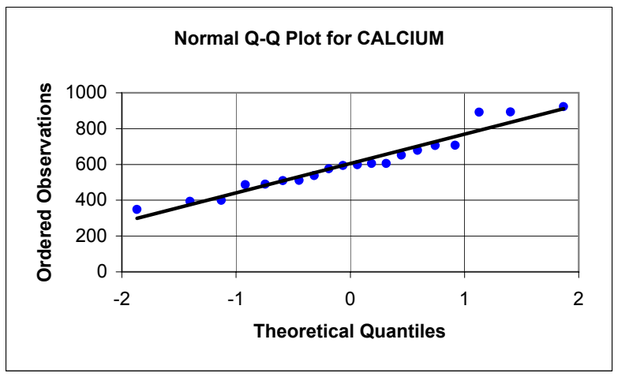
BERYLLIUM

Frequency of Detection	20/20
Mean	0.384
Standard Deviation	0.102
Slope =	0.915
Y Intercept =	0
Correlation =	0.882
Shapiro-Wilks Statistics	0.792
Crtitical Value	0.905
Data are not normal	



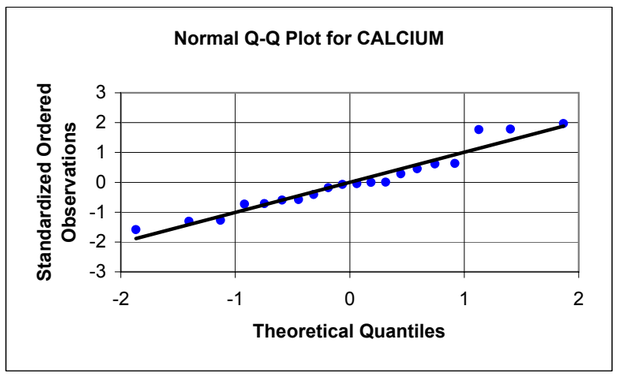
CALCIUM

Frequency of Detection	20/20
Mean	605
Standard Deviation	162
Slope =	163
Y Intercept =	605
Correlation =	0.973
Shapiro-Wilks Statistics	0.940
Crtitical Value	0.905
Data are normal	



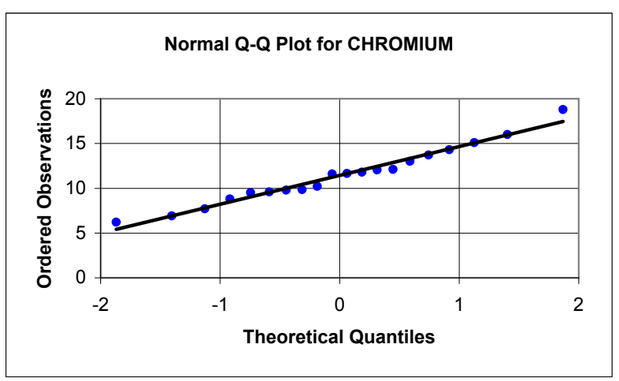
CALCIUM

Frequency of Detection	20/20
Mean	605
Standard Deviation	162
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.940
Crtitical Value	0.905
Data are normal	



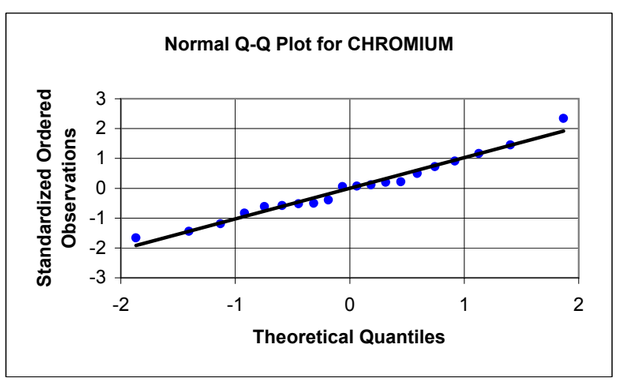
CHROMIUM

Frequency of Detection	20/20
Mean	11.4
Standard Deviation	3.15
Slope =	3.22
Y Intercept =	11.4
Correlation =	0.988
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are normal	



CHROMIUM

Frequency of Detection	20/20
Mean	11.4
Standard Deviation	3.15
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are normal	

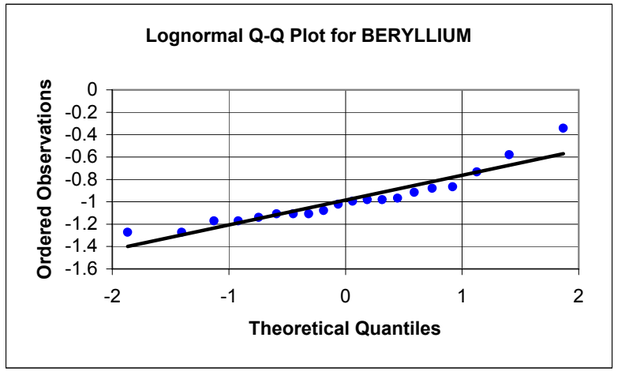


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

BERYLLIUM

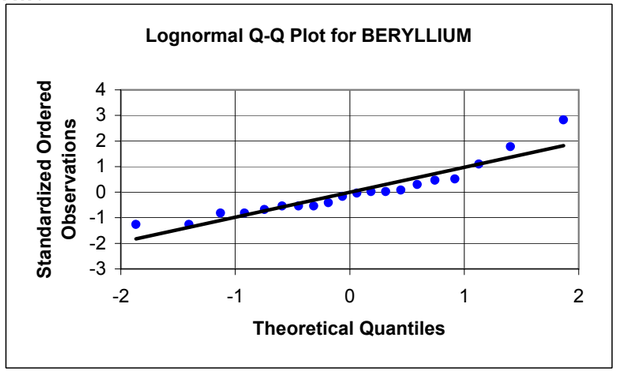
Frequency of Detection	20/20
Mean	-0.985
Standard Deviation	0.228
Slope =	0.222
Y Intercept =	-0.985
Correlation =	0.939
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

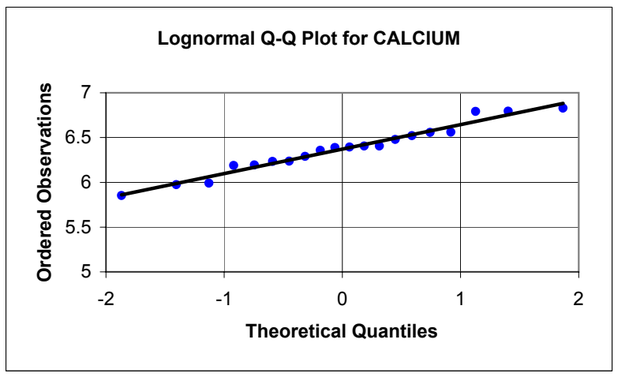
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.985
Standard Deviation	0.228
Slope =	0.975
Y Intercept =	0
Correlation =	0.939
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.905
Data are not lognormal	



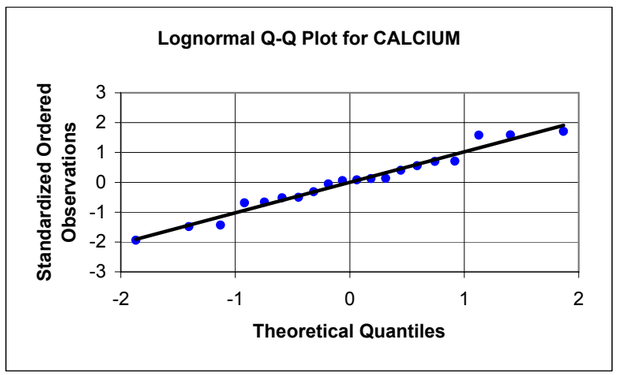
CALCIUM

Frequency of Detection	20/20
Mean	6.37
Standard Deviation	0.267
Slope =	0.273
Y Intercept =	6.37
Correlation =	0.986
Shapiro-Wilks Statistics	0.966
Crtitical Value	0.905
Data are lognormal	



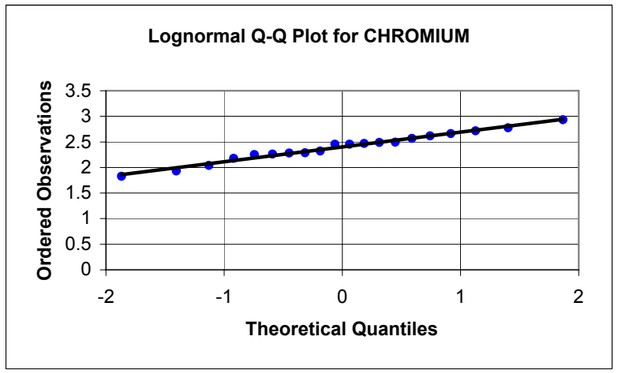
CALCIUM

Frequency of Detection	20/20
Mean	6.37
Standard Deviation	0.267
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.966
Crtitical Value	0.905
Data are lognormal	



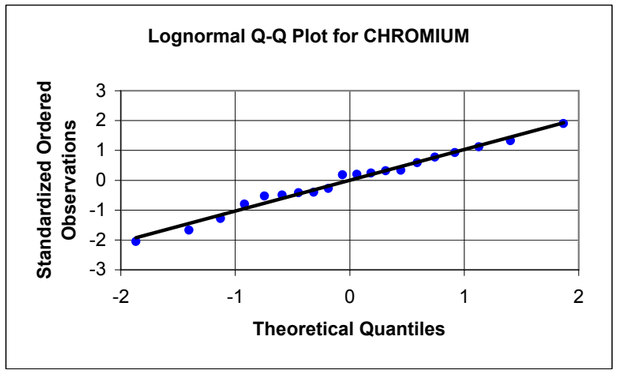
CHROMIUM

Frequency of Detection	20/20
Mean	2.40
Standard Deviation	0.281
Slope =	0.289
Y Intercept =	2.40
Correlation =	0.992
Shapiro-Wilks Statistics	0.985
Crtitical Value	0.905
Data are lognormal	



CHROMIUM

Frequency of Detection	20/20
Mean	2.40
Standard Deviation	0.281
Slope =	1.03
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.985
Crtitical Value	0.905
Data are lognormal	

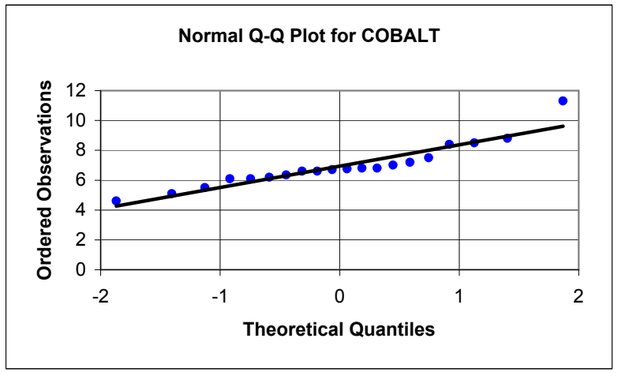


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

COBALT

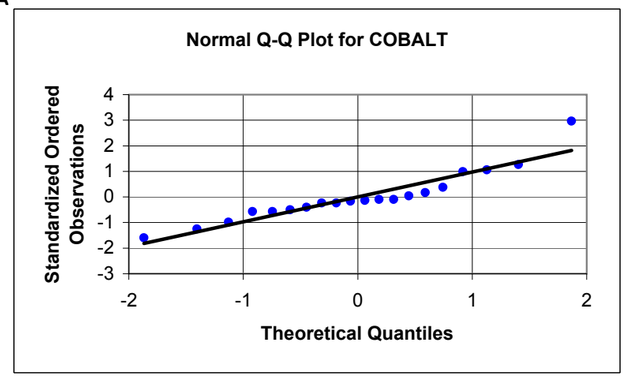
Frequency of Detection	20/20
Mean	6.95
Standard Deviation	1.47
Slope =	1.43
Y Intercept =	6.95
Correlation =	0.938
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

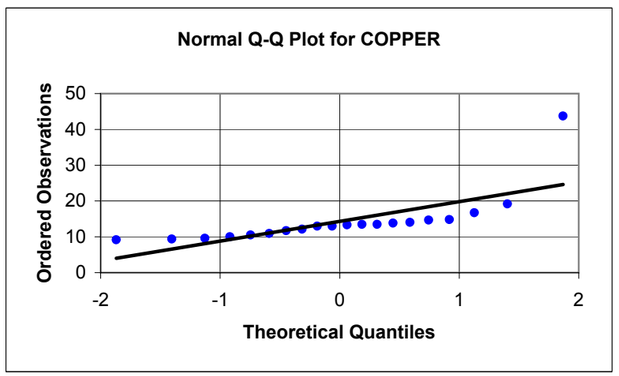
COBALT

Frequency of Detection	20/20
Mean	6.95
Standard Deviation	1.47
Slope =	0.974
Y Intercept =	0
Correlation =	0.938
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	



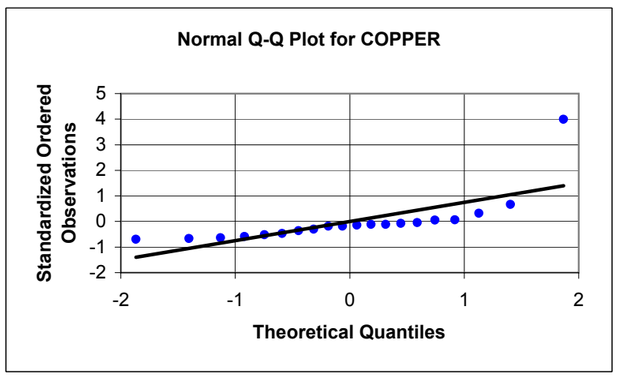
COPPER

Frequency of Detection	20/20
Mean	14.3
Standard Deviation	7.36
Slope =	5.51
Y Intercept =	14.3
Correlation =	0.721
Shapiro-Wilks Statistics	0.549
Crtitical Value	0.905
Data are not normal	



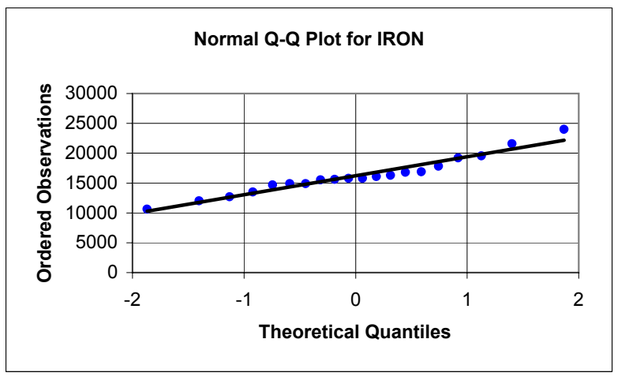
COPPER

Frequency of Detection	20/20
Mean	14.3
Standard Deviation	7.36
Slope =	0.748
Y Intercept =	0
Correlation =	0.721
Shapiro-Wilks Statistics	0.549
Crtitical Value	0.905
Data are not normal	



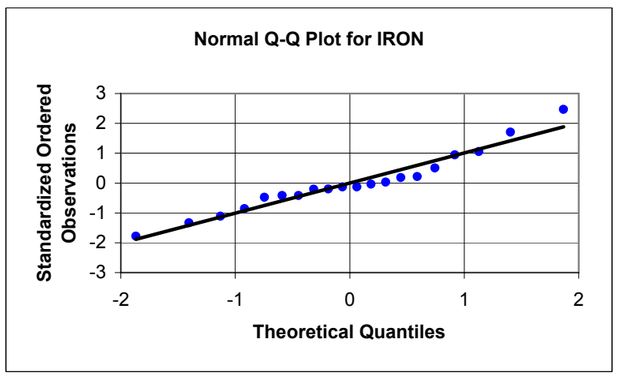
IRON

Frequency of Detection	20/20
Mean	16215
Standard Deviation	3153
Slope =	3184
Y Intercept =	16215
Correlation =	0.973
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are normal	



IRON

Frequency of Detection	20/20
Mean	16215
Standard Deviation	3153
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are normal	

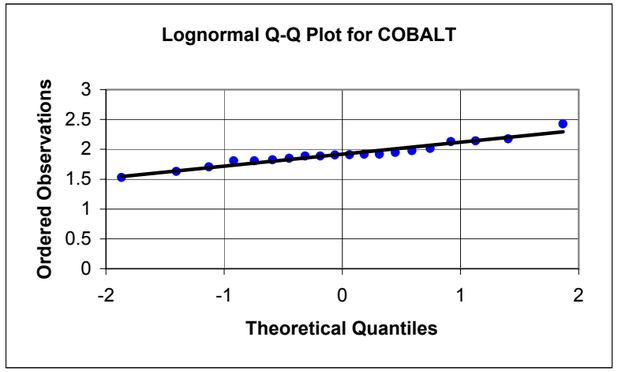


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

COBALT

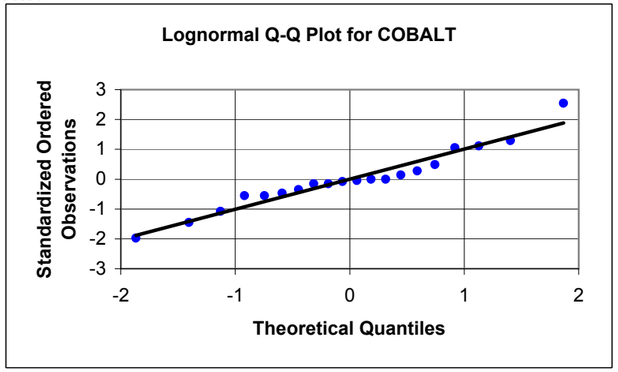
Frequency of Detection	20/20
Mean	1.92
Standard Deviation	0.199
Slope =	0.200
Y Intercept =	1.92
Correlation =	0.970
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

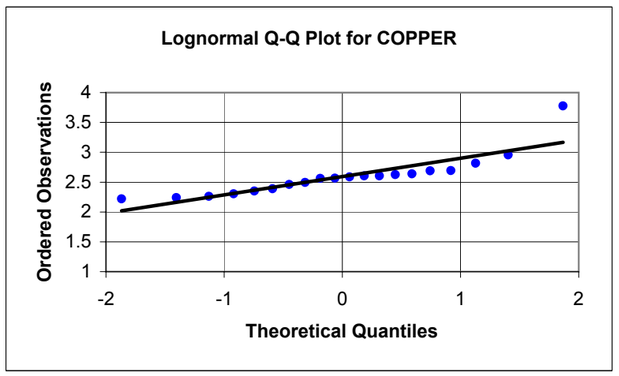
COBALT

Frequency of Detection	20/20
Mean	1.92
Standard Deviation	0.199
Slope =	1.01
Y Intercept =	0
Correlation =	0.970
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	



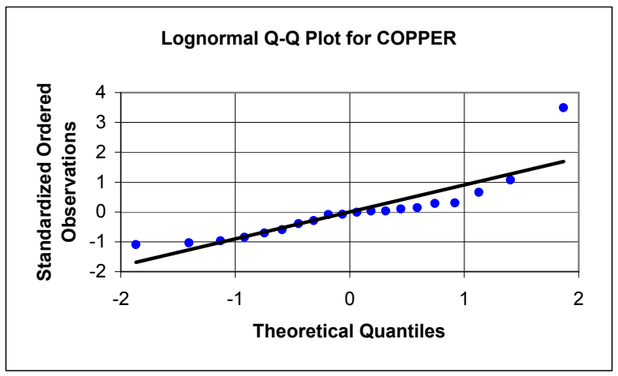
COPPER

Frequency of Detection	20/20
Mean	2.59
Standard Deviation	0.340
Slope =	0.307
Y Intercept =	2.59
Correlation =	0.871
Shapiro-Wilks Statistics	0.780
Crtitical Value	0.905
Data are not lognormal	



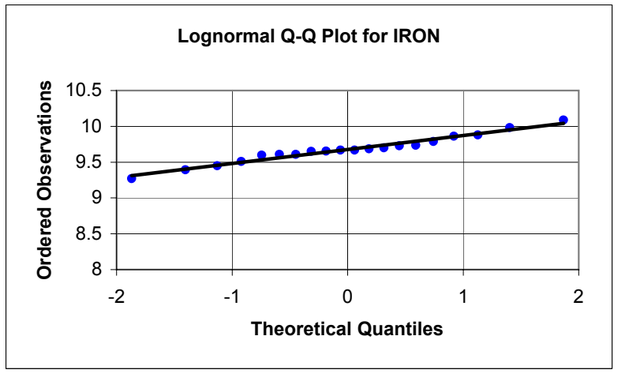
COPPER

Frequency of Detection	20/20
Mean	2.59
Standard Deviation	0.340
Slope =	0.904
Y Intercept =	0
Correlation =	0.871
Shapiro-Wilks Statistics	0.780
Crtitical Value	0.905
Data are not lognormal	



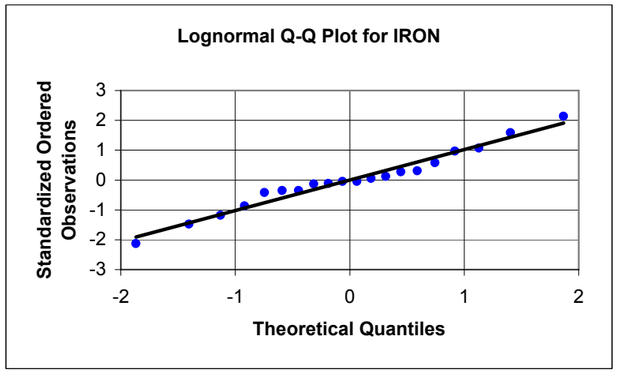
IRON

Frequency of Detection	20/20
Mean	9.68
Standard Deviation	0.192
Slope =	0.196
Y Intercept =	9.68
Correlation =	0.984
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are lognormal	



IRON

Frequency of Detection	20/20
Mean	9.68
Standard Deviation	0.192
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are lognormal	

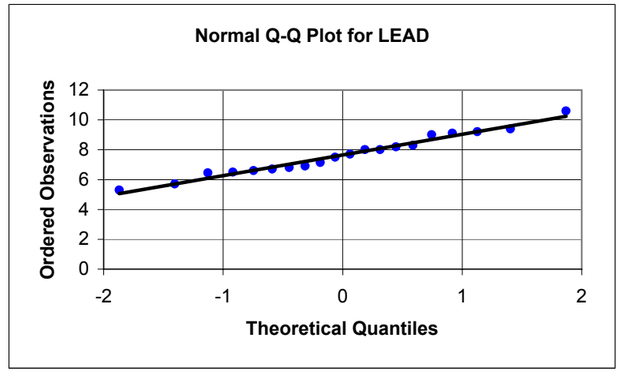


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

LEAD

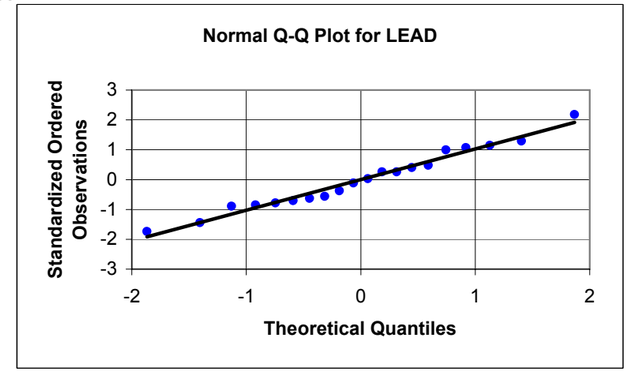
Frequency of Detection	20/20
Mean	7.66
Standard Deviation	1.35
Slope =	1.39
Y Intercept =	7.66
Correlation =	0.989
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

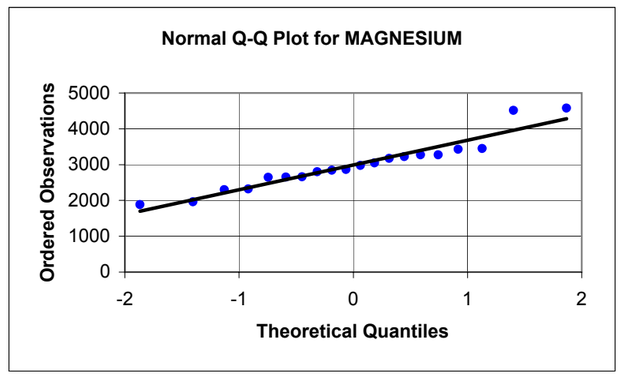
LEAD

Frequency of Detection	20/20
Mean	7.66
Standard Deviation	1.35
Slope =	1.03
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.905
Data are normal	



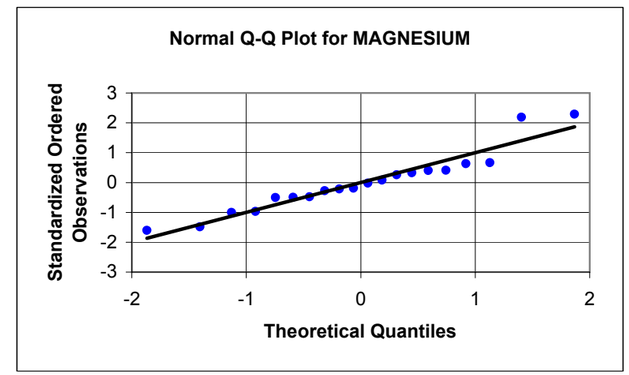
MAGNESIUM

Frequency of Detection	20/20
Mean	2992
Standard Deviation	693
Slope =	691
Y Intercept =	2992
Correlation =	0.961
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	



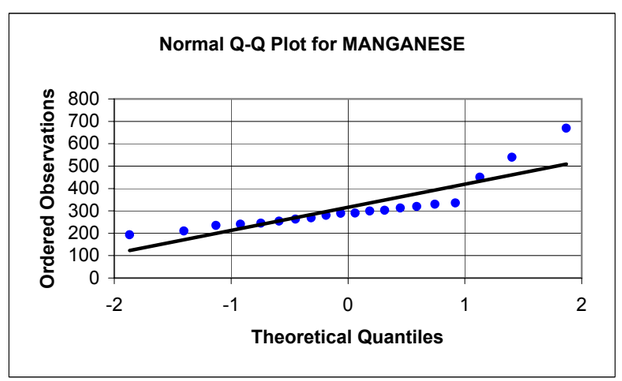
MAGNESIUM

Frequency of Detection	20/20
Mean	2992
Standard Deviation	693
Slope =	0.997
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	



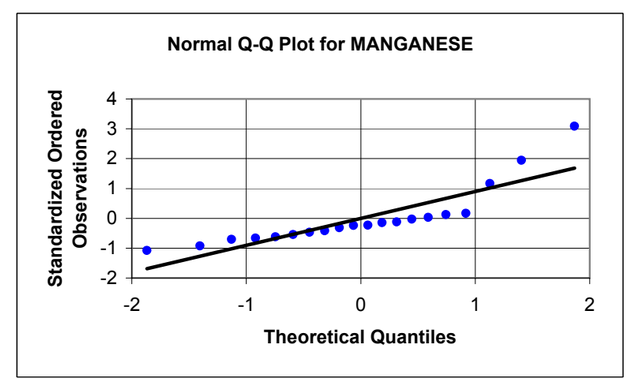
MANGANESE

Frequency of Detection	20/20
Mean	316
Standard Deviation	115
Slope =	103
Y Intercept =	316
Correlation =	0.869
Shapiro-Wilks Statistics	0.769
Crtitical Value	0.905
Data are not normal	



MANGANESE

Frequency of Detection	20/20
Mean	316
Standard Deviation	115
Slope =	0.902
Y Intercept =	0
Correlation =	0.869
Shapiro-Wilks Statistics	0.769
Crtitical Value	0.905
Data are not normal	

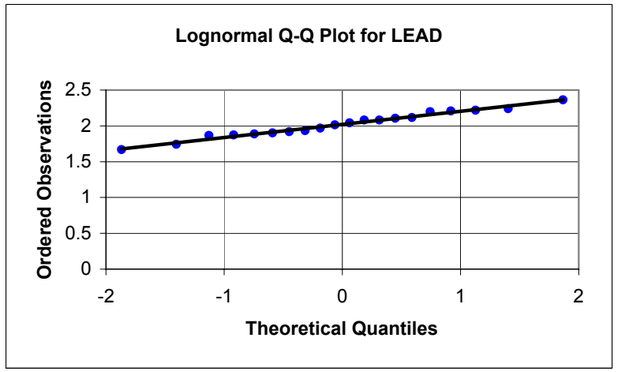


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

LEAD

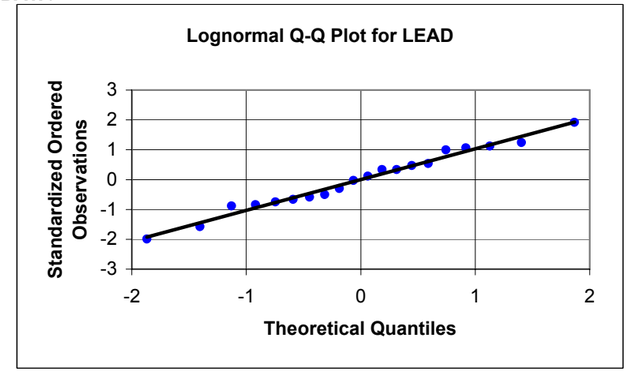
Frequency of Detection	20/20
Mean	2.02
Standard Deviation	0.177
Slope =	0.182
Y Intercept =	2.02
Correlation =	0.992
Shapiro-Wilks Statistics	0.983
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

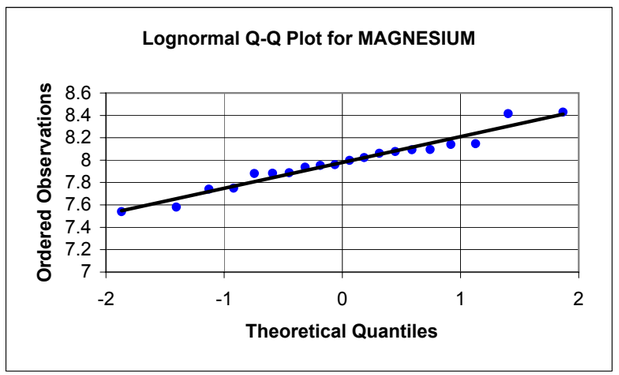
LEAD

Frequency of Detection	20/20
Mean	2.02
Standard Deviation	0.177
Slope =	1.03
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.983
Crtitical Value	0.905
Data are lognormal	



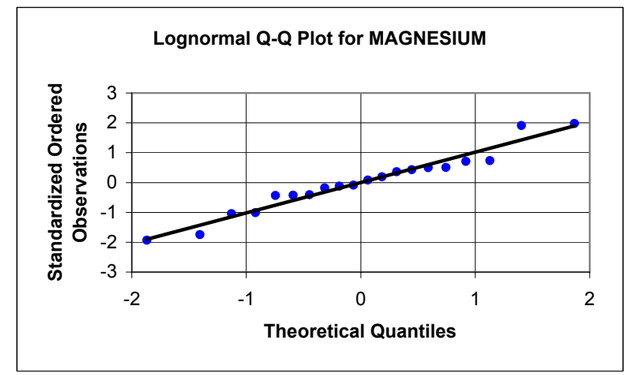
MAGNESIUM

Frequency of Detection	20/20
Mean	7.98
Standard Deviation	0.227
Slope =	0.231
Y Intercept =	7.98
Correlation =	0.978
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are lognormal	



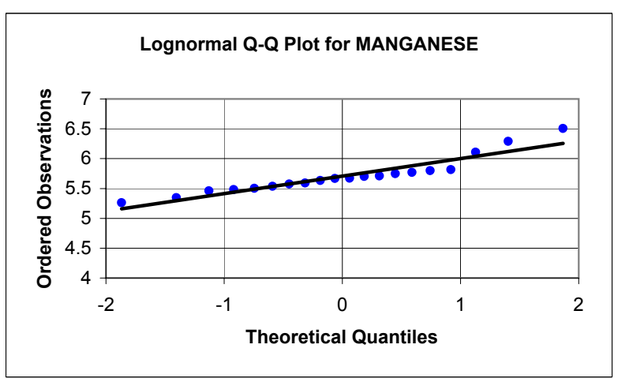
MAGNESIUM

Frequency of Detection	20/20
Mean	7.98
Standard Deviation	0.227
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are lognormal	



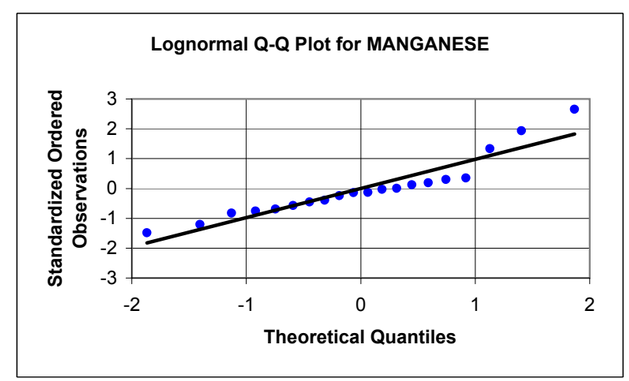
MANGANESE

Frequency of Detection	20/20
Mean	5.71
Standard Deviation	0.301
Slope =	0.293
Y Intercept =	5.71
Correlation =	0.940
Shapiro-Wilks Statistics	0.893
Crtitical Value	0.905
Data are not lognormal	



MANGANESE

Frequency of Detection	20/20
Mean	5.71
Standard Deviation	0.301
Slope =	0.976
Y Intercept =	0
Correlation =	0.940
Shapiro-Wilks Statistics	0.893
Crtitical Value	0.905
Data are not lognormal	

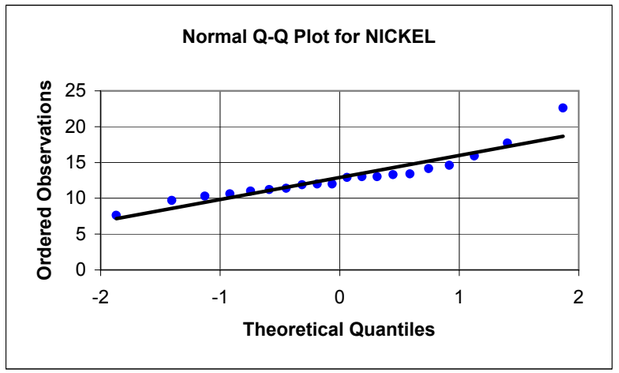


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

NICKEL

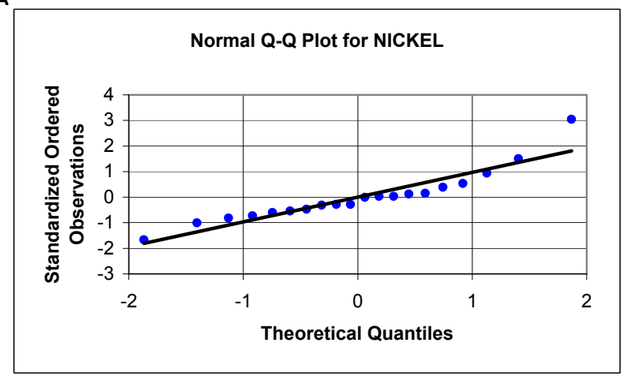
Frequency of Detection	20/20
Mean	12.9
Standard Deviation	3.19
Slope =	3.08
Y Intercept =	12.9
Correlation =	0.932
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

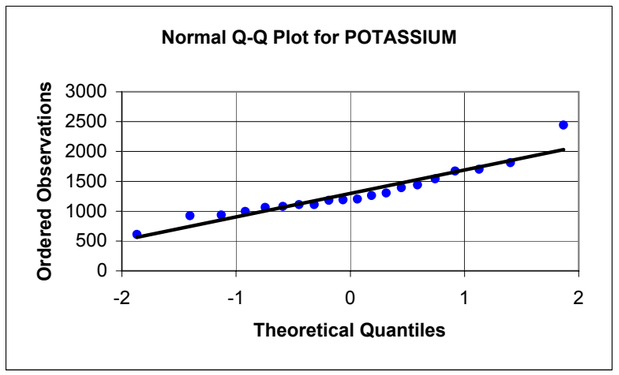
NICKEL

Frequency of Detection	20/20
Mean	12.9
Standard Deviation	3.19
Slope =	0.967
Y Intercept =	0
Correlation =	0.932
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.905
Data are not normal	



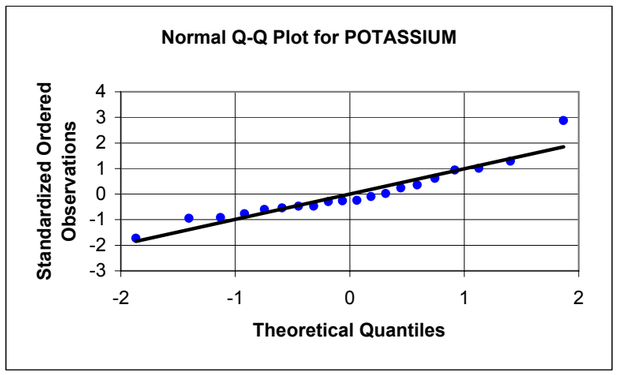
POTASSIUM

Frequency of Detection	20/20
Mean	1297
Standard Deviation	398
Slope =	393
Y Intercept =	1297
Correlation =	0.951
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are normal	



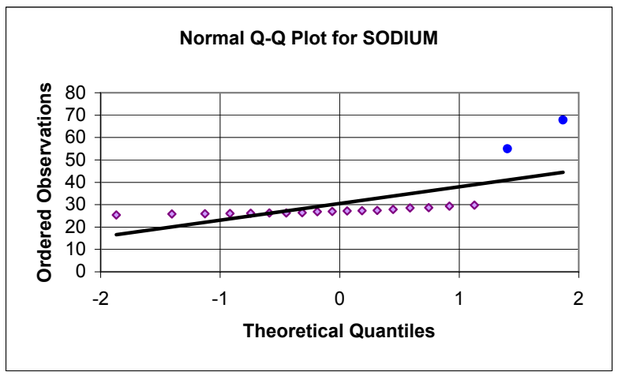
POTASSIUM

Frequency of Detection	20/20
Mean	1297
Standard Deviation	398
Slope =	0.987
Y Intercept =	0
Correlation =	0.951
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are normal	



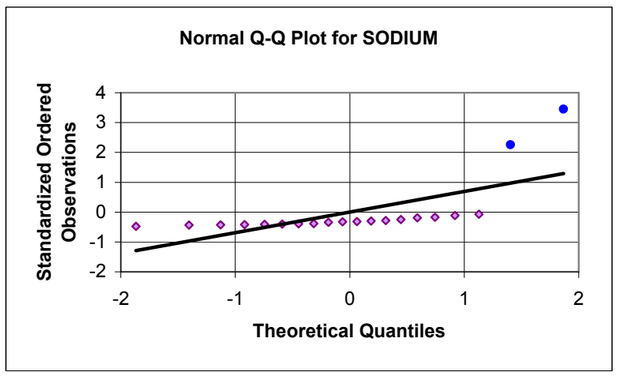
SODIUM

Frequency of Detection	2/20
Mean	30.5
Standard Deviation	10.8
Slope =	7.47
Y Intercept =	30.5
Correlation =	0.666
Shapiro-Wilks Statistics	0.463
Crtitical Value	0.905
Data are not normal	



SODIUM

Frequency of Detection	2/20
Mean	30.5
Standard Deviation	10.8
Slope =	0.691
Y Intercept =	0
Correlation =	0.666
Shapiro-Wilks Statistics	0.463
Crtitical Value	0.905
Data are not normal	

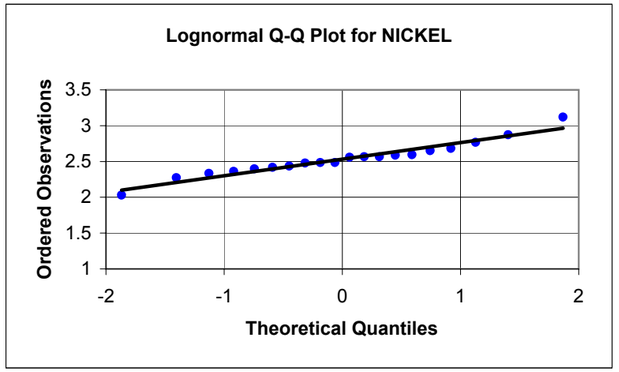


APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

NICKEL

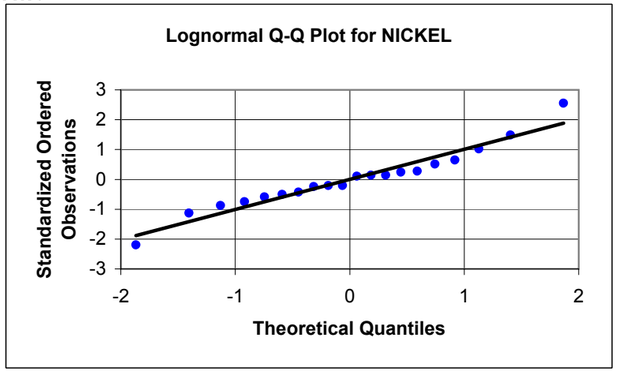
Frequency of Detection	20/20
Mean	2.53
Standard Deviation	0.229
Slope =	0.231
Y Intercept =	2.53
Correlation =	0.970
Shapiro-Wilks Statistics	0.961
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

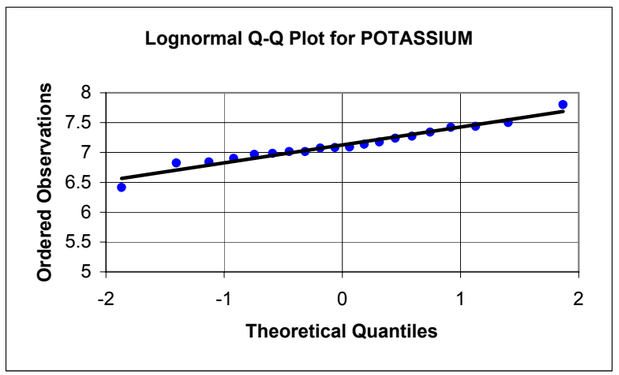
NICKEL

Frequency of Detection	20/20
Mean	2.53
Standard Deviation	0.229
Slope =	1.01
Y Intercept =	0
Correlation =	0.970
Shapiro-Wilks Statistics	0.961
Crtitical Value	0.905
Data are lognormal	



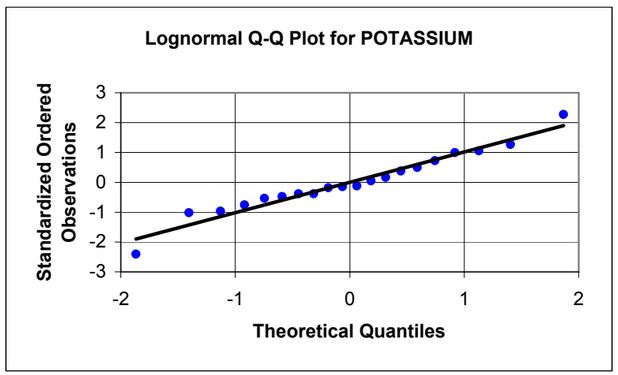
POTASSIUM

Frequency of Detection	20/20
Mean	7.13
Standard Deviation	0.296
Slope =	0.301
Y Intercept =	7.13
Correlation =	0.978
Shapiro-Wilks Statistics	0.973
Crtitical Value	0.905
Data are lognormal	



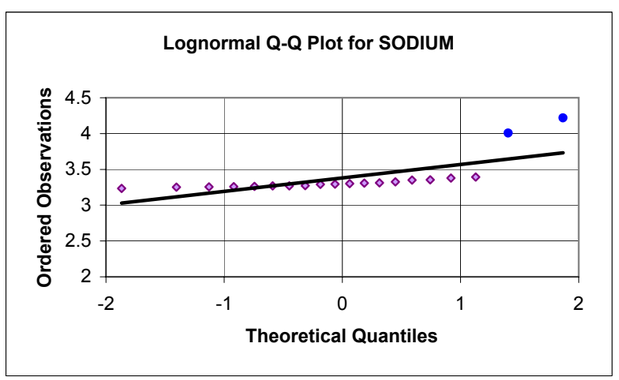
POTASSIUM

Frequency of Detection	20/20
Mean	7.13
Standard Deviation	0.296
Slope =	1.01
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.973
Crtitical Value	0.905
Data are lognormal	



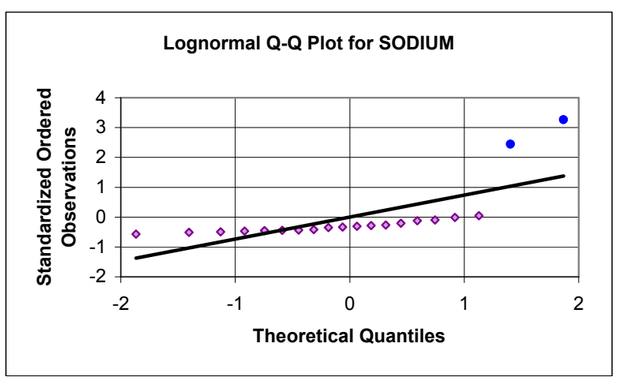
SODIUM

Frequency of Detection	2/20
Mean	3.38
Standard Deviation	0.256
Slope =	0.188
Y Intercept =	3.38
Correlation =	0.708
Shapiro-Wilks Statistics	0.519
Crtitical Value	0.905
Data are not lognormal	



SODIUM

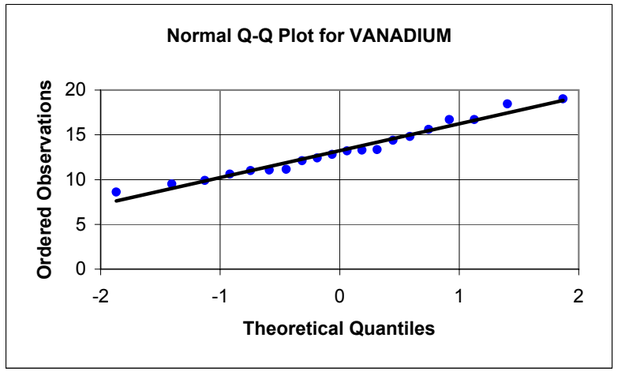
Frequency of Detection	2/20
Mean	3.38
Standard Deviation	0.256
Slope =	0.735
Y Intercept =	0
Correlation =	0.708
Shapiro-Wilks Statistics	0.519
Crtitical Value	0.905
Data are not lognormal	



APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

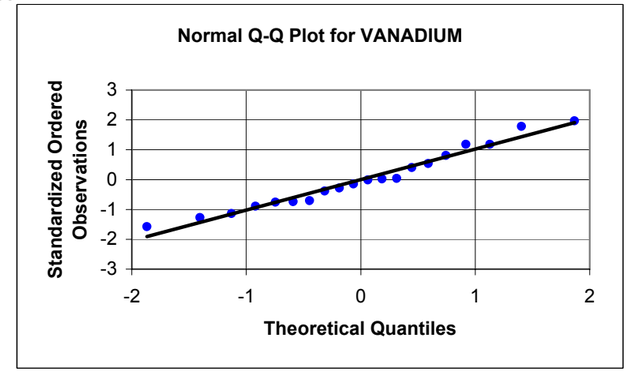
NORMAL - RAW DATA
VANADIUM

Frequency of Detection	20/20
Mean	13.2
Standard Deviation	2.93
Slope =	3.00
Y Intercept =	13.2
Correlation =	0.986
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



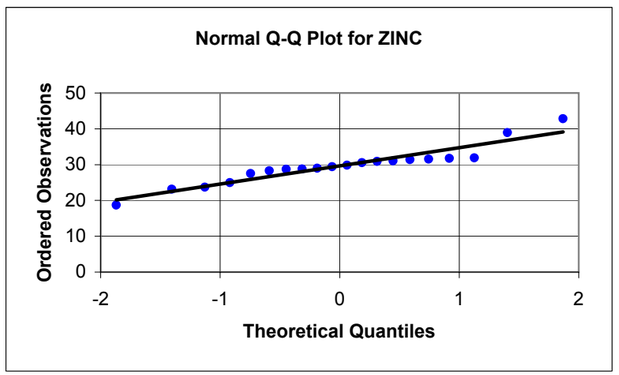
NORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	20/20
Mean	13.2
Standard Deviation	2.93
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



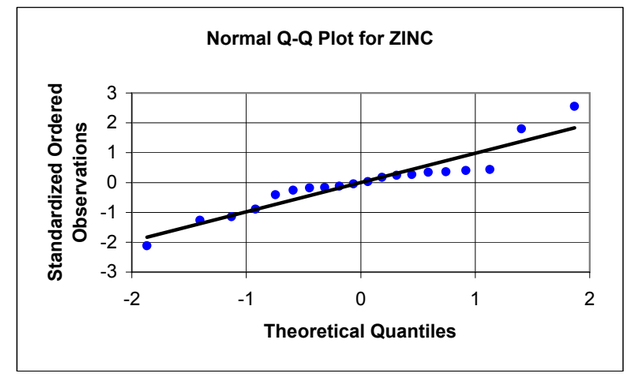
ZINC

Frequency of Detection	20/20
Mean	29.6
Standard Deviation	5.16
Slope =	5.07
Y Intercept =	29.6
Correlation =	0.946
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are normal	



ZINC

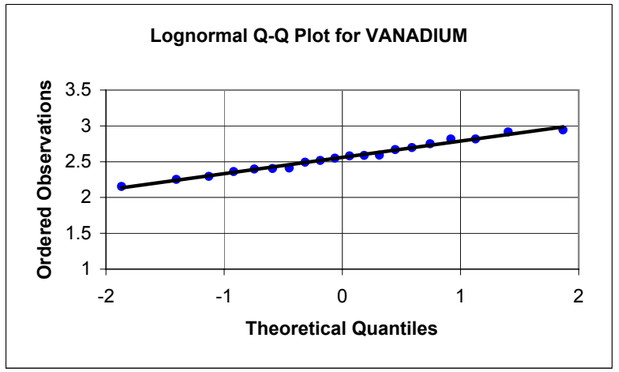
Frequency of Detection	20/20
Mean	29.6
Standard Deviation	5.16
Slope =	0.982
Y Intercept =	0
Correlation =	0.946
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are normal	



APPENDIX E5, FIGURE E5-5
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

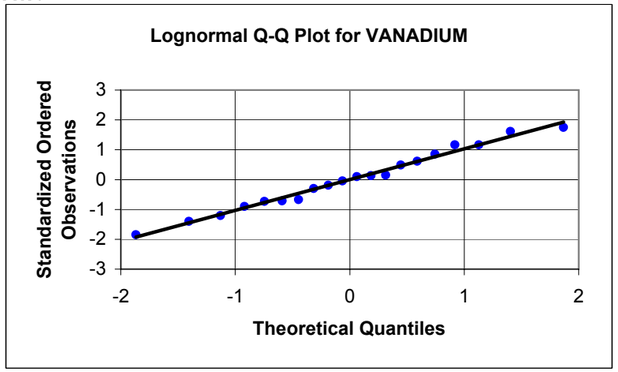
LOGNORMAL - RAW DATA
VANADIUM

Frequency of Detection	20/20
Mean	2.56
Standard Deviation	0.221
Slope =	0.228
Y Intercept =	2.56
Correlation =	0.994
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are lognormal	



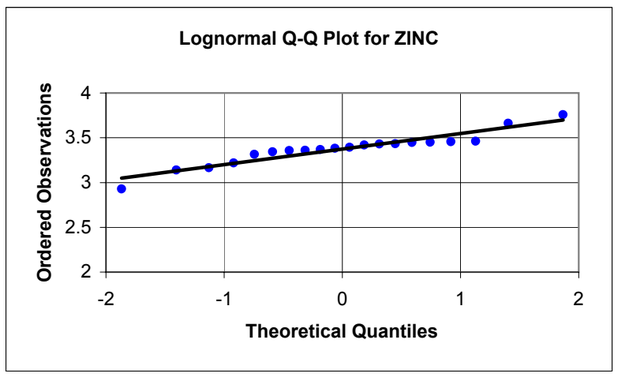
LOGNORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	20/20
Mean	2.56
Standard Deviation	0.221
Slope =	1.03
Y Intercept =	0
Correlation =	0.994
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are lognormal	



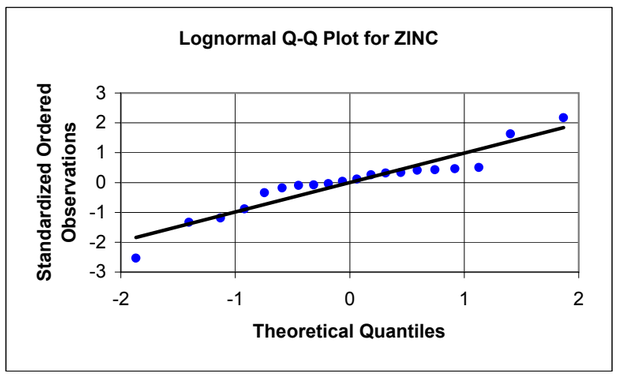
ZINC

Frequency of Detection	20/20
Mean	3.37
Standard Deviation	0.176
Slope =	0.174
Y Intercept =	3.37
Correlation =	0.949
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are lognormal	



ZINC

Frequency of Detection	20/20
Mean	3.37
Standard Deviation	0.176
Slope =	0.985
Y Intercept =	0
Correlation =	0.949
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are lognormal	

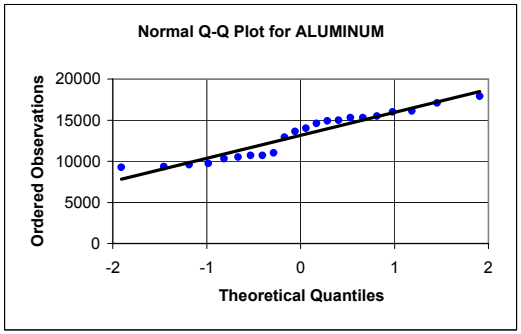


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

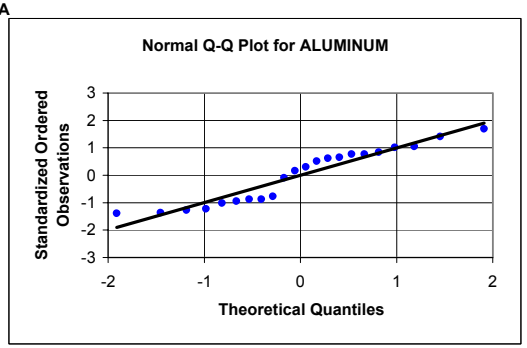
Frequency of Detection	22/22
Mean	13150
Standard Deviation	2806
Slope =	2794
Y Intercept =	13150
Correlation =	0.962
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.911
Data are not normal	



NORMAL - STANDARDIZED DATA

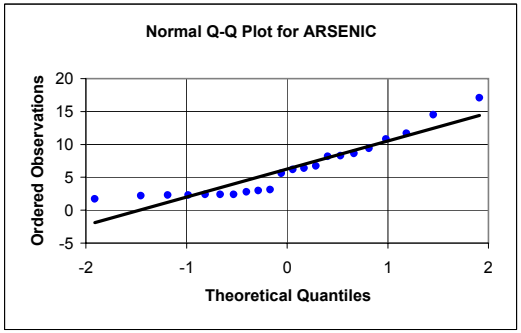
ALUMINUM

Frequency of Detection	22/22
Mean	13150
Standard Deviation	2806
Slope =	0.996
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.911
Data are not normal	



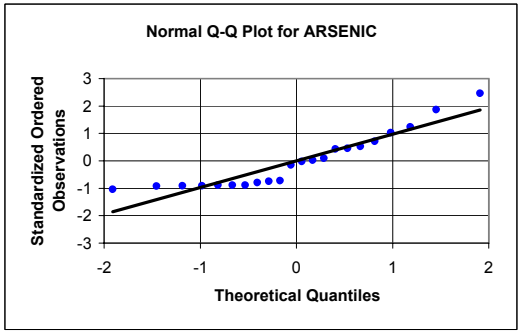
ARSENIC

Frequency of Detection	22/22
Mean	6.28
Standard Deviation	4.39
Slope =	4.27
Y Intercept =	6.28
Correlation =	0.938
Shapiro-Wilks Statistics	0.873
Crtitical Value	0.911
Data are not normal	



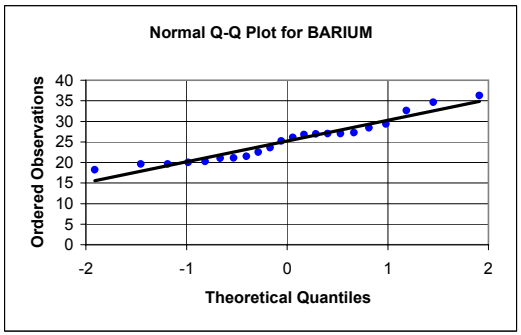
ARSENIC

Frequency of Detection	22/22
Mean	6.28
Standard Deviation	4.39
Slope =	0.971
Y Intercept =	0
Correlation =	0.938
Shapiro-Wilks Statistics	0.873
Crtitical Value	0.911
Data are not normal	



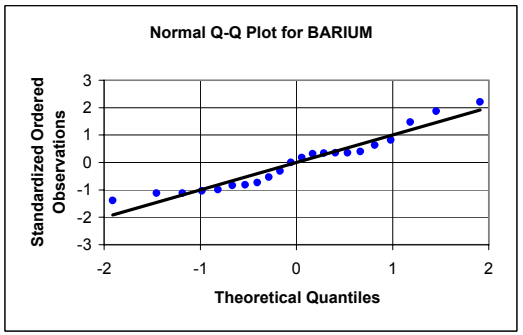
BARIUM

Frequency of Detection	22/22
Mean	25.2
Standard Deviation	5.03
Slope =	5.05
Y Intercept =	25.2
Correlation =	0.969
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.911
Data are normal	



BARIUM

Frequency of Detection	22/22
Mean	25.2
Standard Deviation	5.03
Slope =	1.00
Y Intercept =	0
Correlation =	0.969
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.911
Data are normal	

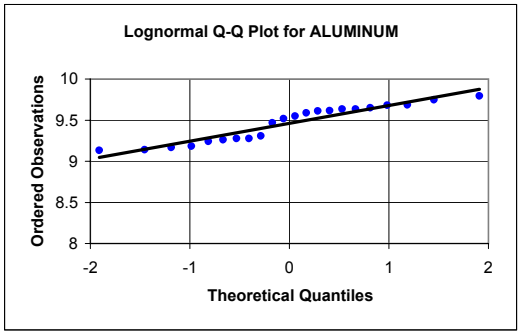


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

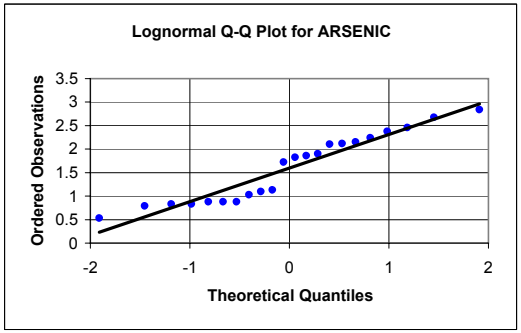
ALUMINUM

Frequency of Detection	22/22
Mean	9.46
Standard Deviation	0.220
Slope =	0.218
Y Intercept =	9.46
Correlation =	0.957
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.911
Data are not lognormal	



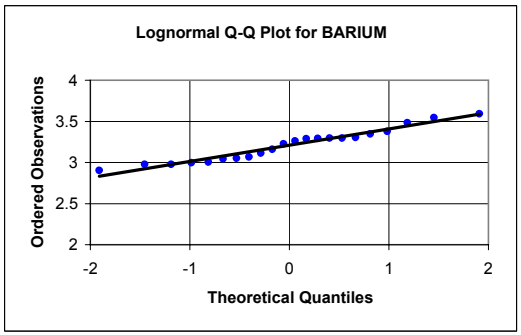
ARSENIC

Frequency of Detection	22/22
Mean	1.60
Standard Deviation	0.719
Slope =	0.715
Y Intercept =	1.60
Correlation =	0.961
Shapiro-Wilks Statistics	0.910
Crtitical Value	0.911
Data are not lognormal	



BARIUM

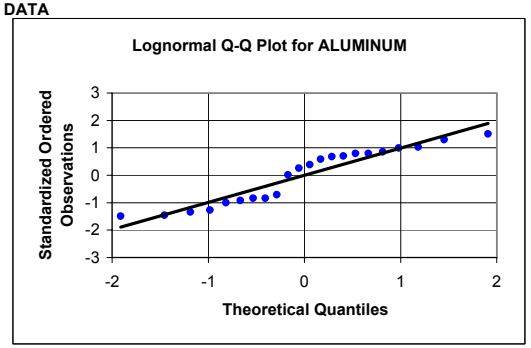
Frequency of Detection	22/22
Mean	3.21
Standard Deviation	0.195
Slope =	0.198
Y Intercept =	3.21
Correlation =	0.980
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.911
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

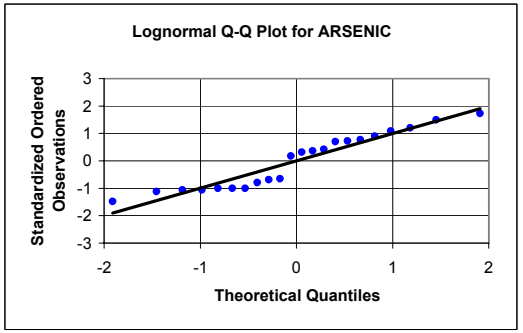
ALUMINUM

Frequency of Detection	22/22
Mean	9.46
Standard Deviation	0.220
Slope =	0.990
Y Intercept =	0
Correlation =	0.957
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.911
Data are not lognormal	



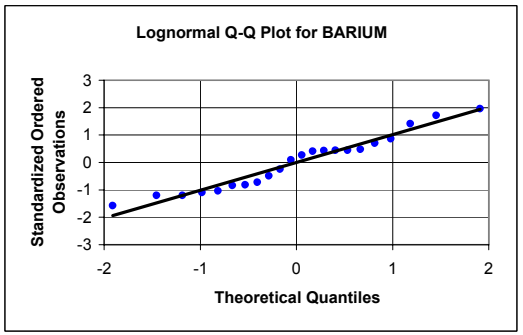
ARSENIC

Frequency of Detection	22/22
Mean	1.60
Standard Deviation	0.719
Slope =	0.995
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.910
Crtitical Value	0.911
Data are not lognormal	



BARIUM

Frequency of Detection	22/22
Mean	3.21
Standard Deviation	0.195
Slope =	1.01
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.911
Data are lognormal	

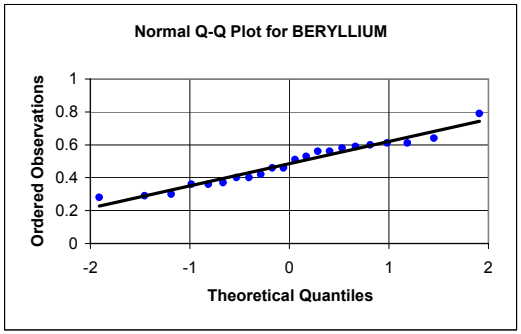


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

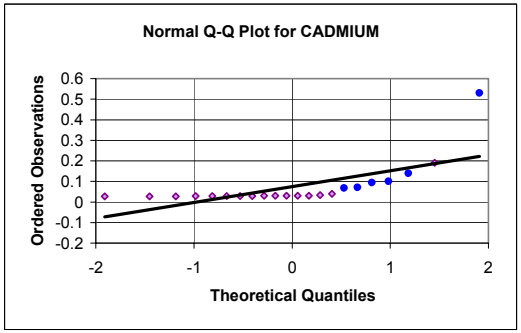
BERYLLIUM

Frequency of Detection	22/22
Mean	0.485
Standard Deviation	0.133
Slope =	0.135
Y Intercept =	0.485
Correlation =	0.980
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.911
Data are normal	



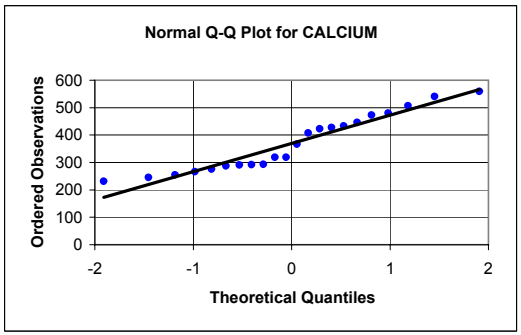
CADMIUM

Frequency of Detection	6/22
Mean	0.075
Standard Deviation	0.110
Slope =	0.077
Y Intercept =	0.075
Correlation =	0.672
Shapiro-Wilks Statistics	0.476
Crtitical Value	0.911
Data are not normal	



CALCIUM

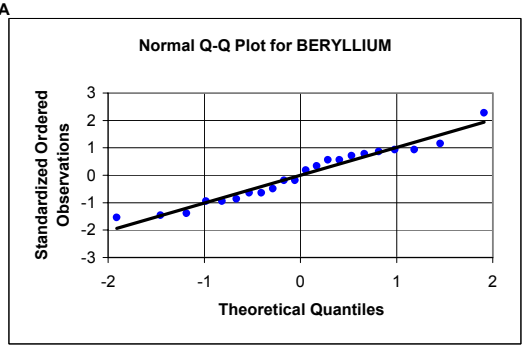
Frequency of Detection	22/22
Mean	370
Standard Deviation	103
Slope =	103
Y Intercept =	370
Correlation =	0.967
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.911
Data are normal	



NORMAL - STANDARDIZED DATA

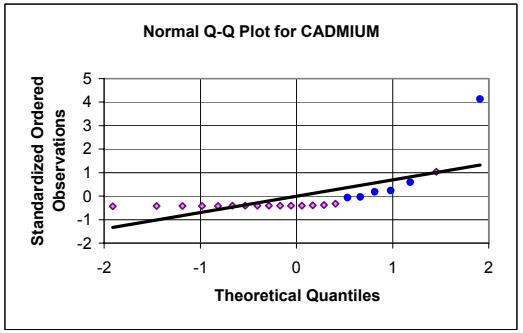
BERYLLIUM

Frequency of Detection	22/22
Mean	0.485
Standard Deviation	0.133
Slope =	1.01
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.911
Data are normal	



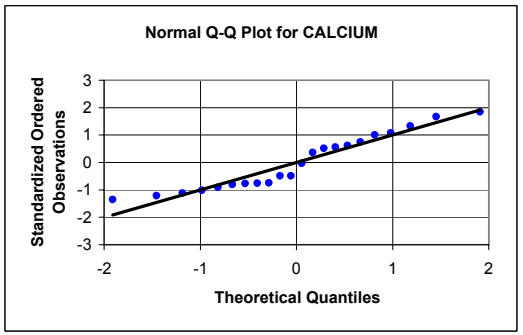
CADMIUM

Frequency of Detection	6/22
Mean	0.075
Standard Deviation	0.110
Slope =	0.696
Y Intercept =	0
Correlation =	0.672
Shapiro-Wilks Statistics	0.476
Crtitical Value	0.911
Data are not normal	



CALCIUM

Frequency of Detection	22/22
Mean	370
Standard Deviation	103
Slope =	1.00
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.911
Data are normal	

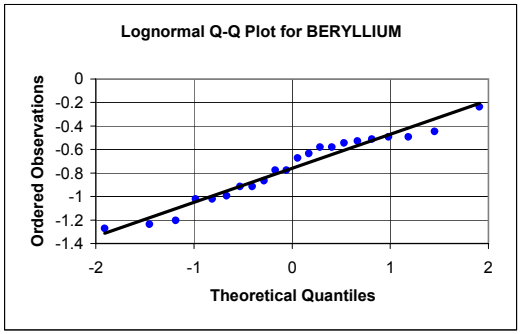


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

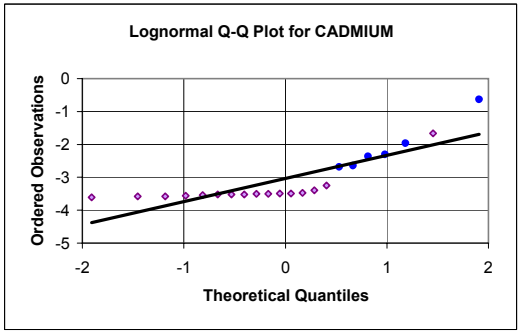
BERYLLIUM

Frequency of Detection	22/22
Mean	-0.760
Standard Deviation	0.285
Slope =	0.289
Y Intercept =	-0.760
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.911
Data are lognormal	



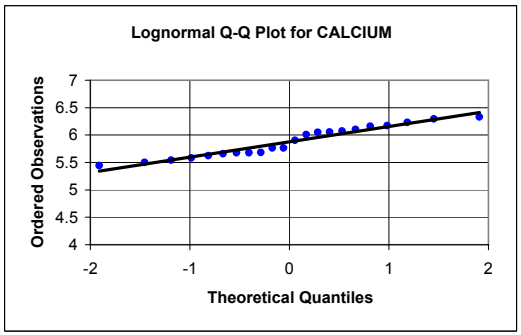
CADMIUM

Frequency of Detection	6/22
Mean	-3.036
Standard Deviation	0.800
Slope =	0.702
Y Intercept =	-3.036
Correlation =	0.847
Shapiro-Wilks Statistics	0.722
Crtitical Value	0.911
Data are not lognormal	



CALCIUM

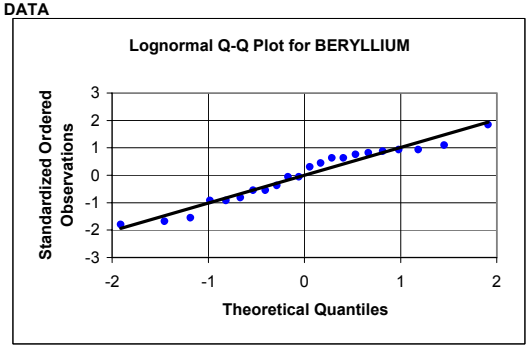
Frequency of Detection	22/22
Mean	5.88
Standard Deviation	0.278
Slope =	0.280
Y Intercept =	5.88
Correlation =	0.973
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.911
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

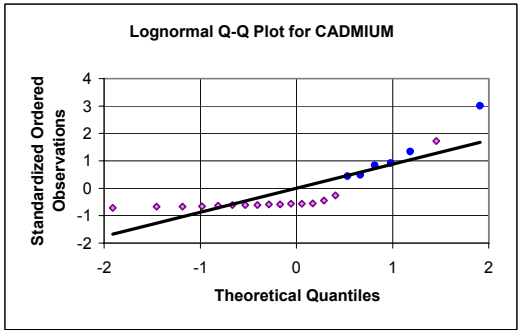
BERYLLIUM

Frequency of Detection	22/22
Mean	-0.760
Standard Deviation	0.285
Slope =	1.01
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.911
Data are lognormal	



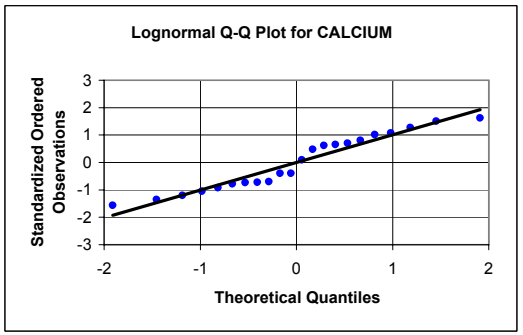
CADMIUM

Frequency of Detection	6/22
Mean	-3.036
Standard Deviation	0.800
Slope =	0.877
Y Intercept =	0
Correlation =	0.847
Shapiro-Wilks Statistics	0.722
Crtitical Value	0.911
Data are not lognormal	



CALCIUM

Frequency of Detection	22/22
Mean	5.88
Standard Deviation	0.278
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.911
Data are lognormal	

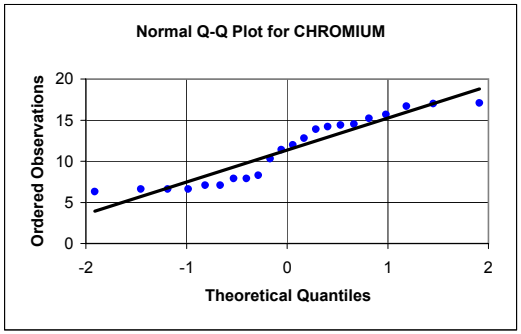


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

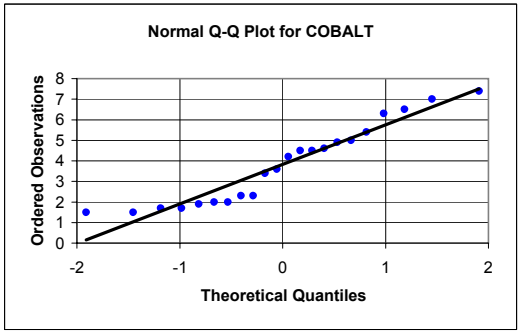
CHROMIUM

Frequency of Detection	22/22
Mean	11.3
Standard Deviation	3.95
Slope =	3.89
Y Intercept =	11.3
Correlation =	0.952
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.911
Data are not normal	



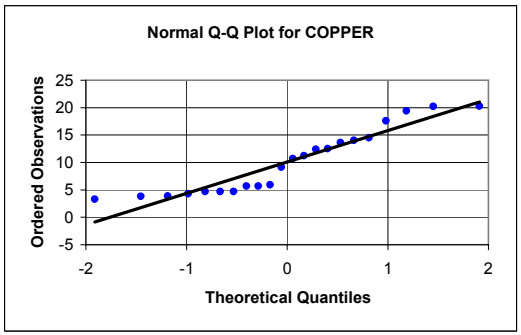
COBALT

Frequency of Detection	22/22
Mean	3.83
Standard Deviation	1.93
Slope =	1.92
Y Intercept =	3.83
Correlation =	0.963
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.911
Data are normal	



COPPER

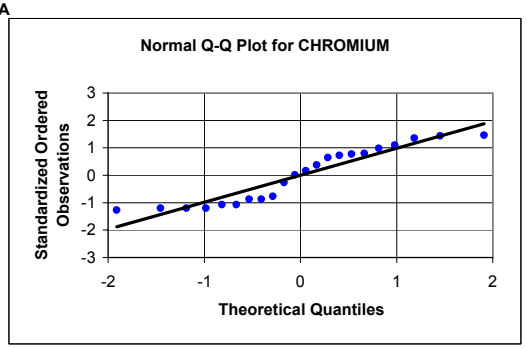
Frequency of Detection	22/22
Mean	10.1
Standard Deviation	5.82
Slope =	5.73
Y Intercept =	10.1
Correlation =	0.951
Shapiro-Wilks Statistics	0.887
Crtitical Value	0.911
Data are not normal	



NORMAL - STANDARDIZED DATA

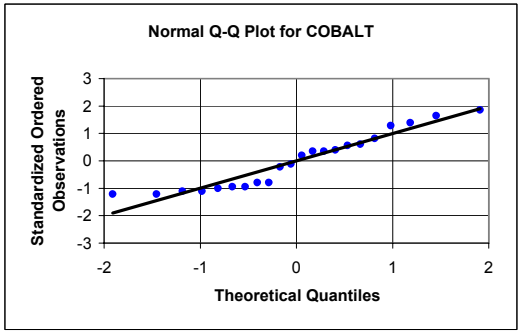
CHROMIUM

Frequency of Detection	22/22
Mean	11.3
Standard Deviation	3.95
Slope =	0.986
Y Intercept =	0
Correlation =	0.952
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.911
Data are not normal	



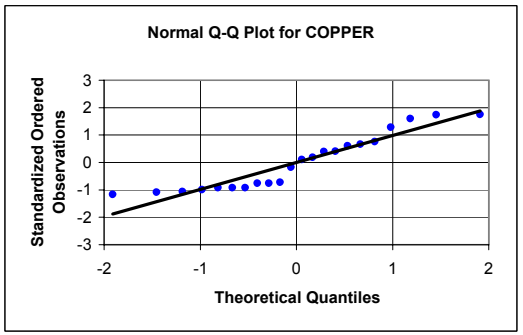
COBALT

Frequency of Detection	22/22
Mean	3.83
Standard Deviation	1.93
Slope =	0.998
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.911
Data are normal	



COPPER

Frequency of Detection	22/22
Mean	10.1
Standard Deviation	5.82
Slope =	0.985
Y Intercept =	0
Correlation =	0.951
Shapiro-Wilks Statistics	0.887
Crtitical Value	0.911
Data are not normal	

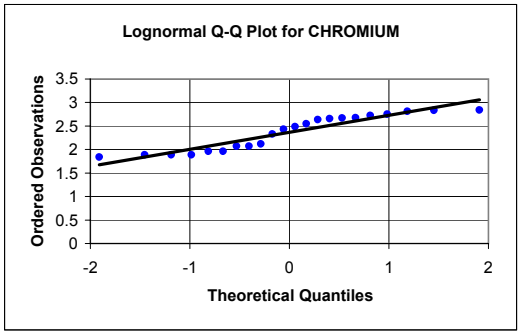


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

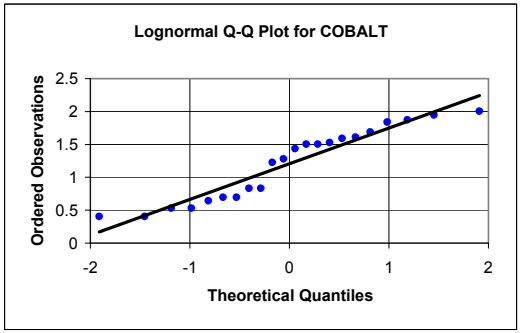
CHROMIUM

Frequency of Detection	22/22
Mean	2.37
Standard Deviation	0.368
Slope =	0.361
Y Intercept =	2.37
Correlation =	0.947
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.911
Data are not lognormal	



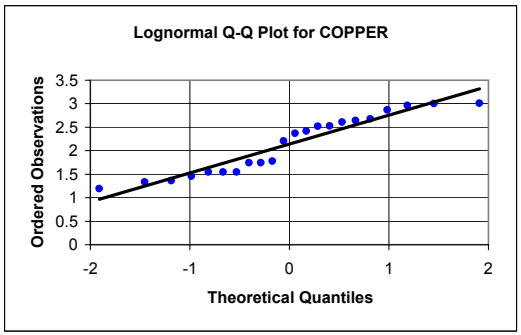
COBALT

Frequency of Detection	22/22
Mean	1.21
Standard Deviation	0.544
Slope =	0.543
Y Intercept =	1.21
Correlation =	0.963
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.911
Data are not lognormal	



COPPER

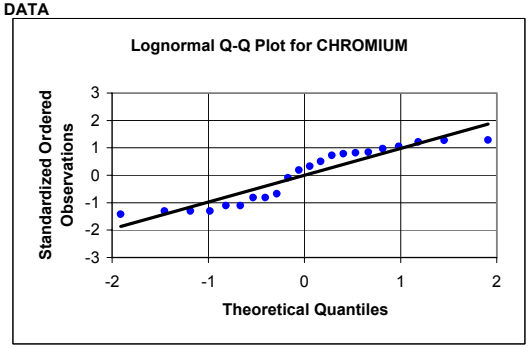
Frequency of Detection	22/22
Mean	2.14
Standard Deviation	0.618
Slope =	0.615
Y Intercept =	2.14
Correlation =	0.961
Shapiro-Wilks Statistics	0.906
Crtitical Value	0.911
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

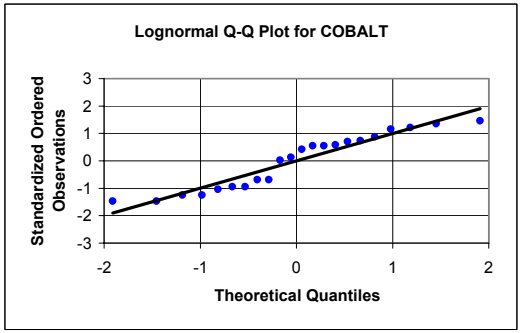
CHROMIUM

Frequency of Detection	22/22
Mean	2.37
Standard Deviation	0.368
Slope =	0.980
Y Intercept =	0
Correlation =	0.947
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.911
Data are not lognormal	



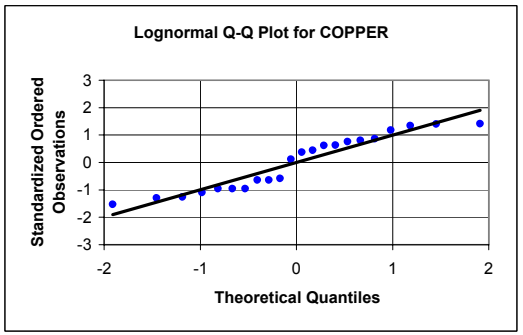
COBALT

Frequency of Detection	22/22
Mean	1.21
Standard Deviation	0.544
Slope =	0.997
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.911
Data are not lognormal	



COPPER

Frequency of Detection	22/22
Mean	2.14
Standard Deviation	0.618
Slope =	0.995
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.906
Crtitical Value	0.911
Data are not lognormal	

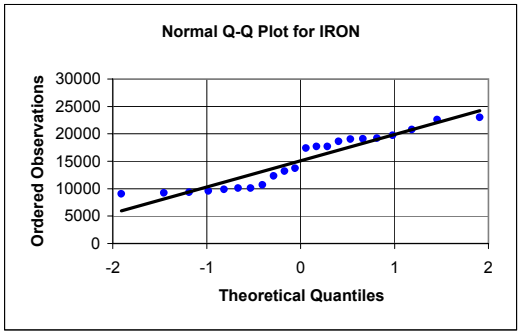


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

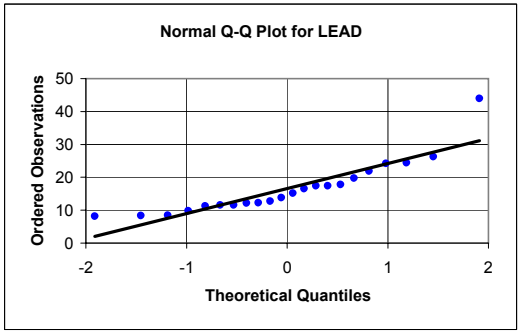
IRON

Frequency of Detection	22/22
Mean	15086
Standard Deviation	4866
Slope =	4786
Y Intercept =	15086
Correlation =	0.950
Shapiro-Wilks Statistics	0.884
Crtitical Value	0.911
Data are not normal	



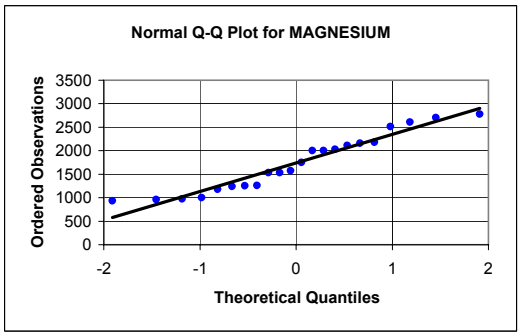
LEAD

Frequency of Detection	22/22
Mean	16.6
Standard Deviation	8.15
Slope =	7.60
Y Intercept =	16.6
Correlation =	0.901
Shapiro-Wilks Statistics	0.825
Crtitical Value	0.911
Data are not normal	



MAGNESIUM

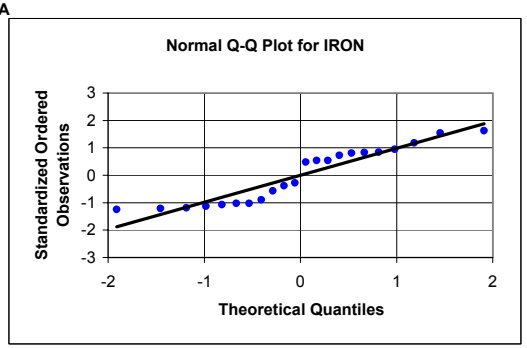
Frequency of Detection	22/22
Mean	1739
Standard Deviation	602
Slope =	607
Y Intercept =	1739
Correlation =	0.974
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.911
Data are normal	



NORMAL - STANDARDIZED DATA

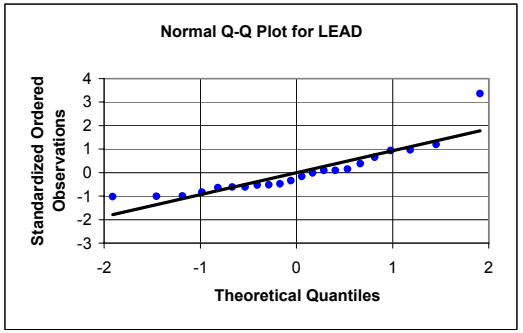
IRON

Frequency of Detection	22/22
Mean	15086
Standard Deviation	4866
Slope =	0.984
Y Intercept =	0
Correlation =	0.950
Shapiro-Wilks Statistics	0.884
Crtitical Value	0.911
Data are not normal	



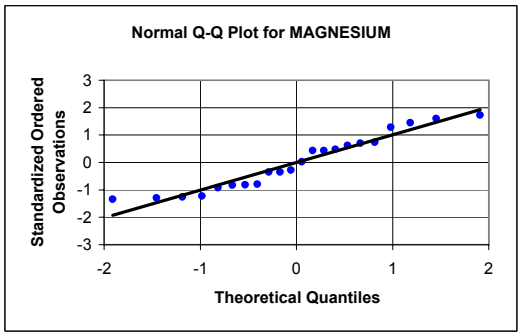
LEAD

Frequency of Detection	22/22
Mean	16.6
Standard Deviation	8.15
Slope =	0.933
Y Intercept =	0
Correlation =	0.901
Shapiro-Wilks Statistics	0.825
Crtitical Value	0.911
Data are not normal	



MAGNESIUM

Frequency of Detection	22/22
Mean	1739
Standard Deviation	602
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.911
Data are normal	

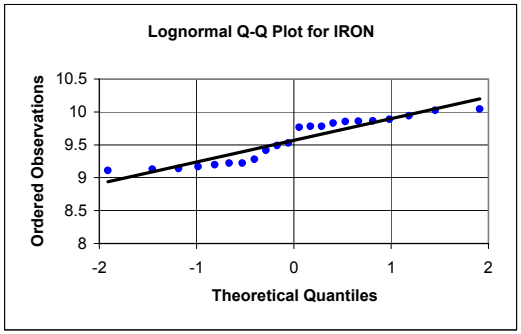


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

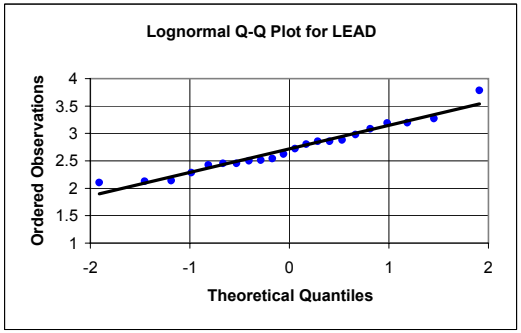
IRON

Frequency of Detection	22/22
Mean	9.57
Standard Deviation	0.336
Slope =	0.329
Y Intercept =	9.57
Correlation =	0.945
Shapiro-Wilks Statistics	0.874
Crtitical Value	0.911
Data are not lognormal	



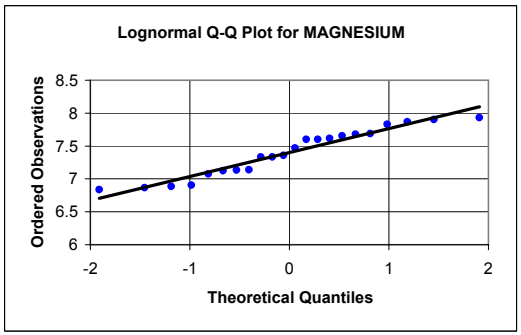
LEAD

Frequency of Detection	22/22
Mean	2.72
Standard Deviation	0.424
Slope =	0.430
Y Intercept =	2.72
Correlation =	0.979
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.911
Data are lognormal	



MAGNESIUM

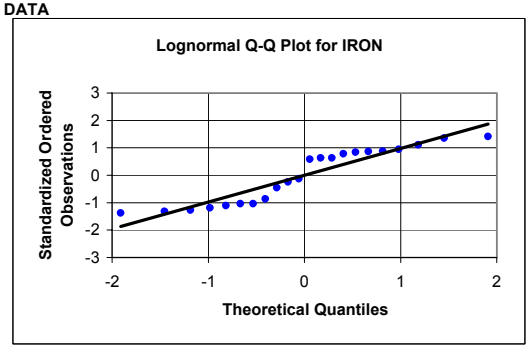
Frequency of Detection	22/22
Mean	7.40
Standard Deviation	0.361
Slope =	0.364
Y Intercept =	7.40
Correlation =	0.974
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.911
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

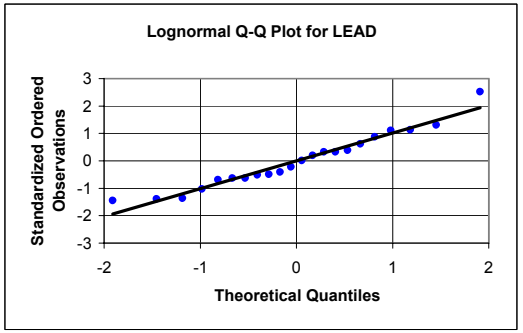
IRON

Frequency of Detection	22/22
Mean	9.57
Standard Deviation	0.336
Slope =	0.979
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.874
Crtitical Value	0.911
Data are not lognormal	



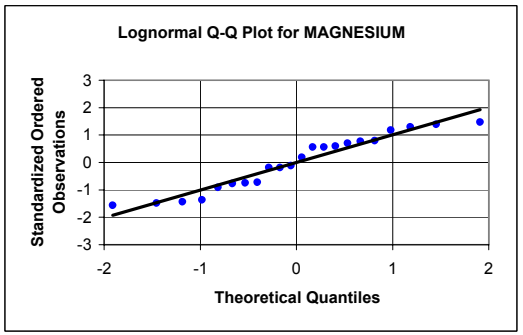
LEAD

Frequency of Detection	22/22
Mean	2.72
Standard Deviation	0.424
Slope =	1.01
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.911
Data are lognormal	



MAGNESIUM

Frequency of Detection	22/22
Mean	7.40
Standard Deviation	0.361
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.911
Data are lognormal	

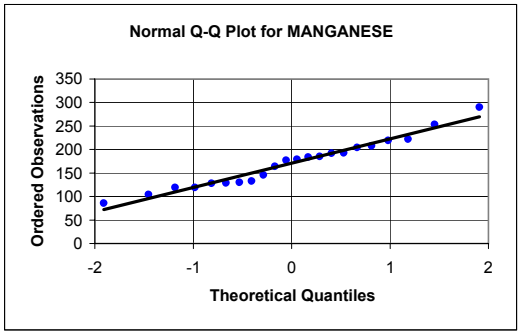


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

MANGANESE

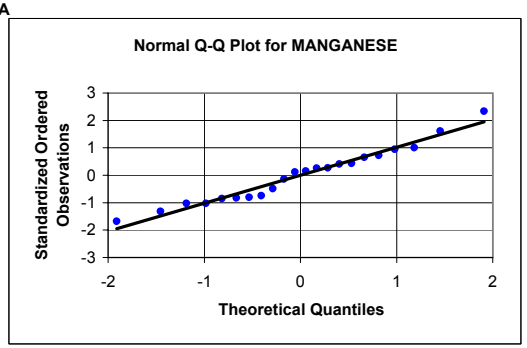
Frequency of Detection	22/22
Mean	171
Standard Deviation	50.8
Slope =	51.8
Y Intercept =	171
Correlation =	0.984
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.911
Data are normal	



NORMAL - STANDARDIZED DATA

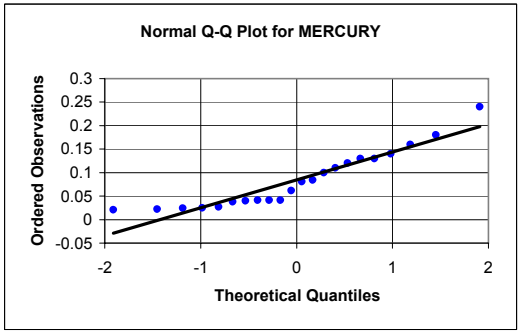
MANGANESE

Frequency of Detection	22/22
Mean	171
Standard Deviation	50.8
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.911
Data are normal	



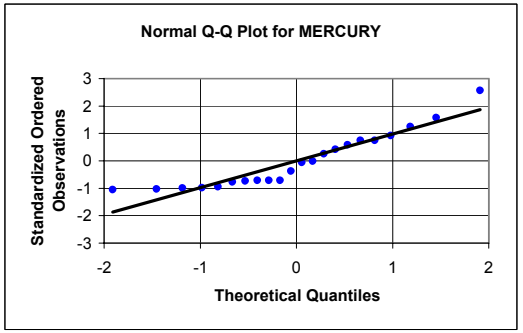
MERCURY

Frequency of Detection	22/22
Mean	0.084
Standard Deviation	0.061
Slope =	0.059
Y Intercept =	0.084
Correlation =	0.946
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.911
Data are not normal	



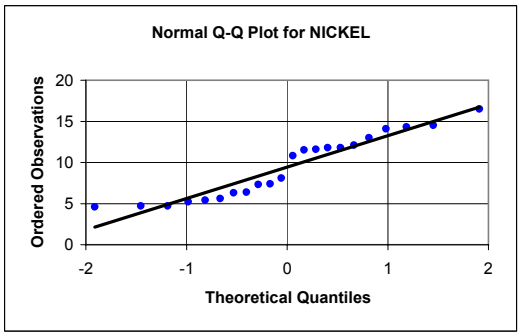
MERCURY

Frequency of Detection	22/22
Mean	0.084
Standard Deviation	0.061
Slope =	0.979
Y Intercept =	0
Correlation =	0.946
Shapiro-Wilks Statistics	0.890
Crtitical Value	0.911
Data are not normal	



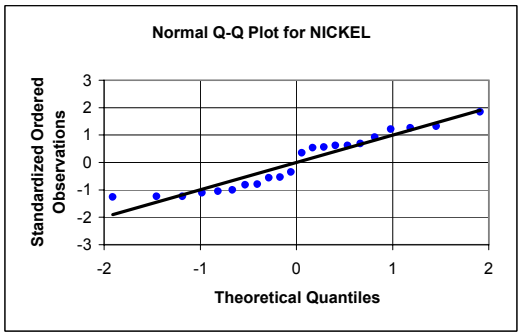
NICKEL

Frequency of Detection	22/22
Mean	9.44
Standard Deviation	3.84
Slope =	3.82
Y Intercept =	9.44
Correlation =	0.961
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.911
Data are not normal	



NICKEL

Frequency of Detection	22/22
Mean	9.44
Standard Deviation	3.84
Slope =	0.995
Y Intercept =	0
Correlation =	0.961
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.911
Data are not normal	

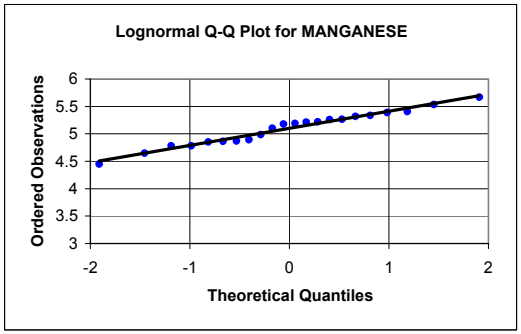


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

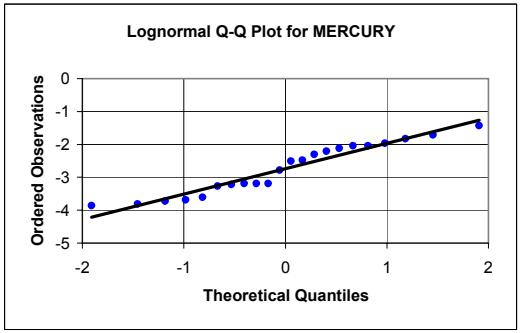
MANGANESE

Frequency of Detection	22/22
Mean	5.10
Standard Deviation	0.305
Slope =	0.312
Y Intercept =	5.10
Correlation =	0.988
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.911
Data are lognormal	



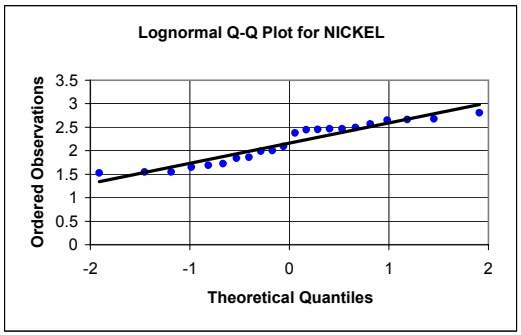
MERCURY

Frequency of Detection	22/22
Mean	-2.737
Standard Deviation	0.767
Slope =	0.772
Y Intercept =	-2.737
Correlation =	0.972
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.911
Data are lognormal	



NICKEL

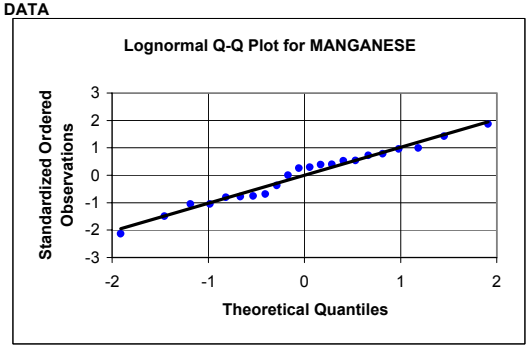
Frequency of Detection	22/22
Mean	2.16
Standard Deviation	0.432
Slope =	0.429
Y Intercept =	2.16
Correlation =	0.959
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.911
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

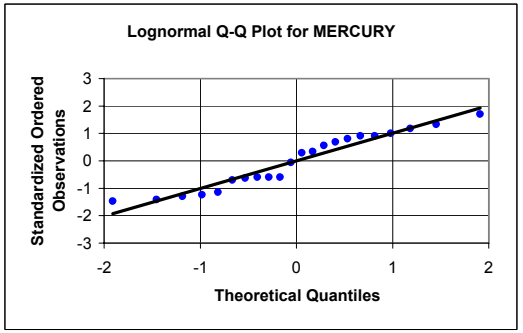
MANGANESE

Frequency of Detection	22/22
Mean	5.10
Standard Deviation	0.305
Slope =	1.02
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.911
Data are lognormal	



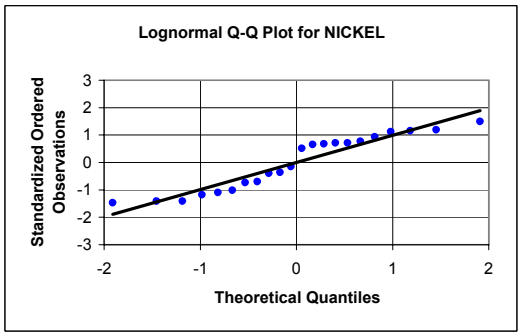
MERCURY

Frequency of Detection	22/22
Mean	-2.737
Standard Deviation	0.767
Slope =	1.01
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.911
Data are lognormal	



NICKEL

Frequency of Detection	22/22
Mean	2.16
Standard Deviation	0.432
Slope =	0.993
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.911
Data are not lognormal	

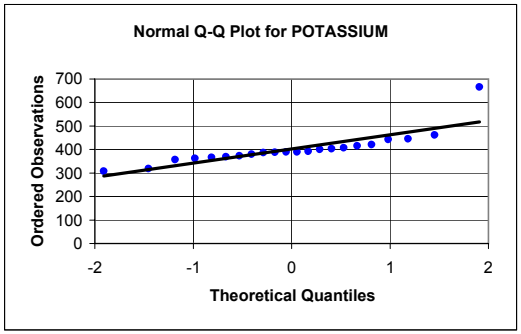


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

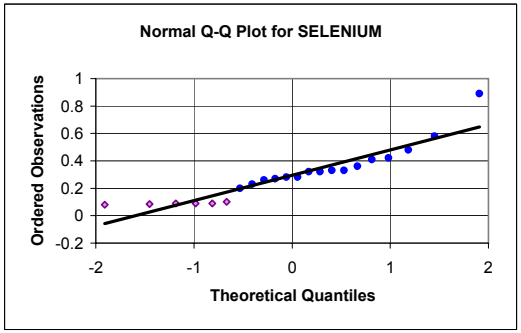
POTASSIUM

Frequency of Detection	22/22
Mean	402
Standard Deviation	69.4
Slope =	60.3
Y Intercept =	402
Correlation =	0.839
Shapiro-Wilks Statistics	0.733
Crtitical Value	0.911
Data are not normal	



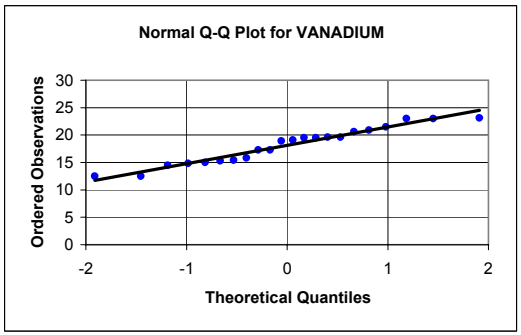
SELENIUM

Frequency of Detection	16/22
Mean	0.295
Standard Deviation	0.192
Slope =	0.185
Y Intercept =	0.295
Correlation =	0.929
Shapiro-Wilks Statistics	0.870
Crtitical Value	0.911
Data are not normal	



VANADIUM

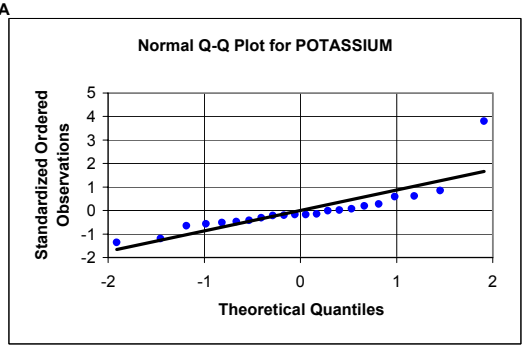
Frequency of Detection	22/22
Mean	18.1
Standard Deviation	3.28
Slope =	3.33
Y Intercept =	18.1
Correlation =	0.980
Shapiro-Wilks Statistics	0.945
Crtitical Value	0.911
Data are normal	



NORMAL - STANDARDIZED DATA

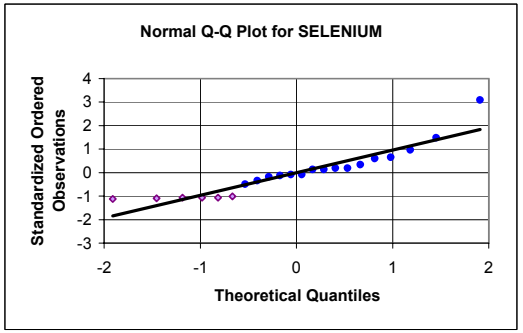
POTASSIUM

Frequency of Detection	22/22
Mean	402
Standard Deviation	69.4
Slope =	0.869
Y Intercept =	0
Correlation =	0.839
Shapiro-Wilks Statistics	0.733
Crtitical Value	0.911
Data are not normal	



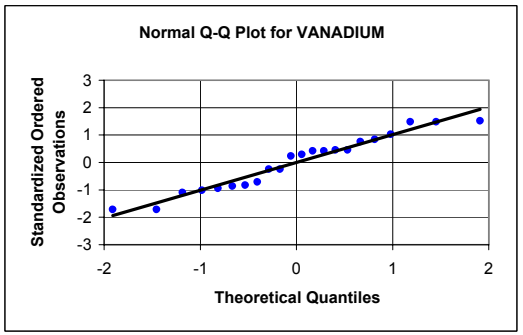
SELENIUM

Frequency of Detection	16/22
Mean	0.295
Standard Deviation	0.192
Slope =	0.962
Y Intercept =	0
Correlation =	0.929
Shapiro-Wilks Statistics	0.870
Crtitical Value	0.911
Data are not normal	



VANADIUM

Frequency of Detection	22/22
Mean	18.1
Standard Deviation	3.28
Slope =	1.01
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.945
Crtitical Value	0.911
Data are normal	

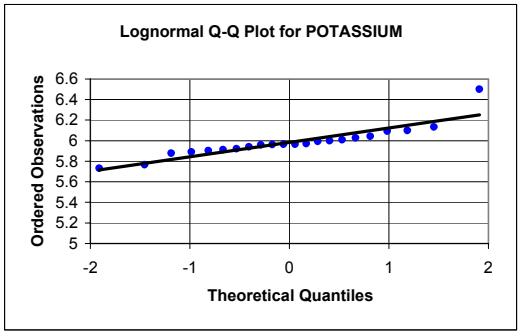


APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

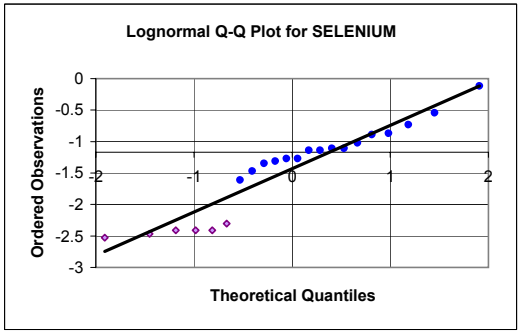
POTASSIUM

Frequency of Detection	22/22
Mean	5.98
Standard Deviation	0.150
Slope =	0.140
Y Intercept =	5.98
Correlation =	0.900
Shapiro-Wilks Statistics	0.837
Crtitical Value	0.911
Data are not lognormal	



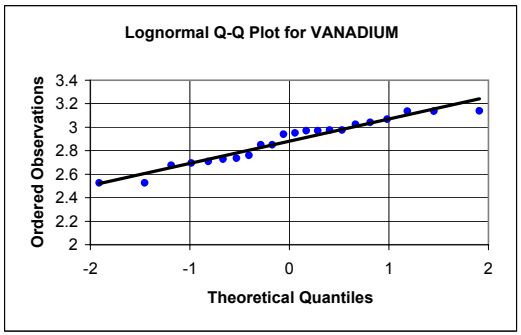
SELENIUM

Frequency of Detection	16/22
Mean	-1.430
Standard Deviation	0.695
Slope =	0.688
Y Intercept =	-1.430
Correlation =	0.956
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.911
Data are not lognormal	



VANADIUM

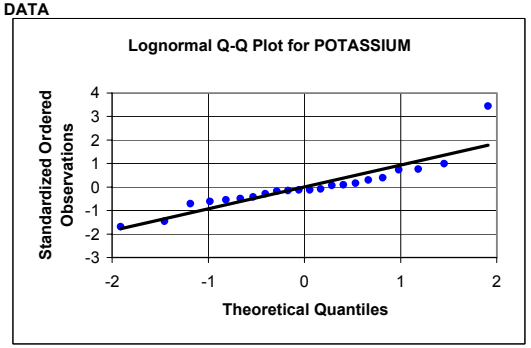
Frequency of Detection	22/22
Mean	2.88
Standard Deviation	0.188
Slope =	0.189
Y Intercept =	2.88
Correlation =	0.974
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.911
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

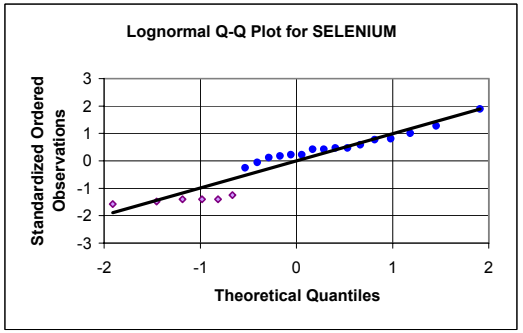
POTASSIUM

Frequency of Detection	22/22
Mean	5.98
Standard Deviation	0.150
Slope =	0.932
Y Intercept =	0
Correlation =	0.900
Shapiro-Wilks Statistics	0.837
Crtitical Value	0.911
Data are not lognormal	



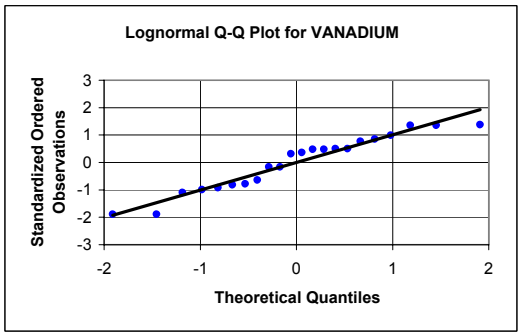
SELENIUM

Frequency of Detection	16/22
Mean	-1.430
Standard Deviation	0.695
Slope =	0.990
Y Intercept =	0
Correlation =	0.956
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.911
Data are not lognormal	



VANADIUM

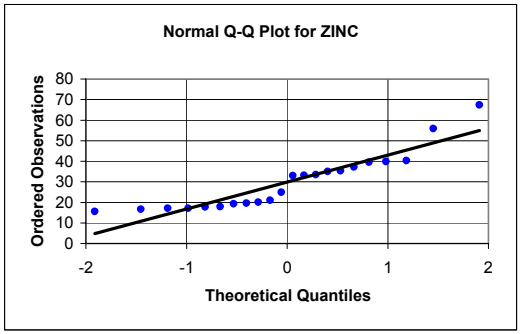
Frequency of Detection	22/22
Mean	2.88
Standard Deviation	0.188
Slope =	1.01
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.911
Data are lognormal	



APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

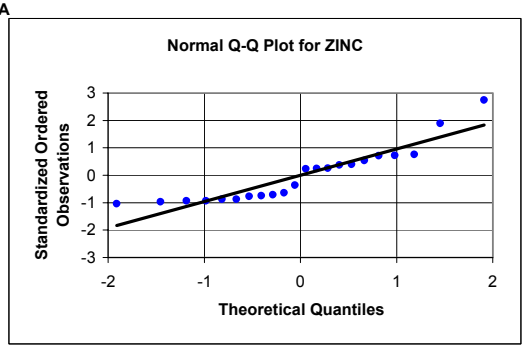
NORMAL - RAW DATA
ZINC

Frequency of Detection	22/22
Mean	29.9
Standard Deviation	13.7
Slope =	13.1
Y Intercept =	29.9
Correlation =	0.927
Shapiro-Wilks Statistics	0.859
Crtitical Value	0.911
Data are not normal	



NORMAL - STANDARDIZED DATA
ZINC

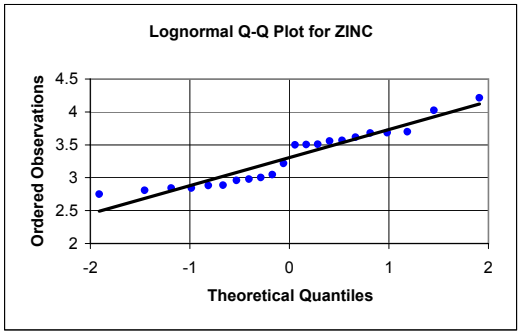
Frequency of Detection	22/22
Mean	29.9
Standard Deviation	13.7
Slope =	0.960
Y Intercept =	0
Correlation =	0.927
Shapiro-Wilks Statistics	0.859
Crtitical Value	0.911
Data are not normal	



APPENDIX E5, FIGURE E5-6
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

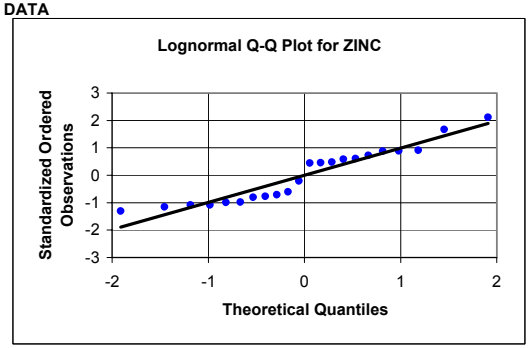
LOGNORMAL - RAW DATA
ZINC

Frequency of Detection	22/22
Mean	3.31
Standard Deviation	0.429
Slope =	0.425
Y Intercept =	3.31
Correlation =	0.959
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.911
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA
ZINC

Frequency of Detection	22/22
Mean	3.31
Standard Deviation	0.429
Slope =	0.993
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.911
Data are not lognormal	

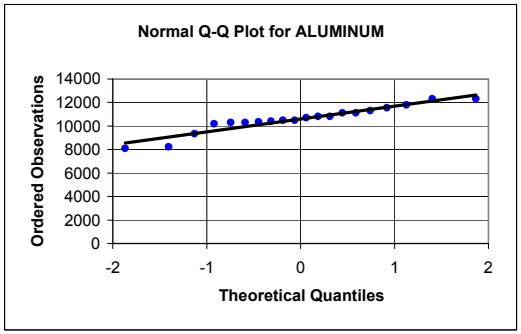


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

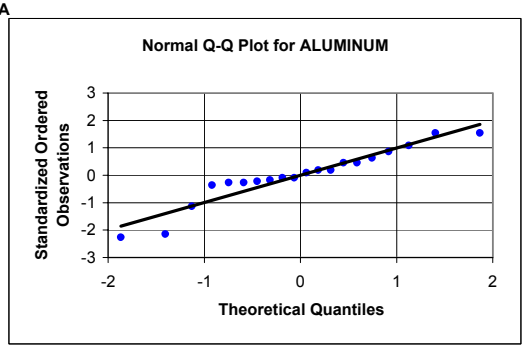
Frequency of Detection	20/20
Mean	10598
Standard Deviation	1105
Slope =	1098
Y Intercept =	10598
Correlation =	0.956
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

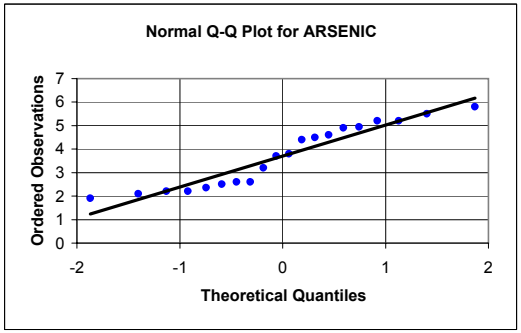
ALUMINUM

Frequency of Detection	20/20
Mean	10598
Standard Deviation	1105
Slope =	0.993
Y Intercept =	0
Correlation =	0.956
Shapiro-Wilks Statistics	0.916
Crtitical Value	0.905
Data are normal	



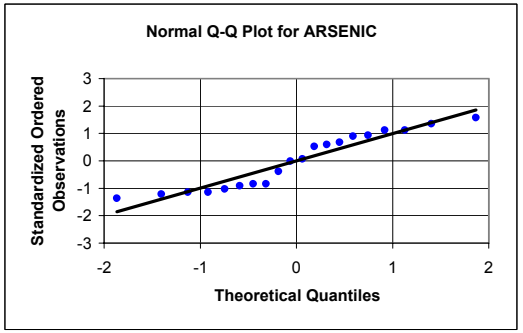
ARSENIC

Frequency of Detection	20/20
Mean	3.71
Standard Deviation	1.32
Slope =	1.32
Y Intercept =	3.71
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.905
Data are not normal	



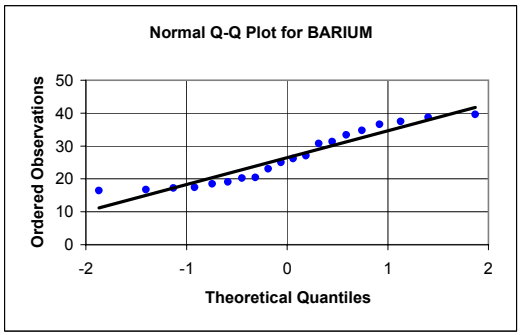
ARSENIC

Frequency of Detection	20/20
Mean	3.71
Standard Deviation	1.32
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.902
Crtitical Value	0.905
Data are not normal	



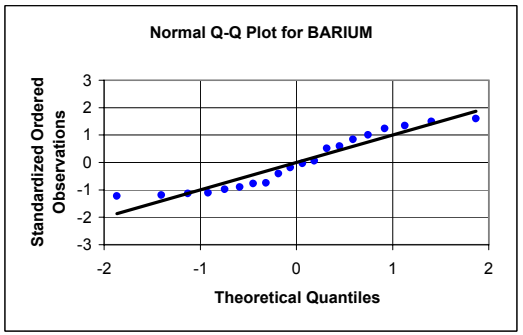
BARIUM

Frequency of Detection	20/20
Mean	26.5
Standard Deviation	8.19
Slope =	8.18
Y Intercept =	26.5
Correlation =	0.962
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not normal	



BARIUM

Frequency of Detection	20/20
Mean	26.5
Standard Deviation	8.19
Slope =	0.998
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.905
Data are not normal	

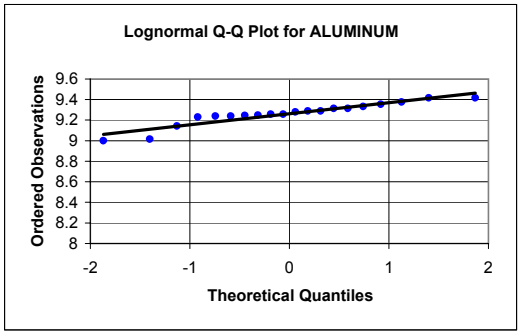


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

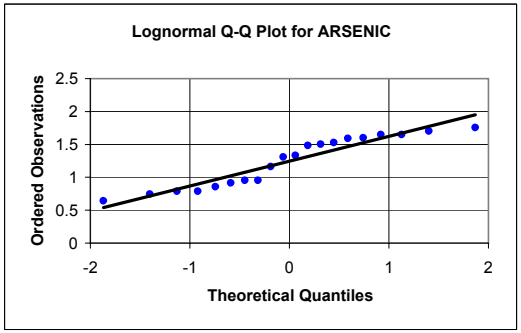
ALUMINUM

Frequency of Detection	20/20
Mean	9.26
Standard Deviation	0.110
Slope =	0.107
Y Intercept =	9.26
Correlation =	0.939
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.905
Data are not lognormal	



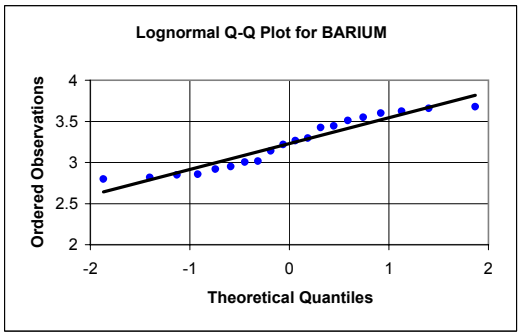
ARSENIC

Frequency of Detection	20/20
Mean	1.25
Standard Deviation	0.379
Slope =	0.376
Y Intercept =	1.25
Correlation =	0.957
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.905
Data are not lognormal	



BARIUM

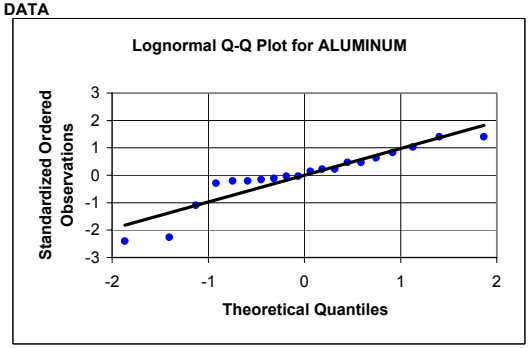
Frequency of Detection	20/20
Mean	3.23
Standard Deviation	0.314
Slope =	0.314
Y Intercept =	3.23
Correlation =	0.965
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

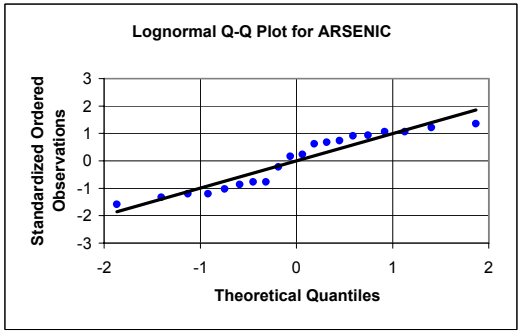
ALUMINUM

Frequency of Detection	20/20
Mean	9.26
Standard Deviation	0.110
Slope =	0.975
Y Intercept =	0
Correlation =	0.939
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.905
Data are not lognormal	



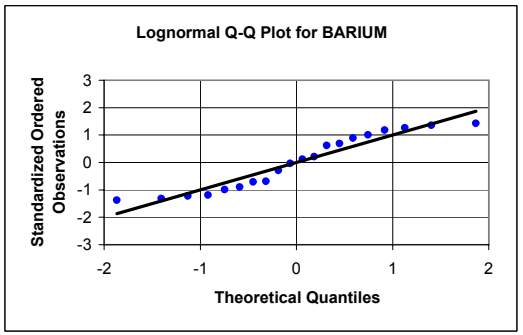
ARSENIC

Frequency of Detection	20/20
Mean	1.25
Standard Deviation	0.379
Slope =	0.994
Y Intercept =	0
Correlation =	0.957
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.905
Data are not lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.23
Standard Deviation	0.314
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.905
Data are lognormal	

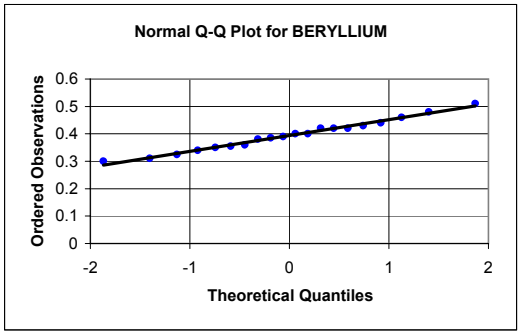


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

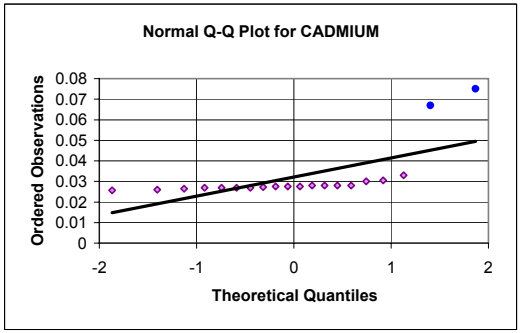
BERYLLIUM

Frequency of Detection	20/20
Mean	0.394
Standard Deviation	0.056
Slope =	0.058
Y Intercept =	0.394
Correlation =	0.994
Shapiro-Wilks Statistics	0.984
Crtitical Value	0.905
Data are normal	



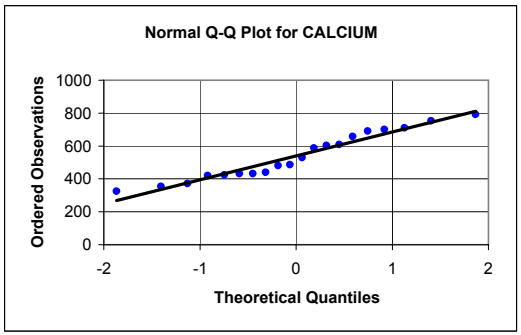
CADMIUM

Frequency of Detection	2/20
Mean	0.032
Standard Deviation	0.013
Slope =	0.009
Y Intercept =	0.032
Correlation =	0.665
Shapiro-Wilks Statistics	0.459
Crtitical Value	0.905
Data are not normal	



CALCIUM

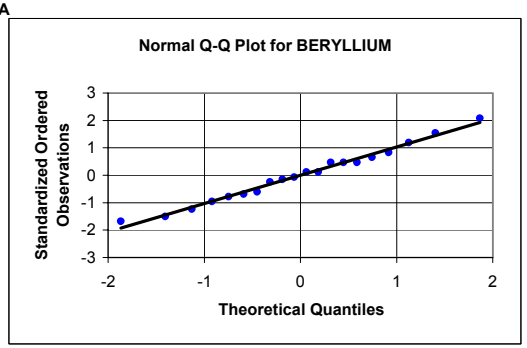
Frequency of Detection	20/20
Mean	540
Standard Deviation	143
Slope =	145
Y Intercept =	540
Correlation =	0.978
Shapiro-Wilks Statistics	0.942
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

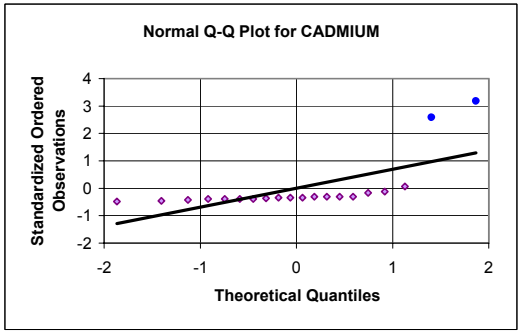
BERYLLIUM

Frequency of Detection	20/20
Mean	0.394
Standard Deviation	0.056
Slope =	1.03
Y Intercept =	0
Correlation =	0.994
Shapiro-Wilks Statistics	0.984
Crtitical Value	0.905
Data are normal	



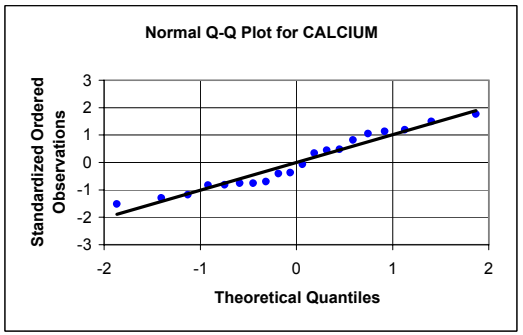
CADMIUM

Frequency of Detection	2/20
Mean	0.032
Standard Deviation	0.013
Slope =	0.691
Y Intercept =	0
Correlation =	0.665
Shapiro-Wilks Statistics	0.459
Crtitical Value	0.905
Data are not normal	



CALCIUM

Frequency of Detection	20/20
Mean	540
Standard Deviation	143
Slope =	1.01
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.942
Crtitical Value	0.905
Data are normal	

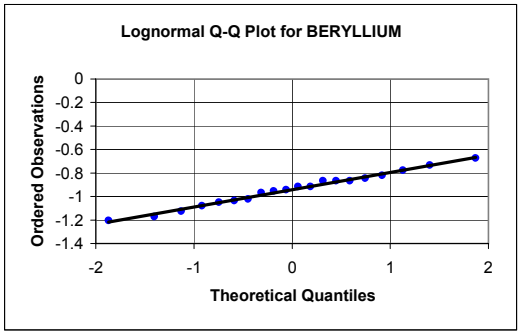


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

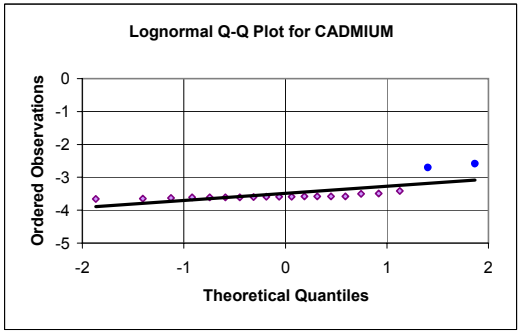
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.942
Standard Deviation	0.142
Slope =	0.147
Y Intercept =	-0.942
Correlation =	0.995
Shapiro-Wilks Statistics	0.986
Crtitical Value	0.905
Data are lognormal	



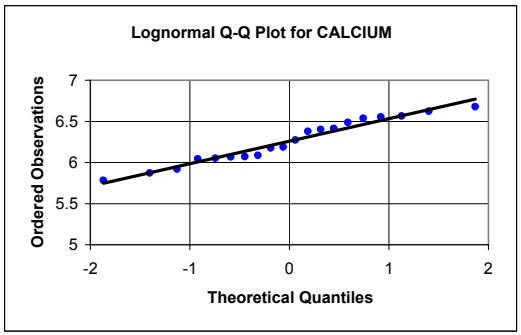
CADMIUM

Frequency of Detection	2/20
Mean	-3.489
Standard Deviation	0.294
Slope =	0.216
Y Intercept =	-3.489
Correlation =	0.708
Shapiro-Wilks Statistics	0.516
Crtitical Value	0.905
Data are not lognormal	



CALCIUM

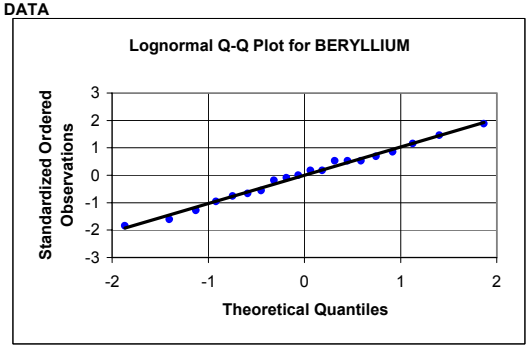
Frequency of Detection	20/20
Mean	6.26
Standard Deviation	0.269
Slope =	0.274
Y Intercept =	6.26
Correlation =	0.982
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

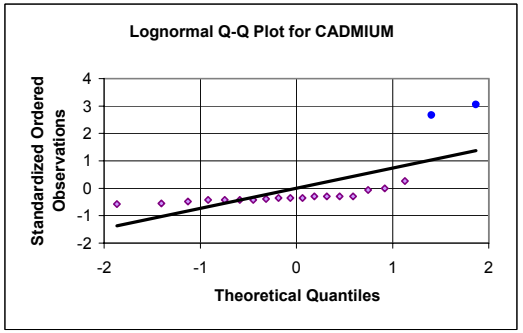
BERYLLIUM

Frequency of Detection	20/20
Mean	-0.942
Standard Deviation	0.142
Slope =	1.03
Y Intercept =	0
Correlation =	0.995
Shapiro-Wilks Statistics	0.986
Crtitical Value	0.905
Data are lognormal	



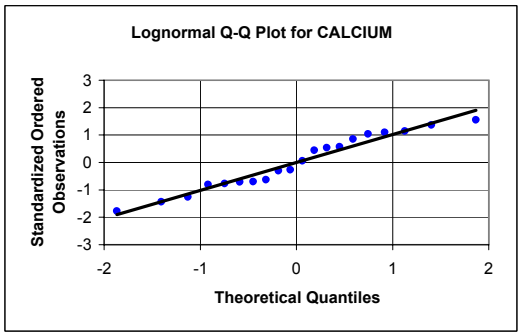
CADMIUM

Frequency of Detection	2/20
Mean	-3.489
Standard Deviation	0.294
Slope =	0.735
Y Intercept =	0
Correlation =	0.708
Shapiro-Wilks Statistics	0.516
Crtitical Value	0.905
Data are not lognormal	



CALCIUM

Frequency of Detection	20/20
Mean	6.26
Standard Deviation	0.269
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.905
Data are lognormal	

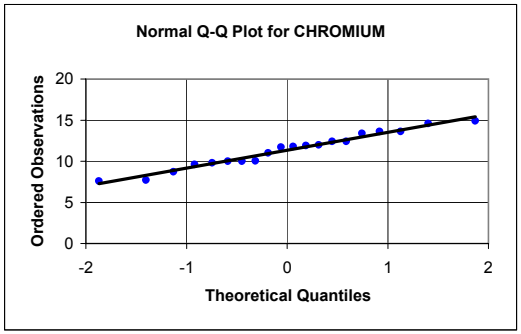


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

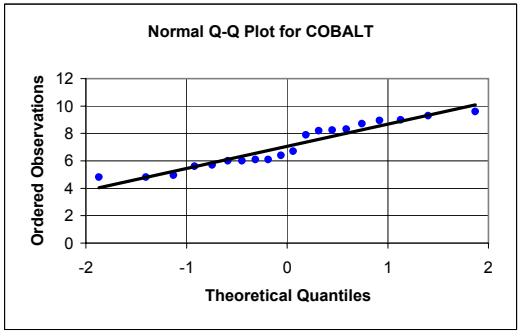
CHROMIUM

Frequency of Detection	20/20
Mean	11.3
Standard Deviation	2.13
Slope =	2.18
Y Intercept =	11.3
Correlation =	0.988
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are normal	



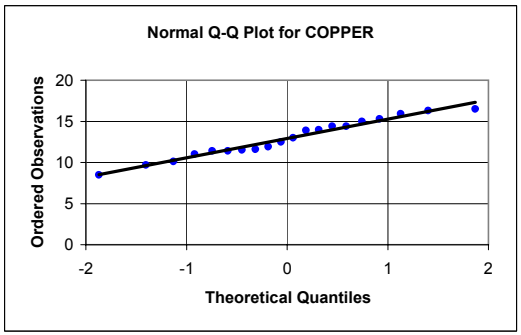
COBALT

Frequency of Detection	20/20
Mean	7.07
Standard Deviation	1.62
Slope =	1.62
Y Intercept =	7.07
Correlation =	0.964
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.905
Data are normal	



COPPER

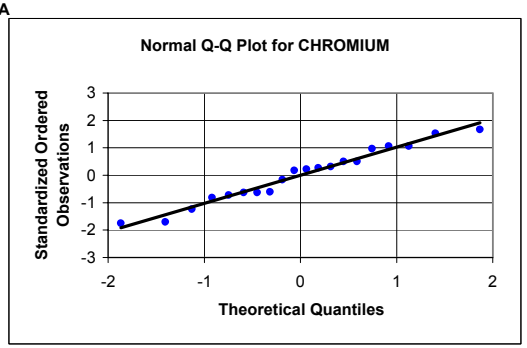
Frequency of Detection	20/20
Mean	12.9
Standard Deviation	2.30
Slope =	2.36
Y Intercept =	12.9
Correlation =	0.987
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

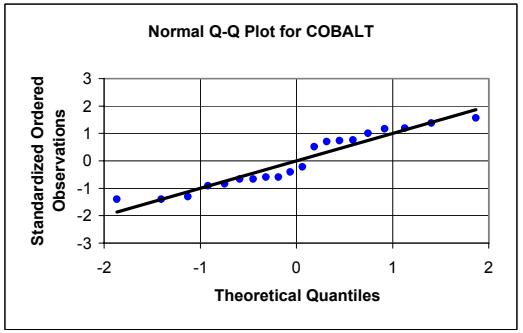
CHROMIUM

Frequency of Detection	20/20
Mean	11.3
Standard Deviation	2.13
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are normal	



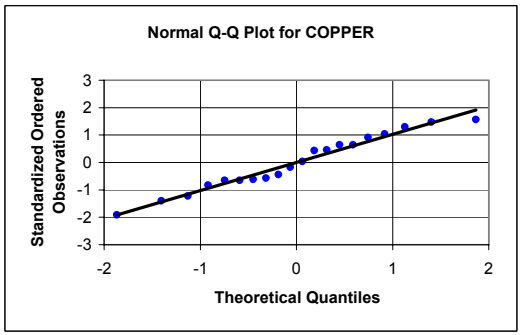
COBALT

Frequency of Detection	20/20
Mean	7.07
Standard Deviation	1.62
Slope =	1.00
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.905
Data are normal	



COPPER

Frequency of Detection	20/20
Mean	12.9
Standard Deviation	2.30
Slope =	1.02
Y Intercept =	0
Correlation =	0.987
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are normal	

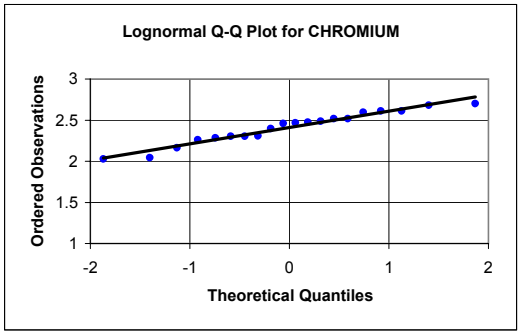


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

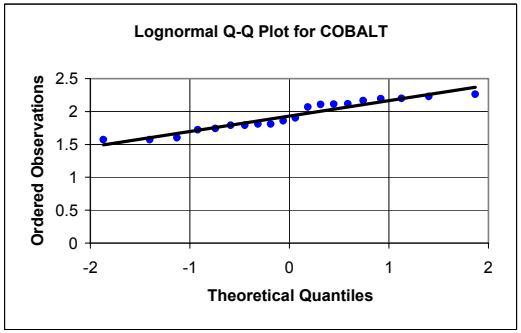
CHROMIUM

Frequency of Detection	20/20
Mean	2.41
Standard Deviation	0.196
Slope =	0.199
Y Intercept =	2.41
Correlation =	0.980
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.905
Data are lognormal	



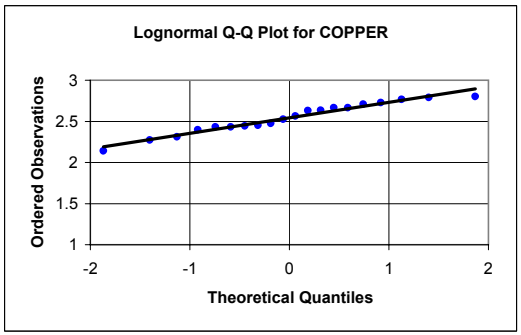
COBALT

Frequency of Detection	20/20
Mean	1.93
Standard Deviation	0.233
Slope =	0.234
Y Intercept =	1.93
Correlation =	0.965
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are lognormal	



COPPER

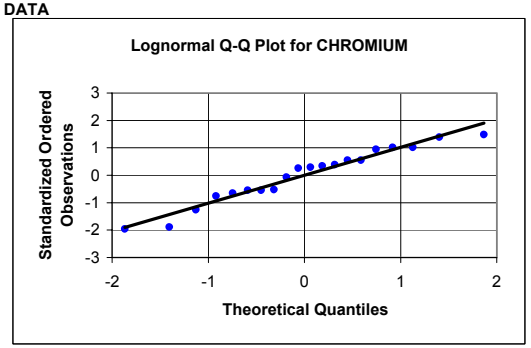
Frequency of Detection	20/20
Mean	2.54
Standard Deviation	0.184
Slope =	0.188
Y Intercept =	2.54
Correlation =	0.982
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

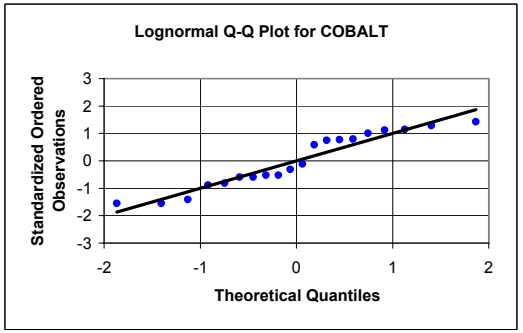
CHROMIUM

Frequency of Detection	20/20
Mean	2.41
Standard Deviation	0.196
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.905
Data are lognormal	



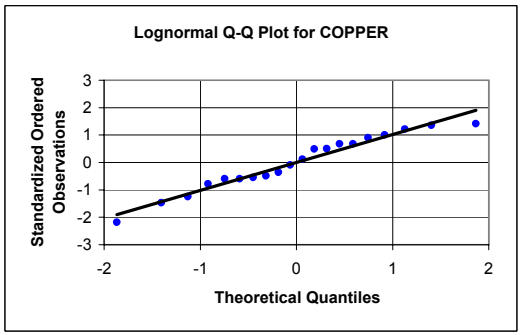
COBALT

Frequency of Detection	20/20
Mean	1.93
Standard Deviation	0.233
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.905
Data are lognormal	



COPPER

Frequency of Detection	20/20
Mean	2.54
Standard Deviation	0.184
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are lognormal	

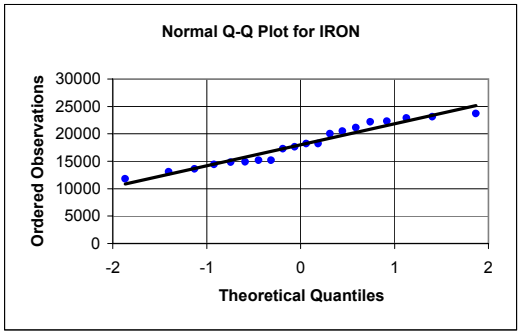


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

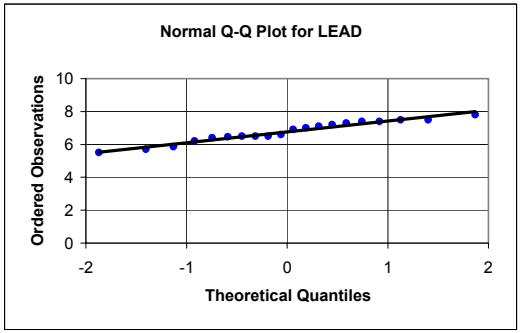
IRON

Frequency of Detection	20/20
Mean	18005
Standard Deviation	3766
Slope =	3815
Y Intercept =	18005
Correlation =	0.976
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are normal	



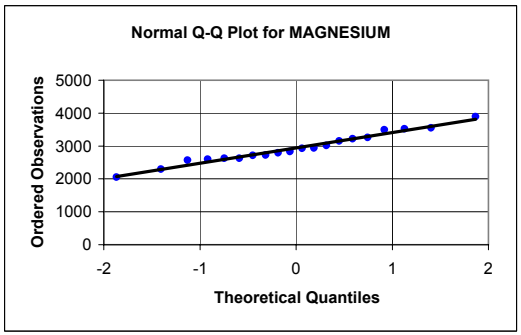
LEAD

Frequency of Detection	20/20
Mean	6.77
Standard Deviation	0.648
Slope =	0.660
Y Intercept =	6.77
Correlation =	0.982
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.905
Data are normal	



MAGNESIUM

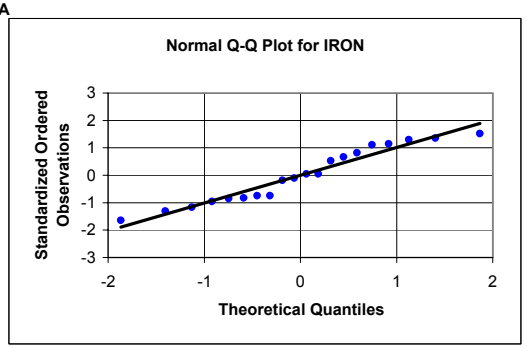
Frequency of Detection	20/20
Mean	2940
Standard Deviation	455
Slope =	467
Y Intercept =	2940
Correlation =	0.988
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

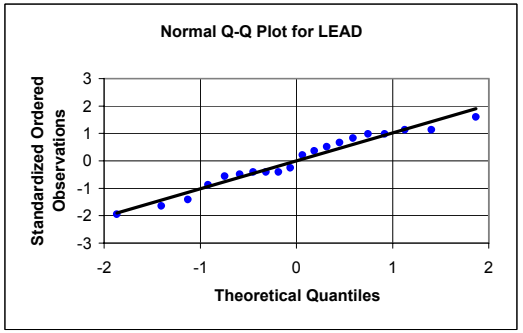
IRON

Frequency of Detection	20/20
Mean	18005
Standard Deviation	3766
Slope =	1.01
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are normal	



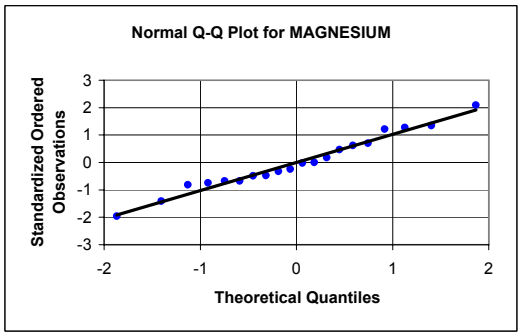
LEAD

Frequency of Detection	20/20
Mean	6.77
Standard Deviation	0.648
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.905
Data are normal	



MAGNESIUM

Frequency of Detection	20/20
Mean	2940
Standard Deviation	455
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.979
Crtitical Value	0.905
Data are normal	

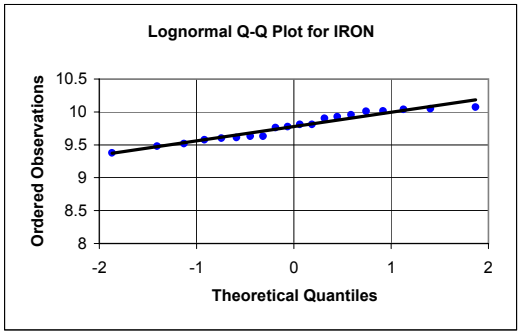


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

IRON

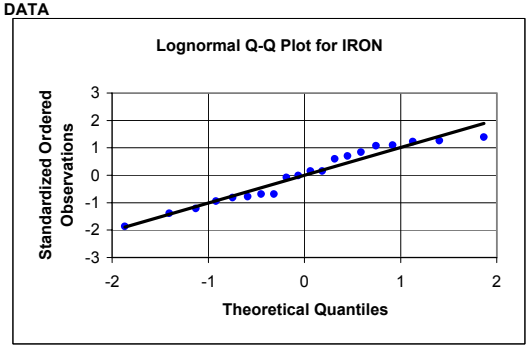
Frequency of Detection	20/20
Mean	9.78
Standard Deviation	0.214
Slope =	0.217
Y Intercept =	9.78
Correlation =	0.976
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

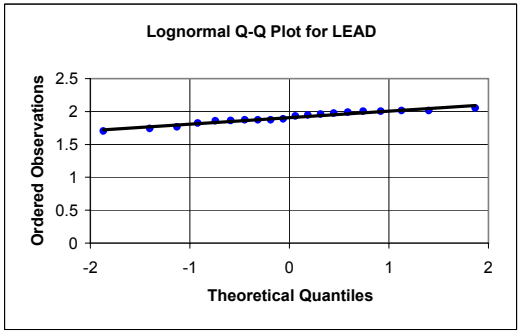
IRON

Frequency of Detection	20/20
Mean	9.78
Standard Deviation	0.214
Slope =	1.01
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.905
Data are lognormal	



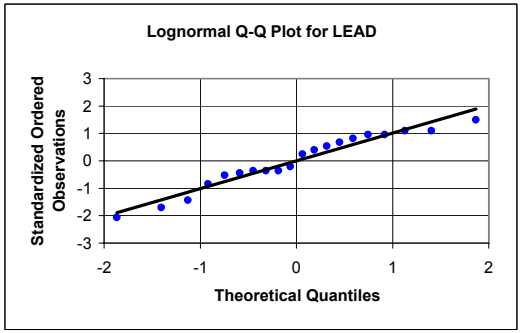
LEAD

Frequency of Detection	20/20
Mean	1.91
Standard Deviation	0.098
Slope =	0.099
Y Intercept =	1.91
Correlation =	0.977
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are lognormal	



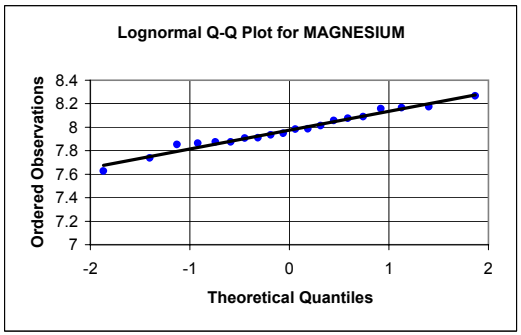
LEAD

Frequency of Detection	20/20
Mean	1.91
Standard Deviation	0.098
Slope =	1.01
Y Intercept =	0
Correlation =	0.977
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are lognormal	



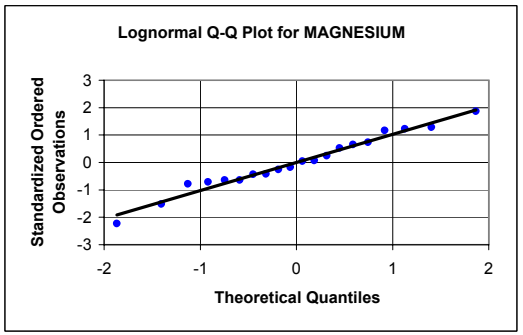
MAGNESIUM

Frequency of Detection	20/20
Mean	7.97
Standard Deviation	0.156
Slope =	0.160
Y Intercept =	7.97
Correlation =	0.988
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

Frequency of Detection	20/20
Mean	7.97
Standard Deviation	0.156
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.905
Data are lognormal	

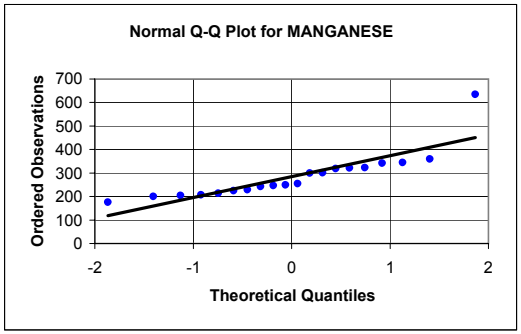


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

MANGANESE

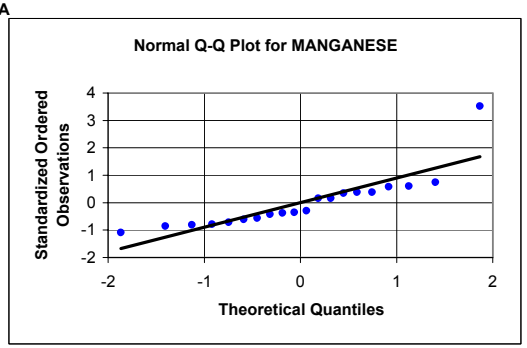
Frequency of Detection	20/20
Mean	285
Standard Deviation	99.3
Slope =	88.9
Y Intercept =	285
Correlation =	0.863
Shapiro-Wilks Statistics	0.766
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

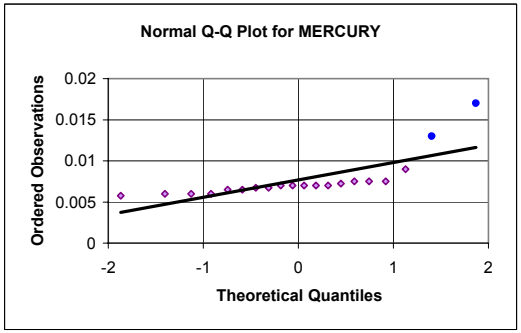
MANGANESE

Frequency of Detection	20/20
Mean	285
Standard Deviation	99.3
Slope =	0.895
Y Intercept =	0
Correlation =	0.863
Shapiro-Wilks Statistics	0.766
Crtitical Value	0.905
Data are not normal	



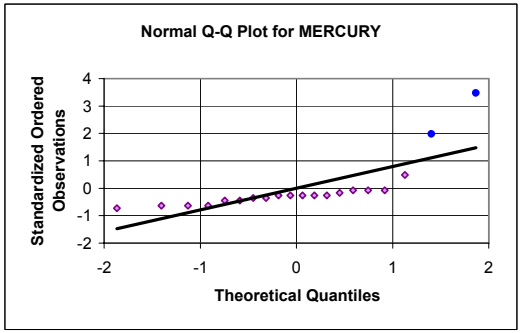
MERCURY

Frequency of Detection	2/20
Mean	0.008
Standard Deviation	0.003
Slope =	0.002
Y Intercept =	0.008
Correlation =	0.760
Shapiro-Wilks Statistics	0.599
Crtitical Value	0.905
Data are not normal	



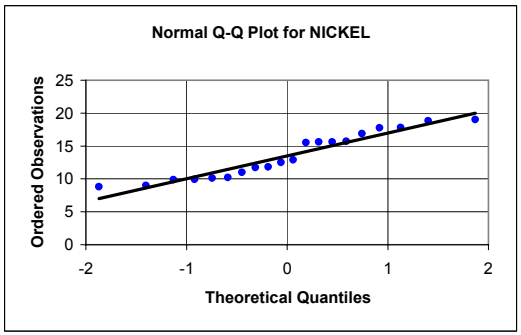
MERCURY

Frequency of Detection	2/20
Mean	0.008
Standard Deviation	0.003
Slope =	0.789
Y Intercept =	0
Correlation =	0.760
Shapiro-Wilks Statistics	0.599
Crtitical Value	0.905
Data are not normal	



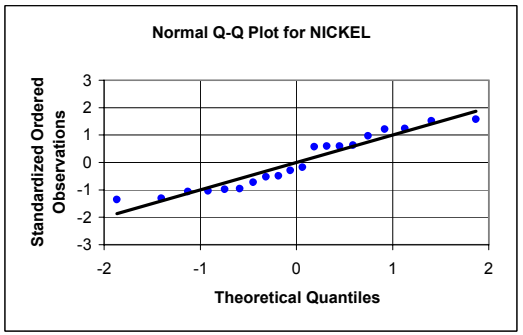
NICKEL

Frequency of Detection	20/20
Mean	13.5
Standard Deviation	3.47
Slope =	3.48
Y Intercept =	13.5
Correlation =	0.965
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are normal	



NICKEL

Frequency of Detection	20/20
Mean	13.5
Standard Deviation	3.47
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are normal	

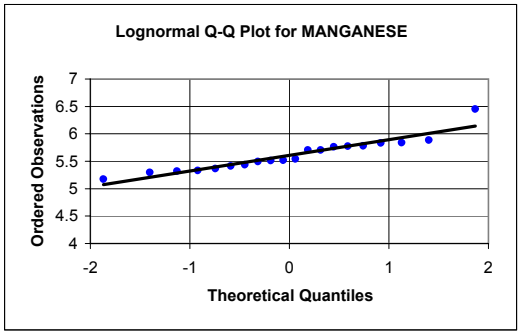


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

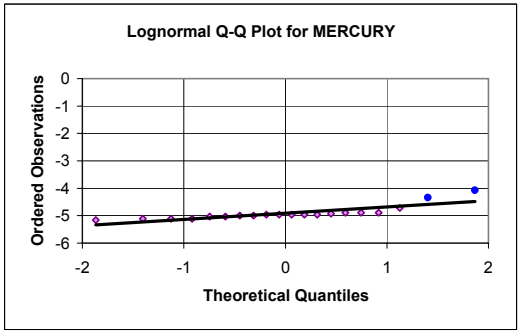
MANGANESE

Frequency of Detection	20/20
Mean	5.61
Standard Deviation	0.290
Slope =	0.286
Y Intercept =	5.61
Correlation =	0.948
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are lognormal	



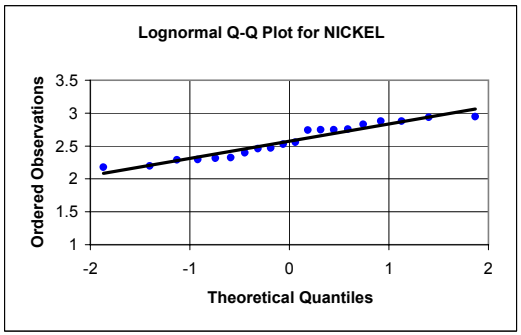
MERCURY

Frequency of Detection	2/20
Mean	-4.906
Standard Deviation	0.263
Slope =	0.227
Y Intercept =	-4.906
Correlation =	0.834
Shapiro-Wilks Statistics	0.711
Crtitical Value	0.905
Data are not lognormal	



NICKEL

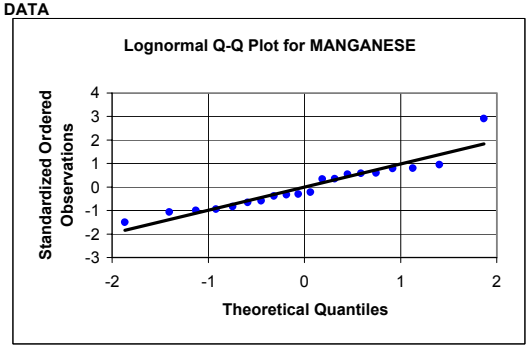
Frequency of Detection	20/20
Mean	2.57
Standard Deviation	0.260
Slope =	0.262
Y Intercept =	2.57
Correlation =	0.968
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

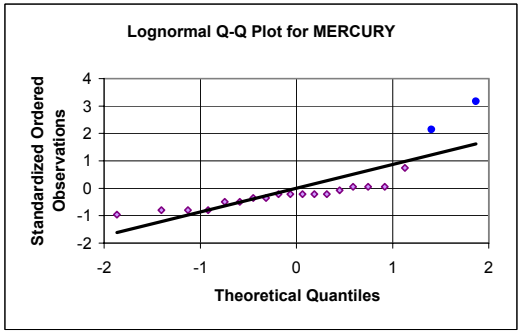
MANGANESE

Frequency of Detection	20/20
Mean	5.61
Standard Deviation	0.290
Slope =	0.984
Y Intercept =	0
Correlation =	0.948
Shapiro-Wilks Statistics	0.911
Crtitical Value	0.905
Data are lognormal	



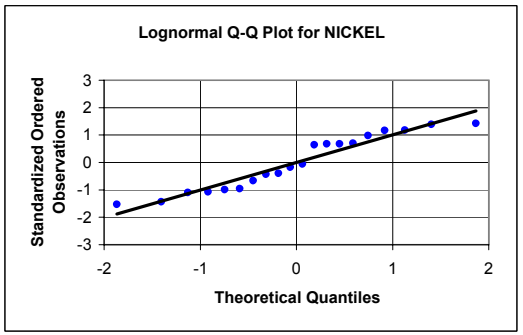
MERCURY

Frequency of Detection	2/20
Mean	-4.906
Standard Deviation	0.263
Slope =	0.865
Y Intercept =	0
Correlation =	0.834
Shapiro-Wilks Statistics	0.711
Crtitical Value	0.905
Data are not lognormal	



NICKEL

Frequency of Detection	20/20
Mean	2.57
Standard Deviation	0.260
Slope =	1.00
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	

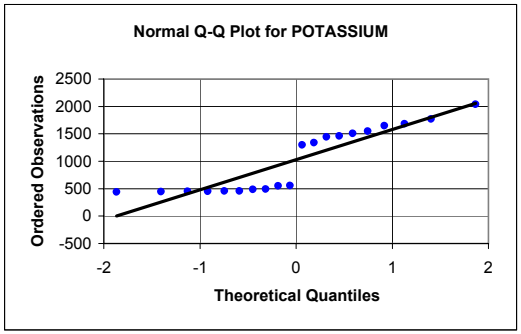


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

POTASSIUM

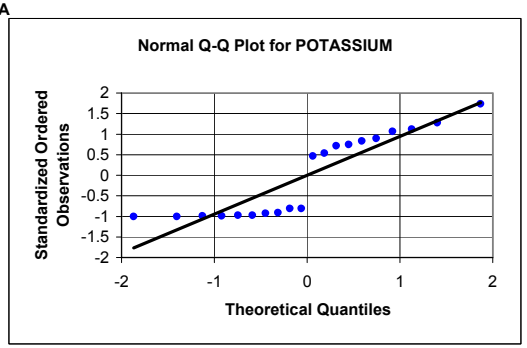
Frequency of Detection	20/20
Mean	1027
Standard Deviation	583
Slope =	550
Y Intercept =	1027
Correlation =	0.909
Shapiro-Wilks Statistics	0.808
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

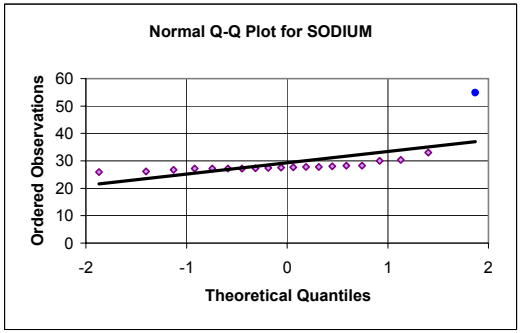
POTASSIUM

Frequency of Detection	20/20
Mean	1027
Standard Deviation	583
Slope =	0.944
Y Intercept =	0
Correlation =	0.909
Shapiro-Wilks Statistics	0.808
Crtitical Value	0.905
Data are not normal	



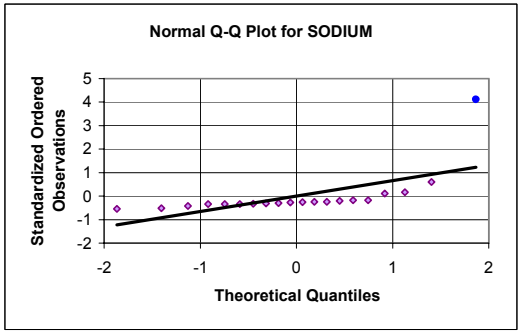
SODIUM

Frequency of Detection	1/20
Mean	29.3
Standard Deviation	6.23
Slope =	4.10
Y Intercept =	29.3
Correlation =	0.634
Shapiro-Wilks Statistics	0.433
Crtitical Value	0.905
Data are not normal	



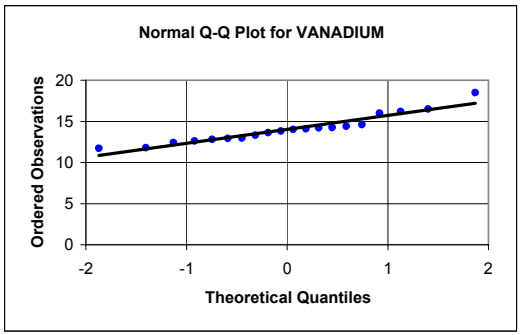
SODIUM

Frequency of Detection	1/20
Mean	29.3
Standard Deviation	6.23
Slope =	0.658
Y Intercept =	0
Correlation =	0.634
Shapiro-Wilks Statistics	0.433
Crtitical Value	0.905
Data are not normal	



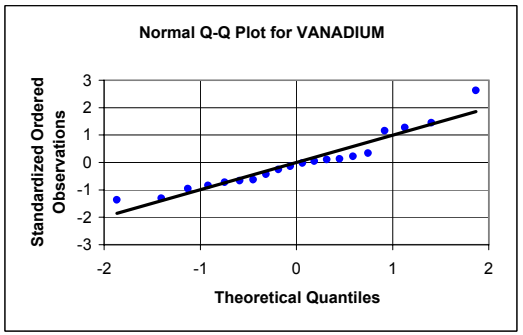
VANADIUM

Frequency of Detection	20/20
Mean	14.0
Standard Deviation	1.70
Slope =	1.70
Y Intercept =	14.0
Correlation =	0.960
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	



VANADIUM

Frequency of Detection	20/20
Mean	14.0
Standard Deviation	1.70
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.925
Crtitical Value	0.905
Data are normal	

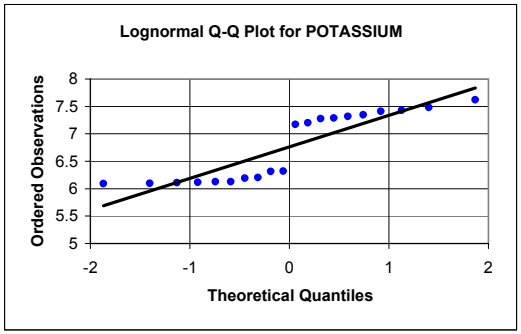


APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

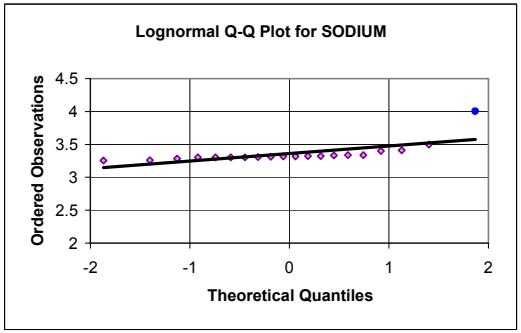
POTASSIUM

Frequency of Detection	20/20
Mean	6.76
Standard Deviation	0.618
Slope =	0.575
Y Intercept =	6.76
Correlation =	0.896
Shapiro-Wilks Statistics	0.781
Crtitical Value	0.905
Data are not lognormal	



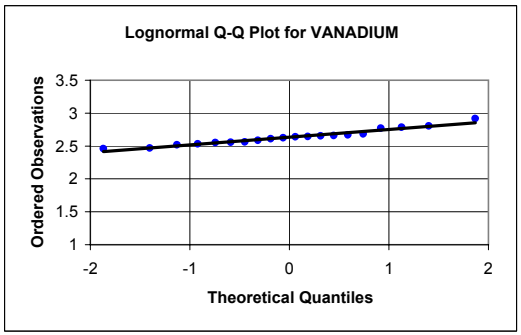
SODIUM

Frequency of Detection	1/20
Mean	3.36
Standard Deviation	0.161
Slope =	0.115
Y Intercept =	3.36
Correlation =	0.691
Shapiro-Wilks Statistics	0.507
Crtitical Value	0.905
Data are not lognormal	



VANADIUM

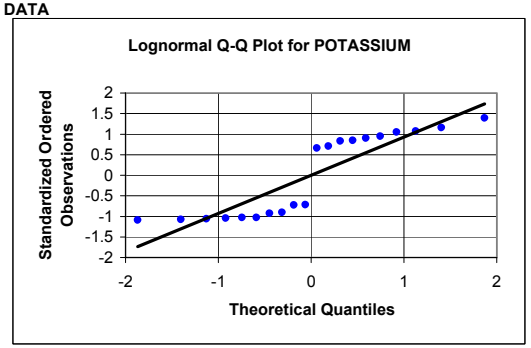
Frequency of Detection	20/20
Mean	2.63
Standard Deviation	0.117
Slope =	0.118
Y Intercept =	2.63
Correlation =	0.975
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

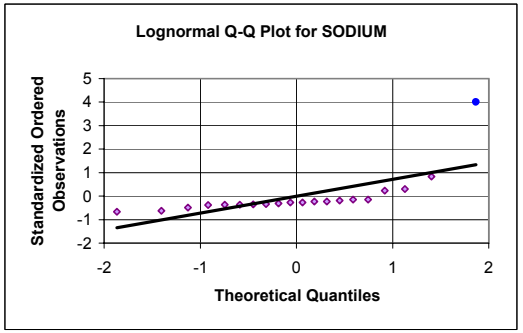
POTASSIUM

Frequency of Detection	20/20
Mean	6.76
Standard Deviation	0.618
Slope =	0.931
Y Intercept =	0
Correlation =	0.896
Shapiro-Wilks Statistics	0.781
Crtitical Value	0.905
Data are not lognormal	



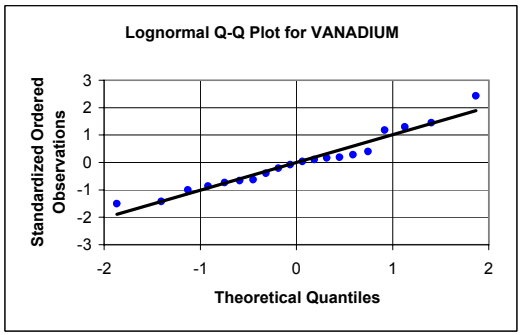
SODIUM

Frequency of Detection	1/20
Mean	3.36
Standard Deviation	0.161
Slope =	0.717
Y Intercept =	0
Correlation =	0.691
Shapiro-Wilks Statistics	0.507
Crtitical Value	0.905
Data are not lognormal	



VANADIUM

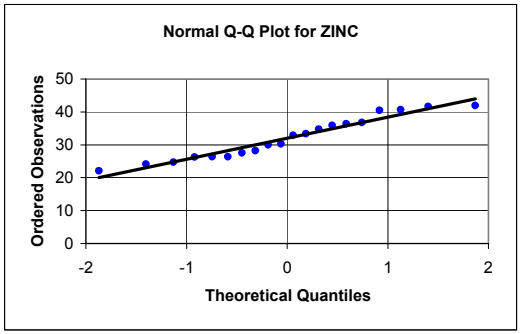
Frequency of Detection	20/20
Mean	2.63
Standard Deviation	0.117
Slope =	1.01
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

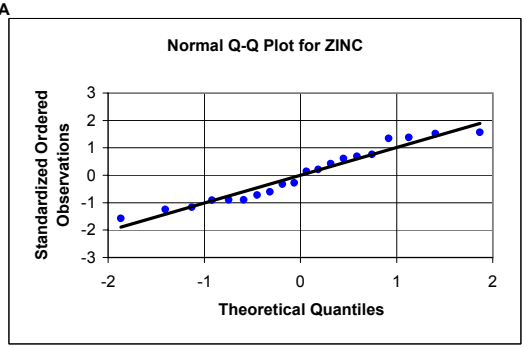
NORMAL - RAW DATA
ZINC

Frequency of Detection	20/20
Mean	32.0
Standard Deviation	6.31
Slope =	6.40
Y Intercept =	32.0
Correlation =	0.977
Shapiro-Wilks Statistics	0.938
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA
ZINC

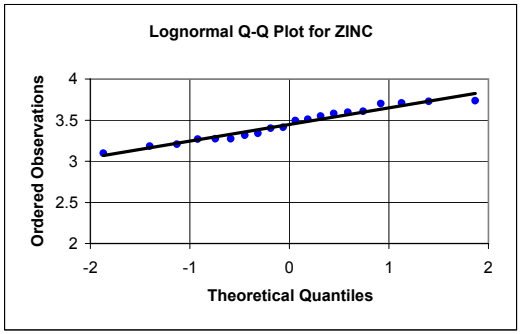
Frequency of Detection	20/20
Mean	32.0
Standard Deviation	6.31
Slope =	1.01
Y Intercept =	0
Correlation =	0.977
Shapiro-Wilks Statistics	0.938
Crtitical Value	0.905
Data are normal	



APPENDIX E5, FIGURE E5-7
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

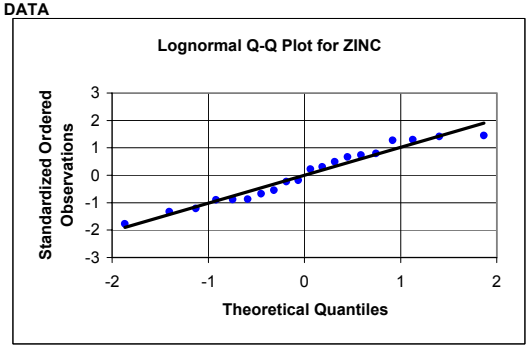
LOGNORMAL - RAW DATA
ZINC

Frequency of Detection	20/20
Mean	3.45
Standard Deviation	0.199
Slope =	0.202
Y Intercept =	3.45
Correlation =	0.981
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA
ZINC

Frequency of Detection	20/20
Mean	3.45
Standard Deviation	0.199
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.946
Crtitical Value	0.905
Data are lognormal	

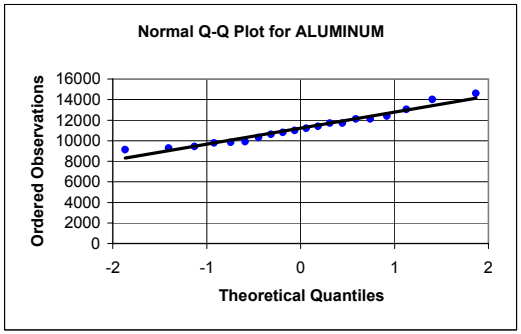


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

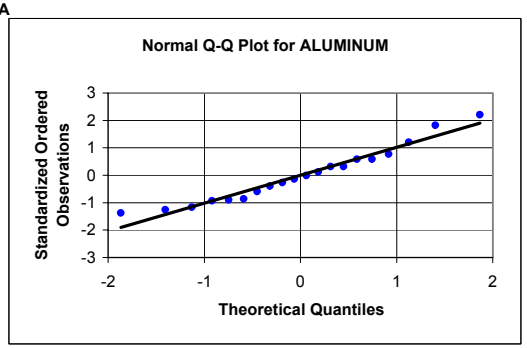
Frequency of Detection	20/20
Mean	11214
Standard Deviation	1531
Slope =	1556
Y Intercept =	11214
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

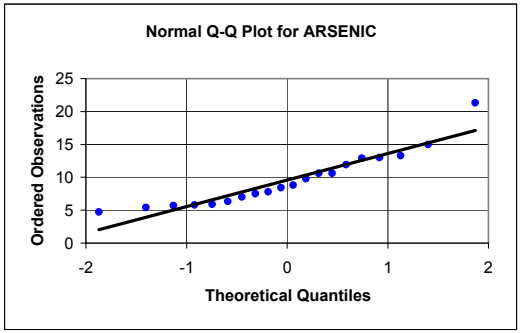
ALUMINUM

Frequency of Detection	20/20
Mean	11214
Standard Deviation	1531
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are normal	



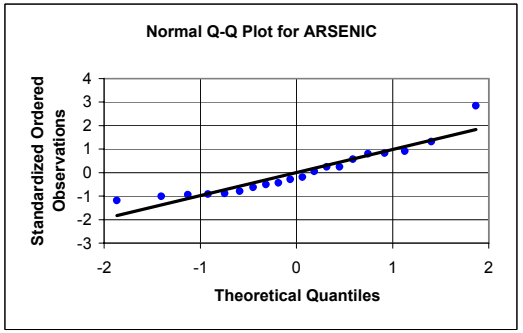
ARSENIC

Frequency of Detection	20/20
Mean	9.59
Standard Deviation	4.12
Slope =	4.04
Y Intercept =	9.59
Correlation =	0.945
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	



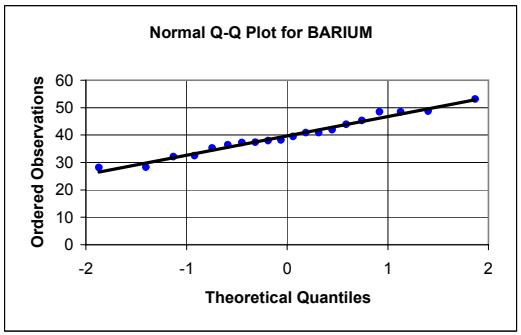
ARSENIC

Frequency of Detection	20/20
Mean	9.59
Standard Deviation	4.12
Slope =	0.981
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.898
Crtitical Value	0.905
Data are not normal	



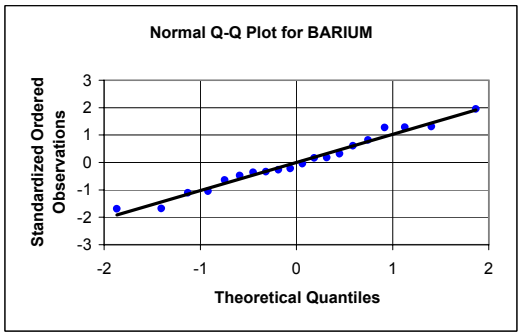
BARIUM

Frequency of Detection	20/20
Mean	39.7
Standard Deviation	6.86
Slope =	7.05
Y Intercept =	39.7
Correlation =	0.990
Shapiro-Wilks Statistics	0.973
Crtitical Value	0.905
Data are normal	



BARIUM

Frequency of Detection	20/20
Mean	39.7
Standard Deviation	6.86
Slope =	1.03
Y Intercept =	0
Correlation =	0.990
Shapiro-Wilks Statistics	0.973
Crtitical Value	0.905
Data are normal	

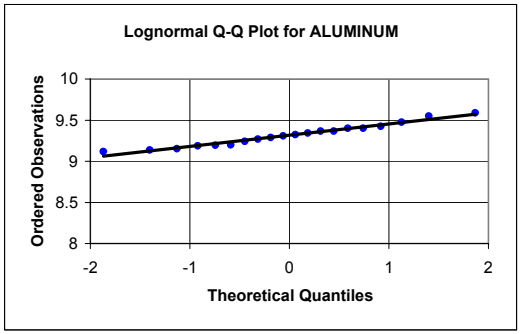


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

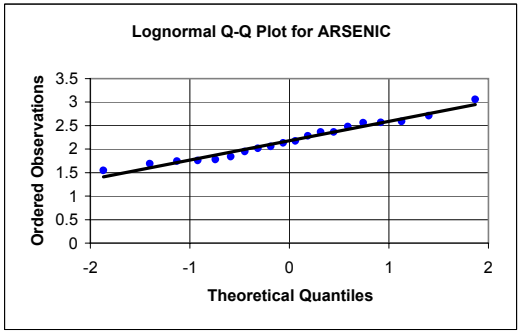
ALUMINUM

Frequency of Detection	20/20
Mean	9.32
Standard Deviation	0.133
Slope =	0.137
Y Intercept =	9.32
Correlation =	0.988
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.905
Data are lognormal	



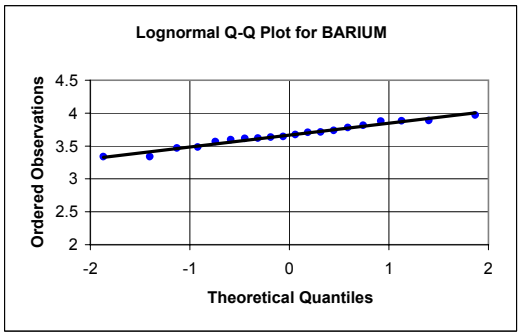
ARSENIC

Frequency of Detection	20/20
Mean	2.18
Standard Deviation	0.402
Slope =	0.411
Y Intercept =	2.18
Correlation =	0.986
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.905
Data are lognormal	



BARIUM

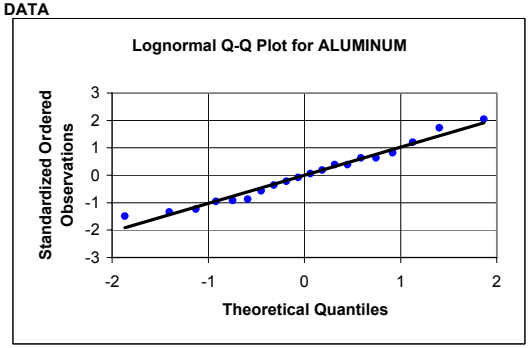
Frequency of Detection	20/20
Mean	3.67
Standard Deviation	0.176
Slope =	0.180
Y Intercept =	3.67
Correlation =	0.988
Shapiro-Wilks Statistics	0.969
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

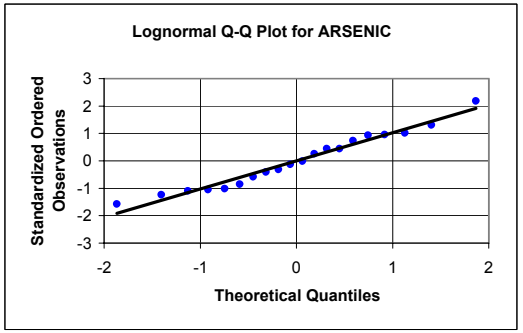
ALUMINUM

Frequency of Detection	20/20
Mean	9.32
Standard Deviation	0.133
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.905
Data are lognormal	



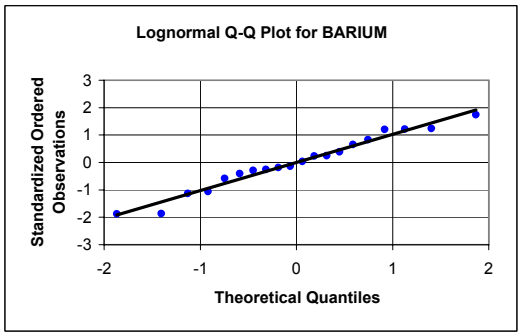
ARSENIC

Frequency of Detection	20/20
Mean	2.18
Standard Deviation	0.402
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.905
Data are lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.67
Standard Deviation	0.176
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.969
Crtitical Value	0.905
Data are lognormal	

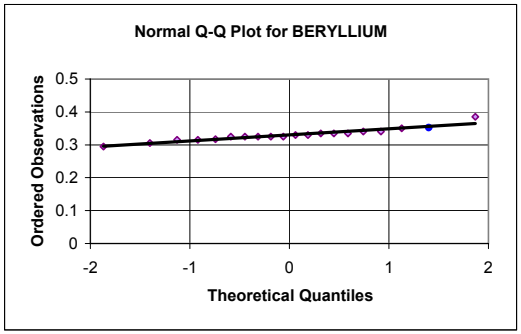


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

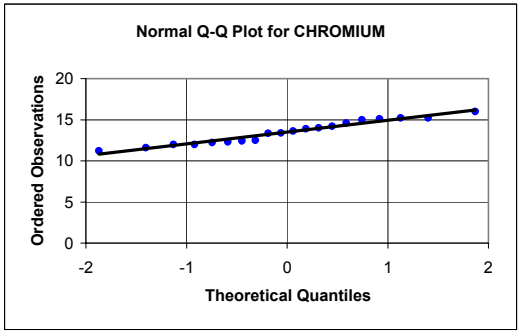
BERYLLIUM

Frequency of Detection	1/20
Mean	0.330
Standard Deviation	0.019
Slope =	0.019
Y Intercept =	0.330
Correlation =	0.950
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are normal	



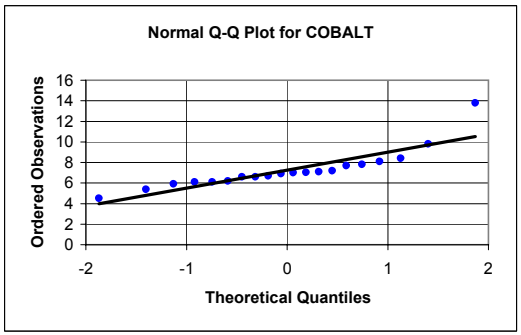
CHROMIUM

Frequency of Detection	20/20
Mean	13.5
Standard Deviation	1.41
Slope =	1.44
Y Intercept =	13.5
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are normal	



COBALT

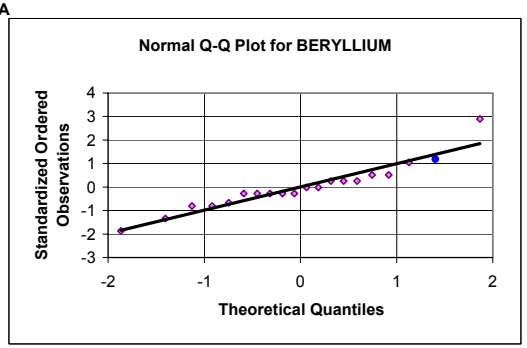
Frequency of Detection	20/20
Mean	7.25
Standard Deviation	1.92
Slope =	1.75
Y Intercept =	7.25
Correlation =	0.879
Shapiro-Wilks Statistics	0.799
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

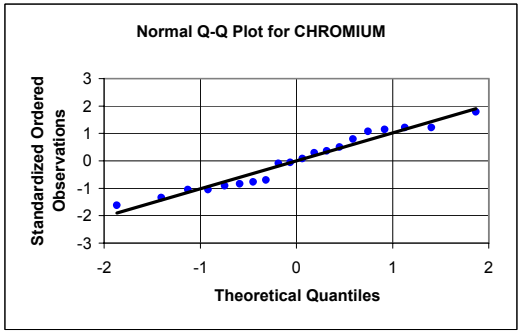
BERYLLIUM

Frequency of Detection	1/20
Mean	0.330
Standard Deviation	0.019
Slope =	0.987
Y Intercept =	0
Correlation =	0.950
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.905
Data are normal	



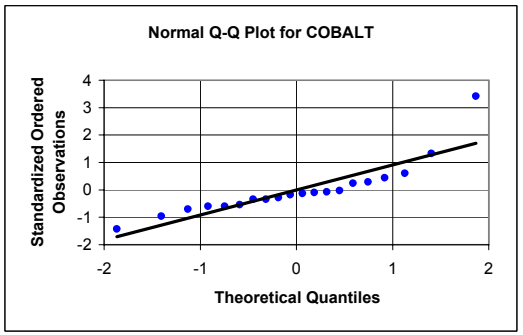
CHROMIUM

Frequency of Detection	20/20
Mean	13.5
Standard Deviation	1.41
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are normal	



COBALT

Frequency of Detection	20/20
Mean	7.25
Standard Deviation	1.92
Slope =	0.912
Y Intercept =	0
Correlation =	0.879
Shapiro-Wilks Statistics	0.799
Crtitical Value	0.905
Data are not normal	

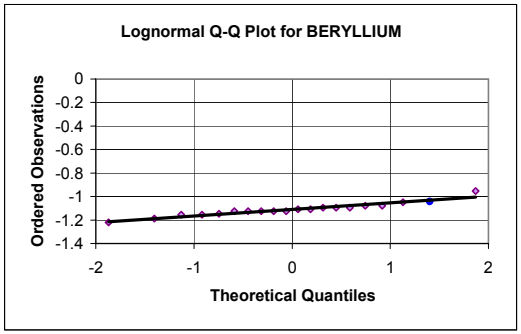


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

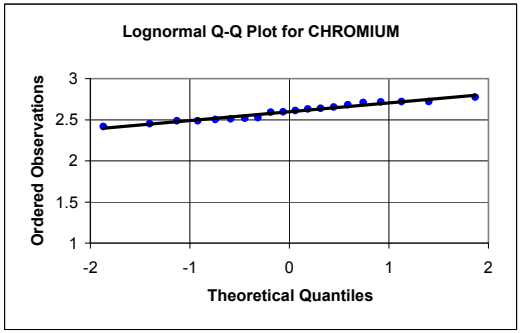
BERYLLIUM

Frequency of Detection	1/20
Mean	-1.109
Standard Deviation	0.056
Slope =	0.056
Y Intercept =	-1.109
Correlation =	0.960
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are lognormal	



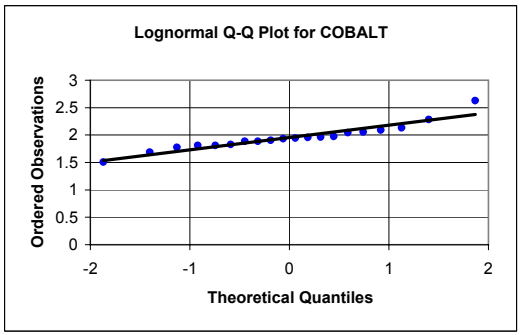
CHROMIUM

Frequency of Detection	20/20
Mean	2.60
Standard Deviation	0.105
Slope =	0.107
Y Intercept =	2.60
Correlation =	0.982
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are lognormal	



COBALT

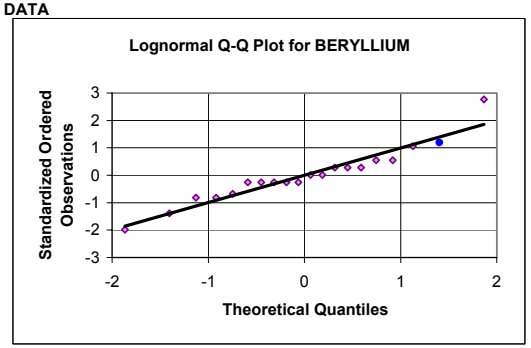
Frequency of Detection	20/20
Mean	1.95
Standard Deviation	0.230
Slope =	0.225
Y Intercept =	1.95
Correlation =	0.945
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

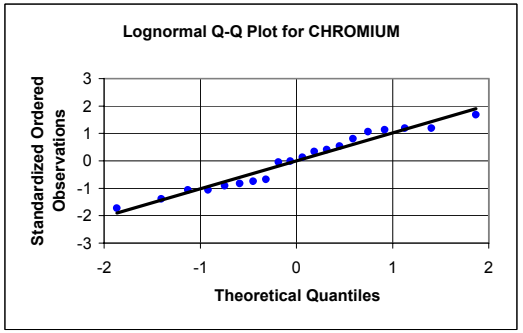
BERYLLIUM

Frequency of Detection	1/20
Mean	-1.109
Standard Deviation	0.056
Slope =	0.996
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.905
Data are lognormal	



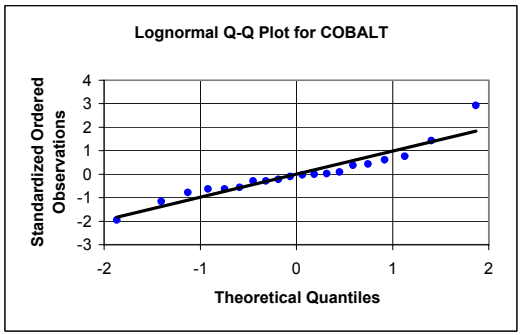
CHROMIUM

Frequency of Detection	20/20
Mean	2.60
Standard Deviation	0.105
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.905
Data are lognormal	



COBALT

Frequency of Detection	20/20
Mean	1.95
Standard Deviation	0.230
Slope =	0.981
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.905
Data are lognormal	

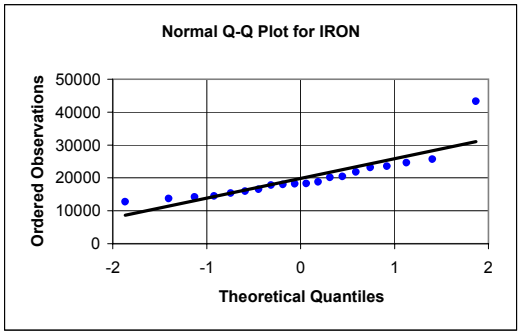


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

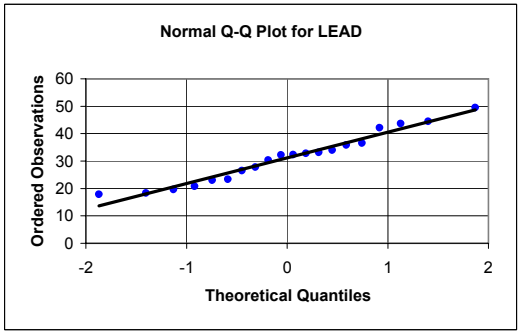
IRON

Frequency of Detection	20/20
Mean	19838
Standard Deviation	6666
Slope =	6003
Y Intercept =	19838
Correlation =	0.867
Shapiro-Wilks Statistics	0.774
Crtitical Value	0.905
Data are not normal	



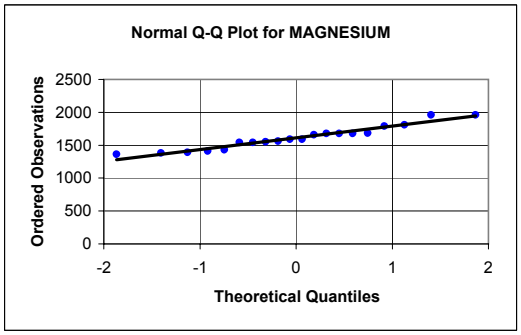
LEAD

Frequency of Detection	20/20
Mean	31.2
Standard Deviation	9.17
Slope =	9.38
Y Intercept =	31.2
Correlation =	0.985
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are normal	



MAGNESIUM

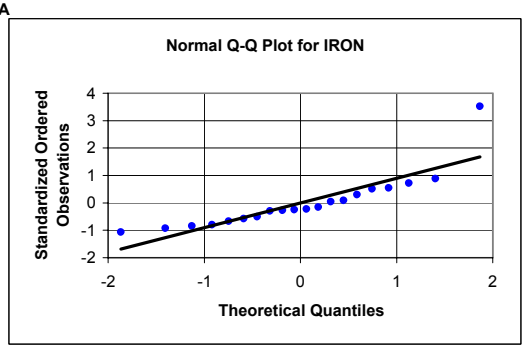
Frequency of Detection	20/20
Mean	1612
Standard Deviation	177
Slope =	179
Y Intercept =	1612
Correlation =	0.975
Shapiro-Wilks Statistics	0.940
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

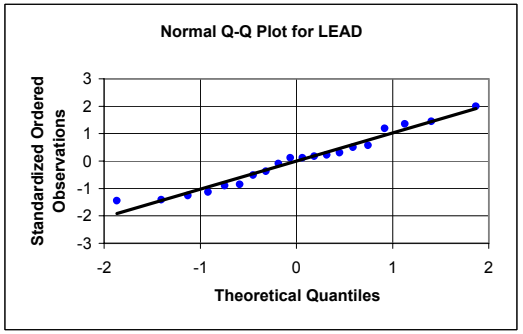
IRON

Frequency of Detection	20/20
Mean	19838
Standard Deviation	6666
Slope =	0.900
Y Intercept =	0
Correlation =	0.867
Shapiro-Wilks Statistics	0.774
Crtitical Value	0.905
Data are not normal	



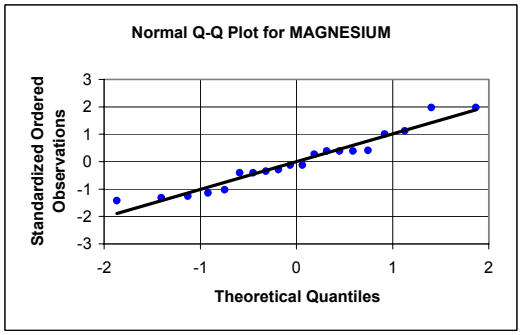
LEAD

Frequency of Detection	20/20
Mean	31.2
Standard Deviation	9.17
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.905
Data are normal	



MAGNESIUM

Frequency of Detection	20/20
Mean	1612
Standard Deviation	177
Slope =	1.01
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.940
Crtitical Value	0.905
Data are normal	

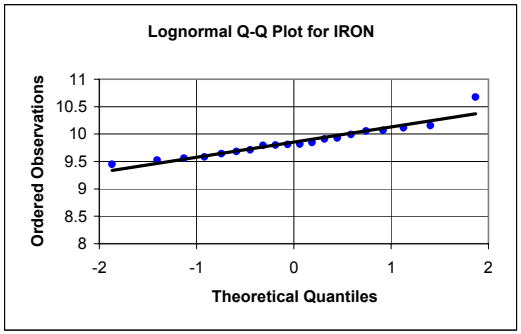


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

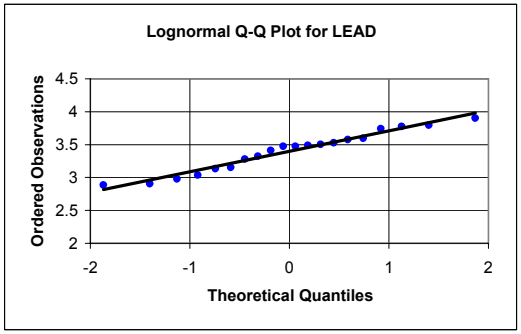
IRON

Frequency of Detection	20/20
Mean	9.85
Standard Deviation	0.279
Slope =	0.276
Y Intercept =	9.85
Correlation =	0.953
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



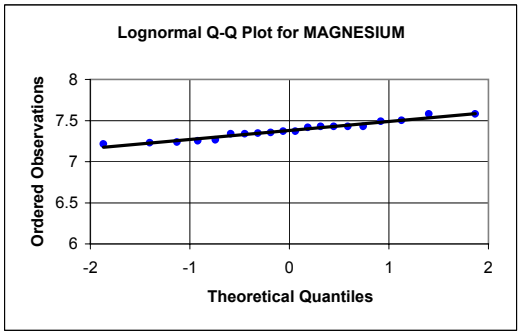
LEAD

Frequency of Detection	20/20
Mean	3.40
Standard Deviation	0.304
Slope =	0.310
Y Intercept =	3.40
Correlation =	0.984
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

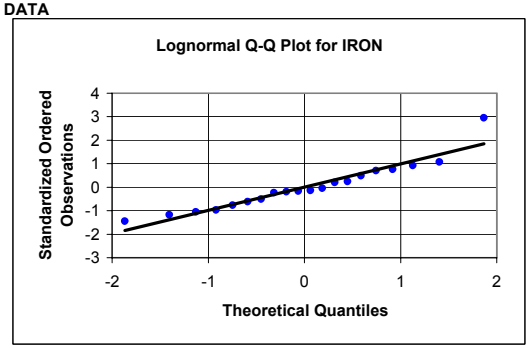
Frequency of Detection	20/20
Mean	7.38
Standard Deviation	0.108
Slope =	0.110
Y Intercept =	7.38
Correlation =	0.980
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

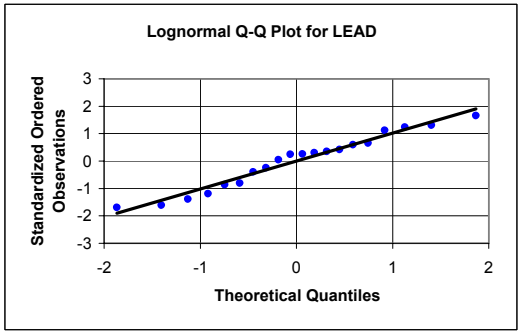
IRON

Frequency of Detection	20/20
Mean	9.85
Standard Deviation	0.279
Slope =	0.989
Y Intercept =	0
Correlation =	0.953
Shapiro-Wilks Statistics	0.920
Crtitical Value	0.905
Data are lognormal	



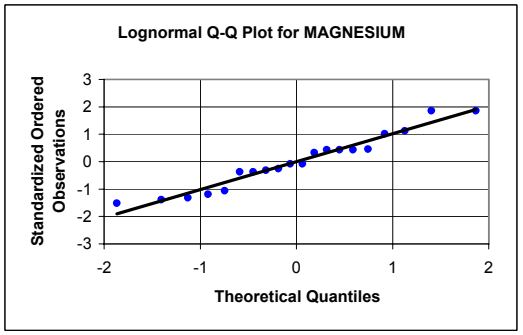
LEAD

Frequency of Detection	20/20
Mean	3.40
Standard Deviation	0.304
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

Frequency of Detection	20/20
Mean	7.38
Standard Deviation	0.108
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are lognormal	

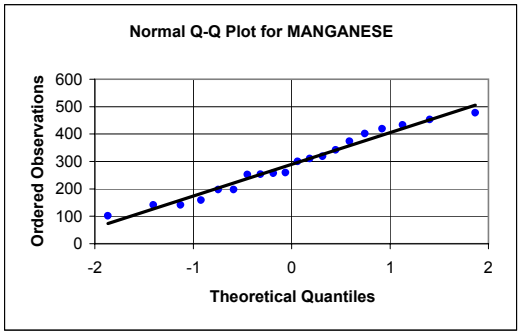


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

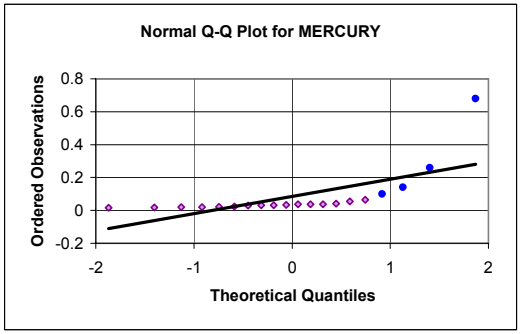
MANGANESE

Frequency of Detection	20/20
Mean	289
Standard Deviation	113
Slope =	116
Y Intercept =	289
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	



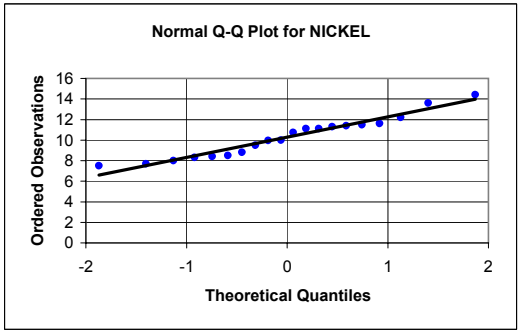
MERCURY

Frequency of Detection	4/20
Mean	0.085
Standard Deviation	0.151
Slope =	0.105
Y Intercept =	0.085
Correlation =	0.667
Shapiro-Wilks Statistics	0.471
Crtitical Value	0.905
Data are not normal	



NICKEL

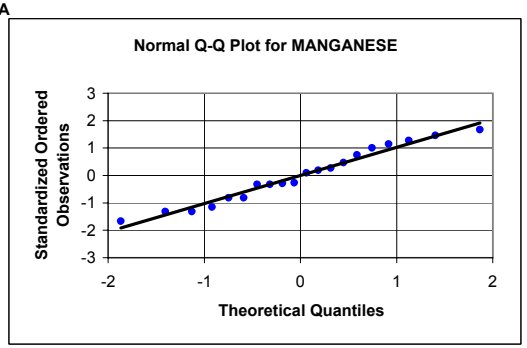
Frequency of Detection	20/20
Mean	10.3
Standard Deviation	1.95
Slope =	1.98
Y Intercept =	10.3
Correlation =	0.978
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

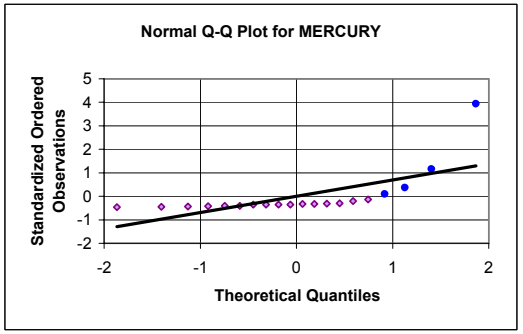
MANGANESE

Frequency of Detection	20/20
Mean	289
Standard Deviation	113
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are normal	



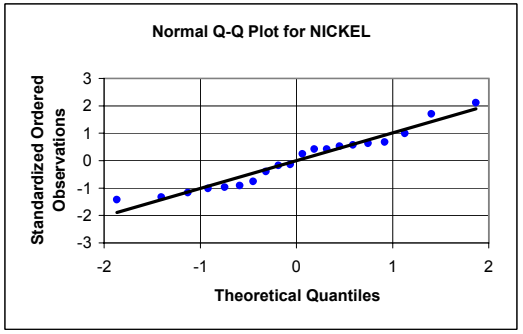
MERCURY

Frequency of Detection	4/20
Mean	0.085
Standard Deviation	0.151
Slope =	0.692
Y Intercept =	0
Correlation =	0.667
Shapiro-Wilks Statistics	0.471
Crtitical Value	0.905
Data are not normal	



NICKEL

Frequency of Detection	20/20
Mean	10.3
Standard Deviation	1.95
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.905
Data are normal	

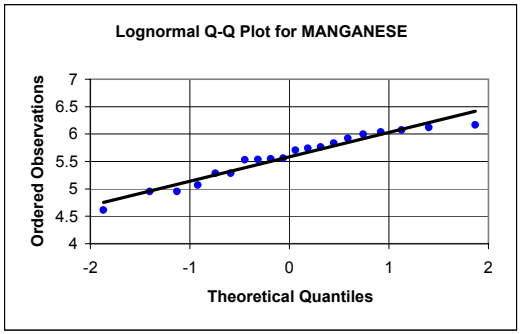


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

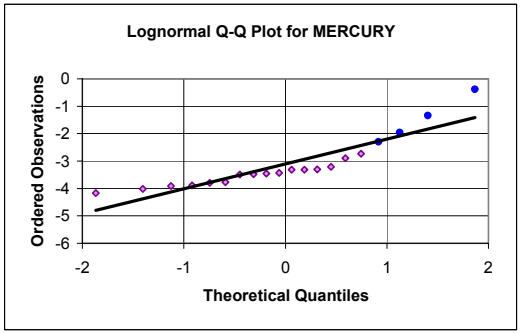
MANGANESE

Frequency of Detection	20/20
Mean	5.58
Standard Deviation	0.440
Slope =	0.446
Y Intercept =	5.58
Correlation =	0.975
Shapiro-Wilks Statistics	0.942
Crtitical Value	0.905
Data are lognormal	



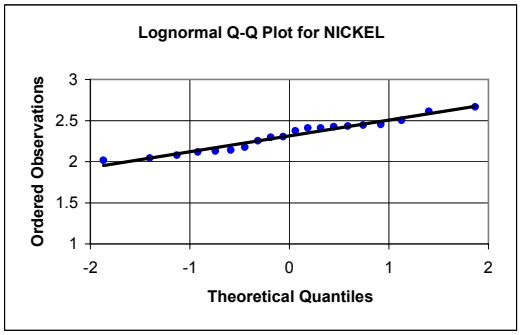
MERCURY

Frequency of Detection	4/20
Mean	-3.108
Standard Deviation	0.957
Slope =	0.906
Y Intercept =	-3.108
Correlation =	0.913
Shapiro-Wilks Statistics	0.840
Crtitical Value	0.905
Data are not lognormal	



NICKEL

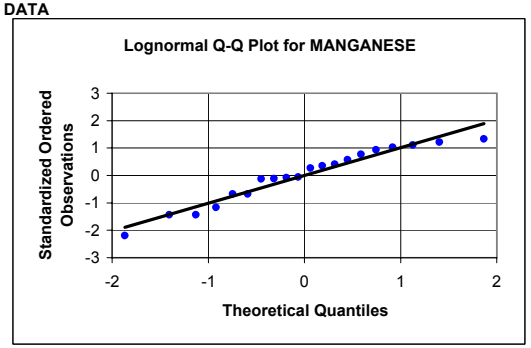
Frequency of Detection	20/20
Mean	2.31
Standard Deviation	0.189
Slope =	0.192
Y Intercept =	2.31
Correlation =	0.982
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

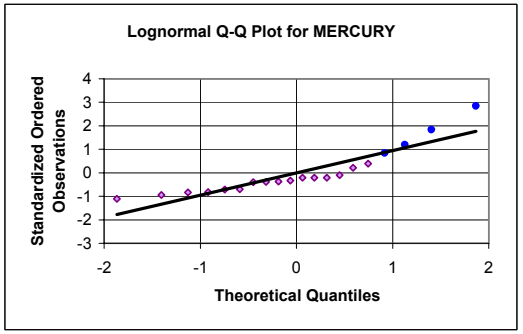
MANGANESE

Frequency of Detection	20/20
Mean	5.58
Standard Deviation	0.440
Slope =	1.01
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.942
Crtitical Value	0.905
Data are lognormal	



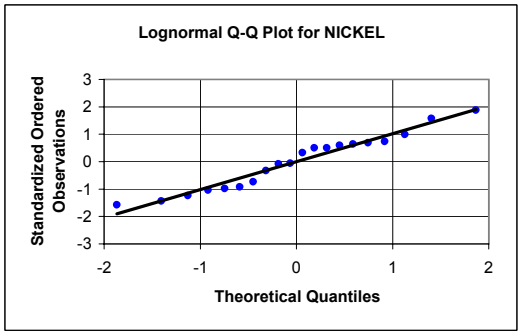
MERCURY

Frequency of Detection	4/20
Mean	-3.108
Standard Deviation	0.957
Slope =	0.947
Y Intercept =	0
Correlation =	0.913
Shapiro-Wilks Statistics	0.840
Crtitical Value	0.905
Data are not lognormal	



NICKEL

Frequency of Detection	20/20
Mean	2.31
Standard Deviation	0.189
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.955
Crtitical Value	0.905
Data are lognormal	

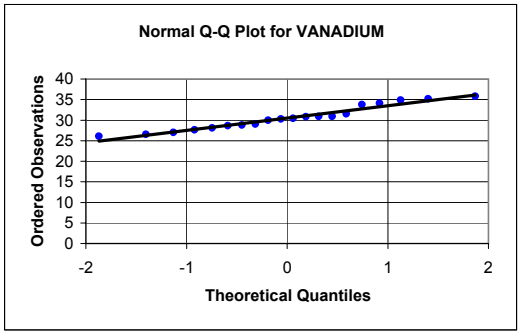


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

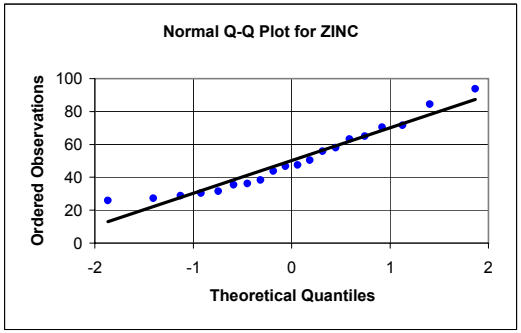
VANADIUM

Frequency of Detection	20/20
Mean	30.5
Standard Deviation	2.95
Slope =	3.00
Y Intercept =	30.5
Correlation =	0.978
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.905
Data are normal	



ZINC

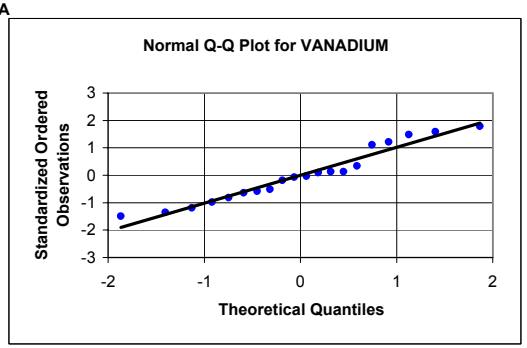
Frequency of Detection	20/20
Mean	50.2
Standard Deviation	19.7
Slope =	19.9
Y Intercept =	50.2
Correlation =	0.972
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

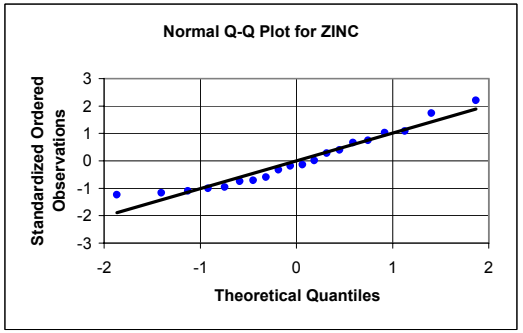
VANADIUM

Frequency of Detection	20/20
Mean	30.5
Standard Deviation	2.95
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.905
Data are normal	



ZINC

Frequency of Detection	20/20
Mean	50.2
Standard Deviation	19.7
Slope =	1.01
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.936
Crtitical Value	0.905
Data are normal	

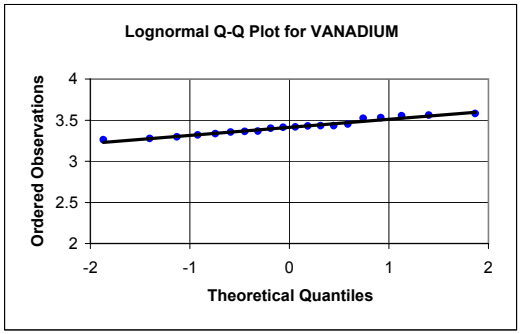


APPENDIX E5, FIGURE E5-8
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

VANADIUM

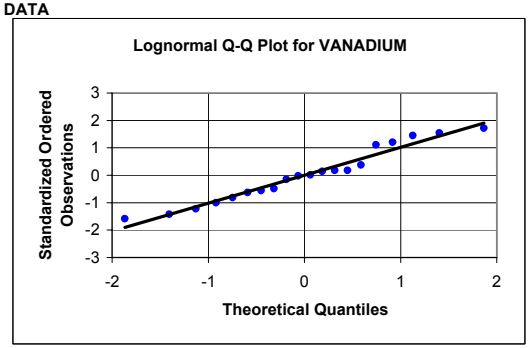
Frequency of Detection	20/20
Mean	3.41
Standard Deviation	0.096
Slope =	0.098
Y Intercept =	3.41
Correlation =	0.983
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

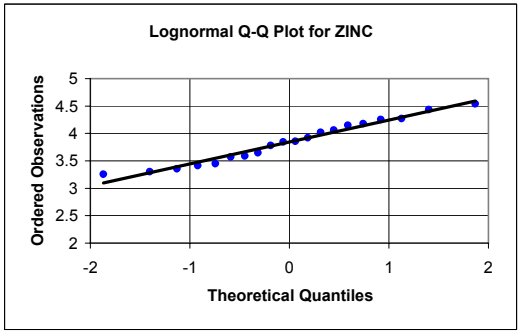
VANADIUM

Frequency of Detection	20/20
Mean	3.41
Standard Deviation	0.096
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.905
Data are lognormal	



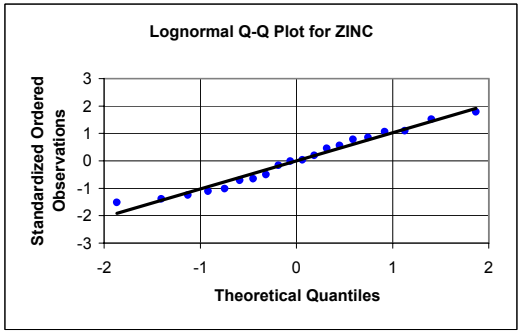
ZINC

Frequency of Detection	20/20
Mean	3.84
Standard Deviation	0.389
Slope =	0.399
Y Intercept =	3.84
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	



ZINC

Frequency of Detection	20/20
Mean	3.84
Standard Deviation	0.389
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.905
Data are lognormal	

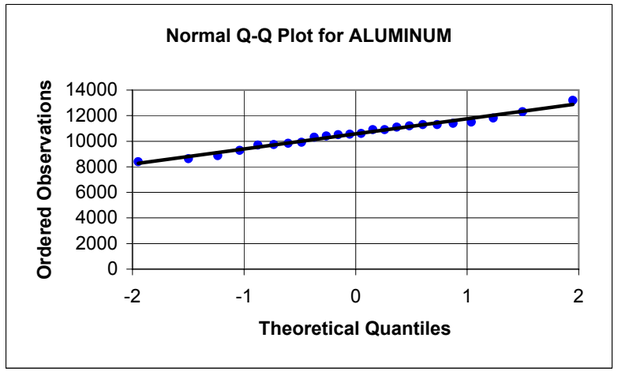


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

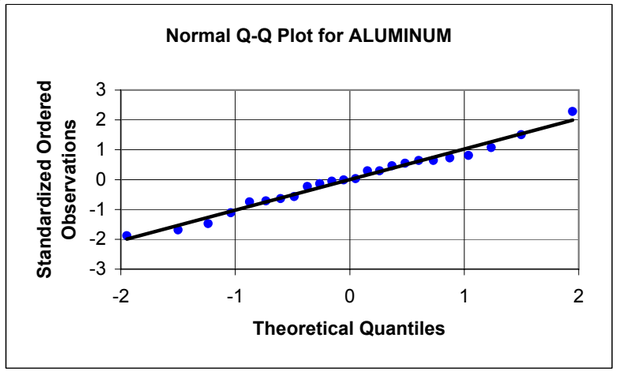
Frequency of Detection	24/24
Mean	10566
Standard Deviation	1154
Slope =	1181
Y Intercept =	10566
Correlation =	0.991
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.916
Data are normal	



NORMAL - STANDARDIZED DATA

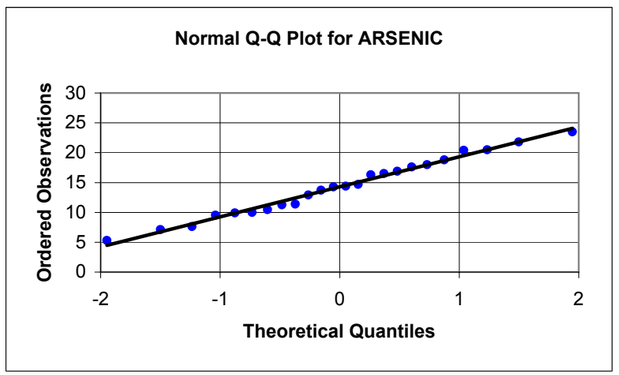
ALUMINUM

Frequency of Detection	24/24
Mean	10566
Standard Deviation	1154
Slope =	1.02
Y Intercept =	0
Correlation =	0.991
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.916
Data are normal	



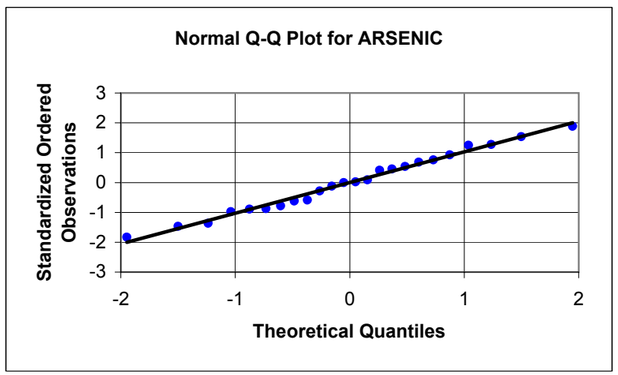
ARSENIC

Frequency of Detection	24/24
Mean	14.3
Standard Deviation	4.89
Slope =	5.03
Y Intercept =	14.3
Correlation =	0.995
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.916
Data are normal	



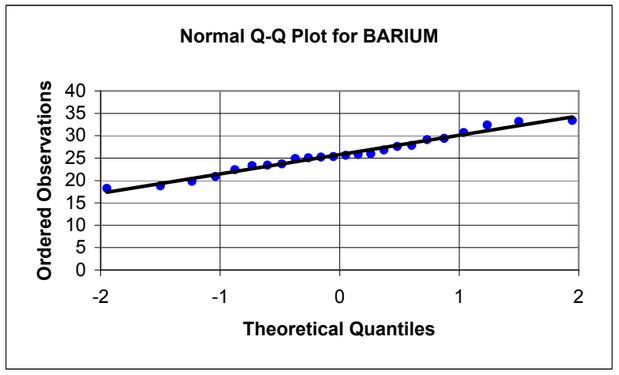
ARSENIC

Frequency of Detection	24/24
Mean	14.3
Standard Deviation	4.89
Slope =	1.03
Y Intercept =	0
Correlation =	0.995
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.916
Data are normal	



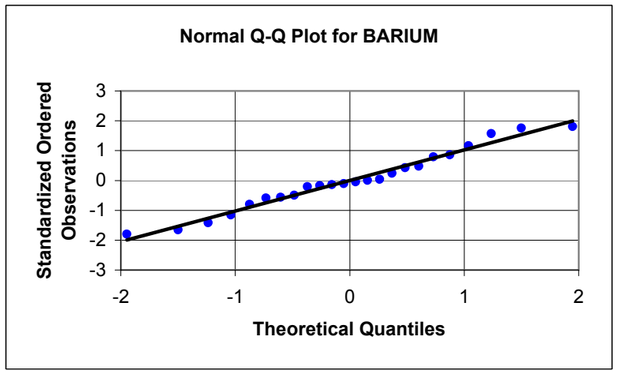
BARIUM

Frequency of Detection	24/24
Mean	25.8
Standard Deviation	4.22
Slope =	4.31
Y Intercept =	25.8
Correlation =	0.989
Shapiro-Wilks Statistics	0.969
Crtitical Value	0.916
Data are normal	



BARIUM

Frequency of Detection	24/24
Mean	25.8
Standard Deviation	4.22
Slope =	1.02
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.969
Crtitical Value	0.916
Data are normal	

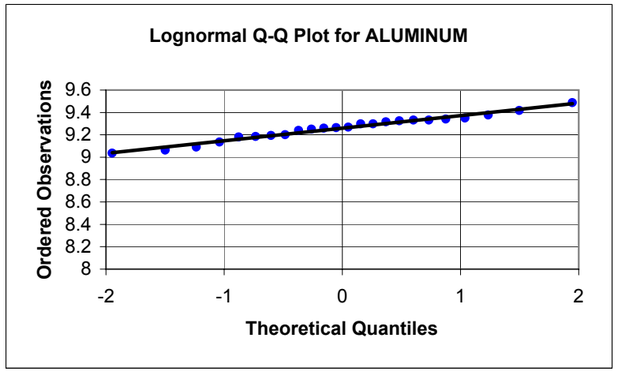


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

ALUMINUM

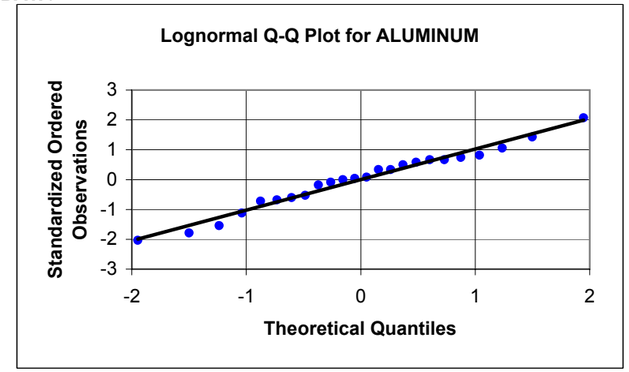
Frequency of Detection	24/24
Mean	9.26
Standard Deviation	0.110
Slope =	0.113
Y Intercept =	9.26
Correlation =	0.989
Shapiro-Wilks Statistics	0.978
Crtitical Value	0.916
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

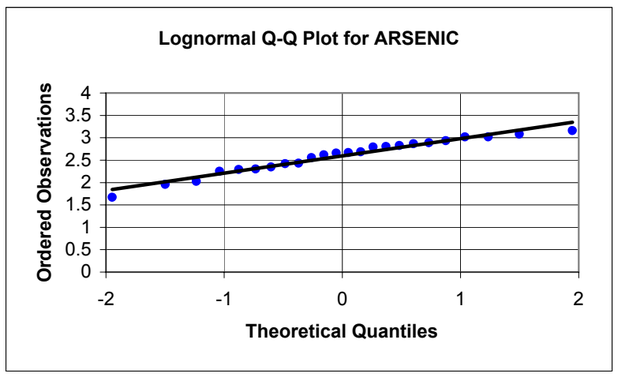
ALUMINUM

Frequency of Detection	24/24
Mean	9.26
Standard Deviation	0.110
Slope =	1.02
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.978
Crtitical Value	0.916
Data are lognormal	



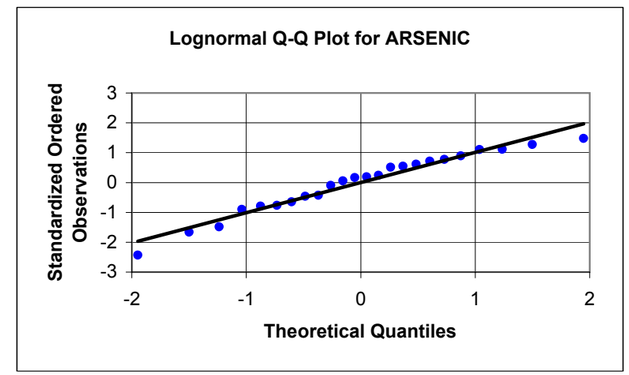
ARSENIC

Frequency of Detection	24/24
Mean	2.59
Standard Deviation	0.381
Slope =	0.386
Y Intercept =	2.59
Correlation =	0.980
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.916
Data are lognormal	



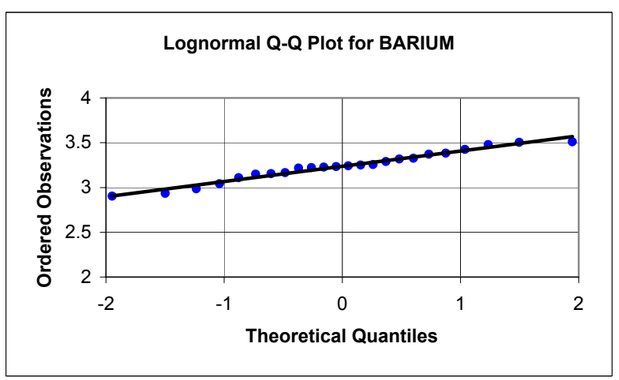
ARSENIC

Frequency of Detection	24/24
Mean	2.59
Standard Deviation	0.381
Slope =	1.01
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.916
Data are lognormal	



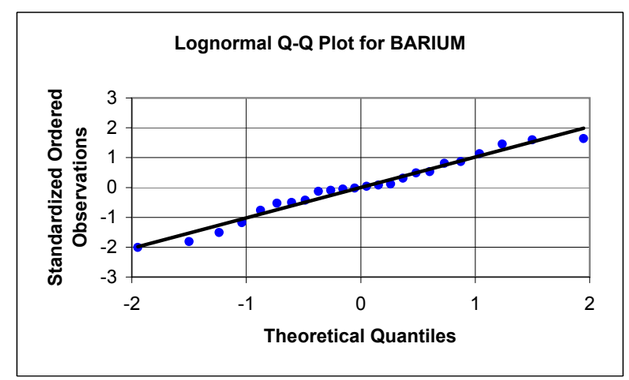
BARIUM

Frequency of Detection	24/24
Mean	3.24
Standard Deviation	0.166
Slope =	0.170
Y Intercept =	3.24
Correlation =	0.988
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.916
Data are lognormal	



BARIUM

Frequency of Detection	24/24
Mean	3.24
Standard Deviation	0.166
Slope =	1.02
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.967
Crtitical Value	0.916
Data are lognormal	

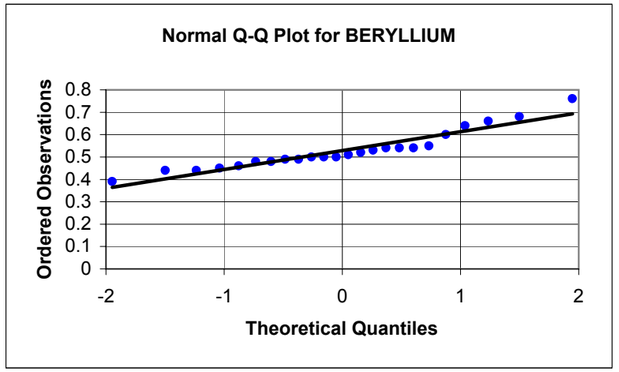


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

BERYLLIUM

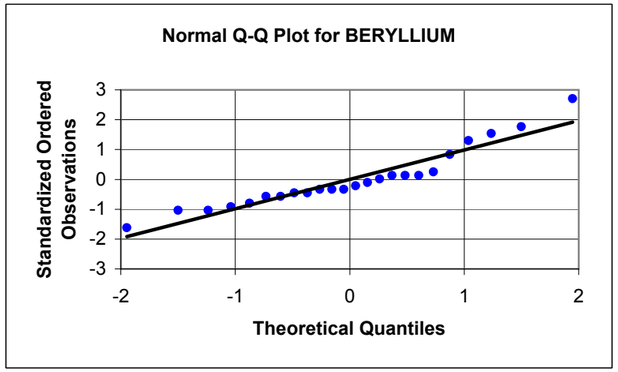
Frequency of Detection	24/24
Mean	0.529
Standard Deviation	0.086
Slope =	0.084
Y Intercept =	0.529
Correlation =	0.952
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.916
Data are not normal	



NORMAL - STANDARDIZED DATA

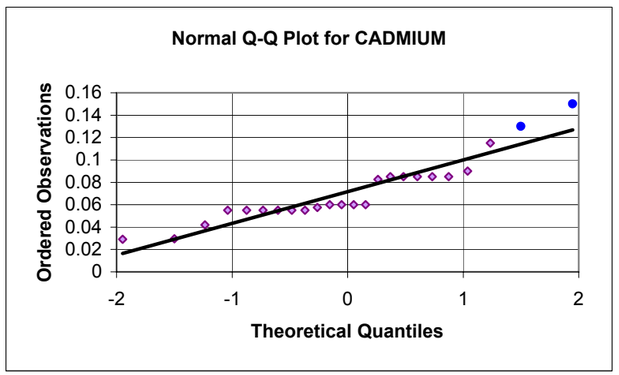
BERYLLIUM

Frequency of Detection	24/24
Mean	0.529
Standard Deviation	0.086
Slope =	0.983
Y Intercept =	0
Correlation =	0.952
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.916
Data are not normal	



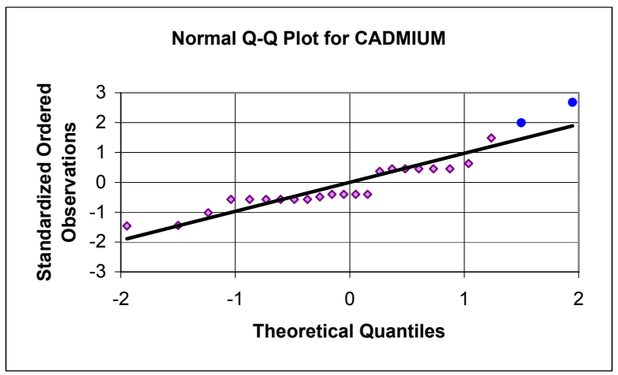
CADMIUM

Frequency of Detection	2/24
Mean	0.072
Standard Deviation	0.029
Slope =	0.028
Y Intercept =	0.072
Correlation =	0.939
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.916
Data are not normal	



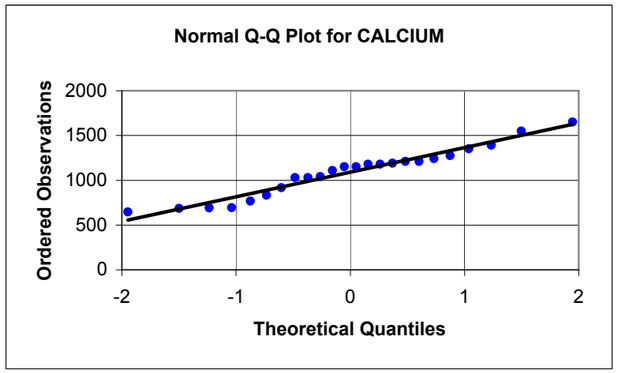
CADMIUM

Frequency of Detection	2/24
Mean	0.072
Standard Deviation	0.029
Slope =	0.970
Y Intercept =	0
Correlation =	0.939
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.916
Data are not normal	



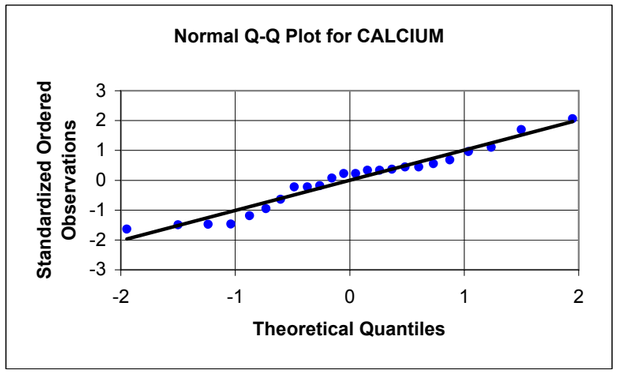
CALCIUM

Frequency of Detection	24/24
Mean	1090
Standard Deviation	271
Slope =	274
Y Intercept =	1090
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.916
Data are normal	



CALCIUM

Frequency of Detection	24/24
Mean	1090
Standard Deviation	271
Slope =	1.01
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.916
Data are normal	

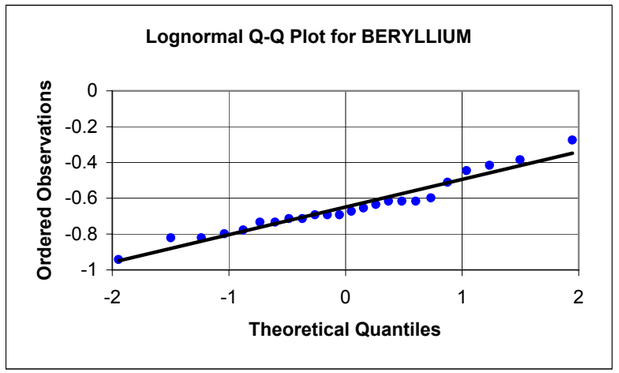


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

BERYLLIUM

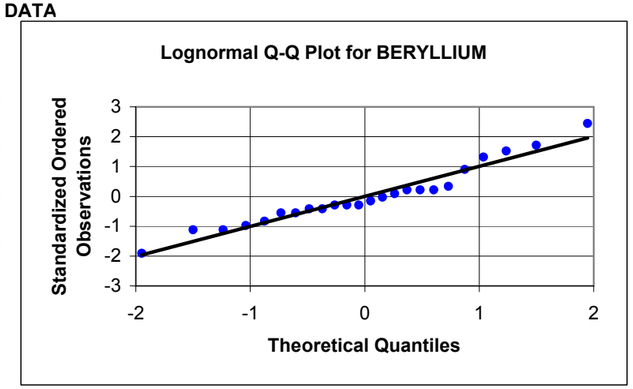
Frequency of Detection	24/24
Mean	-0.649
Standard Deviation	0.154
Slope =	0.154
Y Intercept =	-0.649
Correlation =	0.973
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.916
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

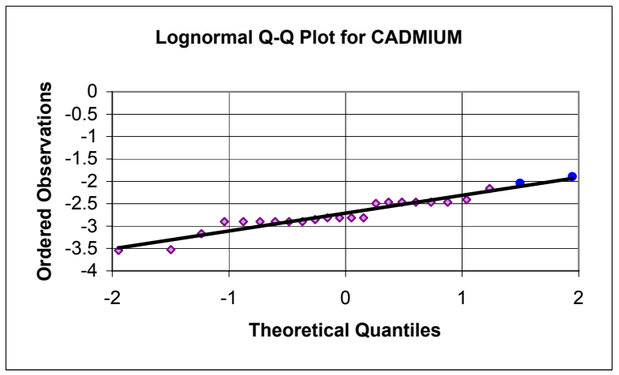
BERYLLIUM

Frequency of Detection	24/24
Mean	-0.649
Standard Deviation	0.154
Slope =	1.00
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.916
Data are lognormal	



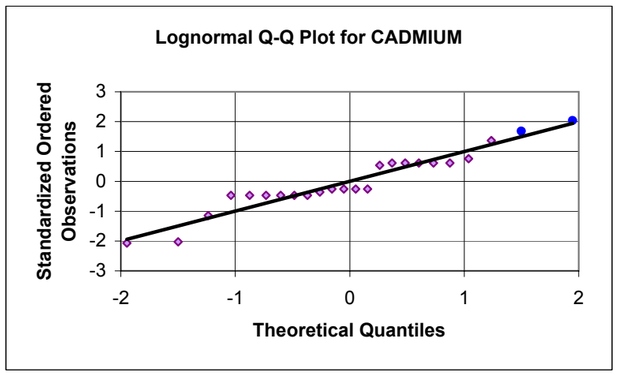
CADMIUM

Frequency of Detection	2/24
Mean	-2.711
Standard Deviation	0.401
Slope =	0.399
Y Intercept =	-2.711
Correlation =	0.965
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.916
Data are lognormal	



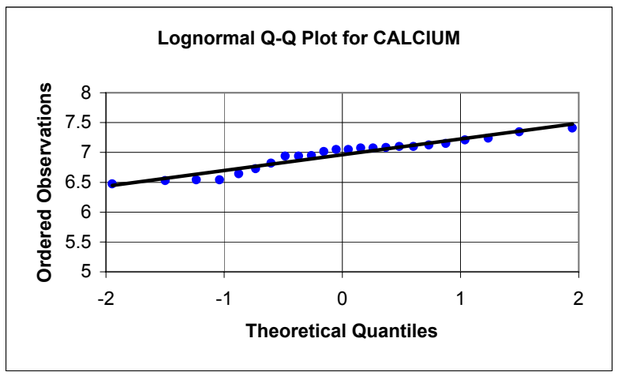
CADMIUM

Frequency of Detection	2/24
Mean	-2.711
Standard Deviation	0.401
Slope =	0.997
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.916
Data are lognormal	



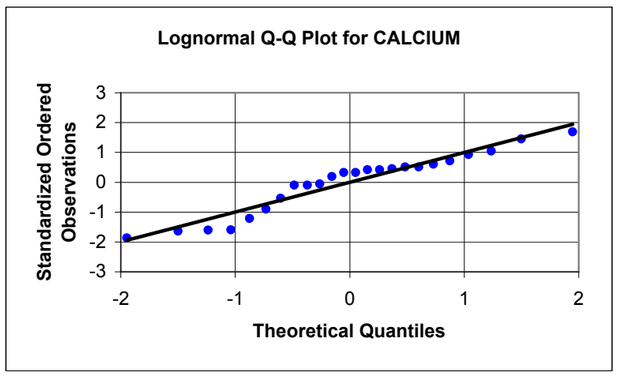
CALCIUM

Frequency of Detection	24/24
Mean	6.96
Standard Deviation	0.264
Slope =	0.264
Y Intercept =	6.96
Correlation =	0.967
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.916
Data are lognormal	



CALCIUM

Frequency of Detection	24/24
Mean	6.96
Standard Deviation	0.264
Slope =	0.999
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.916
Data are lognormal	

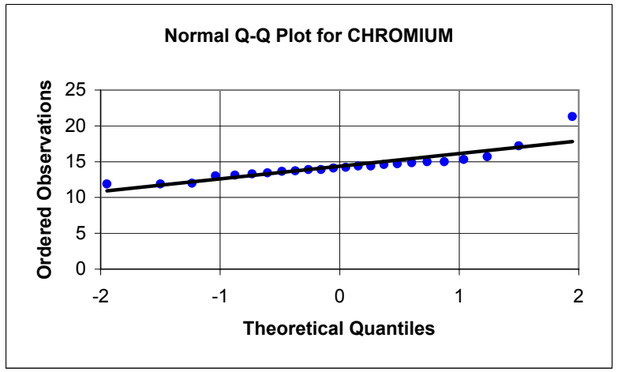


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

CHROMIUM

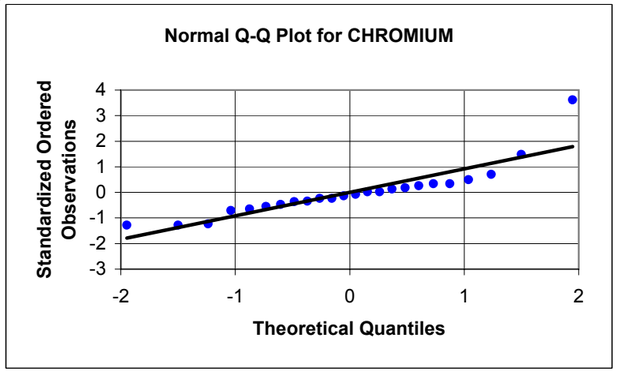
Frequency of Detection	24/24
Mean	14.4
Standard Deviation	1.92
Slope =	1.76
Y Intercept =	14.4
Correlation =	0.890
Shapiro-Wilks Statistics	0.813
Crtitical Value	0.916
Data are not normal	



NORMAL - STANDARDIZED DATA

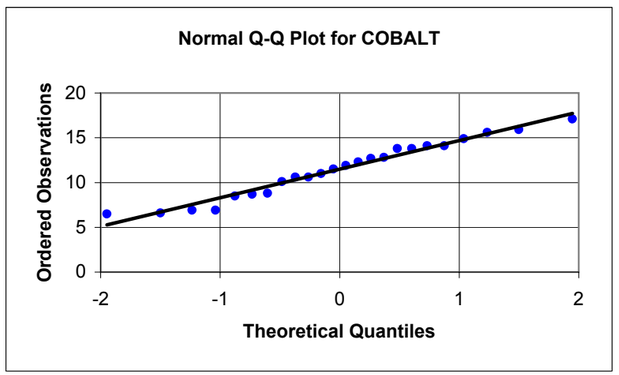
CHROMIUM

Frequency of Detection	24/24
Mean	14.4
Standard Deviation	1.92
Slope =	0.919
Y Intercept =	0
Correlation =	0.890
Shapiro-Wilks Statistics	0.813
Crtitical Value	0.916
Data are not normal	



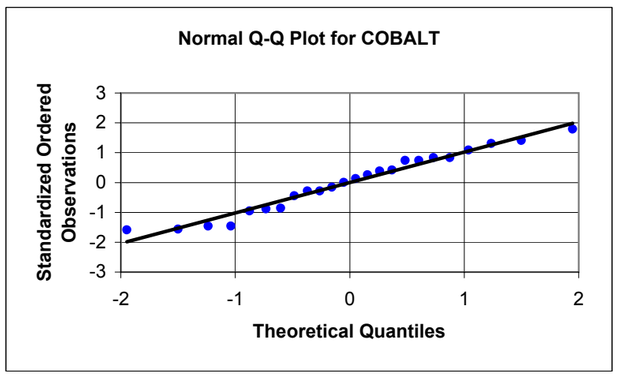
COBALT

Frequency of Detection	24/24
Mean	11.5
Standard Deviation	3.14
Slope =	3.20
Y Intercept =	11.5
Correlation =	0.986
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.916
Data are normal	



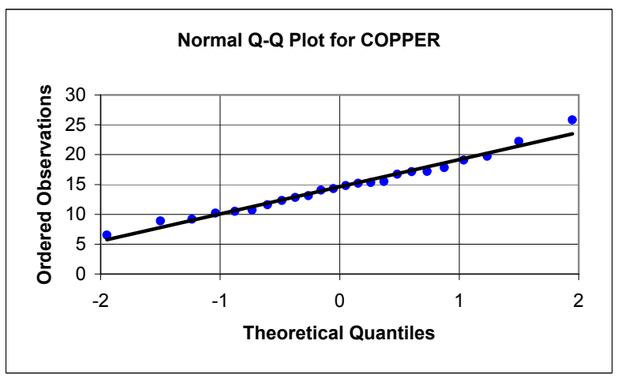
COBALT

Frequency of Detection	24/24
Mean	11.5
Standard Deviation	3.14
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.916
Data are normal	



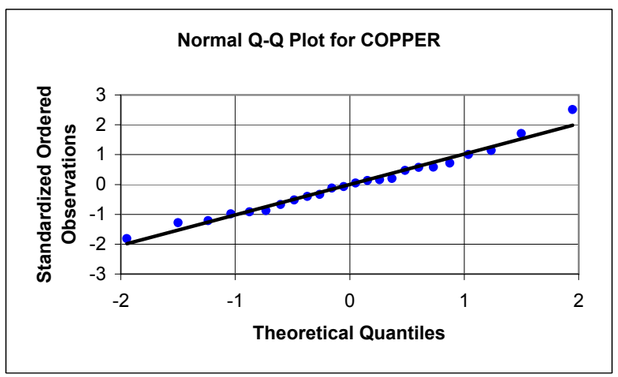
COPPER

Frequency of Detection	24/24
Mean	14.6
Standard Deviation	4.46
Slope =	4.55
Y Intercept =	14.6
Correlation =	0.988
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.916
Data are normal	



COPPER

Frequency of Detection	24/24
Mean	14.6
Standard Deviation	4.46
Slope =	1.02
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.980
Crtitical Value	0.916
Data are normal	

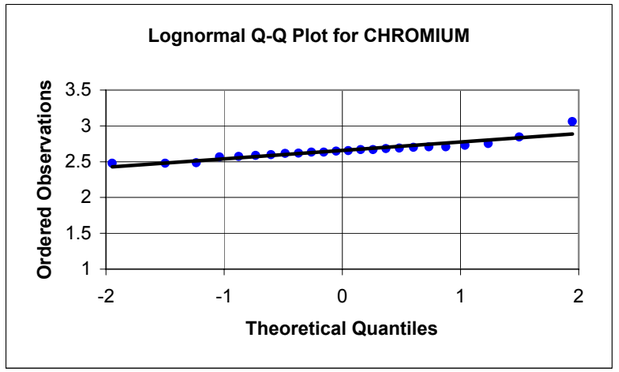


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

CHROMIUM

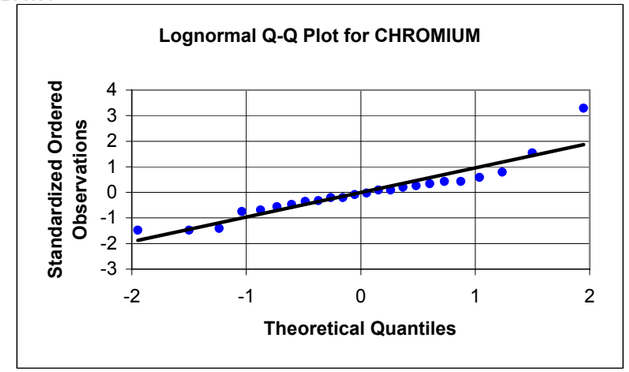
Frequency of Detection	24/24
Mean	2.66
Standard Deviation	0.122
Slope =	0.117
Y Intercept =	2.66
Correlation =	0.930
Shapiro-Wilks Statistics	0.881
Crtitical Value	0.916
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

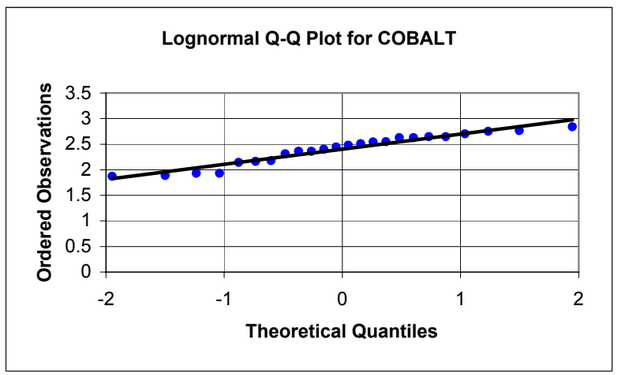
CHROMIUM

Frequency of Detection	24/24
Mean	2.66
Standard Deviation	0.122
Slope =	0.961
Y Intercept =	0
Correlation =	0.930
Shapiro-Wilks Statistics	0.881
Crtitical Value	0.916
Data are not lognormal	



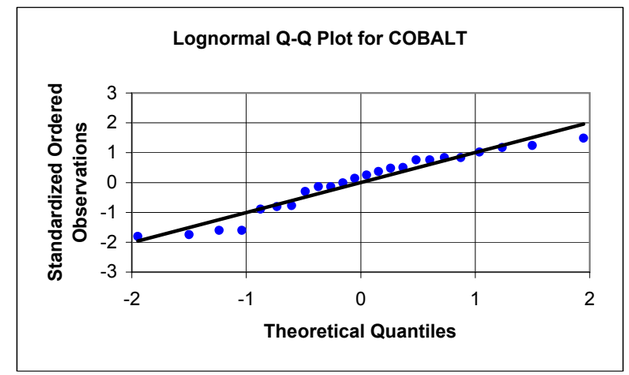
COBALT

Frequency of Detection	24/24
Mean	2.40
Standard Deviation	0.294
Slope =	0.295
Y Intercept =	2.40
Correlation =	0.972
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.916
Data are lognormal	



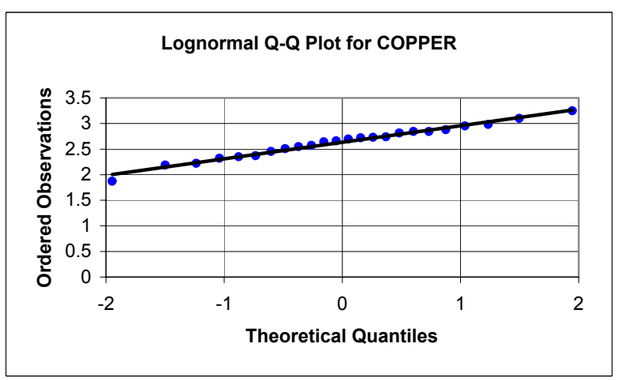
COBALT

Frequency of Detection	24/24
Mean	2.40
Standard Deviation	0.294
Slope =	1.00
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.916
Data are lognormal	



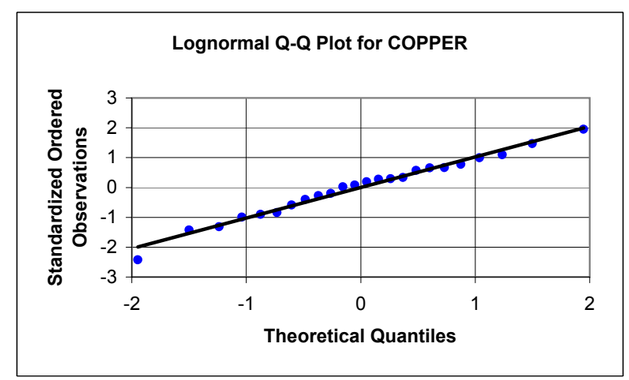
COPPER

Frequency of Detection	24/24
Mean	2.64
Standard Deviation	0.316
Slope =	0.323
Y Intercept =	2.64
Correlation =	0.991
Shapiro-Wilks Statistics	0.987
Crtitical Value	0.916
Data are lognormal	



COPPER

Frequency of Detection	24/24
Mean	2.64
Standard Deviation	0.316
Slope =	1.02
Y Intercept =	0
Correlation =	0.991
Shapiro-Wilks Statistics	0.987
Crtitical Value	0.916
Data are lognormal	

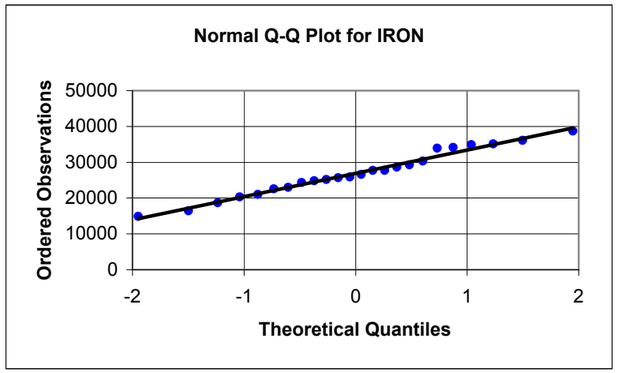


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

IRON

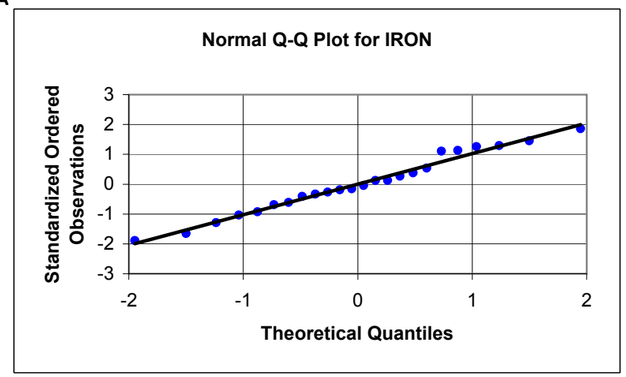
Frequency of Detection	24/24
Mean	26906
Standard Deviation	6352
Slope =	6511
Y Intercept =	26906
Correlation =	0.992
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.916
Data are normal	



NORMAL - STANDARDIZED DATA

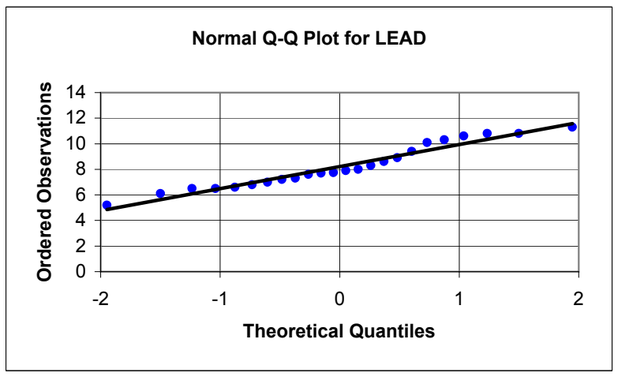
IRON

Frequency of Detection	24/24
Mean	26906
Standard Deviation	6352
Slope =	1.02
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.977
Crtitical Value	0.916
Data are normal	



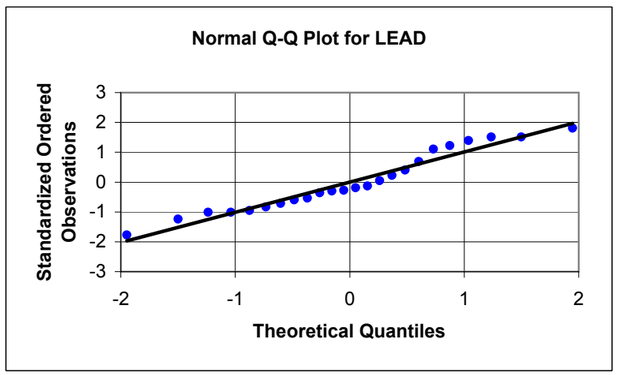
LEAD

Frequency of Detection	24/24
Mean	8.22
Standard Deviation	1.71
Slope =	1.72
Y Intercept =	8.22
Correlation =	0.978
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.916
Data are normal	



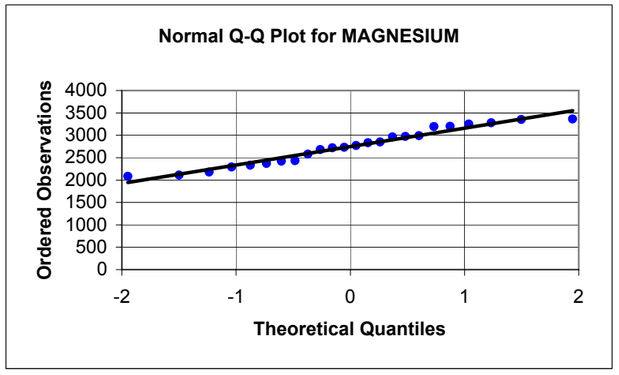
LEAD

Frequency of Detection	24/24
Mean	8.22
Standard Deviation	1.71
Slope =	1.01
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.916
Data are normal	



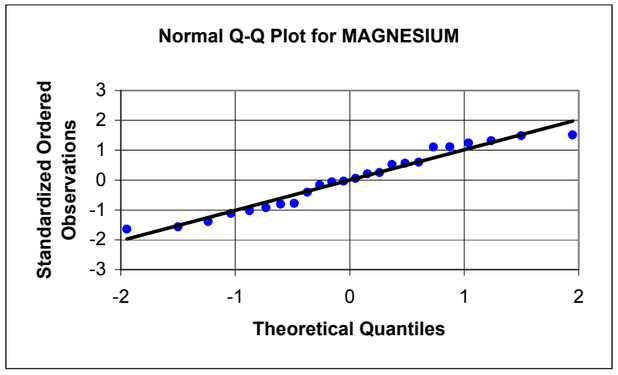
MAGNESIUM

Frequency of Detection	24/24
Mean	2747
Standard Deviation	406
Slope =	412
Y Intercept =	2747
Correlation =	0.982
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.916
Data are normal	



MAGNESIUM

Frequency of Detection	24/24
Mean	2747
Standard Deviation	406
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.916
Data are normal	

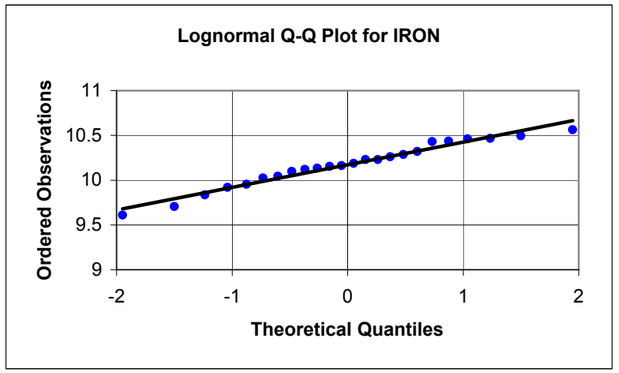


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

IRON

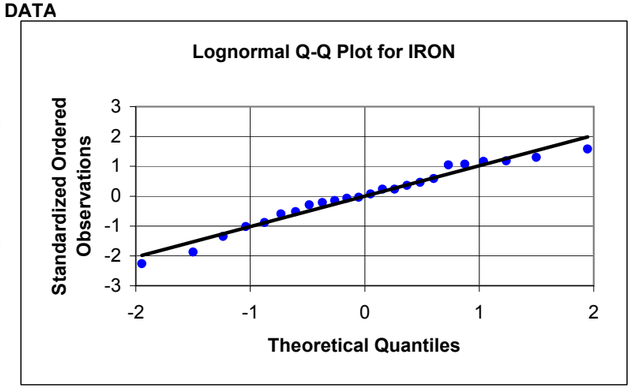
Frequency of Detection	24/24
Mean	10.2
Standard Deviation	0.249
Slope =	0.253
Y Intercept =	10.2
Correlation =	0.985
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.916
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

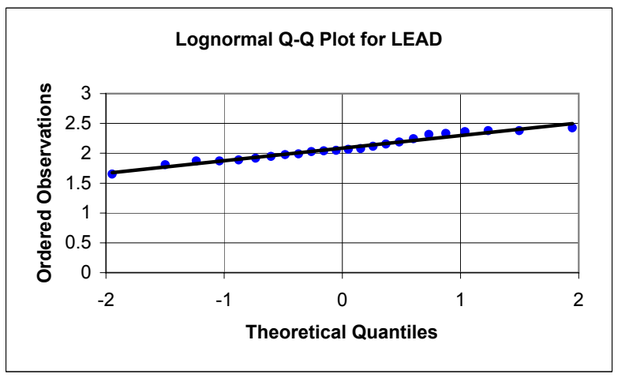
IRON

Frequency of Detection	24/24
Mean	10.2
Standard Deviation	0.249
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.916
Data are lognormal	



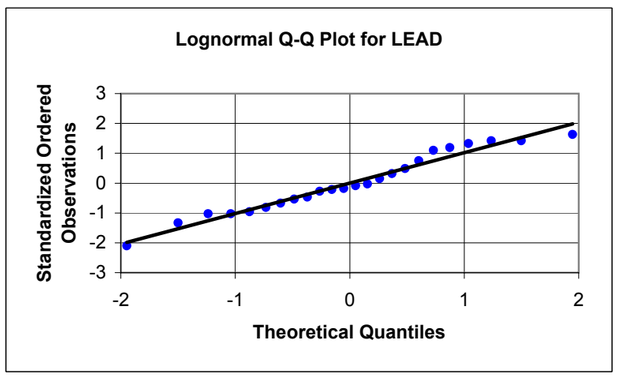
LEAD

Frequency of Detection	24/24
Mean	2.09
Standard Deviation	0.208
Slope =	0.211
Y Intercept =	2.09
Correlation =	0.985
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.916
Data are lognormal	



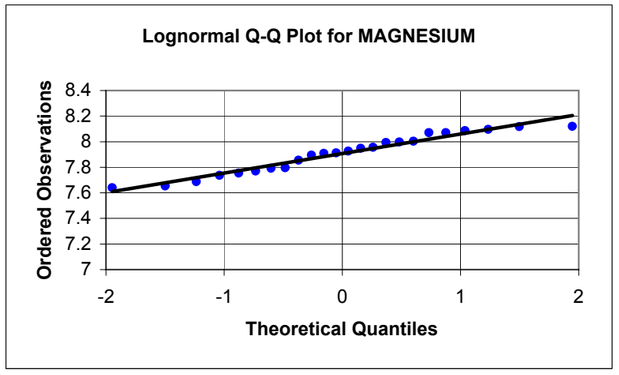
LEAD

Frequency of Detection	24/24
Mean	2.09
Standard Deviation	0.208
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.916
Data are lognormal	



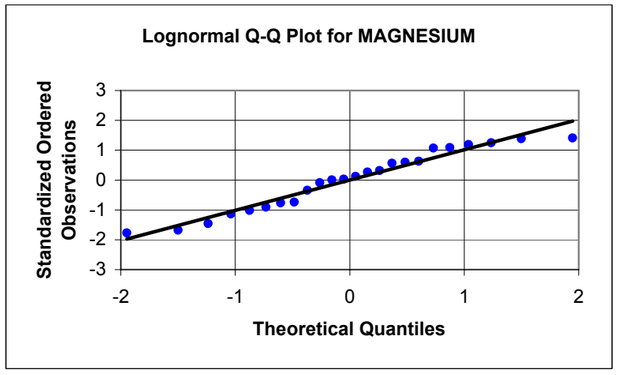
MAGNESIUM

Frequency of Detection	24/24
Mean	7.91
Standard Deviation	0.151
Slope =	0.153
Y Intercept =	7.91
Correlation =	0.981
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.916
Data are lognormal	



MAGNESIUM

Frequency of Detection	24/24
Mean	7.91
Standard Deviation	0.151
Slope =	1.01
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.916
Data are lognormal	

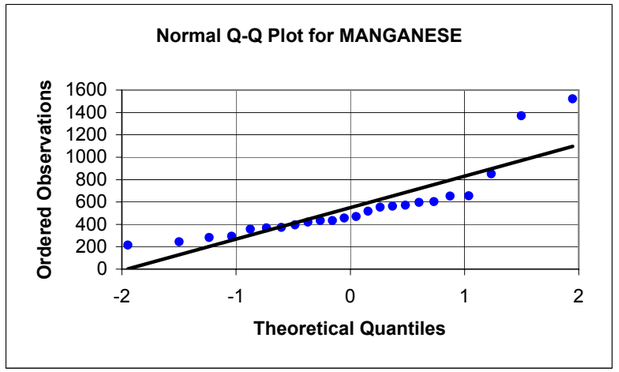


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

MANGANESE

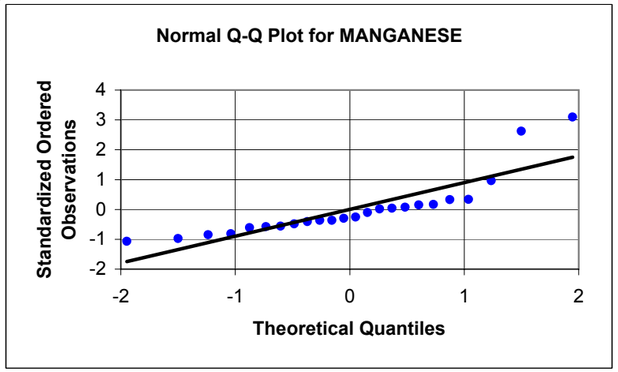
Frequency of Detection	24/24
Mean	549
Standard Deviation	314
Slope =	281
Y Intercept =	549
Correlation =	0.867
Shapiro-Wilks Statistics	0.762
Crtitical Value	0.916
Data are not normal	



NORMAL - STANDARDIZED DATA

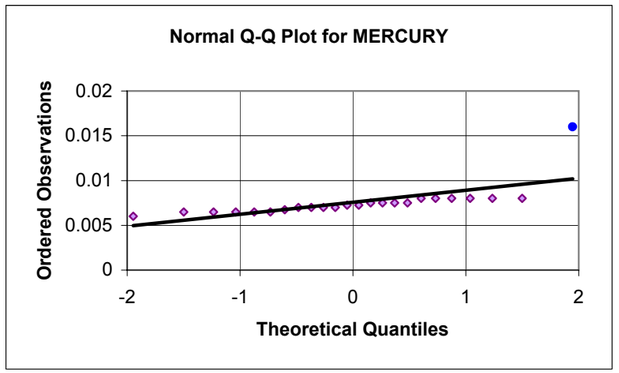
MANGANESE

Frequency of Detection	24/24
Mean	549
Standard Deviation	314
Slope =	0.896
Y Intercept =	0
Correlation =	0.867
Shapiro-Wilks Statistics	0.762
Crtitical Value	0.916
Data are not normal	



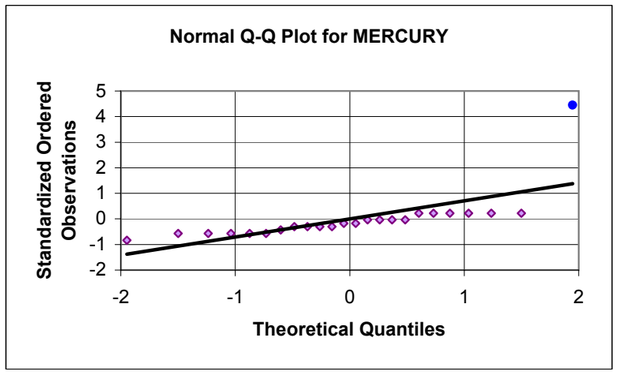
MERCURY

Frequency of Detection	1/24
Mean	0.008
Standard Deviation	0.002
Slope =	0.001
Y Intercept =	0.008
Correlation =	0.686
Shapiro-Wilks Statistics	0.503
Crtitical Value	0.916
Data are not normal	



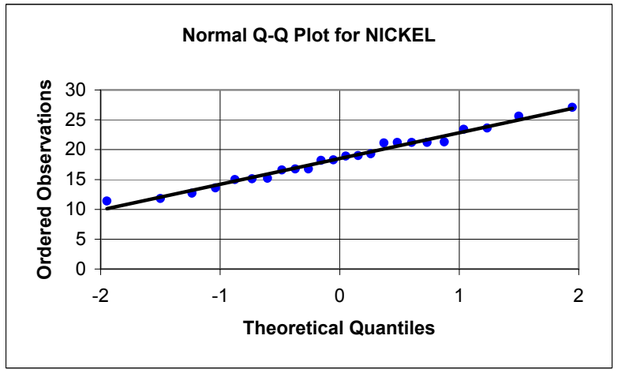
MERCURY

Frequency of Detection	1/24
Mean	0.008
Standard Deviation	0.002
Slope =	0.709
Y Intercept =	0
Correlation =	0.686
Shapiro-Wilks Statistics	0.503
Crtitical Value	0.916
Data are not normal	



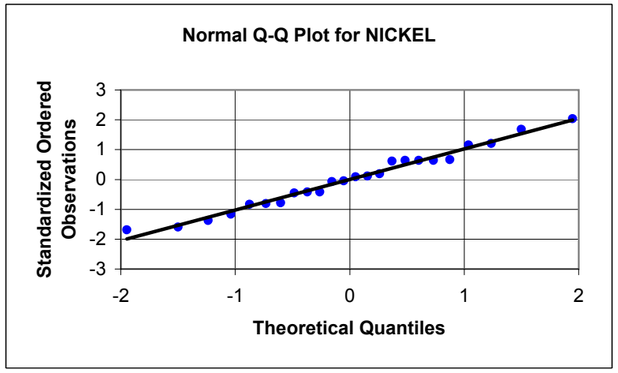
NICKEL

Frequency of Detection	24/24
Mean	18.5
Standard Deviation	4.22
Slope =	4.32
Y Intercept =	18.5
Correlation =	0.992
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.916
Data are normal	



NICKEL

Frequency of Detection	24/24
Mean	18.5
Standard Deviation	4.22
Slope =	1.02
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.916
Data are normal	

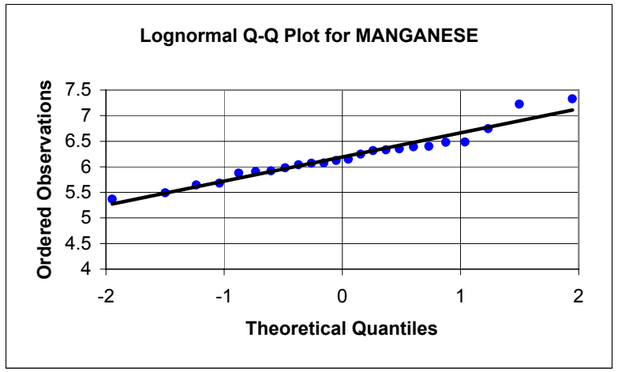


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

MANGANESE

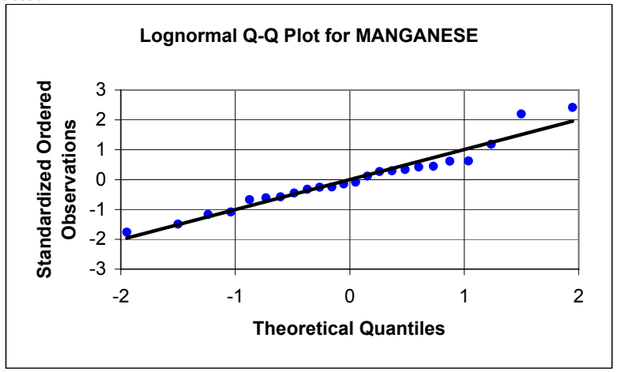
Frequency of Detection	24/24
Mean	6.19
Standard Deviation	0.469
Slope =	0.471
Y Intercept =	6.19
Correlation =	0.973
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.916
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

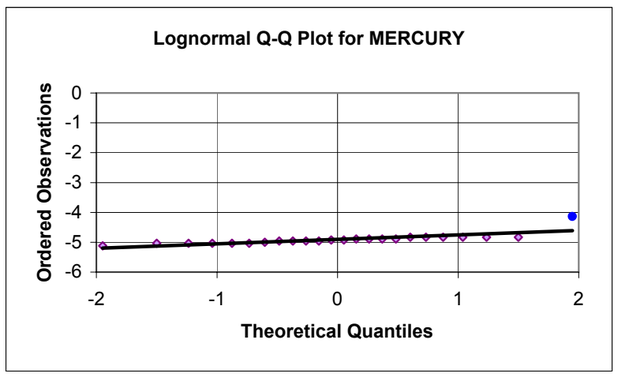
MANGANESE

Frequency of Detection	24/24
Mean	6.19
Standard Deviation	0.469
Slope =	1.00
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.948
Crtitical Value	0.916
Data are lognormal	



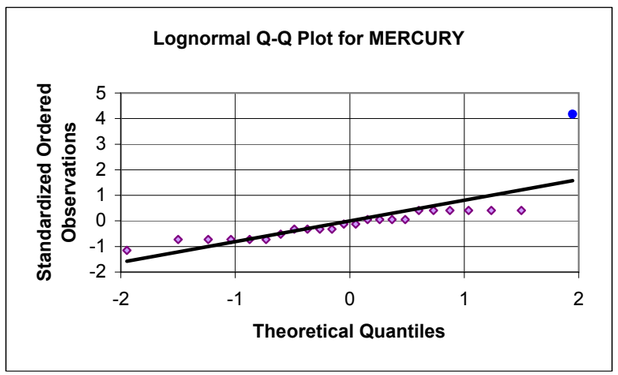
MERCURY

Frequency of Detection	1/24
Mean	-4.903
Standard Deviation	0.184
Slope =	0.149
Y Intercept =	-4.903
Correlation =	0.784
Shapiro-Wilks Statistics	0.647
Crtitical Value	0.916
Data are not lognormal	



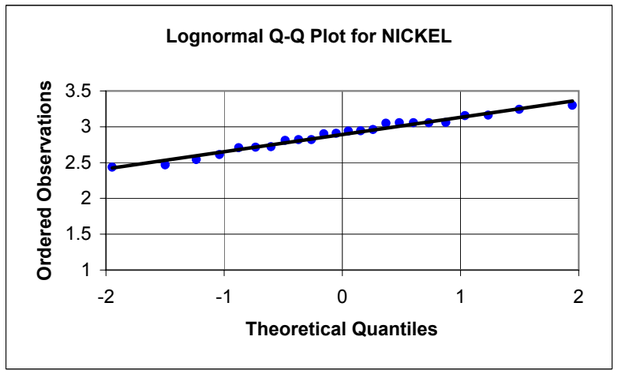
MERCURY

Frequency of Detection	1/24
Mean	-4.903
Standard Deviation	0.184
Slope =	0.810
Y Intercept =	0
Correlation =	0.784
Shapiro-Wilks Statistics	0.647
Crtitical Value	0.916
Data are not lognormal	



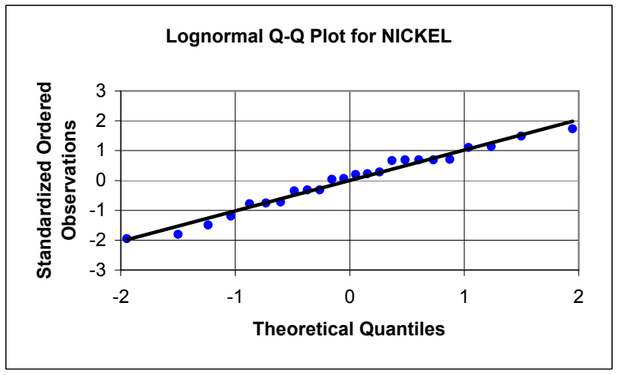
NICKEL

Frequency of Detection	24/24
Mean	2.89
Standard Deviation	0.235
Slope =	0.240
Y Intercept =	2.89
Correlation =	0.989
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.916
Data are lognormal	



NICKEL

Frequency of Detection	24/24
Mean	2.89
Standard Deviation	0.235
Slope =	1.02
Y Intercept =	0
Correlation =	0.989
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.916
Data are lognormal	

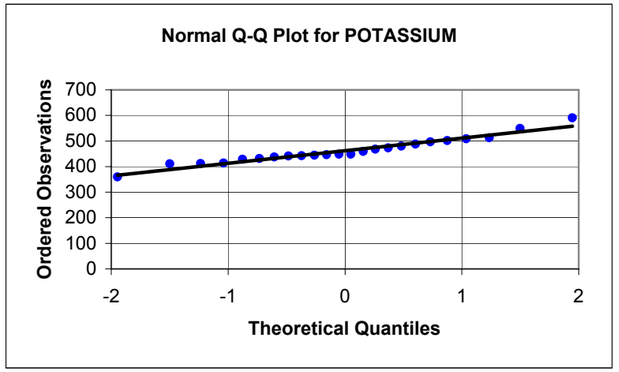


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

POTASSIUM

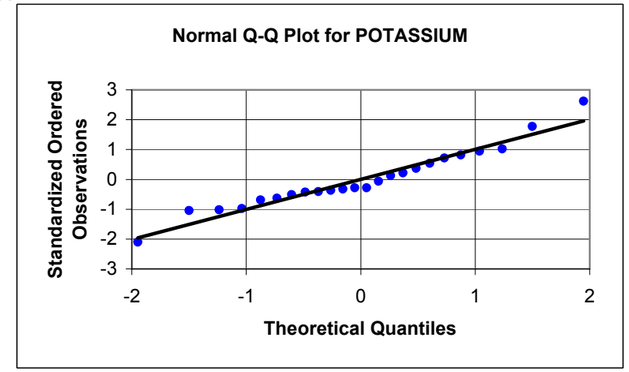
Frequency of Detection	24/24
Mean	462
Standard Deviation	48.9
Slope =	49.2
Y Intercept =	462
Correlation =	0.973
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.916
Data are normal	



NORMAL - STANDARDIZED DATA

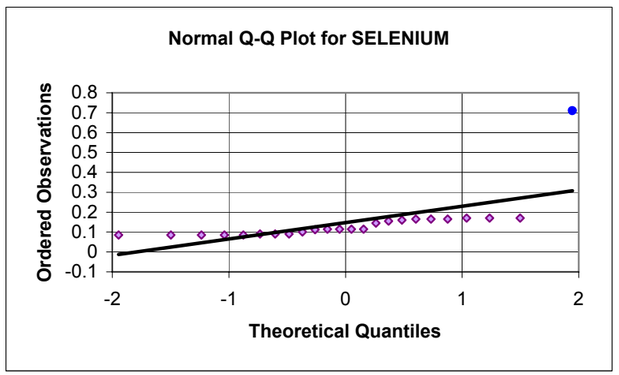
POTASSIUM

Frequency of Detection	24/24
Mean	462
Standard Deviation	48.9
Slope =	1.01
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.959
Crtitical Value	0.916
Data are normal	



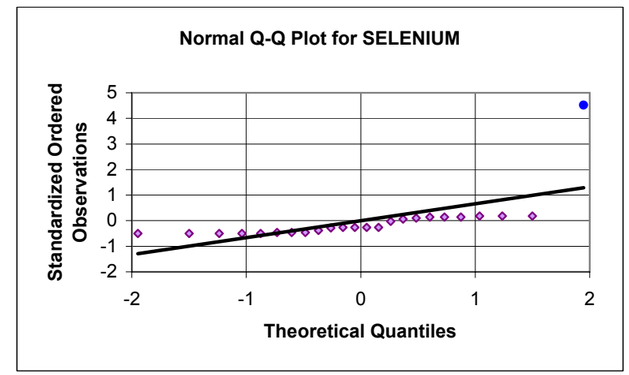
SELENIUM

Frequency of Detection	1/24
Mean	0.148
Standard Deviation	0.124
Slope =	0.082
Y Intercept =	0.148
Correlation =	0.639
Shapiro-Wilks Statistics	0.438
Crtitical Value	0.916
Data are not normal	



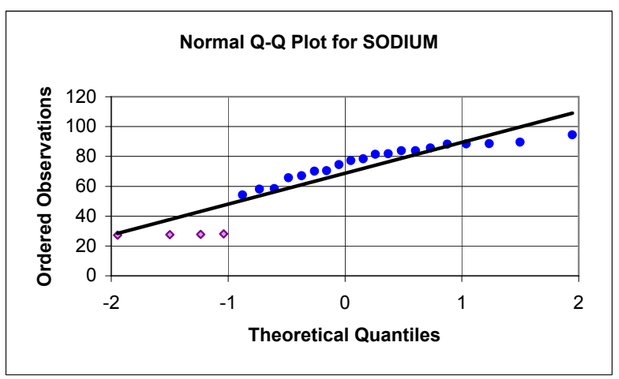
SELENIUM

Frequency of Detection	1/24
Mean	0.148
Standard Deviation	0.124
Slope =	0.660
Y Intercept =	0
Correlation =	0.639
Shapiro-Wilks Statistics	0.438
Crtitical Value	0.916
Data are not normal	



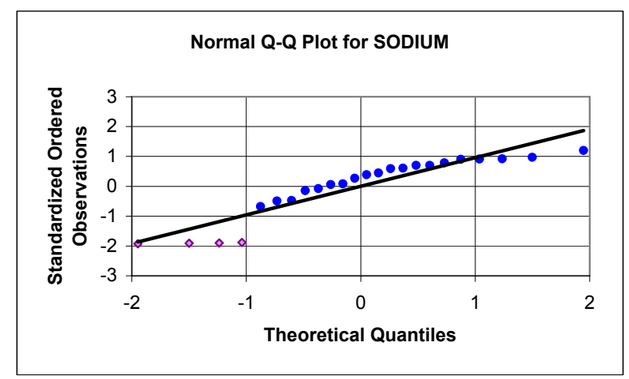
SODIUM

Frequency of Detection	20/24
Mean	68.7
Standard Deviation	21.6
Slope =	20.7
Y Intercept =	68.7
Correlation =	0.927
Shapiro-Wilks Statistics	0.846
Crtitical Value	0.916
Data are not normal	



SODIUM

Frequency of Detection	20/24
Mean	68.7
Standard Deviation	21.6
Slope =	0.958
Y Intercept =	0
Correlation =	0.927
Shapiro-Wilks Statistics	0.846
Crtitical Value	0.916
Data are not normal	

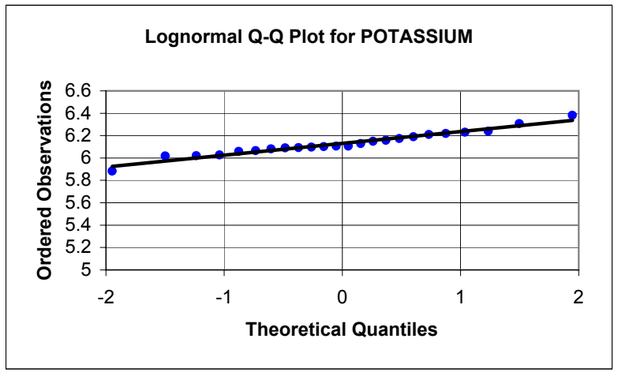


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

POTASSIUM

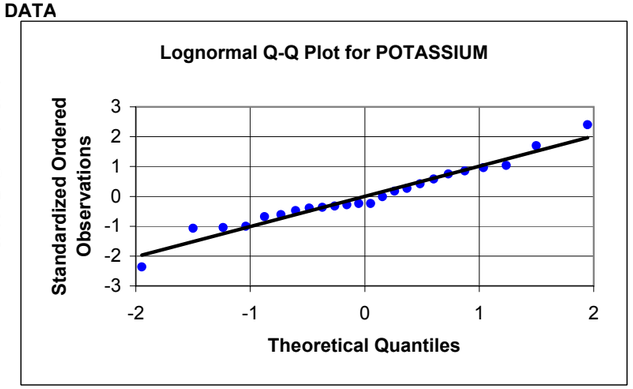
Frequency of Detection	24/24
Mean	6.13
Standard Deviation	0.104
Slope =	0.106
Y Intercept =	6.13
Correlation =	0.979
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.916
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

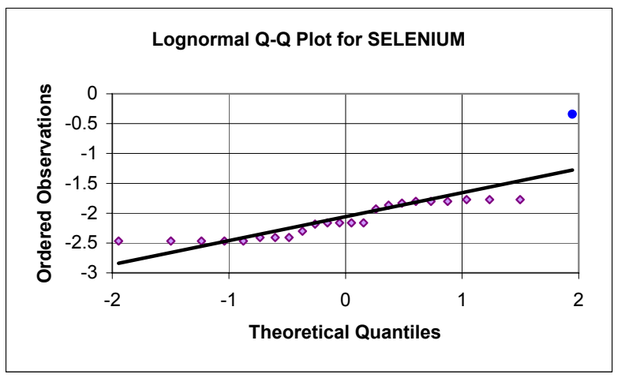
POTASSIUM

Frequency of Detection	24/24
Mean	6.13
Standard Deviation	0.104
Slope =	1.01
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.916
Data are lognormal	



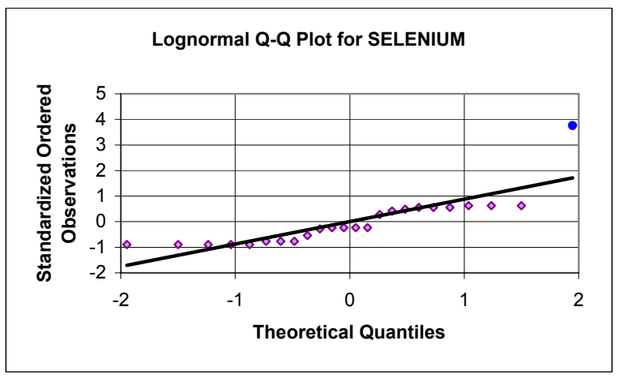
SELENIUM

Frequency of Detection	1/24
Mean	-2.057
Standard Deviation	0.457
Slope =	0.401
Y Intercept =	-2.057
Correlation =	0.849
Shapiro-Wilks Statistics	0.740
Crtitical Value	0.916
Data are not lognormal	



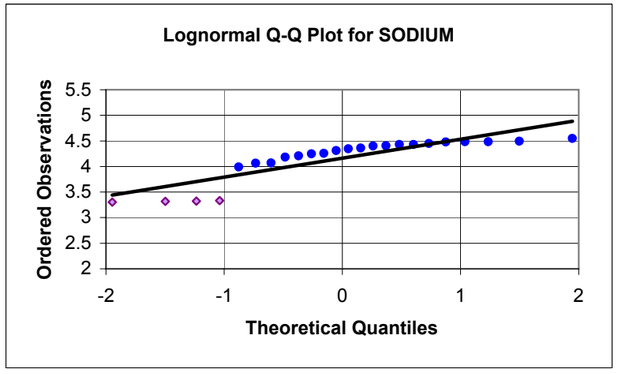
SELENIUM

Frequency of Detection	1/24
Mean	-2.057
Standard Deviation	0.457
Slope =	0.878
Y Intercept =	0
Correlation =	0.849
Shapiro-Wilks Statistics	0.740
Crtitical Value	0.916
Data are not lognormal	



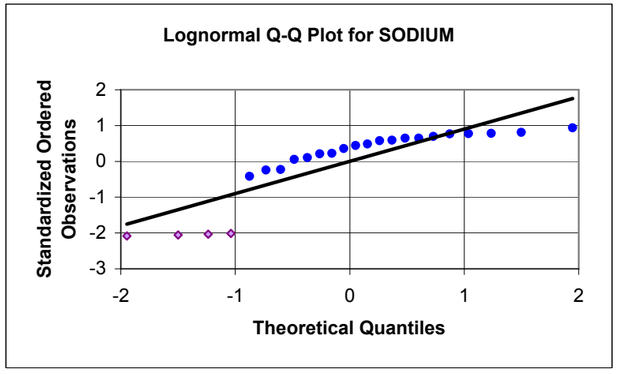
SODIUM

Frequency of Detection	20/24
Mean	4.16
Standard Deviation	0.412
Slope =	0.371
Y Intercept =	4.16
Correlation =	0.871
Shapiro-Wilks Statistics	0.748
Crtitical Value	0.916
Data are not lognormal	



SODIUM

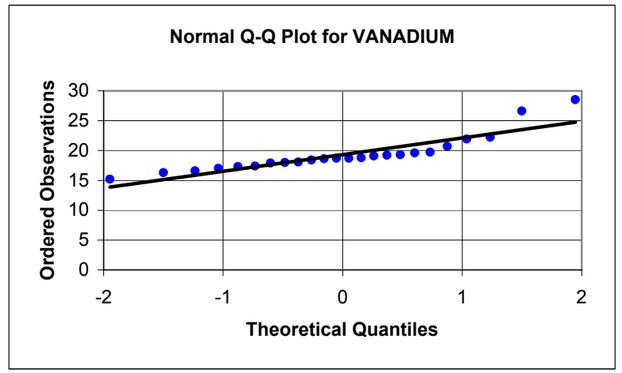
Frequency of Detection	20/24
Mean	4.16
Standard Deviation	0.412
Slope =	0.900
Y Intercept =	0
Correlation =	0.871
Shapiro-Wilks Statistics	0.748
Crtitical Value	0.916
Data are not lognormal	



APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

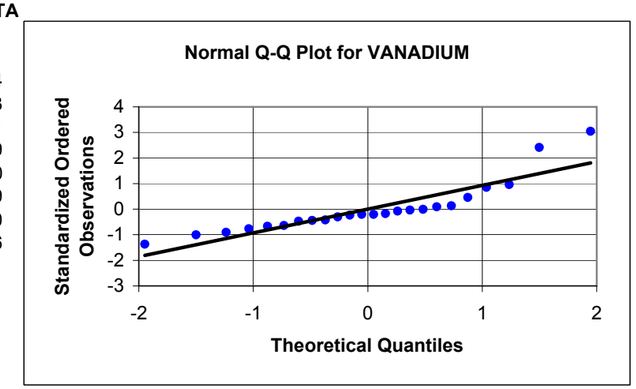
NORMAL - RAW DATA
VANADIUM

Frequency of Detection	24/24
Mean	19.3
Standard Deviation	3.01
Slope =	2.80
Y Intercept =	19.3
Correlation =	0.899
Shapiro-Wilks Statistics	0.820
Crtitical Value	0.916
Data are not normal	



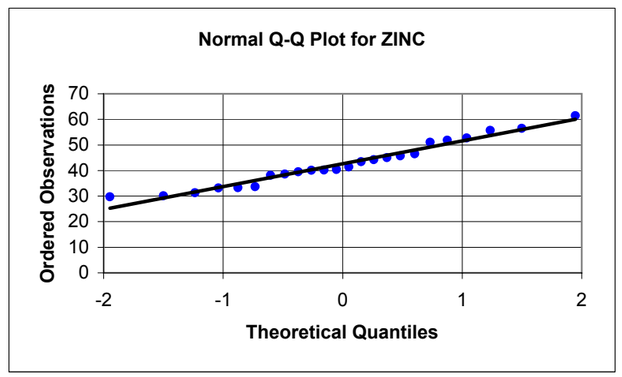
NORMAL - STANDARDIZED DATA
VANADIUM

Frequency of Detection	24/24
Mean	19.3
Standard Deviation	3.01
Slope =	0.929
Y Intercept =	0
Correlation =	0.899
Shapiro-Wilks Statistics	0.820
Crtitical Value	0.916
Data are not normal	



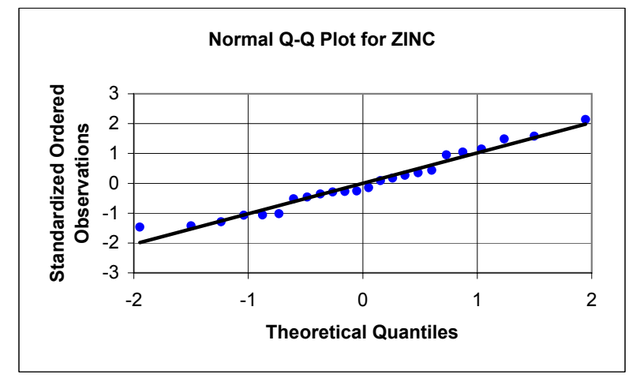
ZINC

Frequency of Detection	24/24
Mean	42.6
Standard Deviation	8.79
Slope =	8.94
Y Intercept =	42.6
Correlation =	0.985
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.916
Data are normal	



ZINC

Frequency of Detection	24/24
Mean	42.6
Standard Deviation	8.79
Slope =	1.02
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.916
Data are normal	

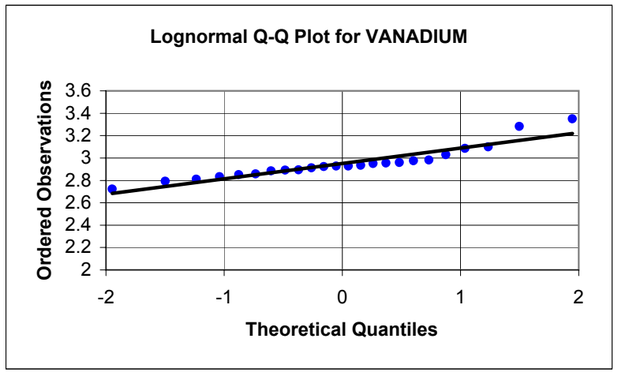


APPENDIX E5, FIGURE E5-9
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

VANADIUM

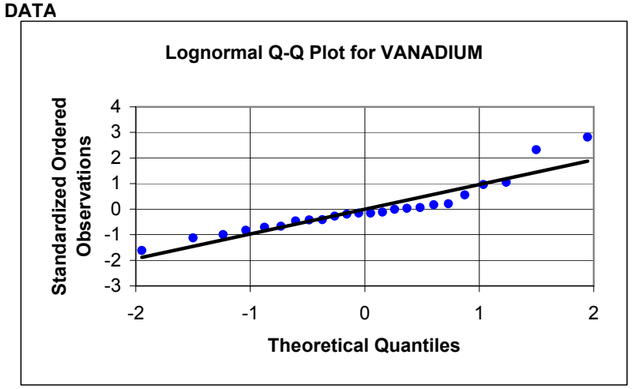
Frequency of Detection	24/24
Mean	2.95
Standard Deviation	0.142
Slope =	0.137
Y Intercept =	2.95
Correlation =	0.935
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.916
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

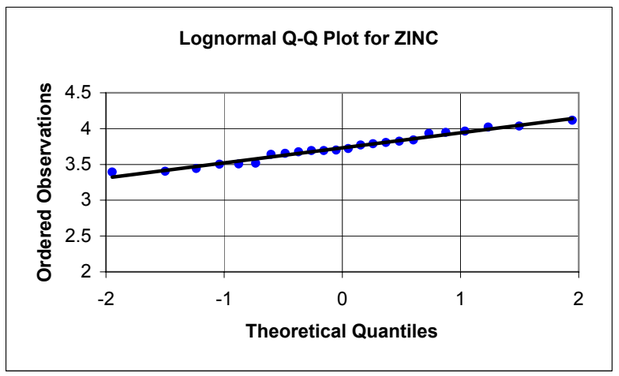
VANADIUM

Frequency of Detection	24/24
Mean	2.95
Standard Deviation	0.142
Slope =	0.966
Y Intercept =	0
Correlation =	0.935
Shapiro-Wilks Statistics	0.883
Crtitical Value	0.916
Data are not lognormal	



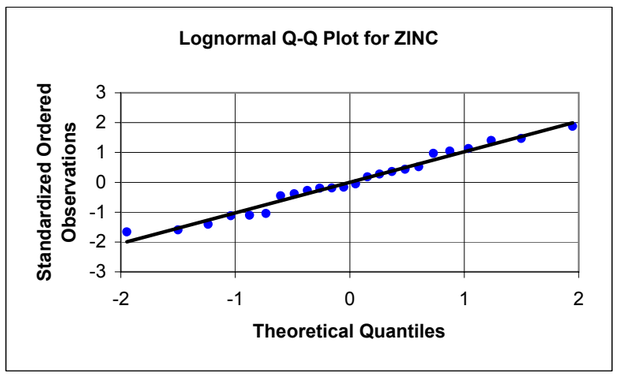
ZINC

Frequency of Detection	24/24
Mean	3.73
Standard Deviation	0.206
Slope =	0.210
Y Intercept =	3.73
Correlation =	0.990
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.916
Data are lognormal	



ZINC

Frequency of Detection	24/24
Mean	3.73
Standard Deviation	0.206
Slope =	1.02
Y Intercept =	0
Correlation =	0.990
Shapiro-Wilks Statistics	0.968
Crtitical Value	0.916
Data are lognormal	

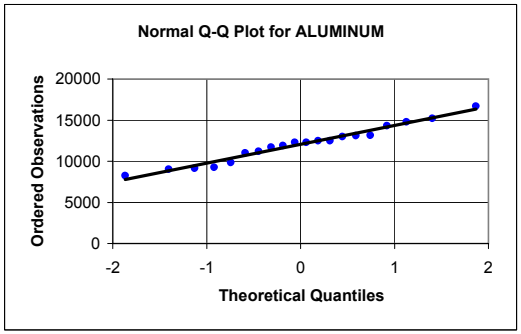


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

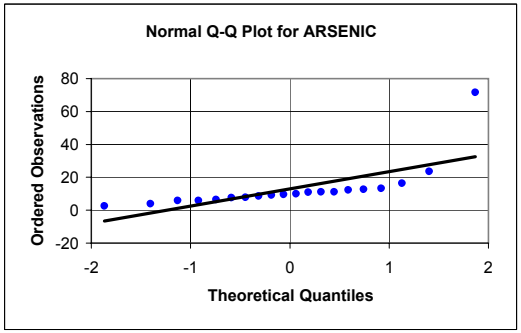
ALUMINUM

Frequency of Detection	20/20
Mean	12057
Standard Deviation	2233
Slope =	2290
Y Intercept =	12057
Correlation =	0.988
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	



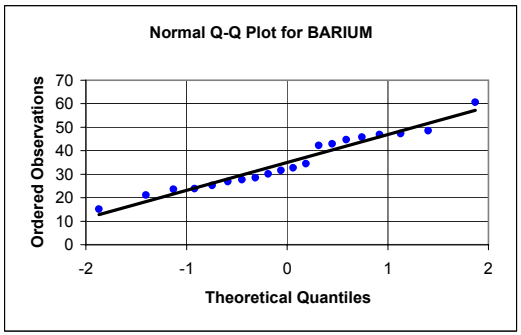
ARSENIC

Frequency of Detection	20/20
Mean	13.0
Standard Deviation	14.6
Slope =	10.5
Y Intercept =	13.0
Correlation =	0.695
Shapiro-Wilks Statistics	0.514
Crtitical Value	0.905
Data are not normal	



BARIUM

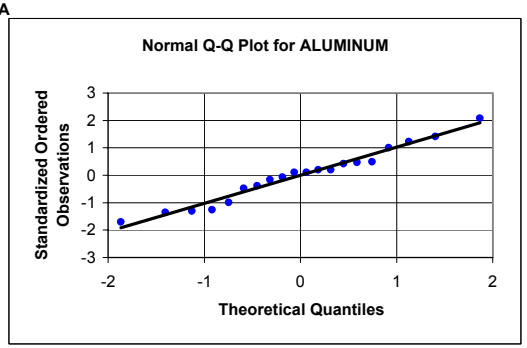
Frequency of Detection	20/20
Mean	35.0
Standard Deviation	11.7
Slope =	11.9
Y Intercept =	35.0
Correlation =	0.977
Shapiro-Wilks Statistics	0.954
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

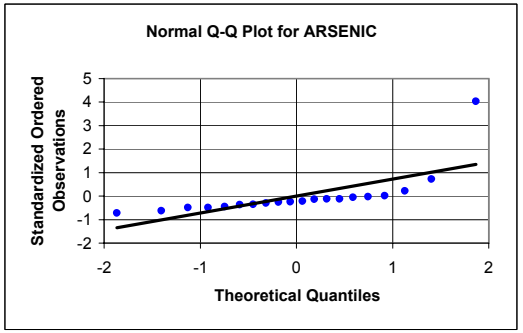
ALUMINUM

Frequency of Detection	20/20
Mean	12057
Standard Deviation	2233
Slope =	1.03
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	



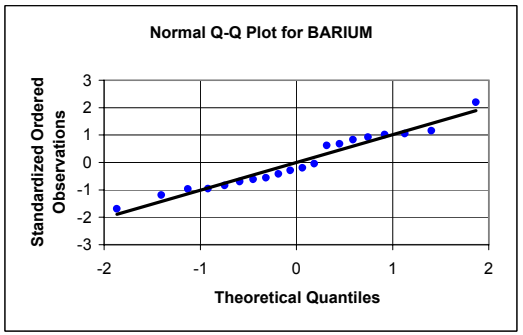
ARSENIC

Frequency of Detection	20/20
Mean	13.0
Standard Deviation	14.6
Slope =	0.721
Y Intercept =	0
Correlation =	0.695
Shapiro-Wilks Statistics	0.514
Crtitical Value	0.905
Data are not normal	



BARIUM

Frequency of Detection	20/20
Mean	35.0
Standard Deviation	11.7
Slope =	1.01
Y Intercept =	0
Correlation =	0.977
Shapiro-Wilks Statistics	0.954
Crtitical Value	0.905
Data are normal	

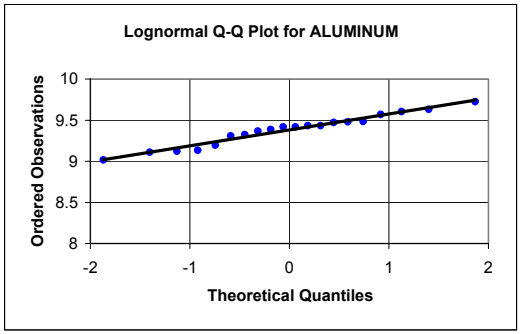


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

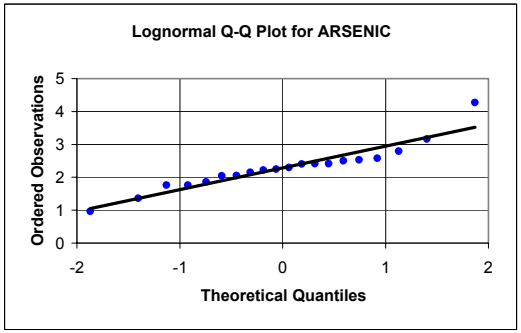
ALUMINUM

Frequency of Detection	20/20
Mean	9.38
Standard Deviation	0.189
Slope =	0.193
Y Intercept =	9.38
Correlation =	0.984
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	



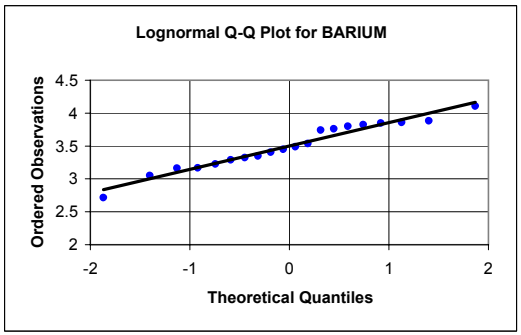
ARSENIC

Frequency of Detection	20/20
Mean	2.29
Standard Deviation	0.676
Slope =	0.662
Y Intercept =	2.29
Correlation =	0.944
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are lognormal	



BARIUM

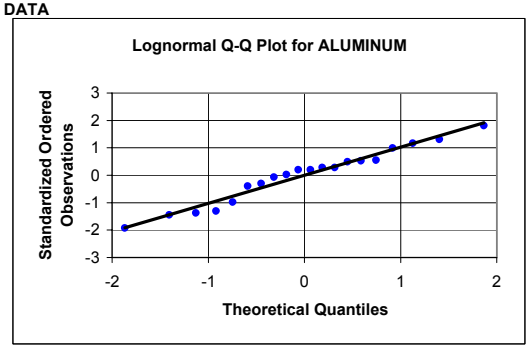
Frequency of Detection	20/20
Mean	3.50
Standard Deviation	0.349
Slope =	0.355
Y Intercept =	3.50
Correlation =	0.981
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

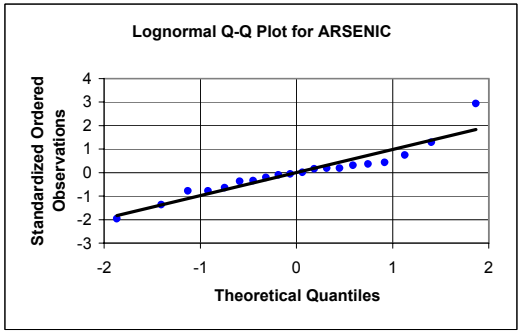
ALUMINUM

Frequency of Detection	20/20
Mean	9.38
Standard Deviation	0.189
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	



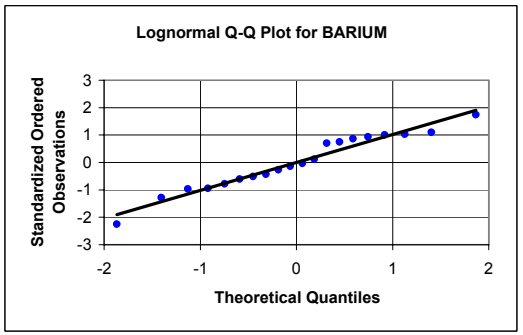
ARSENIC

Frequency of Detection	20/20
Mean	2.29
Standard Deviation	0.676
Slope =	0.980
Y Intercept =	0
Correlation =	0.944
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.905
Data are lognormal	



BARIUM

Frequency of Detection	20/20
Mean	3.50
Standard Deviation	0.349
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.905
Data are lognormal	

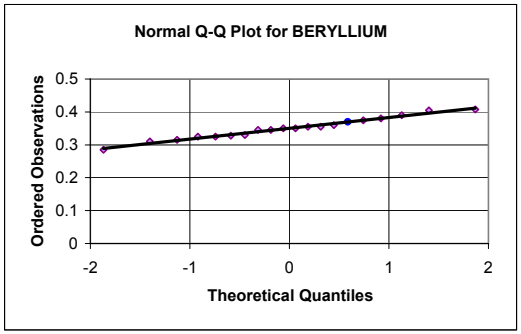


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

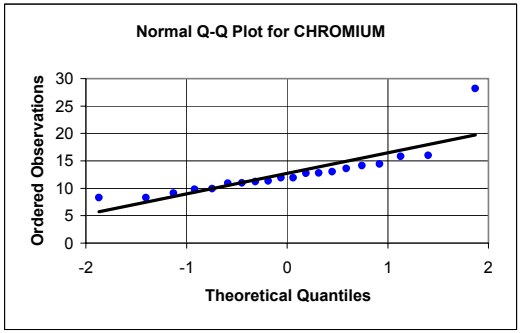
BERYLLIUM

Frequency of Detection	1/20
Mean	0.350
Standard Deviation	0.032
Slope =	0.033
Y Intercept =	0.350
Correlation =	0.992
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.905
Data are normal	



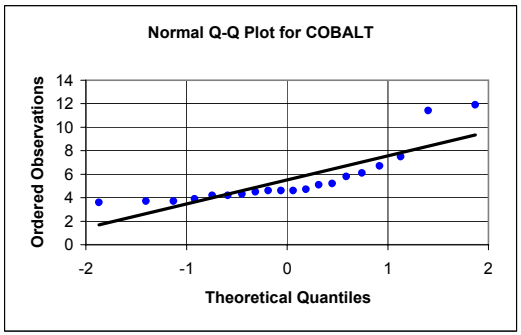
CHROMIUM

Frequency of Detection	20/20
Mean	12.7
Standard Deviation	4.27
Slope =	3.75
Y Intercept =	12.7
Correlation =	0.847
Shapiro-Wilks Statistics	0.742
Crtitical Value	0.905
Data are not normal	



COBALT

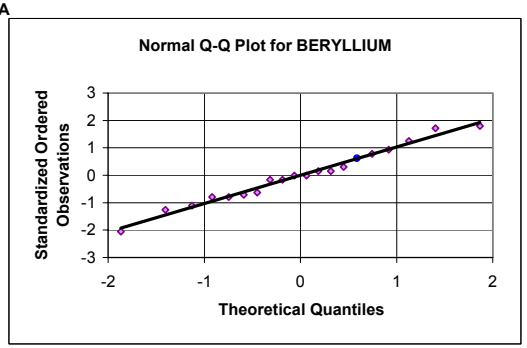
Frequency of Detection	20/20
Mean	5.52
Standard Deviation	2.33
Slope =	2.05
Y Intercept =	5.52
Correlation =	0.846
Shapiro-Wilks Statistics	0.721
Crtitical Value	0.905
Data are not normal	



NORMAL - STANDARDIZED DATA

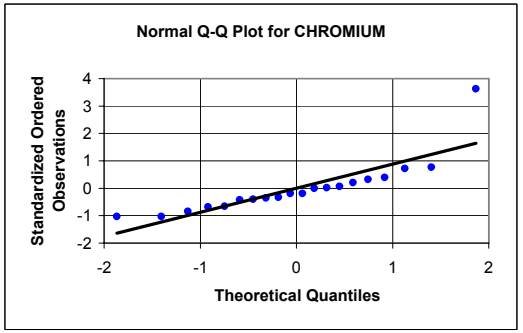
BERYLLIUM

Frequency of Detection	1/20
Mean	0.350
Standard Deviation	0.032
Slope =	1.03
Y Intercept =	0
Correlation =	0.992
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.905
Data are normal	



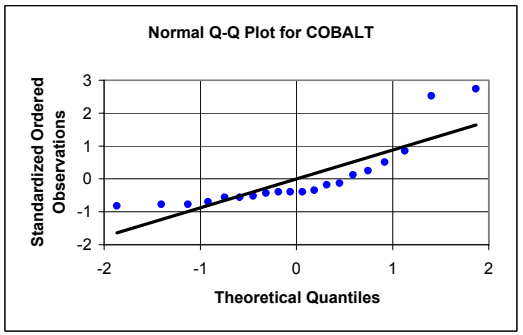
CHROMIUM

Frequency of Detection	20/20
Mean	12.7
Standard Deviation	4.27
Slope =	0.879
Y Intercept =	0
Correlation =	0.847
Shapiro-Wilks Statistics	0.742
Crtitical Value	0.905
Data are not normal	



COBALT

Frequency of Detection	20/20
Mean	5.52
Standard Deviation	2.33
Slope =	0.878
Y Intercept =	0
Correlation =	0.846
Shapiro-Wilks Statistics	0.721
Crtitical Value	0.905
Data are not normal	

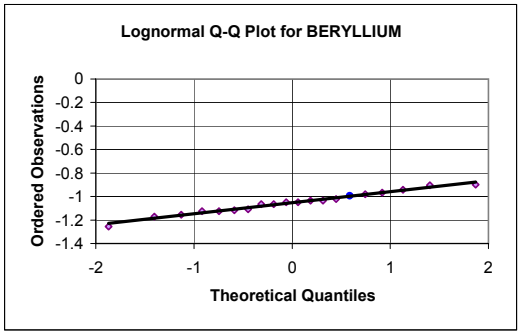


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

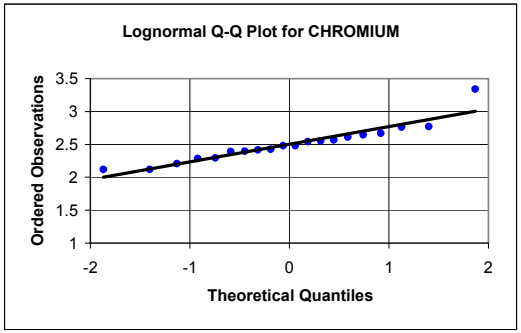
BERYLLIUM

Frequency of Detection	1/20
Mean	-1.053
Standard Deviation	0.091
Slope =	0.094
Y Intercept =	-1.053
Correlation =	0.991
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are lognormal	



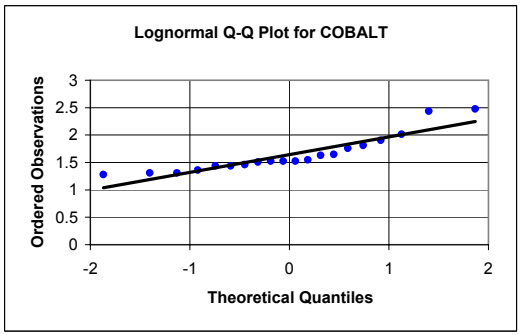
CHROMIUM

Frequency of Detection	20/20
Mean	2.50
Standard Deviation	0.274
Slope =	0.267
Y Intercept =	2.50
Correlation =	0.941
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.905
Data are not lognormal	



COBALT

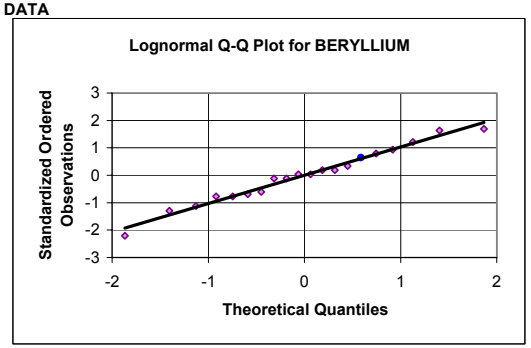
Frequency of Detection	20/20
Mean	1.64
Standard Deviation	0.340
Slope =	0.323
Y Intercept =	1.64
Correlation =	0.918
Shapiro-Wilks Statistics	0.840
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

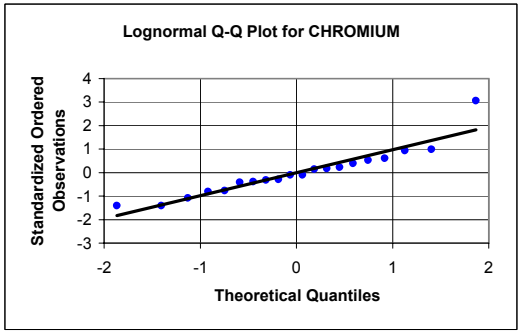
BERYLLIUM

Frequency of Detection	1/20
Mean	-1.053
Standard Deviation	0.091
Slope =	1.03
Y Intercept =	0
Correlation =	0.991
Shapiro-Wilks Statistics	0.981
Crtitical Value	0.905
Data are lognormal	



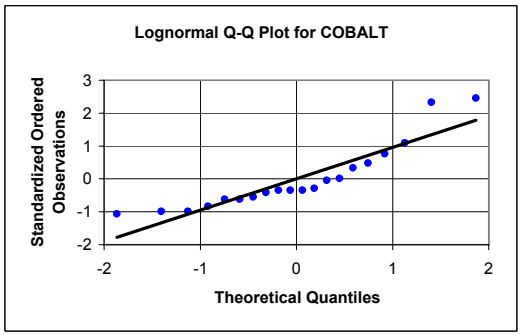
CHROMIUM

Frequency of Detection	20/20
Mean	2.50
Standard Deviation	0.274
Slope =	0.977
Y Intercept =	0
Correlation =	0.941
Shapiro-Wilks Statistics	0.901
Crtitical Value	0.905
Data are not lognormal	



COBALT

Frequency of Detection	20/20
Mean	1.64
Standard Deviation	0.340
Slope =	0.953
Y Intercept =	0
Correlation =	0.918
Shapiro-Wilks Statistics	0.840
Crtitical Value	0.905
Data are not lognormal	

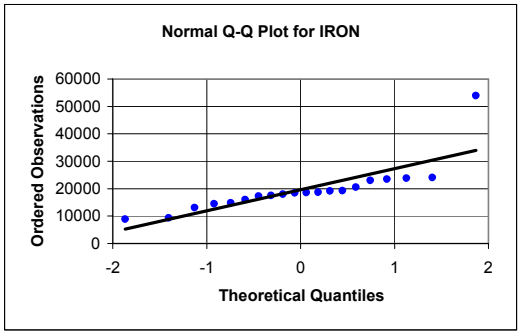


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

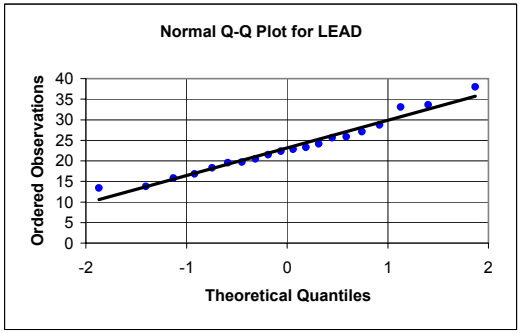
IRON

Frequency of Detection	20/20
Mean	19614
Standard Deviation	9129
Slope =	7687
Y Intercept =	19614
Correlation =	0.811
Shapiro-Wilks Statistics	0.689
Crtitical Value	0.905
Data are not normal	



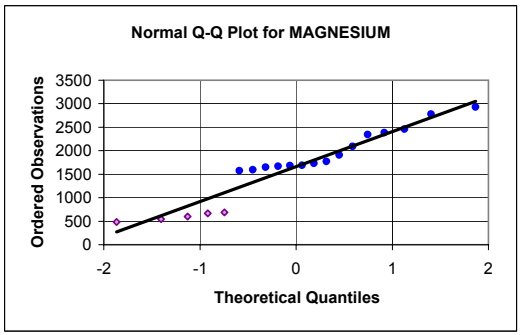
LEAD

Frequency of Detection	20/20
Mean	23.2
Standard Deviation	6.59
Slope =	6.73
Y Intercept =	23.2
Correlation =	0.983
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



MAGNESIUM

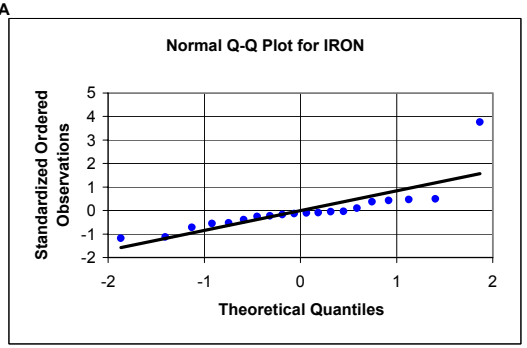
Frequency of Detection	15/20
Mean	1661
Standard Deviation	742
Slope =	743
Y Intercept =	1661
Correlation =	0.966
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

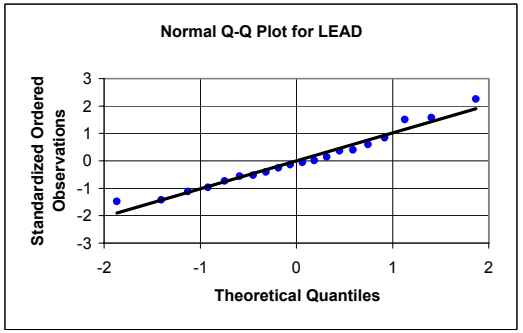
IRON

Frequency of Detection	20/20
Mean	19614
Standard Deviation	9129
Slope =	0.842
Y Intercept =	0
Correlation =	0.811
Shapiro-Wilks Statistics	0.689
Crtitical Value	0.905
Data are not normal	



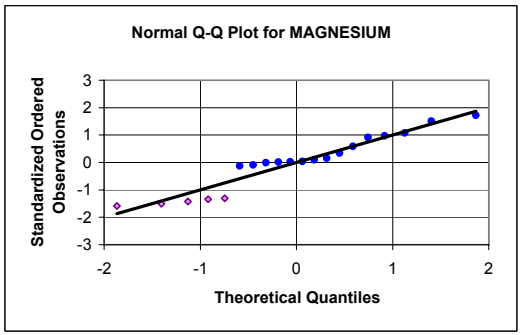
LEAD

Frequency of Detection	20/20
Mean	23.2
Standard Deviation	6.59
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.905
Data are normal	



MAGNESIUM

Frequency of Detection	15/20
Mean	1661
Standard Deviation	742
Slope =	1.00
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.921
Crtitical Value	0.905
Data are normal	

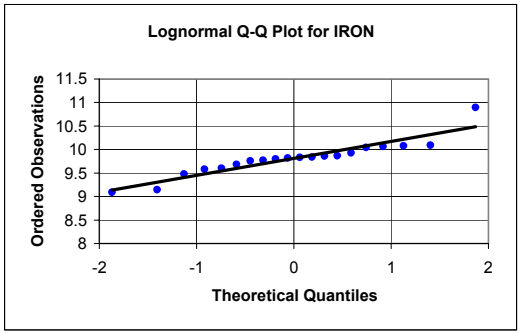


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

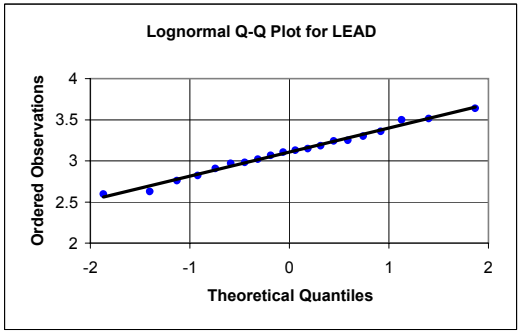
IRON

Frequency of Detection	20/20
Mean	9.81
Standard Deviation	0.374
Slope =	0.362
Y Intercept =	9.81
Correlation =	0.932
Shapiro-Wilks Statistics	0.892
Crtitical Value	0.905
Data are not lognormal	



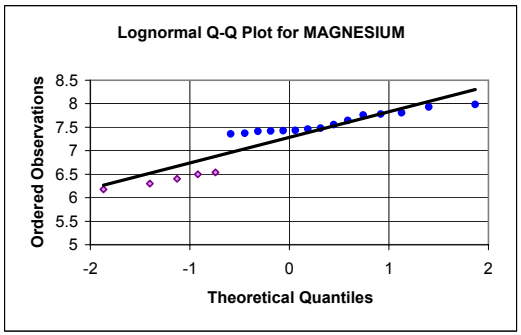
LEAD

Frequency of Detection	20/20
Mean	3.11
Standard Deviation	0.284
Slope =	0.293
Y Intercept =	3.11
Correlation =	0.995
Shapiro-Wilks Statistics	0.984
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

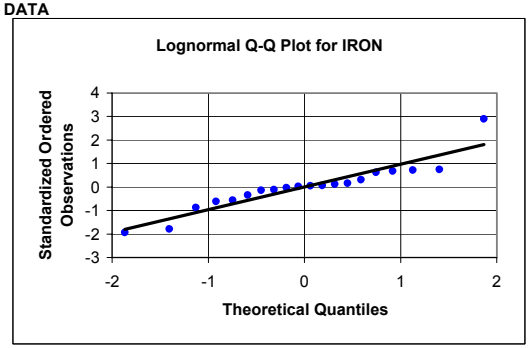
Frequency of Detection	15/20
Mean	7.29
Standard Deviation	0.569
Slope =	0.545
Y Intercept =	7.29
Correlation =	0.922
Shapiro-Wilks Statistics	0.841
Crtitical Value	0.905
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

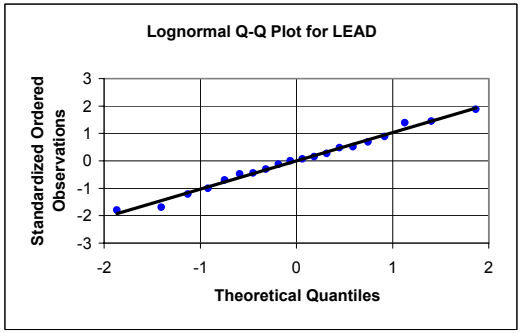
IRON

Frequency of Detection	20/20
Mean	9.81
Standard Deviation	0.374
Slope =	0.967
Y Intercept =	0
Correlation =	0.932
Shapiro-Wilks Statistics	0.892
Crtitical Value	0.905
Data are not lognormal	



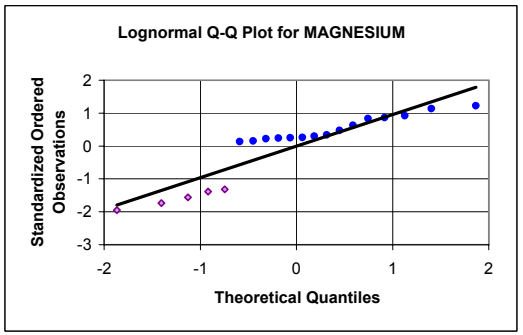
LEAD

Frequency of Detection	20/20
Mean	3.11
Standard Deviation	0.284
Slope =	1.03
Y Intercept =	0
Correlation =	0.995
Shapiro-Wilks Statistics	0.984
Crtitical Value	0.905
Data are lognormal	



MAGNESIUM

Frequency of Detection	15/20
Mean	7.29
Standard Deviation	0.569
Slope =	0.958
Y Intercept =	0
Correlation =	0.922
Shapiro-Wilks Statistics	0.841
Crtitical Value	0.905
Data are not lognormal	

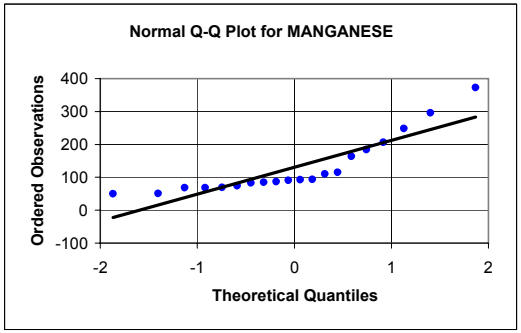


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

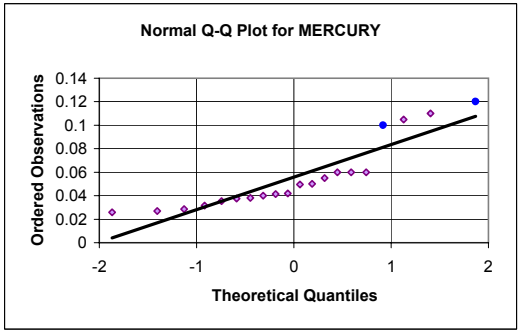
MANGANESE

Frequency of Detection	20/20
Mean	130
Standard Deviation	88.4
Slope =	81.6
Y Intercept =	130
Correlation =	0.889
Shapiro-Wilks Statistics	0.794
Crtitical Value	0.905
Data are not normal	



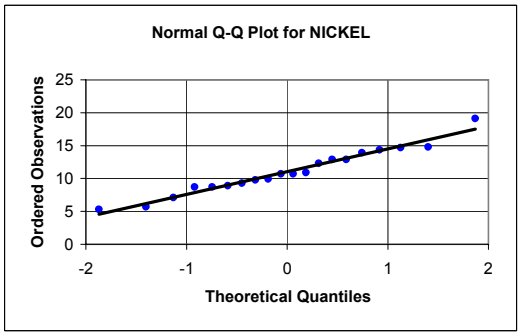
MERCURY

Frequency of Detection	2/20
Mean	0.056
Standard Deviation	0.029
Slope =	0.028
Y Intercept =	0.056
Correlation =	0.912
Shapiro-Wilks Statistics	0.824
Crtitical Value	0.905
Data are not normal	



NICKEL

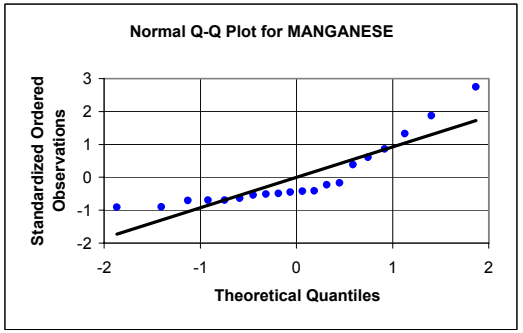
Frequency of Detection	20/20
Mean	11.0
Standard Deviation	3.39
Slope =	3.47
Y Intercept =	11.0
Correlation =	0.984
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

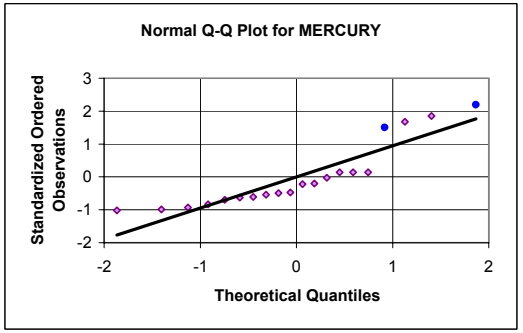
MANGANESE

Frequency of Detection	20/20
Mean	130
Standard Deviation	88.4
Slope =	0.923
Y Intercept =	0
Correlation =	0.889
Shapiro-Wilks Statistics	0.794
Crtitical Value	0.905
Data are not normal	



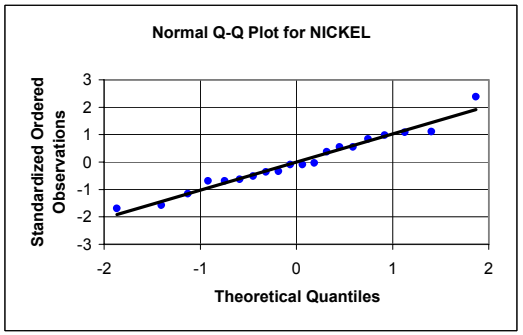
MERCURY

Frequency of Detection	2/20
Mean	0.056
Standard Deviation	0.029
Slope =	0.947
Y Intercept =	0
Correlation =	0.912
Shapiro-Wilks Statistics	0.824
Crtitical Value	0.905
Data are not normal	



NICKEL

Frequency of Detection	20/20
Mean	11.0
Standard Deviation	3.39
Slope =	1.02
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.905
Data are normal	

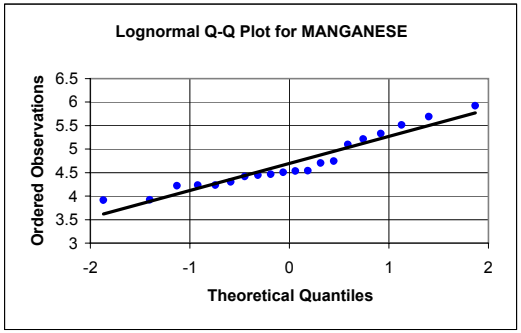


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

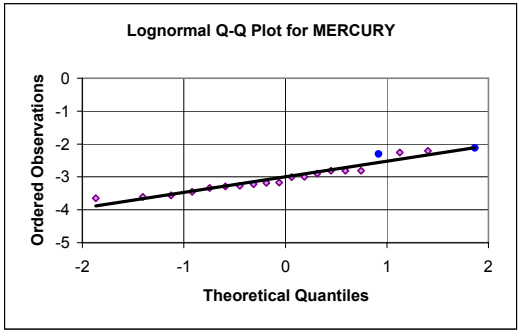
MANGANESE

Frequency of Detection	20/20
Mean	4.70
Standard Deviation	0.576
Slope =	0.576
Y Intercept =	4.70
Correlation =	0.962
Shapiro-Wilks Statistics	0.919
Crtitical Value	0.905
Data are lognormal	



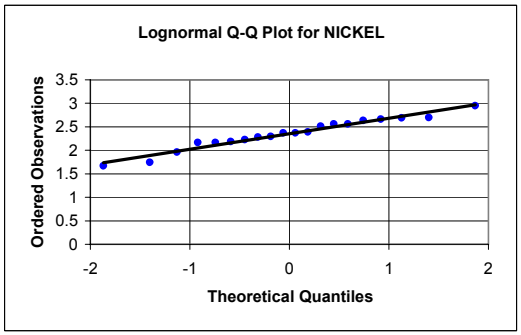
MERCURY

Frequency of Detection	2/20
Mean	-2.998
Standard Deviation	0.473
Slope =	0.475
Y Intercept =	-2.998
Correlation =	0.967
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are lognormal	



NICKEL

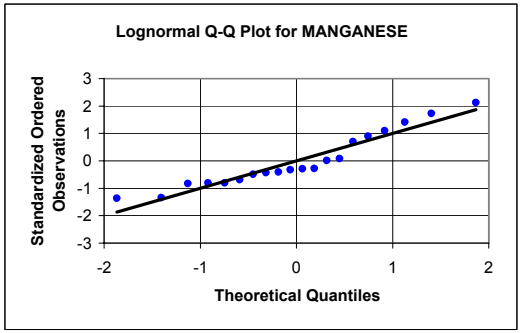
Frequency of Detection	20/20
Mean	2.35
Standard Deviation	0.324
Slope =	0.330
Y Intercept =	2.35
Correlation =	0.982
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

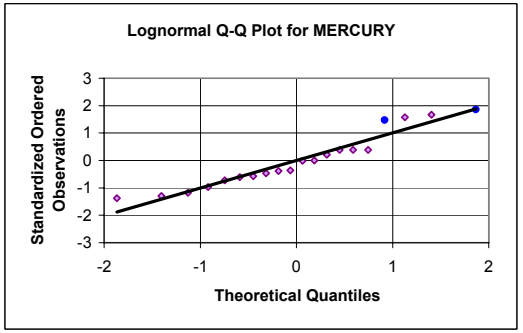
MANGANESE

Frequency of Detection	20/20
Mean	4.70
Standard Deviation	0.576
Slope =	0.999
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.919
Crtitical Value	0.905
Data are lognormal	



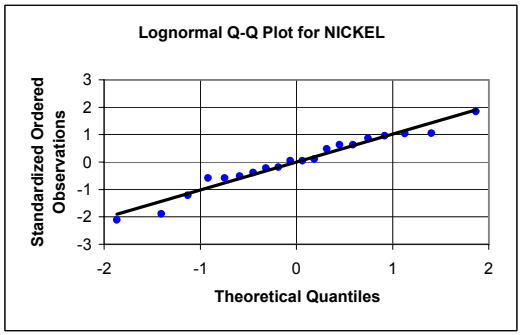
MERCURY

Frequency of Detection	2/20
Mean	-2.998
Standard Deviation	0.473
Slope =	1.00
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.905
Data are lognormal	



NICKEL

Frequency of Detection	20/20
Mean	2.35
Standard Deviation	0.324
Slope =	1.02
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.905
Data are lognormal	

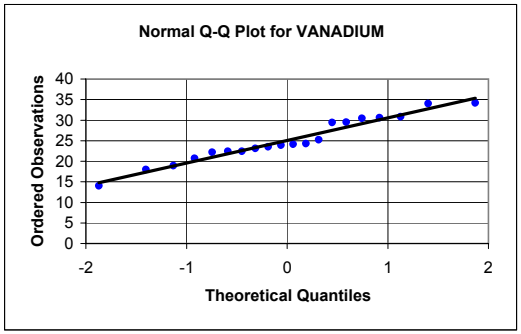


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

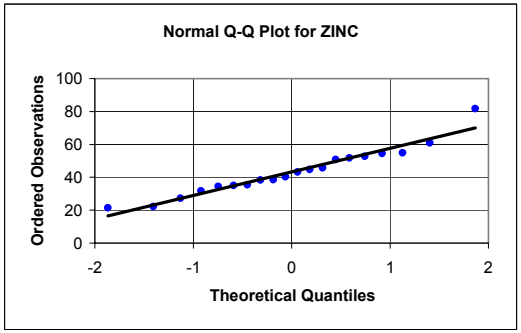
VANADIUM

Frequency of Detection	20/20
Mean	25.1
Standard Deviation	5.41
Slope =	5.50
Y Intercept =	25.1
Correlation =	0.981
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are normal	



ZINC

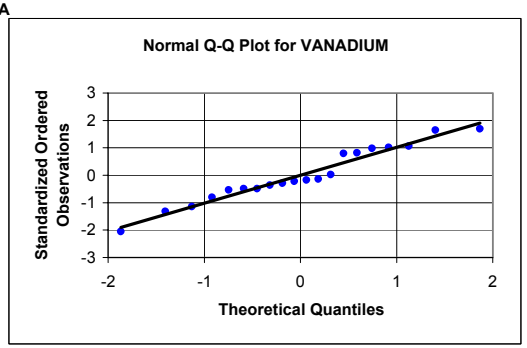
Frequency of Detection	20/20
Mean	43.3
Standard Deviation	14.2
Slope =	14.4
Y Intercept =	43.3
Correlation =	0.971
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are normal	



NORMAL - STANDARDIZED DATA

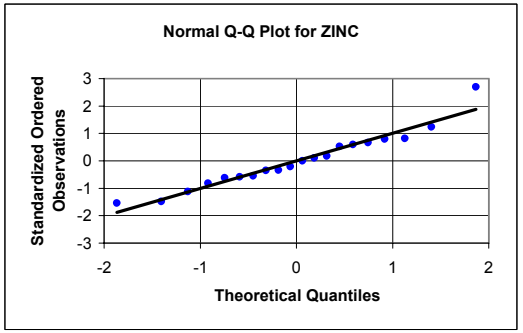
VANADIUM

Frequency of Detection	20/20
Mean	25.1
Standard Deviation	5.41
Slope =	1.02
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.958
Crtitical Value	0.905
Data are normal	



ZINC

Frequency of Detection	20/20
Mean	43.3
Standard Deviation	14.2
Slope =	1.01
Y Intercept =	0
Correlation =	0.971
Shapiro-Wilks Statistics	0.951
Crtitical Value	0.905
Data are normal	

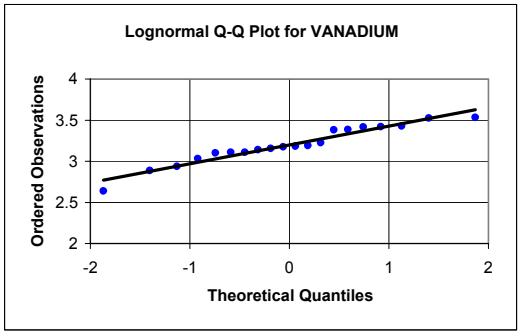


APPENDIX E, FIGURE E5-10
PROBABILITY PLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

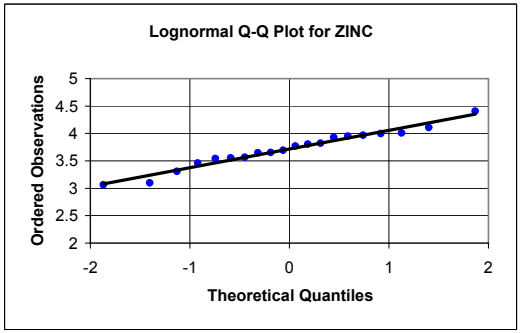
VANADIUM

Frequency of Detection	20/20
Mean	3.20
Standard Deviation	0.226
Slope =	0.228
Y Intercept =	3.20
Correlation =	0.972
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are lognormal	



ZINC

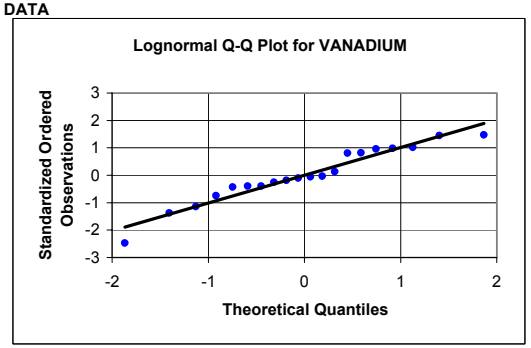
Frequency of Detection	20/20
Mean	3.72
Standard Deviation	0.333
Slope =	0.341
Y Intercept =	3.72
Correlation =	0.986
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.905
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

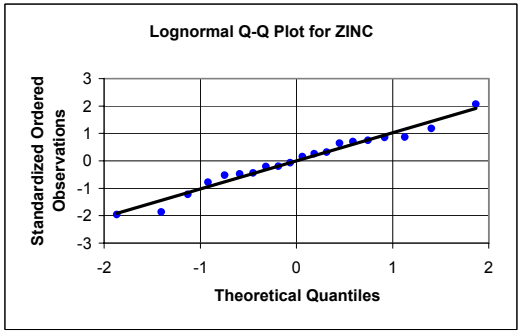
VANADIUM

Frequency of Detection	20/20
Mean	3.20
Standard Deviation	0.226
Slope =	1.01
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.947
Crtitical Value	0.905
Data are lognormal	



ZINC

Frequency of Detection	20/20
Mean	3.72
Standard Deviation	0.333
Slope =	1.02
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.975
Crtitical Value	0.905
Data are lognormal	

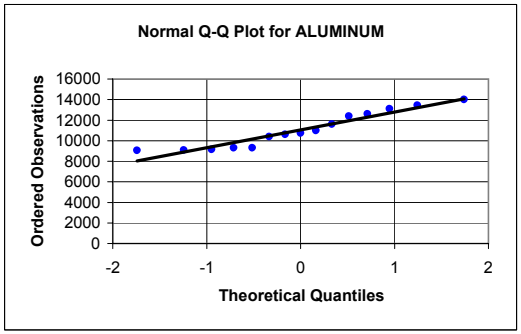


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

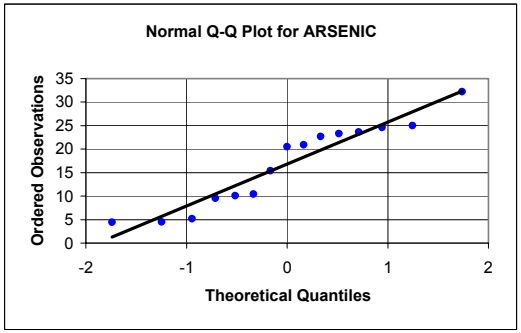
ALUMINUM

Frequency of Detection	15/15
Mean	11053
Standard Deviation	1721
Slope =	1738
Y Intercept =	11053
Correlation =	0.964
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.881
Data are normal	



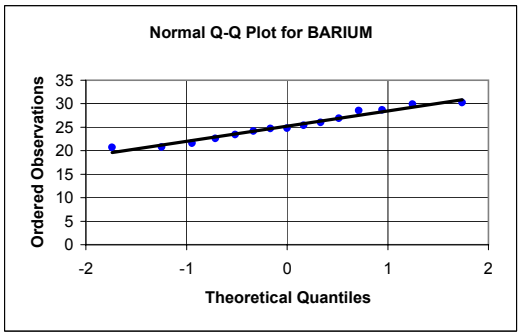
ARSENIC

Frequency of Detection	15/15
Mean	16.8
Standard Deviation	8.86
Slope =	8.94
Y Intercept =	16.8
Correlation =	0.963
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.881
Data are normal	



BARIUM

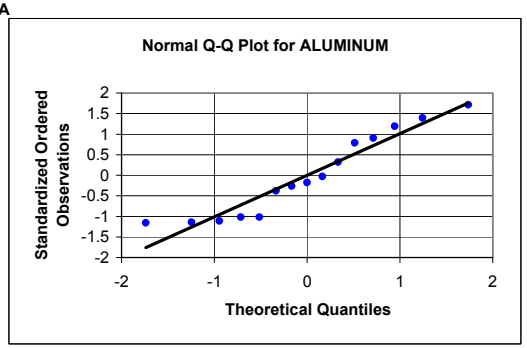
Frequency of Detection	15/15
Mean	25.2
Standard Deviation	3.14
Slope =	3.24
Y Intercept =	25.2
Correlation =	0.985
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA

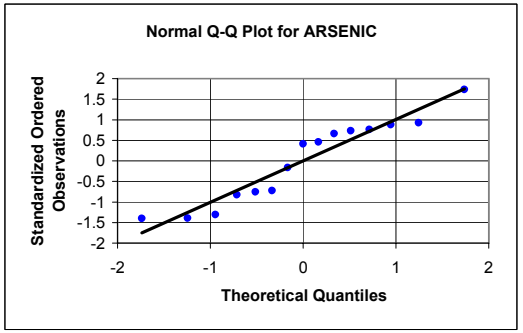
ALUMINUM

Frequency of Detection	15/15
Mean	11053
Standard Deviation	1721
Slope =	1.01
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.881
Data are normal	



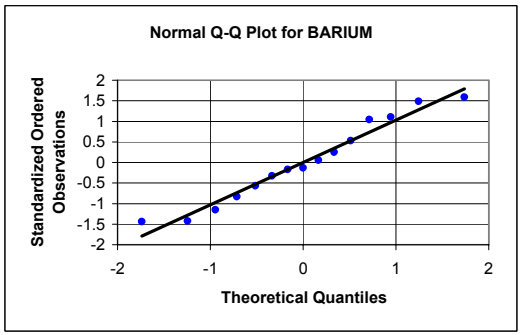
ARSENIC

Frequency of Detection	15/15
Mean	16.8
Standard Deviation	8.86
Slope =	1.01
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.913
Crtitical Value	0.881
Data are normal	



BARIUM

Frequency of Detection	15/15
Mean	25.2
Standard Deviation	3.14
Slope =	1.03
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.950
Crtitical Value	0.881
Data are normal	

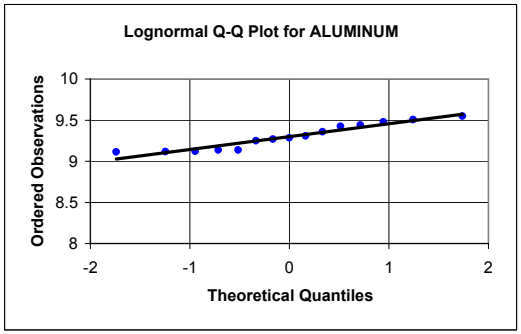


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

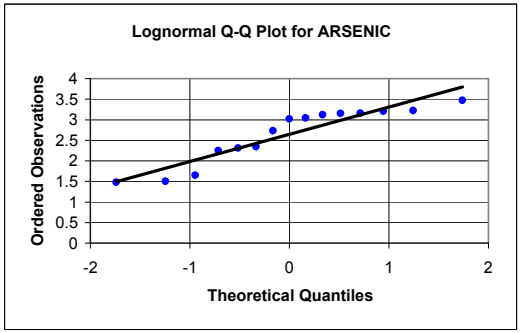
ALUMINUM

Frequency of Detection	15/15
Mean	9.30
Standard Deviation	0.154
Slope =	0.156
Y Intercept =	9.30
Correlation =	0.965
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.881
Data are lognormal	



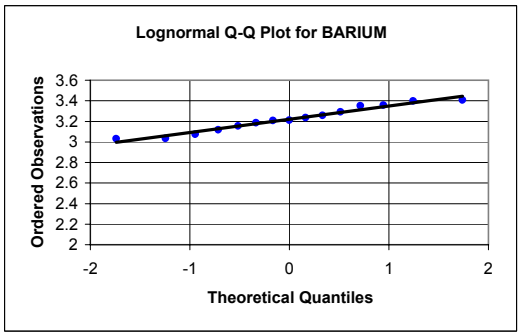
ARSENIC

Frequency of Detection	15/15
Mean	2.64
Standard Deviation	0.675
Slope =	0.662
Y Intercept =	2.64
Correlation =	0.937
Shapiro-Wilks Statistics	0.862
Crtitical Value	0.881
Data are not lognormal	



BARIUM

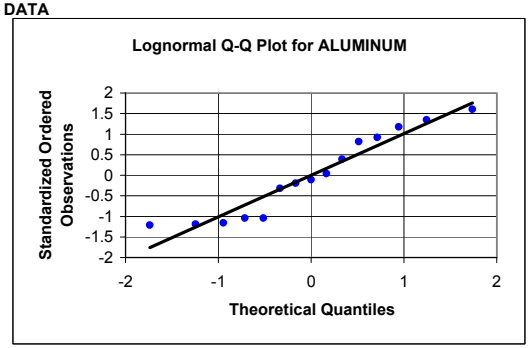
Frequency of Detection	15/15
Mean	3.22
Standard Deviation	0.125
Slope =	0.129
Y Intercept =	3.22
Correlation =	0.986
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

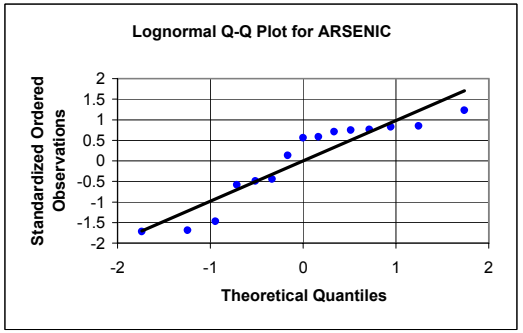
ALUMINUM

Frequency of Detection	15/15
Mean	9.30
Standard Deviation	0.154
Slope =	1.01
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.881
Data are lognormal	



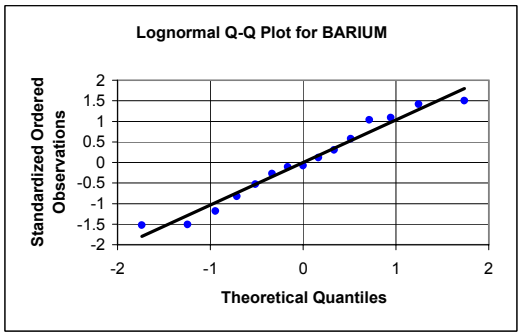
ARSENIC

Frequency of Detection	15/15
Mean	2.64
Standard Deviation	0.675
Slope =	0.981
Y Intercept =	0
Correlation =	0.937
Shapiro-Wilks Statistics	0.862
Crtitical Value	0.881
Data are not lognormal	



BARIUM

Frequency of Detection	15/15
Mean	3.22
Standard Deviation	0.125
Slope =	1.03
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are lognormal	

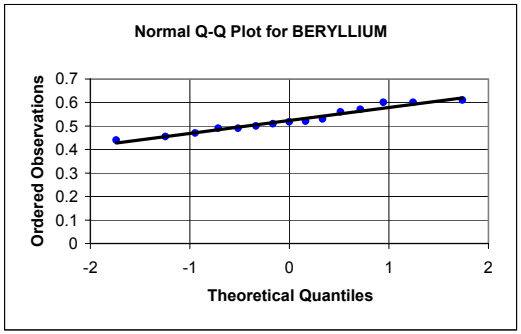


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

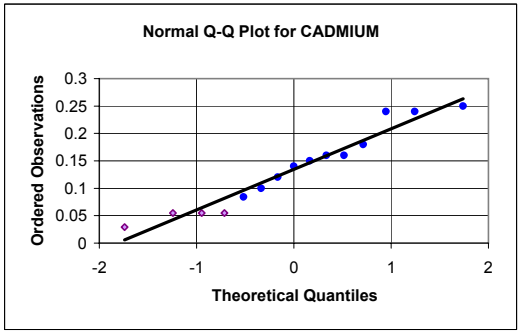
BERYLLIUM

Frequency of Detection	15/15
Mean	0.524
Standard Deviation	0.054
Slope =	0.055
Y Intercept =	0.524
Correlation =	0.982
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.881
Data are normal	



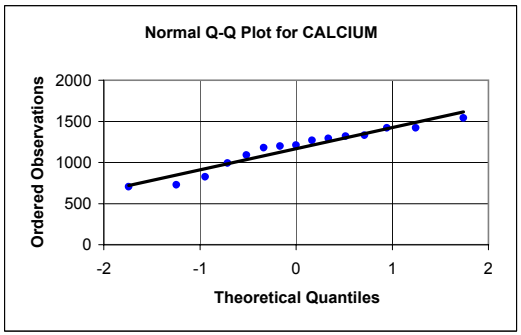
CADMIUM

Frequency of Detection	11/15
Mean	0.135
Standard Deviation	0.072
Slope =	0.074
Y Intercept =	0.135
Correlation =	0.975
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.881
Data are normal	



CALCIUM

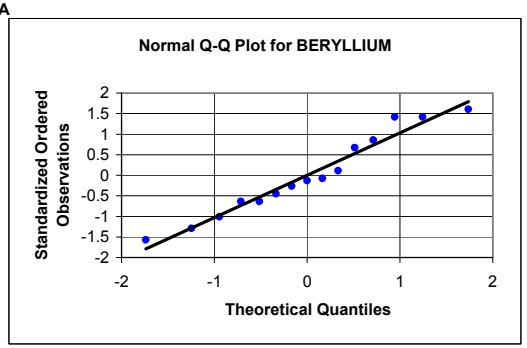
Frequency of Detection	15/15
Mean	1168
Standard Deviation	255
Slope =	257
Y Intercept =	1168
Correlation =	0.966
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA

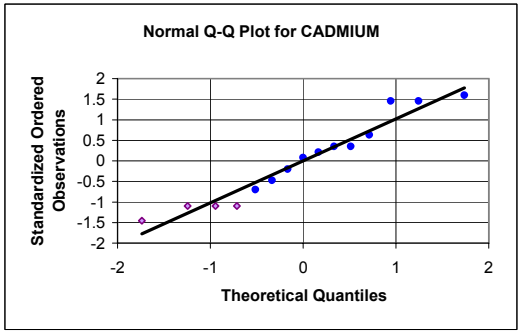
BERYLLIUM

Frequency of Detection	15/15
Mean	0.524
Standard Deviation	0.054
Slope =	1.03
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.881
Data are normal	



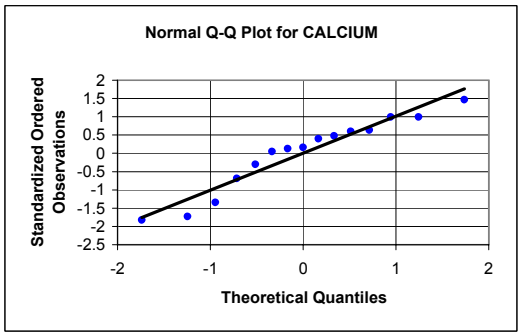
CADMIUM

Frequency of Detection	11/15
Mean	0.135
Standard Deviation	0.072
Slope =	1.02
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.881
Data are normal	



CALCIUM

Frequency of Detection	15/15
Mean	1168
Standard Deviation	255
Slope =	1.01
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.881
Data are normal	

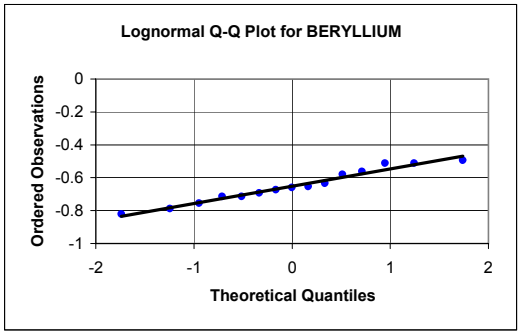


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

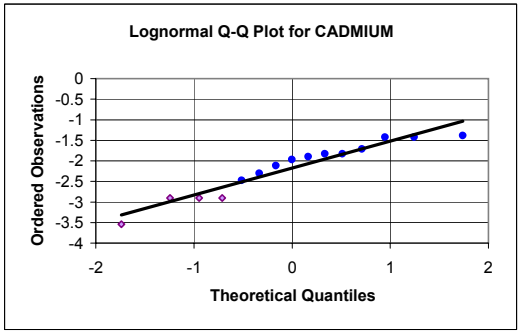
BERYLLIUM

Frequency of Detection	15/15
Mean	-0.651
Standard Deviation	0.102
Slope =	0.105
Y Intercept =	-0.651
Correlation =	0.985
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.881
Data are lognormal	



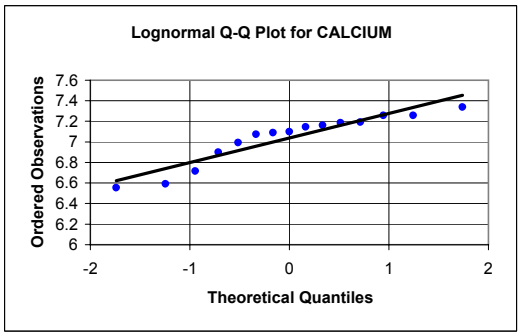
CADMIUM

Frequency of Detection	11/15
Mean	-2.175
Standard Deviation	0.647
Slope =	0.654
Y Intercept =	-2.175
Correlation =	0.965
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.881
Data are lognormal	



CALCIUM

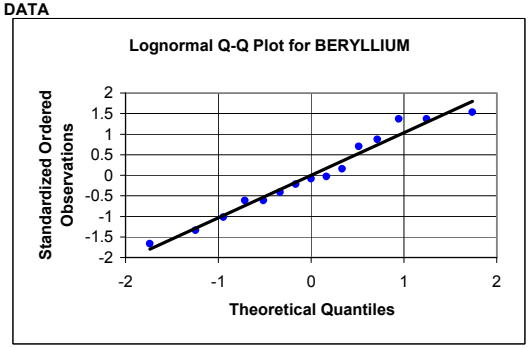
Frequency of Detection	15/15
Mean	7.04
Standard Deviation	0.243
Slope =	0.239
Y Intercept =	7.04
Correlation =	0.941
Shapiro-Wilks Statistics	0.877
Crtitical Value	0.881
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

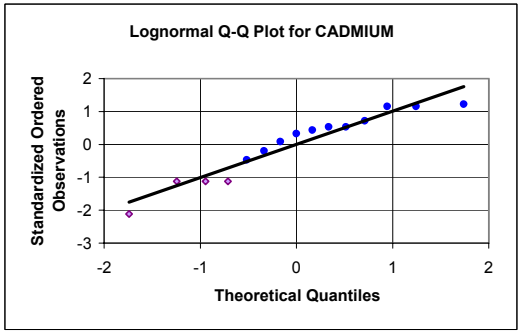
BERYLLIUM

Frequency of Detection	15/15
Mean	-0.651
Standard Deviation	0.102
Slope =	1.03
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.881
Data are lognormal	



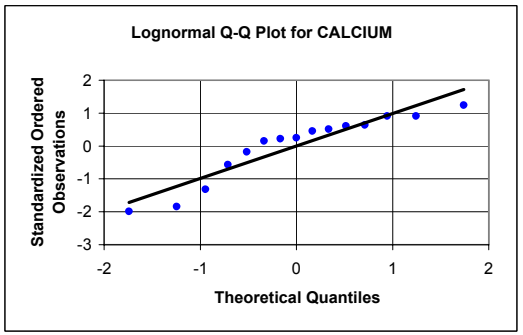
CADMIUM

Frequency of Detection	11/15
Mean	-2.175
Standard Deviation	0.647
Slope =	1.01
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.922
Crtitical Value	0.881
Data are lognormal	



CALCIUM

Frequency of Detection	15/15
Mean	7.04
Standard Deviation	0.243
Slope =	0.985
Y Intercept =	0
Correlation =	0.941
Shapiro-Wilks Statistics	0.877
Crtitical Value	0.881
Data are not lognormal	

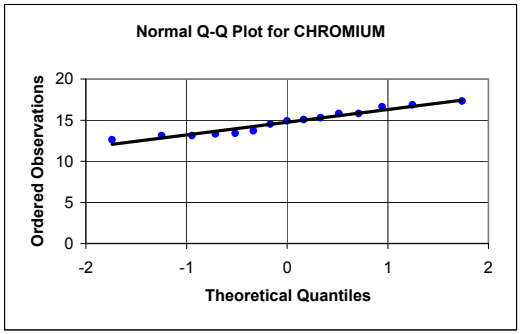


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

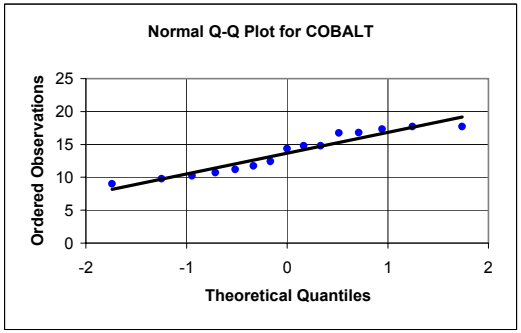
CHROMIUM

Frequency of Detection	15/15
Mean	14.8
Standard Deviation	1.51
Slope =	1.55
Y Intercept =	14.8
Correlation =	0.978
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.881
Data are normal	



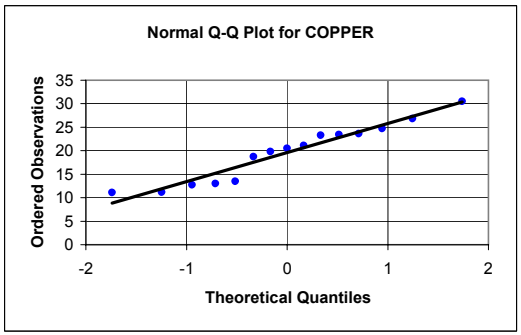
COBALT

Frequency of Detection	15/15
Mean	13.7
Standard Deviation	3.13
Slope =	3.16
Y Intercept =	13.7
Correlation =	0.964
Shapiro-Wilks Statistics	0.904
Crtitical Value	0.881
Data are normal	



COPPER

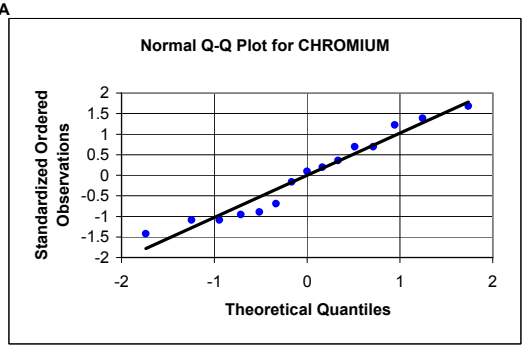
Frequency of Detection	15/15
Mean	19.6
Standard Deviation	6.07
Slope =	6.18
Y Intercept =	19.6
Correlation =	0.973
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA

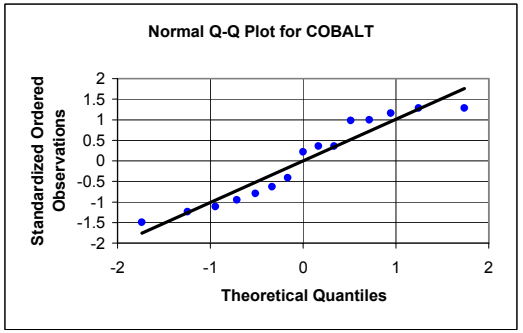
CHROMIUM

Frequency of Detection	15/15
Mean	14.8
Standard Deviation	1.51
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.939
Crtitical Value	0.881
Data are normal	



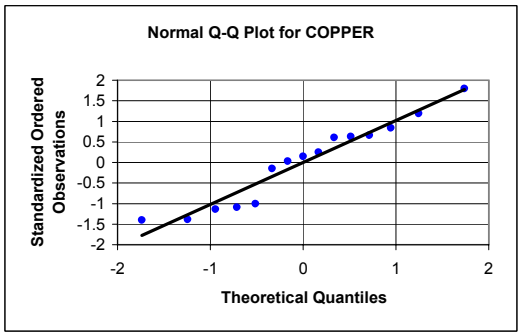
COBALT

Frequency of Detection	15/15
Mean	13.7
Standard Deviation	3.13
Slope =	1.01
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.904
Crtitical Value	0.881
Data are normal	



COPPER

Frequency of Detection	15/15
Mean	19.6
Standard Deviation	6.07
Slope =	1.02
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.881
Data are normal	

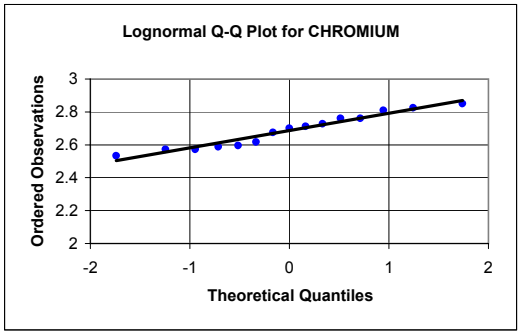


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

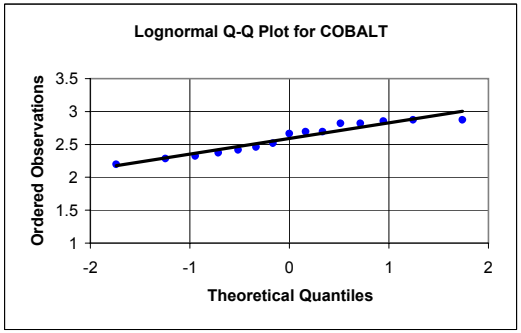
CHROMIUM

Frequency of Detection	15/15
Mean	2.69
Standard Deviation	0.102
Slope =	0.105
Y Intercept =	2.69
Correlation =	0.979
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.881
Data are lognormal	



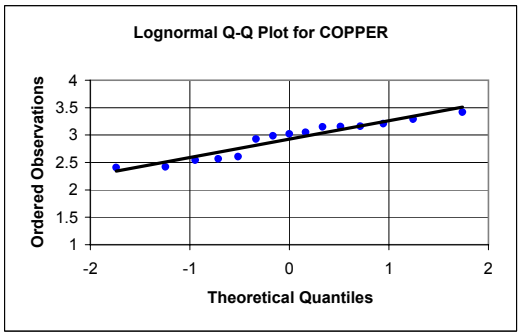
COBALT

Frequency of Detection	15/15
Mean	2.59
Standard Deviation	0.237
Slope =	0.239
Y Intercept =	2.59
Correlation =	0.964
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.881
Data are lognormal	



COPPER

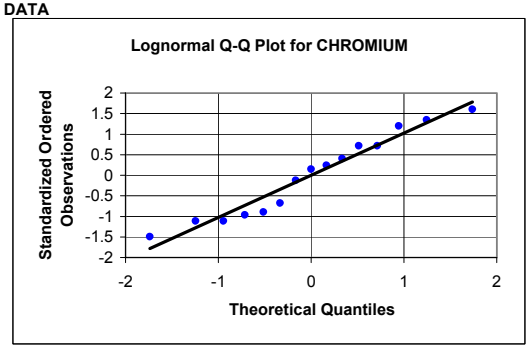
Frequency of Detection	15/15
Mean	2.93
Standard Deviation	0.333
Slope =	0.334
Y Intercept =	2.93
Correlation =	0.960
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

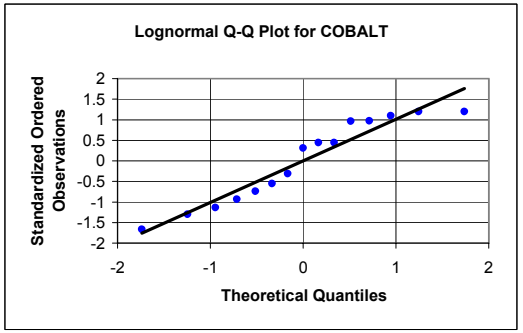
CHROMIUM

Frequency of Detection	15/15
Mean	2.69
Standard Deviation	0.102
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.941
Crtitical Value	0.881
Data are lognormal	



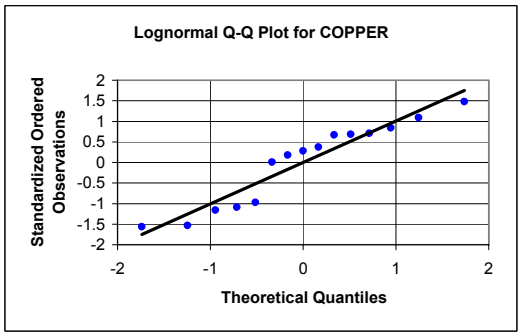
COBALT

Frequency of Detection	15/15
Mean	2.59
Standard Deviation	0.237
Slope =	1.01
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.907
Crtitical Value	0.881
Data are lognormal	



COPPER

Frequency of Detection	15/15
Mean	2.93
Standard Deviation	0.333
Slope =	1.00
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.905
Crtitical Value	0.881
Data are lognormal	

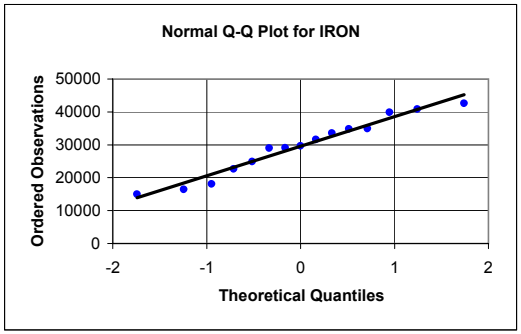


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

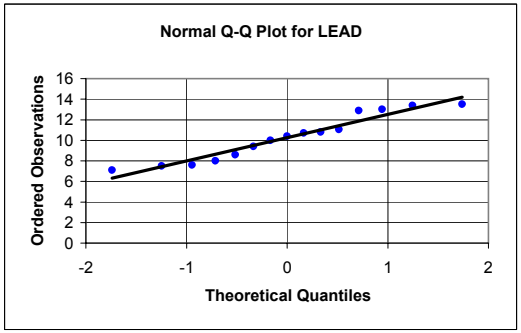
IRON

Frequency of Detection	15/15
Mean	29550
Standard Deviation	8739
Slope =	9005
Y Intercept =	29550
Correlation =	0.984
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.881
Data are normal	



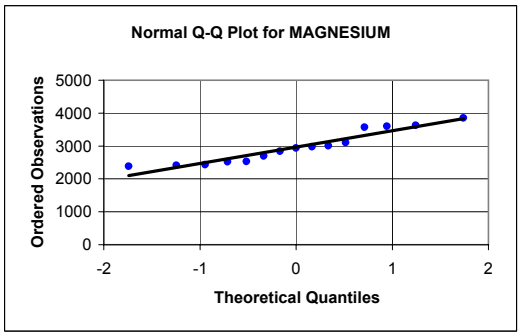
LEAD

Frequency of Detection	15/15
Mean	10.3
Standard Deviation	2.23
Slope =	2.27
Y Intercept =	10.3
Correlation =	0.972
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.881
Data are normal	



MAGNESIUM

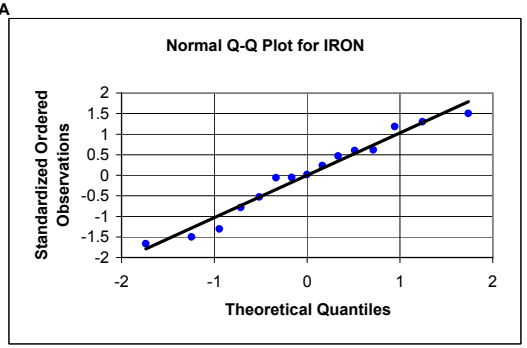
Frequency of Detection	15/15
Mean	2965
Standard Deviation	495
Slope =	498
Y Intercept =	2965
Correlation =	0.960
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA

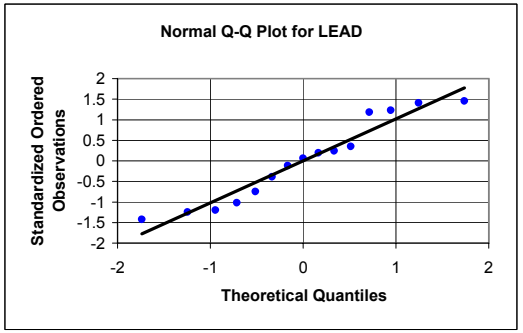
IRON

Frequency of Detection	15/15
Mean	29550
Standard Deviation	8739
Slope =	1.03
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.953
Crtitical Value	0.881
Data are normal	



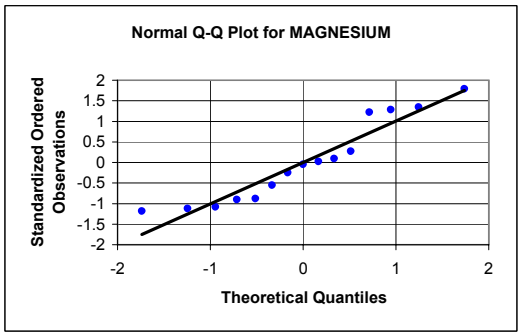
LEAD

Frequency of Detection	15/15
Mean	10.3
Standard Deviation	2.23
Slope =	1.02
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.881
Data are normal	



MAGNESIUM

Frequency of Detection	15/15
Mean	2965
Standard Deviation	495
Slope =	1.01
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.881
Data are normal	

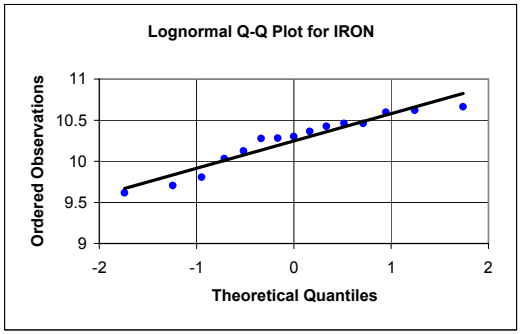


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

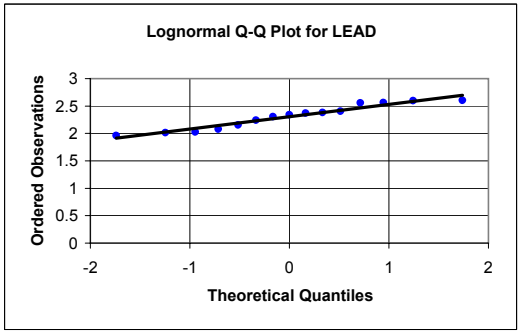
IRON

Frequency of Detection	15/15
Mean	10.2
Standard Deviation	0.329
Slope =	0.332
Y Intercept =	10.2
Correlation =	0.964
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.881
Data are lognormal	



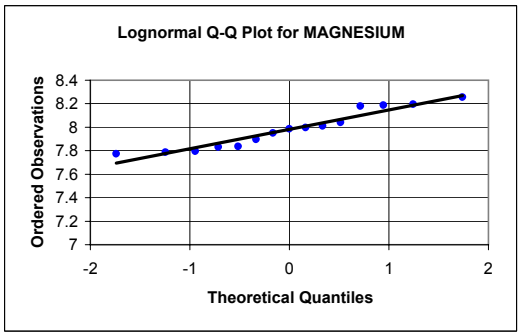
LEAD

Frequency of Detection	15/15
Mean	2.31
Standard Deviation	0.221
Slope =	0.225
Y Intercept =	2.31
Correlation =	0.974
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.881
Data are lognormal	



MAGNESIUM

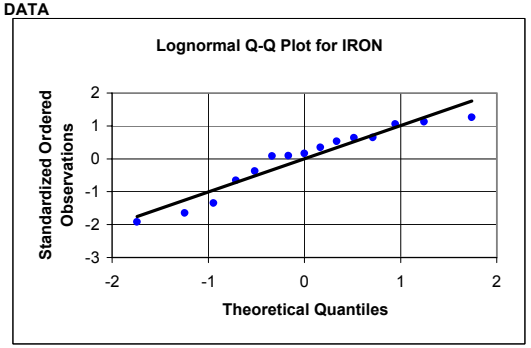
Frequency of Detection	15/15
Mean	7.98
Standard Deviation	0.164
Slope =	0.166
Y Intercept =	7.98
Correlation =	0.967
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

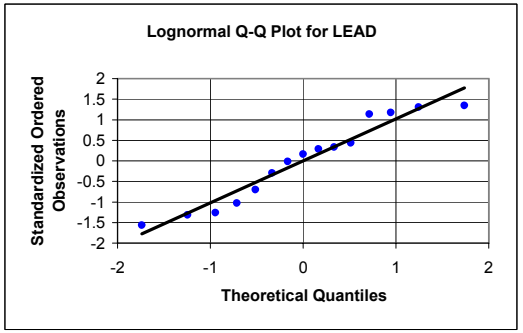
IRON

Frequency of Detection	15/15
Mean	10.2
Standard Deviation	0.329
Slope =	1.01
Y Intercept =	0
Correlation =	0.964
Shapiro-Wilks Statistics	0.917
Crtitical Value	0.881
Data are lognormal	



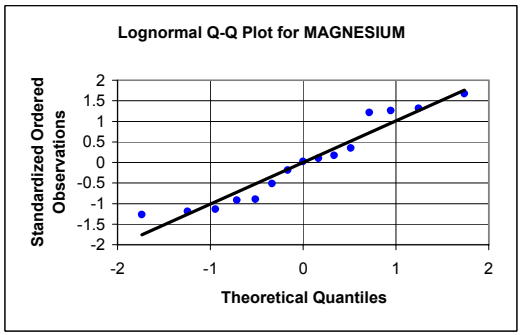
LEAD

Frequency of Detection	15/15
Mean	2.31
Standard Deviation	0.221
Slope =	1.02
Y Intercept =	0
Correlation =	0.974
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.881
Data are lognormal	



MAGNESIUM

Frequency of Detection	15/15
Mean	7.98
Standard Deviation	0.164
Slope =	1.01
Y Intercept =	0
Correlation =	0.967
Shapiro-Wilks Statistics	0.915
Crtitical Value	0.881
Data are lognormal	

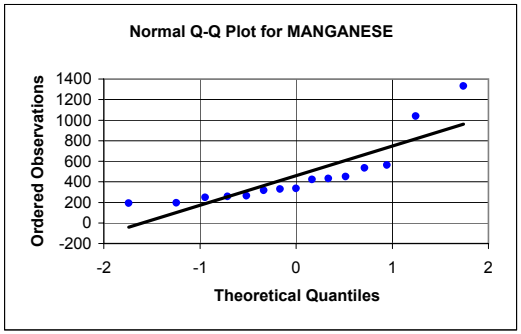


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

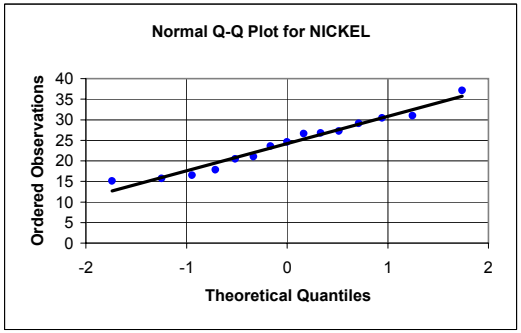
MANGANESE

Frequency of Detection	15/15
Mean	461
Standard Deviation	320
Slope =	288
Y Intercept =	461
Correlation =	0.860
Shapiro-Wilks Statistics	0.749
Crtitical Value	0.881
Data are not normal	



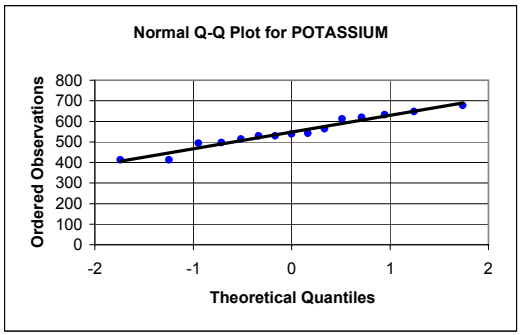
NICKEL

Frequency of Detection	15/15
Mean	24.2
Standard Deviation	6.42
Slope =	6.61
Y Intercept =	24.2
Correlation =	0.984
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.881
Data are normal	



POTASSIUM

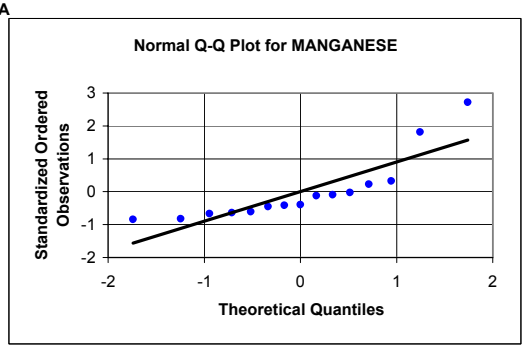
Frequency of Detection	15/15
Mean	548
Standard Deviation	79.2
Slope =	81.3
Y Intercept =	548
Correlation =	0.981
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA

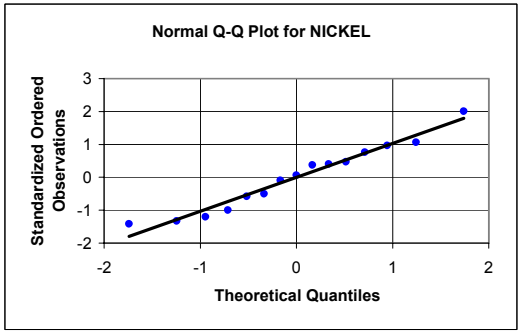
MANGANESE

Frequency of Detection	15/15
Mean	461
Standard Deviation	320
Slope =	0.901
Y Intercept =	0
Correlation =	0.860
Shapiro-Wilks Statistics	0.749
Crtitical Value	0.881
Data are not normal	



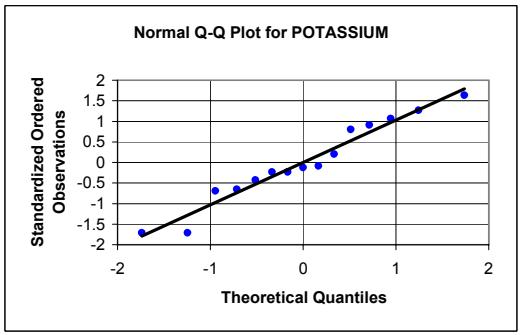
NICKEL

Frequency of Detection	15/15
Mean	24.2
Standard Deviation	6.42
Slope =	1.03
Y Intercept =	0
Correlation =	0.984
Shapiro-Wilks Statistics	0.960
Crtitical Value	0.881
Data are normal	



POTASSIUM

Frequency of Detection	15/15
Mean	548
Standard Deviation	79.2
Slope =	1.03
Y Intercept =	0
Correlation =	0.981
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are normal	

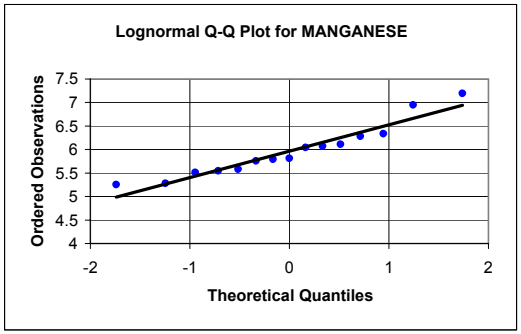


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

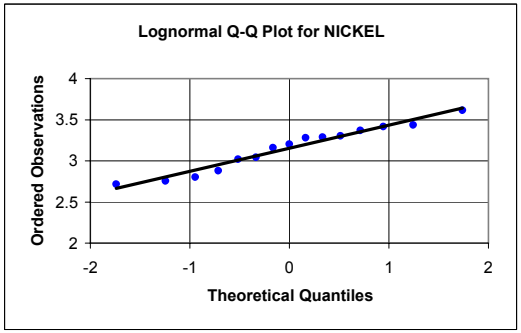
MANGANESE

Frequency of Detection	15/15
Mean	5.97
Standard Deviation	0.557
Slope =	0.562
Y Intercept =	5.97
Correlation =	0.962
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.881
Data are lognormal	



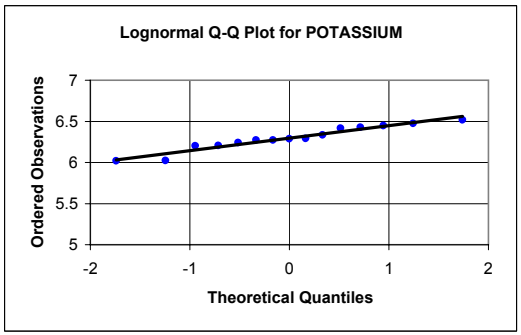
NICKEL

Frequency of Detection	15/15
Mean	3.15
Standard Deviation	0.273
Slope =	0.281
Y Intercept =	3.15
Correlation =	0.982
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are lognormal	



POTASSIUM

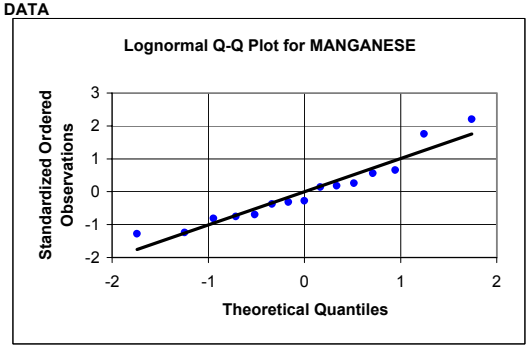
Frequency of Detection	15/15
Mean	6.30
Standard Deviation	0.149
Slope =	0.152
Y Intercept =	6.30
Correlation =	0.973
Shapiro-Wilks Statistics	0.938
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

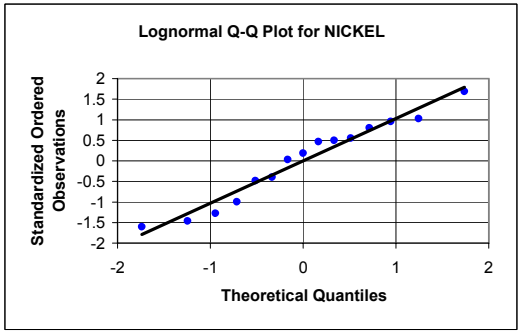
MANGANESE

Frequency of Detection	15/15
Mean	5.97
Standard Deviation	0.557
Slope =	1.01
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.923
Crtitical Value	0.881
Data are lognormal	



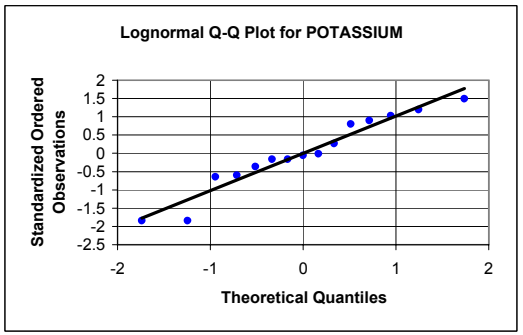
NICKEL

Frequency of Detection	15/15
Mean	3.15
Standard Deviation	0.273
Slope =	1.03
Y Intercept =	0
Correlation =	0.982
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.881
Data are lognormal	



POTASSIUM

Frequency of Detection	15/15
Mean	6.30
Standard Deviation	0.149
Slope =	1.02
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.938
Crtitical Value	0.881
Data are lognormal	

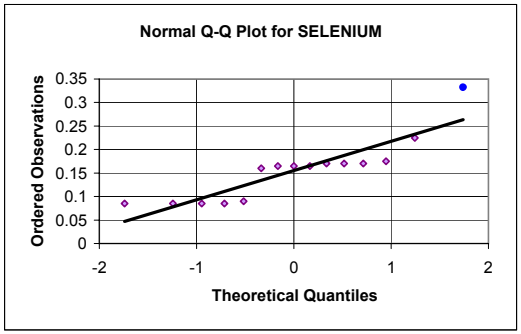


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

SELENIUM

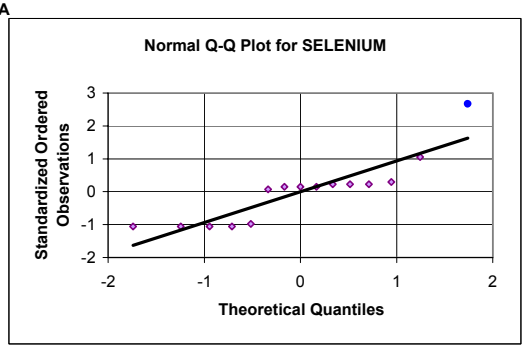
Frequency of Detection	1/15
Mean	0.155
Standard Deviation	0.066
Slope =	0.062
Y Intercept =	0.155
Correlation =	0.896
Shapiro-Wilks Statistics	0.813
Crtitical Value	0.881
Data are not normal	



NORMAL - STANDARDIZED DATA

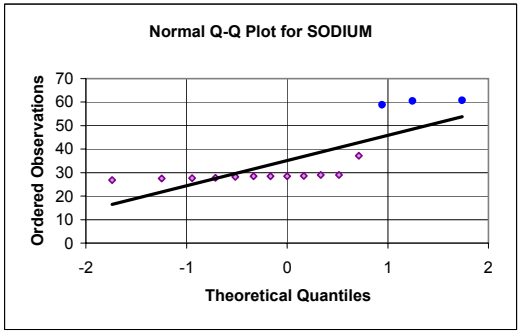
SELENIUM

Frequency of Detection	1/15
Mean	0.155
Standard Deviation	0.066
Slope =	0.939
Y Intercept =	0
Correlation =	0.896
Shapiro-Wilks Statistics	0.813
Crtitical Value	0.881
Data are not normal	



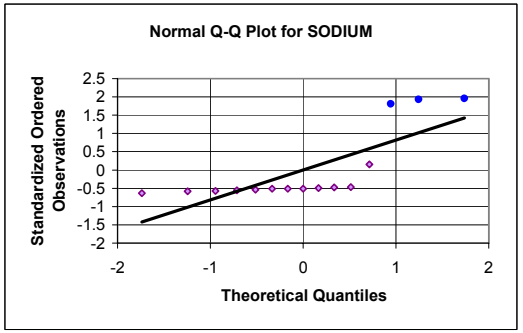
SODIUM

Frequency of Detection	3/15
Mean	35.2
Standard Deviation	13.1
Slope =	10.7
Y Intercept =	35.2
Correlation =	0.781
Shapiro-Wilks Statistics	0.603
Crtitical Value	0.881
Data are not normal	



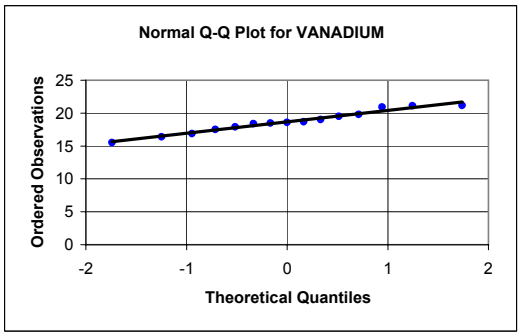
SODIUM

Frequency of Detection	3/15
Mean	35.2
Standard Deviation	13.1
Slope =	0.818
Y Intercept =	0
Correlation =	0.781
Shapiro-Wilks Statistics	0.603
Crtitical Value	0.881
Data are not normal	



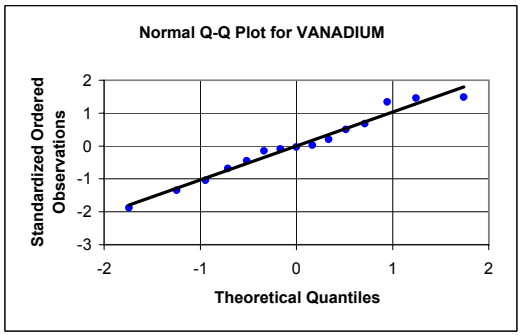
VANADIUM

Frequency of Detection	15/15
Mean	18.7
Standard Deviation	1.68
Slope =	1.74
Y Intercept =	18.7
Correlation =	0.987
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.881
Data are normal	



VANADIUM

Frequency of Detection	15/15
Mean	18.7
Standard Deviation	1.68
Slope =	1.03
Y Intercept =	0
Correlation =	0.987
Shapiro-Wilks Statistics	0.964
Crtitical Value	0.881
Data are normal	

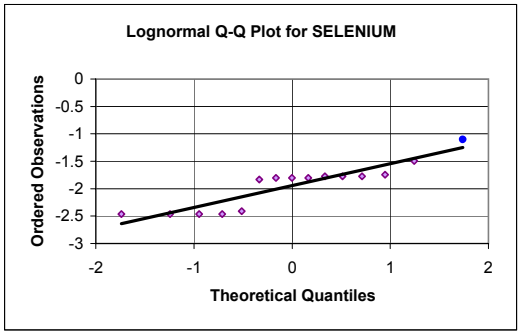


APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

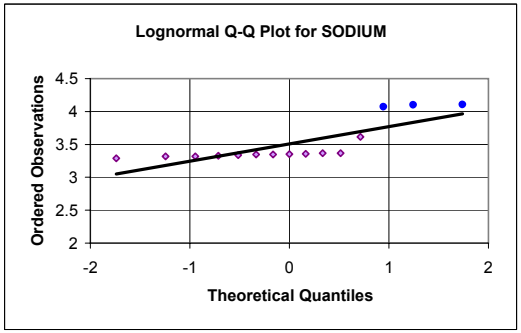
SELENIUM

Frequency of Detection	1/15
Mean	-1.944
Standard Deviation	0.416
Slope =	0.400
Y Intercept =	-1.944
Correlation =	0.920
Shapiro-Wilks Statistics	0.841
Crtitical Value	0.881
Data are not lognormal	



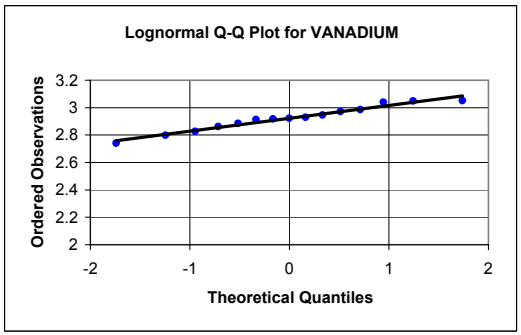
SODIUM

Frequency of Detection	3/15
Mean	3.51
Standard Deviation	0.312
Slope =	0.262
Y Intercept =	3.51
Correlation =	0.800
Shapiro-Wilks Statistics	0.632
Crtitical Value	0.881
Data are not lognormal	



VANADIUM

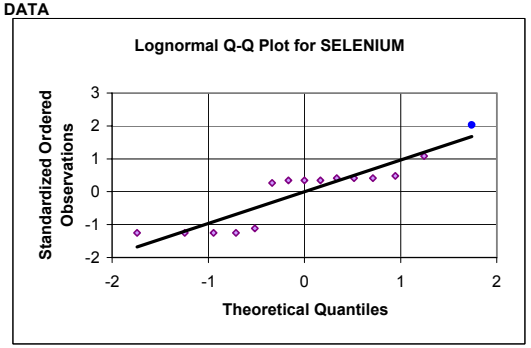
Frequency of Detection	15/15
Mean	2.92
Standard Deviation	0.091
Slope =	0.094
Y Intercept =	2.92
Correlation =	0.985
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

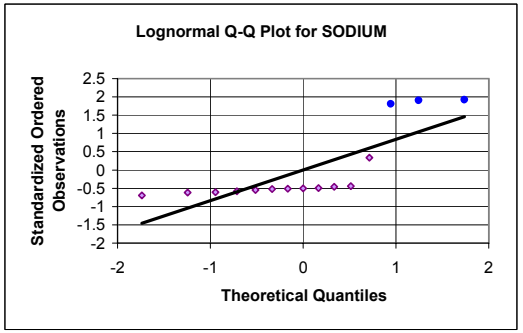
SELENIUM

Frequency of Detection	1/15
Mean	-1.944
Standard Deviation	0.416
Slope =	0.963
Y Intercept =	0
Correlation =	0.920
Shapiro-Wilks Statistics	0.841
Crtitical Value	0.881
Data are not lognormal	



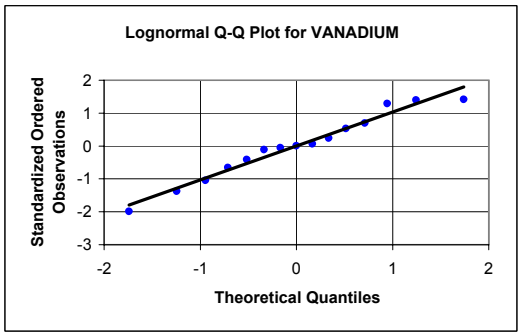
SODIUM

Frequency of Detection	3/15
Mean	3.51
Standard Deviation	0.312
Slope =	0.838
Y Intercept =	0
Correlation =	0.800
Shapiro-Wilks Statistics	0.632
Crtitical Value	0.881
Data are not lognormal	



VANADIUM

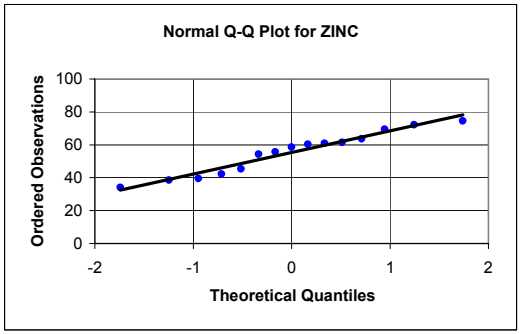
Frequency of Detection	15/15
Mean	2.92
Standard Deviation	0.091
Slope =	1.03
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.881
Data are lognormal	



APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

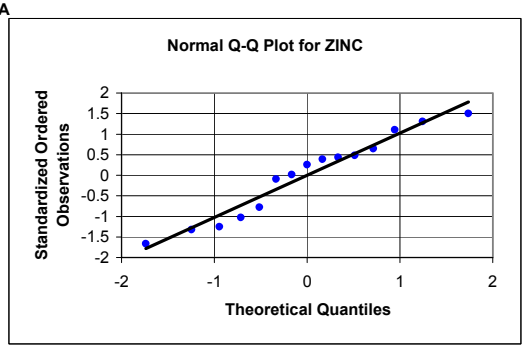
NORMAL - RAW DATA
ZINC

Frequency of Detection	15/15
Mean	55.4
Standard Deviation	12.8
Slope =	13.1
Y Intercept =	55.4
Correlation =	0.979
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.881
Data are normal	



NORMAL - STANDARDIZED DATA
ZINC

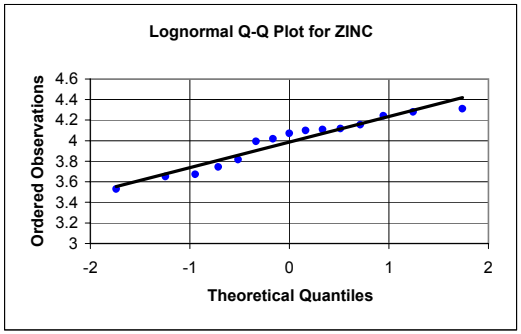
Frequency of Detection	15/15
Mean	55.4
Standard Deviation	12.8
Slope =	1.03
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.944
Crtitical Value	0.881
Data are normal	



APPENDIX E5, FIGURE E5-11
PROBABILITY PLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

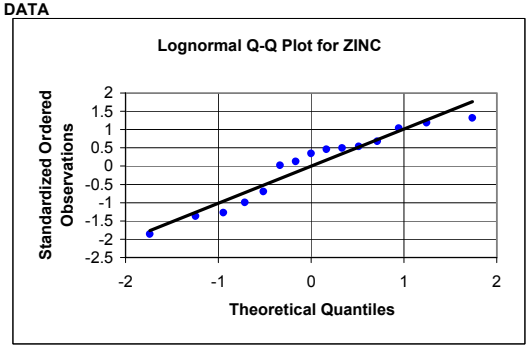
LOGNORMAL - RAW DATA
ZINC

Frequency of Detection	15/15
Mean	3.99
Standard Deviation	0.246
Slope =	0.249
Y Intercept =	3.99
Correlation =	0.968
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.881
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA
ZINC

Frequency of Detection	15/15
Mean	3.99
Standard Deviation	0.246
Slope =	1.01
Y Intercept =	0
Correlation =	0.968
Shapiro-Wilks Statistics	0.924
Crtitical Value	0.881
Data are lognormal	

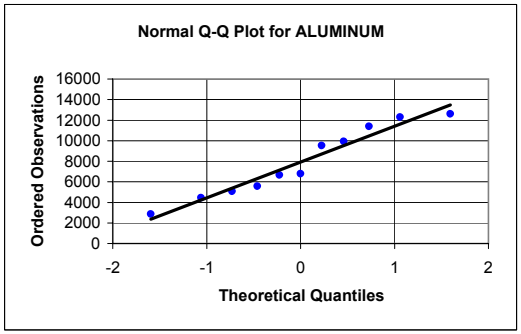


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

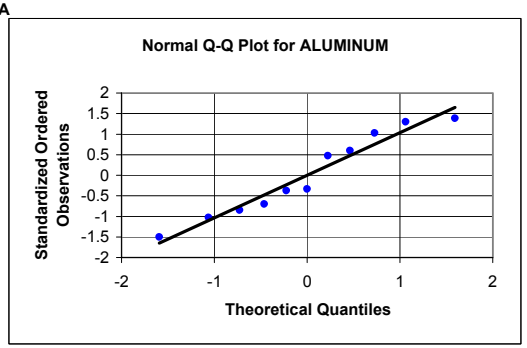
Frequency of Detection	11/11
Mean	7920
Standard Deviation	3375
Slope =	3489
Y Intercept =	7920
Correlation =	0.976
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.850
Data are normal	



NORMAL - STANDARDIZED DATA

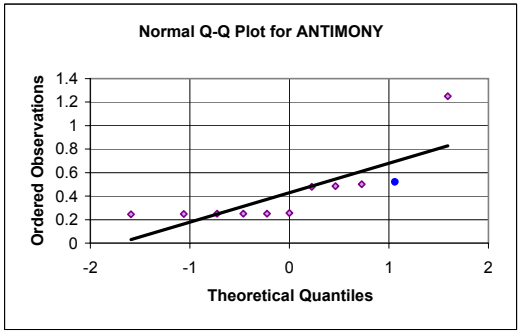
ALUMINUM

Frequency of Detection	11/11
Mean	7920
Standard Deviation	3375
Slope =	1.03
Y Intercept =	0
Correlation =	0.976
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.850
Data are normal	



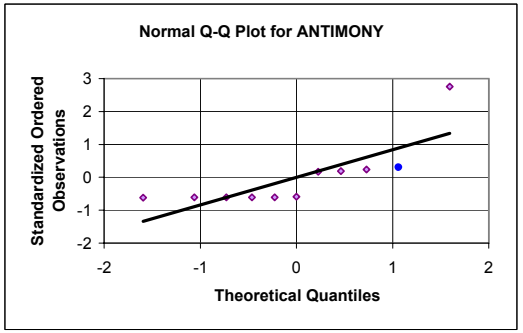
ANTIMONY

Frequency of Detection	1/11
Mean	0.430
Standard Deviation	0.298
Slope =	0.250
Y Intercept =	0.430
Correlation =	0.794
Shapiro-Wilks Statistics	0.651
Crtitical Value	0.850
Data are not normal	



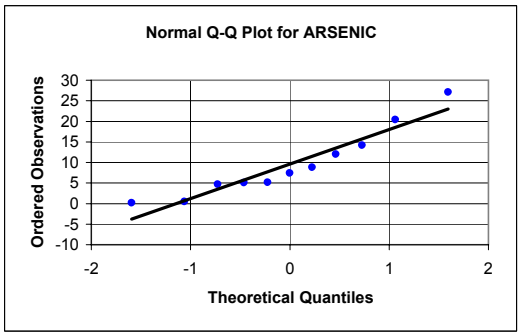
ANTIMONY

Frequency of Detection	1/11
Mean	0.430
Standard Deviation	0.298
Slope =	0.841
Y Intercept =	0
Correlation =	0.794
Shapiro-Wilks Statistics	0.651
Crtitical Value	0.850
Data are not normal	



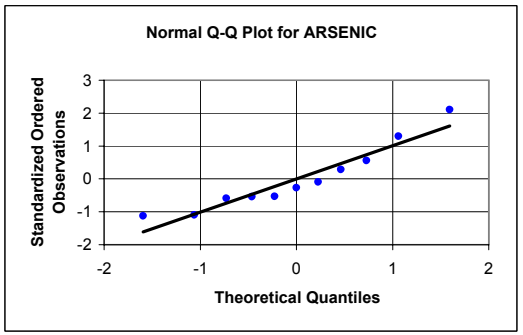
ARSENIC

Frequency of Detection	11/11
Mean	9.60
Standard Deviation	8.31
Slope =	8.40
Y Intercept =	9.60
Correlation =	0.954
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.850
Data are normal	



ARSENIC

Frequency of Detection	11/11
Mean	9.60
Standard Deviation	8.31
Slope =	1.01
Y Intercept =	0
Correlation =	0.954
Shapiro-Wilks Statistics	0.909
Crtitical Value	0.850
Data are normal	

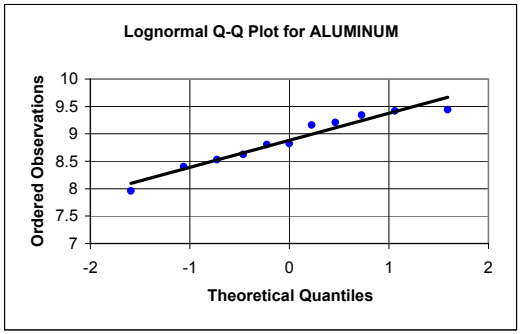


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

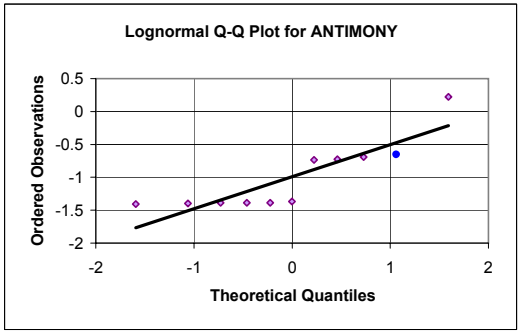
ALUMINUM

Frequency of Detection	11/11
Mean	8.88
Standard Deviation	0.477
Slope =	0.491
Y Intercept =	8.88
Correlation =	0.972
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.850
Data are lognormal	



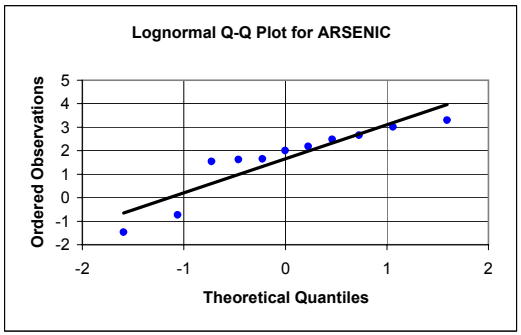
ANTIMONY

Frequency of Detection	1/11
Mean	-0.992
Standard Deviation	0.525
Slope =	0.487
Y Intercept =	-0.992
Correlation =	0.875
Shapiro-Wilks Statistics	0.767
Crtitical Value	0.850
Data are not lognormal	



ARSENIC

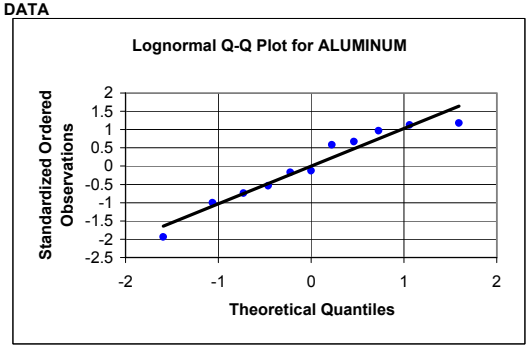
Frequency of Detection	11/11
Mean	1.66
Standard Deviation	1.49
Slope =	1.45
Y Intercept =	1.66
Correlation =	0.918
Shapiro-Wilks Statistics	0.845
Crtitical Value	0.850
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

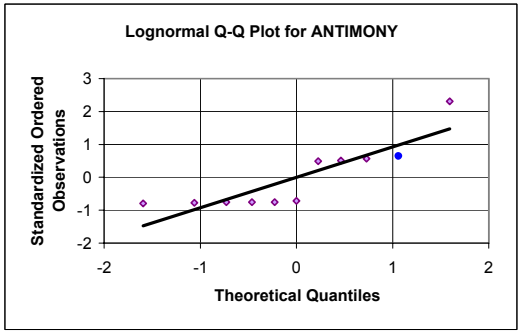
ALUMINUM

Frequency of Detection	11/11
Mean	8.88
Standard Deviation	0.477
Slope =	1.03
Y Intercept =	0
Correlation =	0.972
Shapiro-Wilks Statistics	0.935
Crtitical Value	0.850
Data are lognormal	



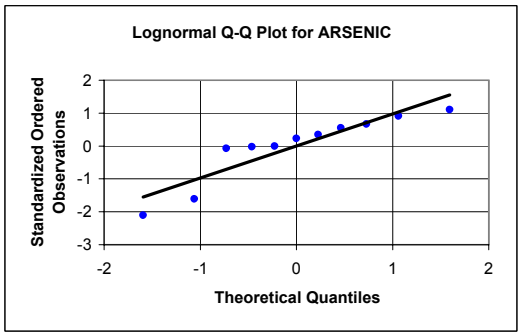
ANTIMONY

Frequency of Detection	1/11
Mean	-0.992
Standard Deviation	0.525
Slope =	0.927
Y Intercept =	0
Correlation =	0.875
Shapiro-Wilks Statistics	0.767
Crtitical Value	0.850
Data are not lognormal	



ARSENIC

Frequency of Detection	11/11
Mean	1.66
Standard Deviation	1.49
Slope =	0.973
Y Intercept =	0
Correlation =	0.918
Shapiro-Wilks Statistics	0.845
Crtitical Value	0.850
Data are not lognormal	

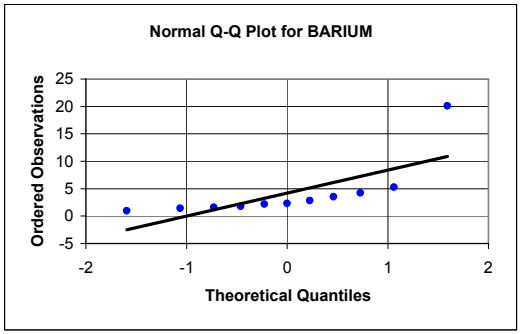


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

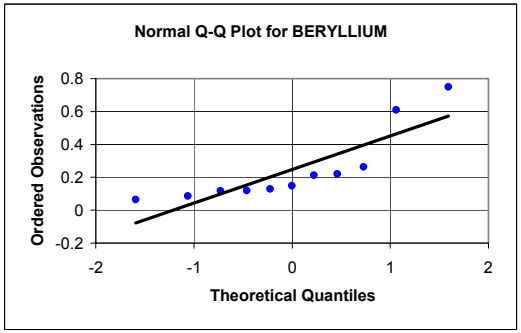
BARIUM

Frequency of Detection	11/11
Mean	4.19
Standard Deviation	5.43
Slope =	4.20
Y Intercept =	4.19
Correlation =	0.730
Shapiro-Wilks Statistics	0.563
Crtitical Value	0.850
Data are not normal	



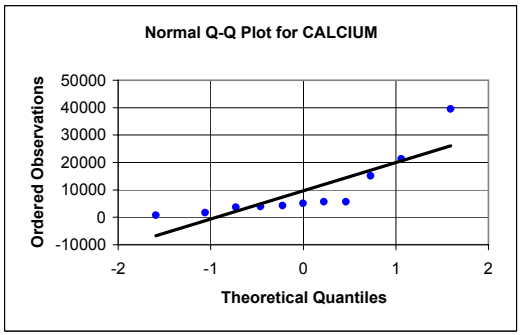
BERYLLIUM

Frequency of Detection	11/11
Mean	0.247
Standard Deviation	0.224
Slope =	0.204
Y Intercept =	0.247
Correlation =	0.859
Shapiro-Wilks Statistics	0.742
Crtitical Value	0.850
Data are not normal	



CALCIUM

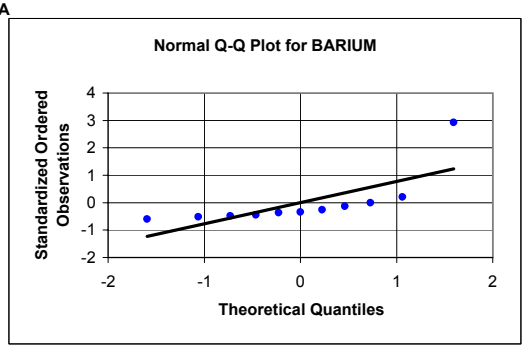
Frequency of Detection	11/11
Mean	9675
Standard Deviation	11624
Slope =	10322
Y Intercept =	9675
Correlation =	0.838
Shapiro-Wilks Statistics	0.718
Crtitical Value	0.850
Data are not normal	



NORMAL - STANDARDIZED DATA

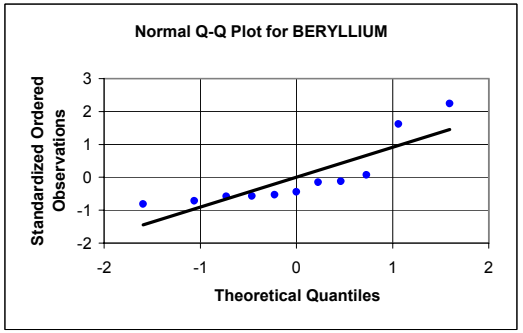
BARIUM

Frequency of Detection	11/11
Mean	4.19
Standard Deviation	5.43
Slope =	0.774
Y Intercept =	0
Correlation =	0.730
Shapiro-Wilks Statistics	0.563
Crtitical Value	0.850
Data are not normal	



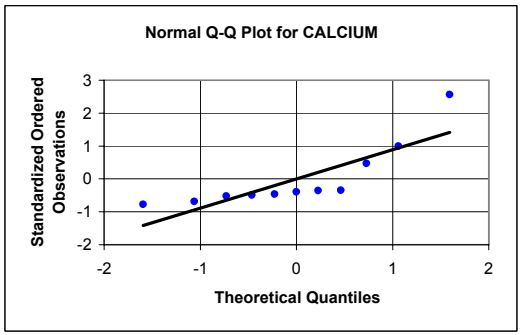
BERYLLIUM

Frequency of Detection	11/11
Mean	0.247
Standard Deviation	0.224
Slope =	0.910
Y Intercept =	0
Correlation =	0.859
Shapiro-Wilks Statistics	0.742
Crtitical Value	0.850
Data are not normal	



CALCIUM

Frequency of Detection	11/11
Mean	9675
Standard Deviation	11624
Slope =	0.888
Y Intercept =	0
Correlation =	0.838
Shapiro-Wilks Statistics	0.718
Crtitical Value	0.850
Data are not normal	

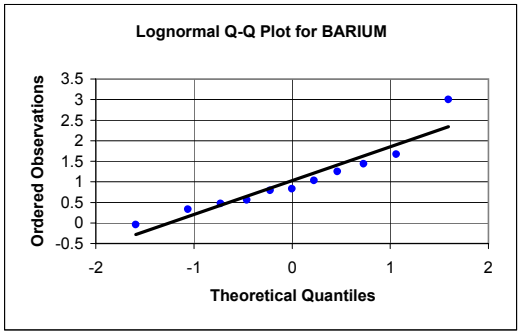


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

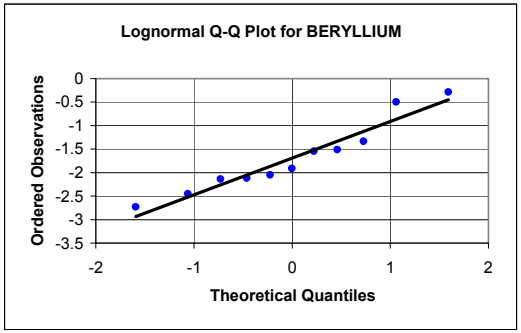
BARIUM

Frequency of Detection	11/11
Mean	1.03
Standard Deviation	0.822
Slope =	0.823
Y Intercept =	1.03
Correlation =	0.945
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.850
Data are lognormal	



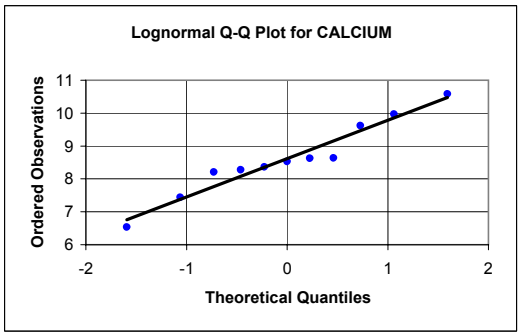
BERYLLIUM

Frequency of Detection	11/11
Mean	-1.689
Standard Deviation	0.762
Slope =	0.780
Y Intercept =	-1.689
Correlation =	0.966
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.850
Data are lognormal	



CALCIUM

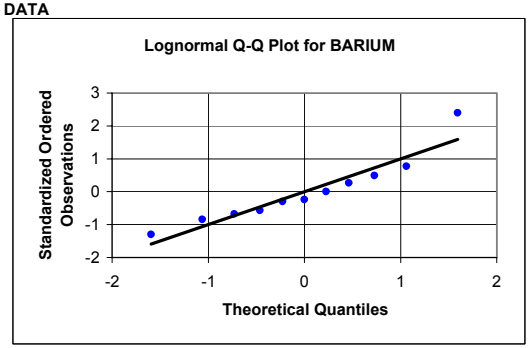
Frequency of Detection	11/11
Mean	8.62
Standard Deviation	1.13
Slope =	1.16
Y Intercept =	8.62
Correlation =	0.973
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

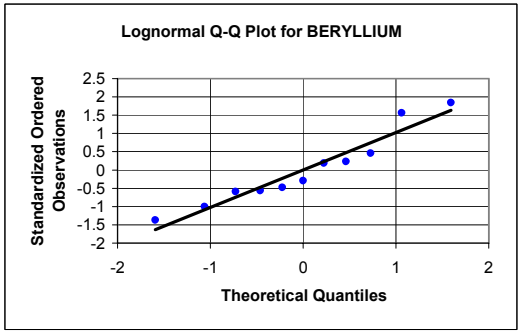
BARIUM

Frequency of Detection	11/11
Mean	1.03
Standard Deviation	0.822
Slope =	1.00
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.908
Crtitical Value	0.850
Data are lognormal	



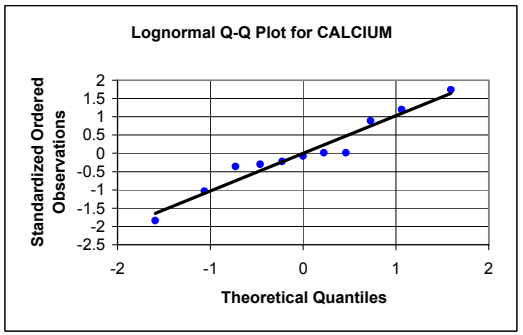
BERYLLIUM

Frequency of Detection	11/11
Mean	-1.689
Standard Deviation	0.762
Slope =	1.02
Y Intercept =	0
Correlation =	0.966
Shapiro-Wilks Statistics	0.929
Crtitical Value	0.850
Data are lognormal	



CALCIUM

Frequency of Detection	11/11
Mean	8.62
Standard Deviation	1.13
Slope =	1.03
Y Intercept =	0
Correlation =	0.973
Shapiro-Wilks Statistics	0.956
Crtitical Value	0.850
Data are lognormal	

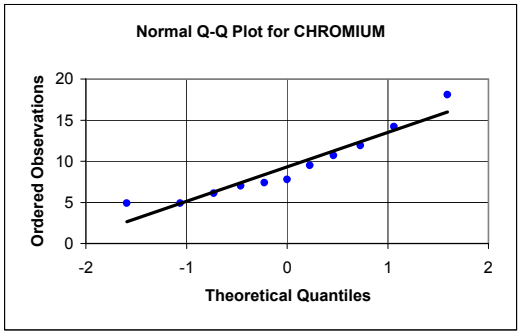


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

CHROMIUM

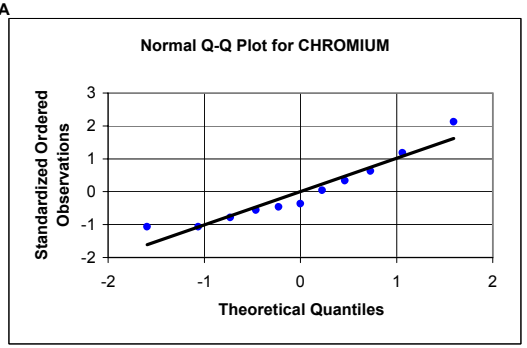
Frequency of Detection	11/11
Mean	9.32
Standard Deviation	4.13
Slope =	4.18
Y Intercept =	9.32
Correlation =	0.957
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.850
Data are normal	



NORMAL - STANDARDIZED DATA

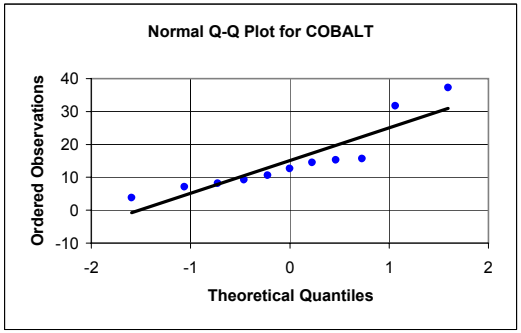
CHROMIUM

Frequency of Detection	11/11
Mean	9.32
Standard Deviation	4.13
Slope =	1.01
Y Intercept =	0
Correlation =	0.957
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.850
Data are normal	



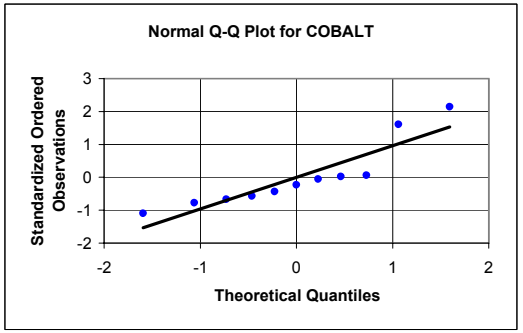
COBALT

Frequency of Detection	11/11
Mean	15.1
Standard Deviation	10.3
Slope =	9.94
Y Intercept =	15.1
Correlation =	0.908
Shapiro-Wilks Statistics	0.828
Crtitical Value	0.850
Data are not normal	



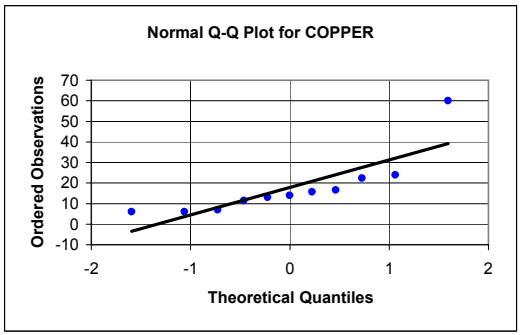
COBALT

Frequency of Detection	11/11
Mean	15.1
Standard Deviation	10.3
Slope =	0.961
Y Intercept =	0
Correlation =	0.908
Shapiro-Wilks Statistics	0.828
Crtitical Value	0.850
Data are not normal	



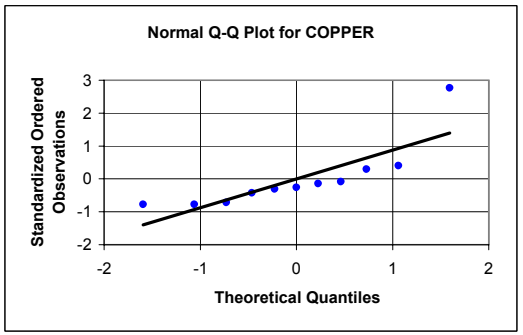
COPPER

Frequency of Detection	11/11
Mean	17.8
Standard Deviation	15.2
Slope =	13.4
Y Intercept =	17.8
Correlation =	0.829
Shapiro-Wilks Statistics	0.710
Crtitical Value	0.850
Data are not normal	



COPPER

Frequency of Detection	11/11
Mean	17.8
Standard Deviation	15.2
Slope =	0.878
Y Intercept =	0
Correlation =	0.829
Shapiro-Wilks Statistics	0.710
Crtitical Value	0.850
Data are not normal	

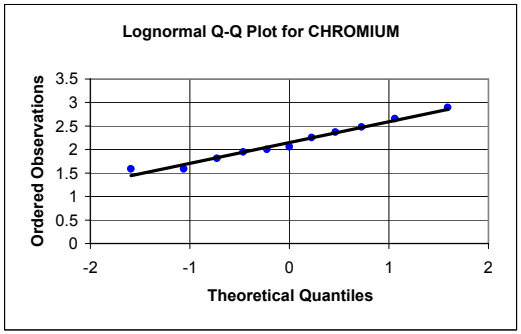


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

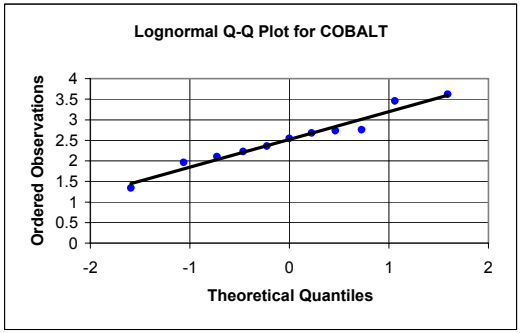
CHROMIUM

Frequency of Detection	11/11
Mean	2.15
Standard Deviation	0.424
Slope =	0.443
Y Intercept =	2.15
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.850
Data are lognormal	



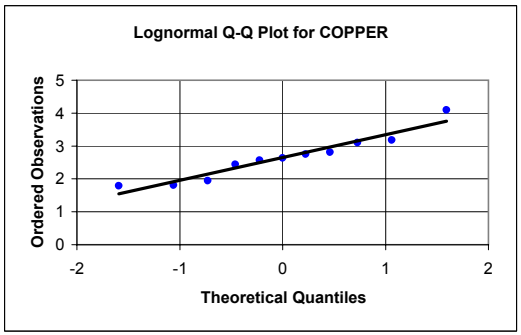
COBALT

Frequency of Detection	11/11
Mean	2.52
Standard Deviation	0.649
Slope =	0.673
Y Intercept =	2.52
Correlation =	0.980
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.850
Data are lognormal	



COPPER

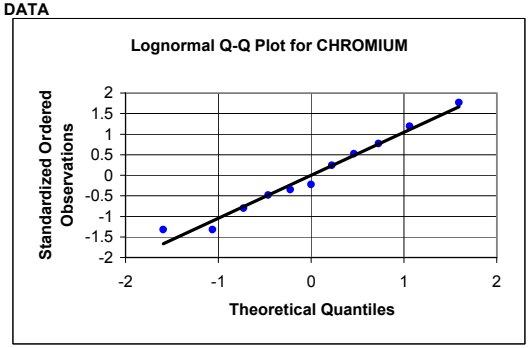
Frequency of Detection	11/11
Mean	2.65
Standard Deviation	0.678
Slope =	0.693
Y Intercept =	2.65
Correlation =	0.965
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

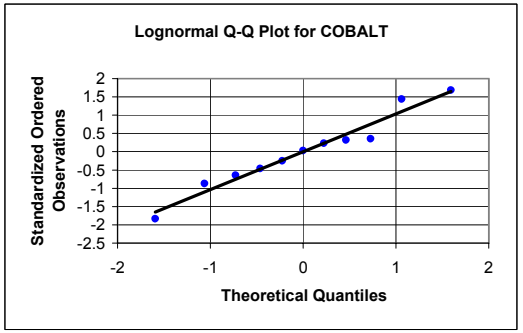
CHROMIUM

Frequency of Detection	11/11
Mean	2.15
Standard Deviation	0.424
Slope =	1.05
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.850
Data are lognormal	



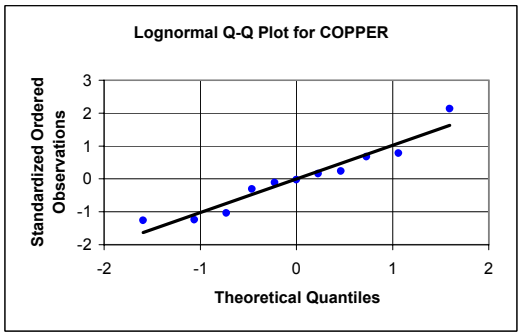
COBALT

Frequency of Detection	11/11
Mean	2.52
Standard Deviation	0.649
Slope =	1.04
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.850
Data are lognormal	



COPPER

Frequency of Detection	11/11
Mean	2.65
Standard Deviation	0.678
Slope =	1.02
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.933
Crtitical Value	0.850
Data are lognormal	

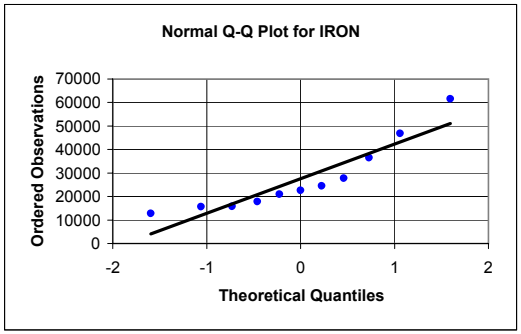


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

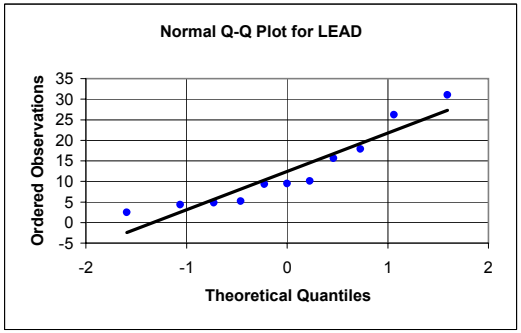
IRON

Frequency of Detection	11/11
Mean	27541
Standard Deviation	15110
Slope =	14736
Y Intercept =	27541
Correlation =	0.921
Shapiro-Wilks Statistics	0.849
Crtitical Value	0.850
Data are not normal	



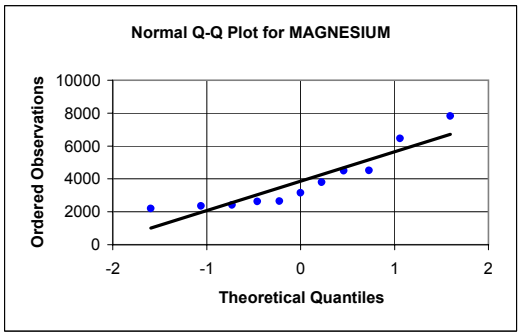
LEAD

Frequency of Detection	11/11
Mean	12.4
Standard Deviation	9.35
Slope =	9.33
Y Intercept =	12.4
Correlation =	0.942
Shapiro-Wilks Statistics	0.880
Crtitical Value	0.850
Data are normal	



MAGNESIUM

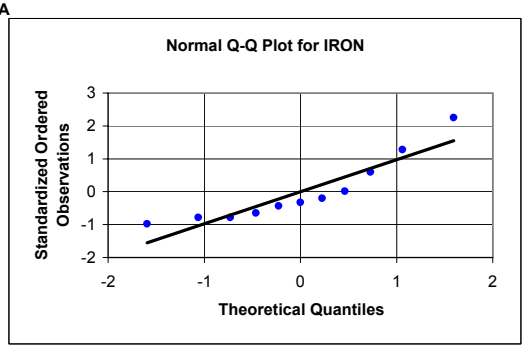
Frequency of Detection	11/11
Mean	3865
Standard Deviation	1843
Slope =	1792
Y Intercept =	3865
Correlation =	0.918
Shapiro-Wilks Statistics	0.838
Crtitical Value	0.850
Data are not normal	



NORMAL - STANDARDIZED DATA

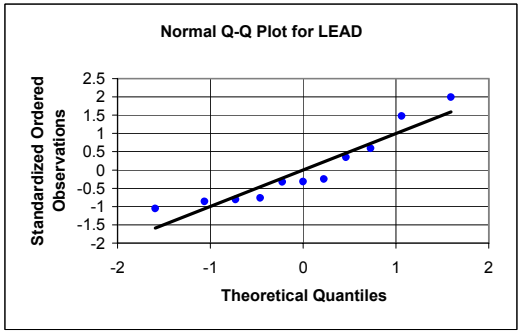
IRON

Frequency of Detection	11/11
Mean	27541
Standard Deviation	15110
Slope =	0.975
Y Intercept =	0
Correlation =	0.921
Shapiro-Wilks Statistics	0.849
Crtitical Value	0.850
Data are not normal	



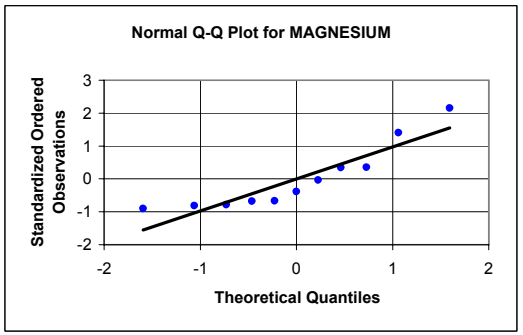
LEAD

Frequency of Detection	11/11
Mean	12.4
Standard Deviation	9.35
Slope =	0.998
Y Intercept =	0
Correlation =	0.942
Shapiro-Wilks Statistics	0.880
Crtitical Value	0.850
Data are normal	



MAGNESIUM

Frequency of Detection	11/11
Mean	3865
Standard Deviation	1843
Slope =	0.973
Y Intercept =	0
Correlation =	0.918
Shapiro-Wilks Statistics	0.838
Crtitical Value	0.850
Data are not normal	

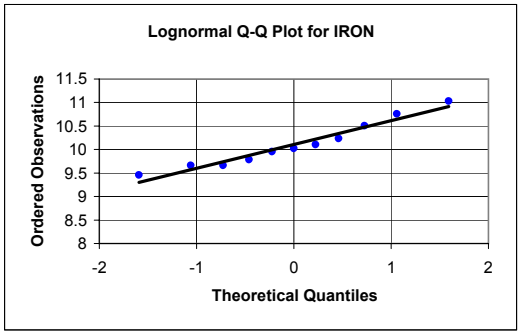


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

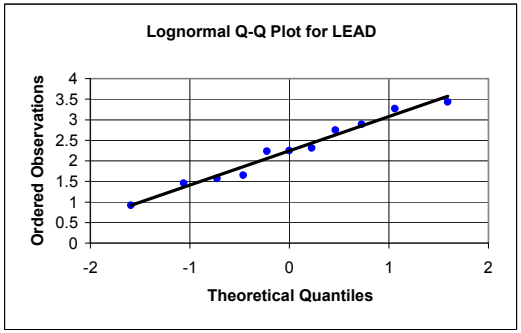
IRON

Frequency of Detection	11/11
Mean	10.1
Standard Deviation	0.489
Slope =	0.507
Y Intercept =	10.1
Correlation =	0.978
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.850
Data are lognormal	



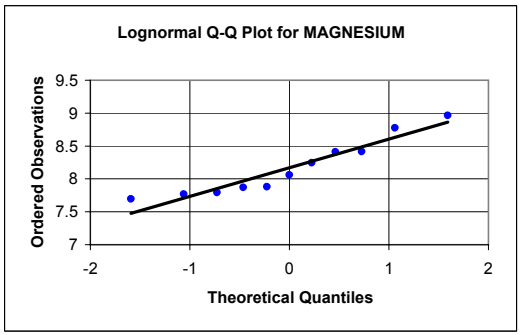
LEAD

Frequency of Detection	11/11
Mean	2.25
Standard Deviation	0.795
Slope =	0.832
Y Intercept =	2.25
Correlation =	0.988
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.850
Data are lognormal	



MAGNESIUM

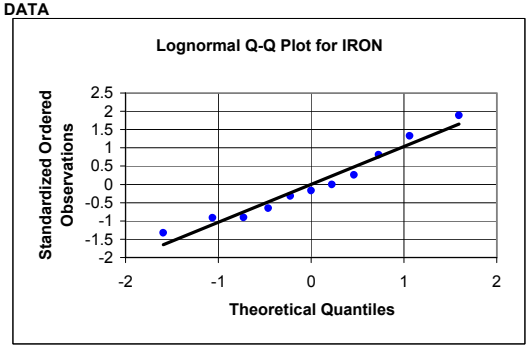
Frequency of Detection	11/11
Mean	8.17
Standard Deviation	0.429
Slope =	0.435
Y Intercept =	8.17
Correlation =	0.958
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

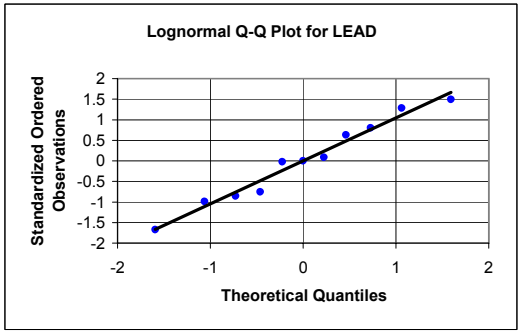
IRON

Frequency of Detection	11/11
Mean	10.1
Standard Deviation	0.489
Slope =	1.04
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.850
Data are lognormal	



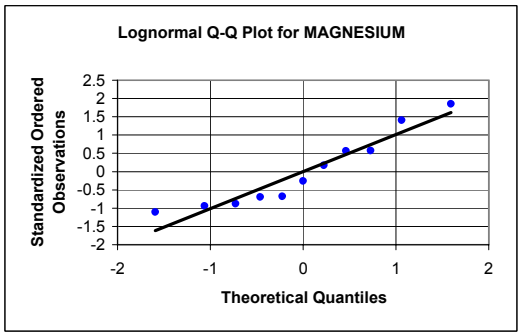
LEAD

Frequency of Detection	11/11
Mean	2.25
Standard Deviation	0.795
Slope =	1.05
Y Intercept =	0
Correlation =	0.988
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.850
Data are lognormal	



MAGNESIUM

Frequency of Detection	11/11
Mean	8.17
Standard Deviation	0.429
Slope =	1.01
Y Intercept =	0
Correlation =	0.958
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.850
Data are lognormal	

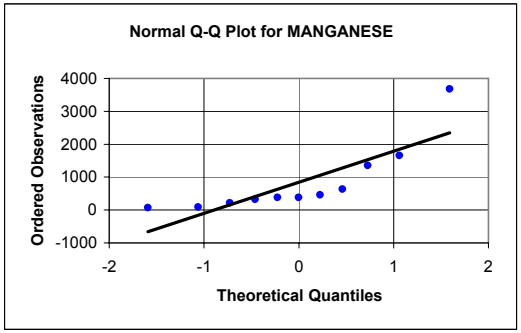


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

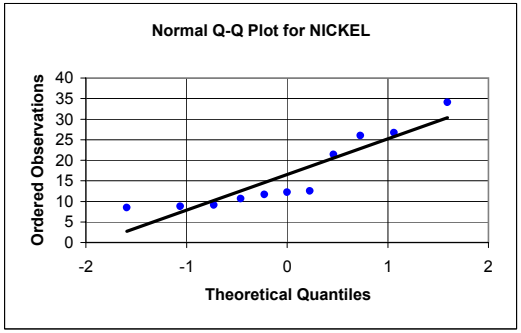
MANGANESE

Frequency of Detection	11/11
Mean	840
Standard Deviation	1069
Slope =	943
Y Intercept =	840
Correlation =	0.833
Shapiro-Wilks Statistics	0.711
Crtitical Value	0.850
Data are not normal	



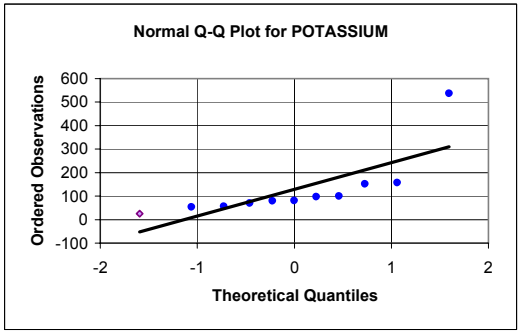
NICKEL

Frequency of Detection	11/11
Mean	16.5
Standard Deviation	8.93
Slope =	8.66
Y Intercept =	16.5
Correlation =	0.916
Shapiro-Wilks Statistics	0.827
Crtitical Value	0.850
Data are not normal	



POTASSIUM

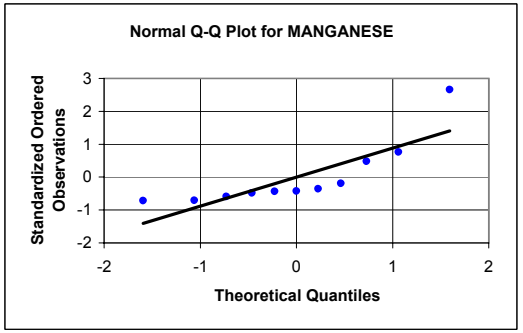
Frequency of Detection	10/11
Mean	128
Standard Deviation	141
Slope =	114
Y Intercept =	128
Correlation =	0.760
Shapiro-Wilks Statistics	0.608
Crtitical Value	0.850
Data are not normal	



NORMAL - STANDARDIZED DATA

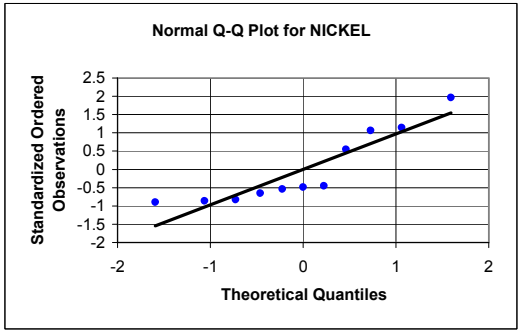
MANGANESE

Frequency of Detection	11/11
Mean	840
Standard Deviation	1069
Slope =	0.882
Y Intercept =	0
Correlation =	0.833
Shapiro-Wilks Statistics	0.711
Crtitical Value	0.850
Data are not normal	



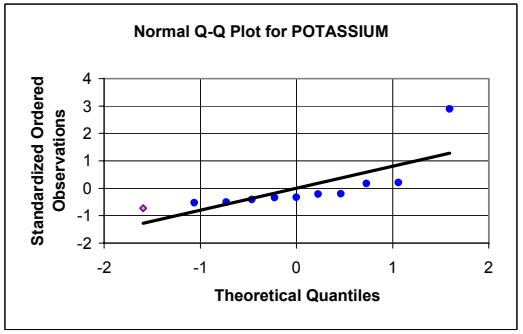
NICKEL

Frequency of Detection	11/11
Mean	16.5
Standard Deviation	8.93
Slope =	0.970
Y Intercept =	0
Correlation =	0.916
Shapiro-Wilks Statistics	0.827
Crtitical Value	0.850
Data are not normal	



POTASSIUM

Frequency of Detection	10/11
Mean	128
Standard Deviation	141
Slope =	0.805
Y Intercept =	0
Correlation =	0.760
Shapiro-Wilks Statistics	0.608
Crtitical Value	0.850
Data are not normal	

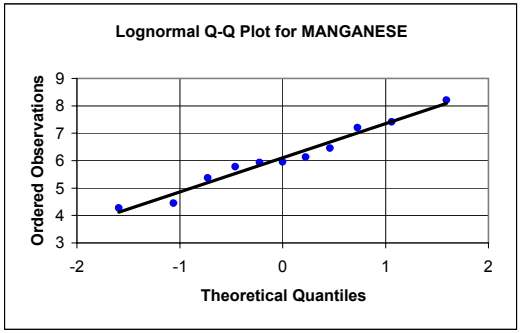


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

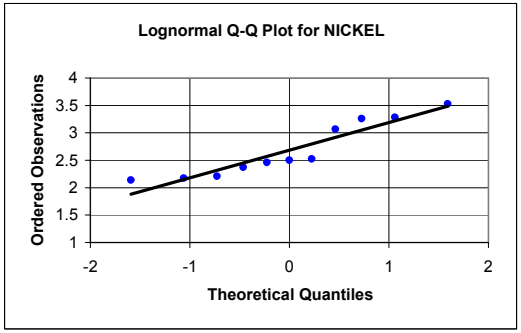
MANGANESE

Frequency of Detection	11/11
Mean	6.11
Standard Deviation	1.20
Slope =	1.25
Y Intercept =	6.11
Correlation =	0.985
Shapiro-Wilks Statistics	0.966
Crtitical Value	0.850
Data are lognormal	



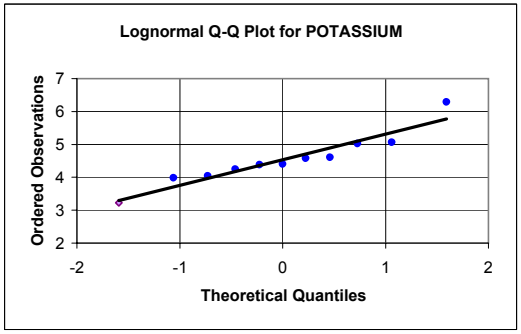
NICKEL

Frequency of Detection	11/11
Mean	2.68
Standard Deviation	0.504
Slope =	0.504
Y Intercept =	2.68
Correlation =	0.944
Shapiro-Wilks Statistics	0.871
Crtitical Value	0.850
Data are lognormal	



POTASSIUM

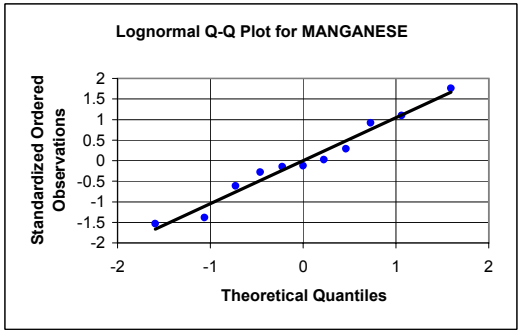
Frequency of Detection	10/11
Mean	4.53
Standard Deviation	0.772
Slope =	0.778
Y Intercept =	4.53
Correlation =	0.951
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

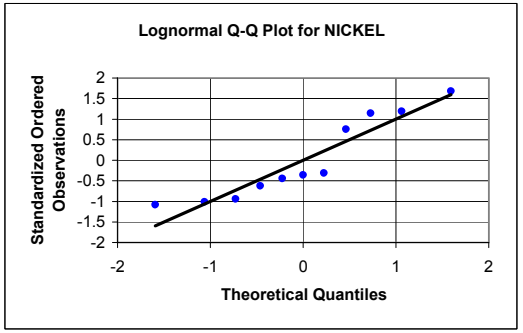
MANGANESE

Frequency of Detection	11/11
Mean	6.11
Standard Deviation	1.20
Slope =	1.04
Y Intercept =	0
Correlation =	0.985
Shapiro-Wilks Statistics	0.966
Crtitical Value	0.850
Data are lognormal	



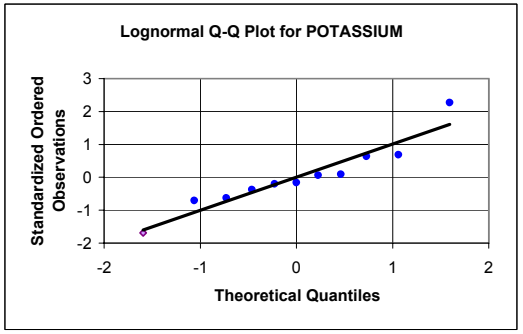
NICKEL

Frequency of Detection	11/11
Mean	2.68
Standard Deviation	0.504
Slope =	1.000
Y Intercept =	0
Correlation =	0.944
Shapiro-Wilks Statistics	0.871
Crtitical Value	0.850
Data are lognormal	



POTASSIUM

Frequency of Detection	10/11
Mean	4.53
Standard Deviation	0.772
Slope =	1.01
Y Intercept =	0
Correlation =	0.951
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.850
Data are lognormal	

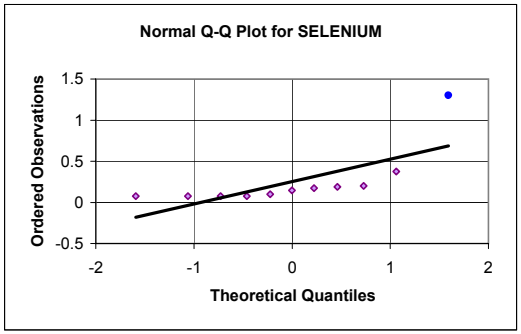


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

SELENIUM

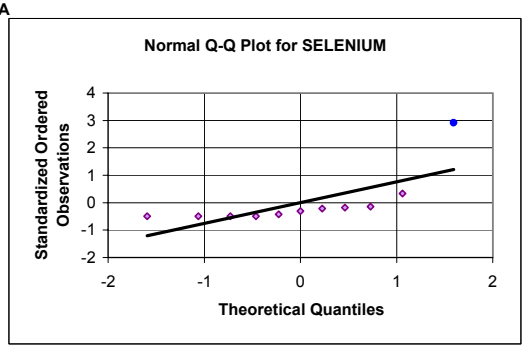
Frequency of Detection	1/11
Mean	0.253
Standard Deviation	0.359
Slope =	0.273
Y Intercept =	0.253
Correlation =	0.718
Shapiro-Wilks Statistics	0.543
Crtitical Value	0.850
Data are not normal	



NORMAL - STANDARDIZED DATA

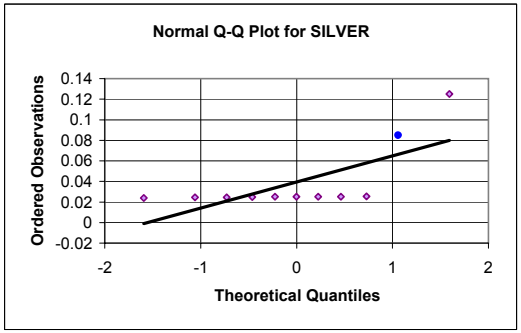
SELENIUM

Frequency of Detection	1/11
Mean	0.253
Standard Deviation	0.359
Slope =	0.761
Y Intercept =	0
Correlation =	0.718
Shapiro-Wilks Statistics	0.543
Crtitical Value	0.850
Data are not normal	



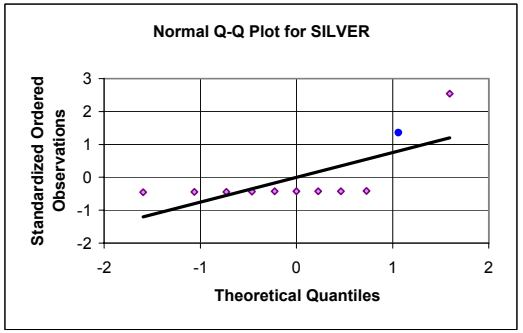
SILVER

Frequency of Detection	1/11
Mean	0.039
Standard Deviation	0.034
Slope =	0.025
Y Intercept =	0.039
Correlation =	0.711
Shapiro-Wilks Statistics	0.522
Crtitical Value	0.850
Data are not normal	



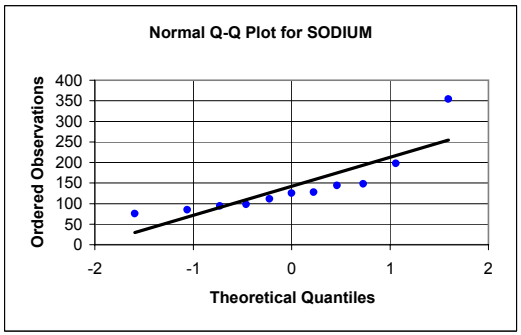
SILVER

Frequency of Detection	1/11
Mean	0.039
Standard Deviation	0.034
Slope =	0.753
Y Intercept =	0
Correlation =	0.711
Shapiro-Wilks Statistics	0.522
Crtitical Value	0.850
Data are not normal	



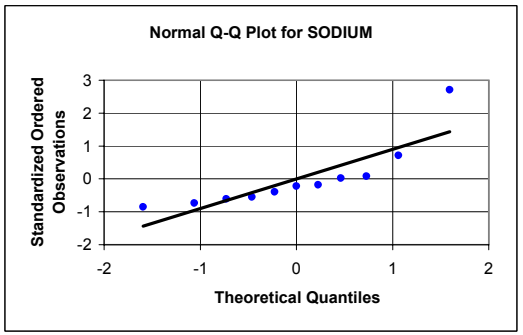
SODIUM

Frequency of Detection	11/11
Mean	142
Standard Deviation	78.4
Slope =	70.5
Y Intercept =	142
Correlation =	0.849
Shapiro-Wilks Statistics	0.741
Crtitical Value	0.850
Data are not normal	



SODIUM

Frequency of Detection	11/11
Mean	142
Standard Deviation	78.4
Slope =	0.899
Y Intercept =	0
Correlation =	0.849
Shapiro-Wilks Statistics	0.741
Crtitical Value	0.850
Data are not normal	

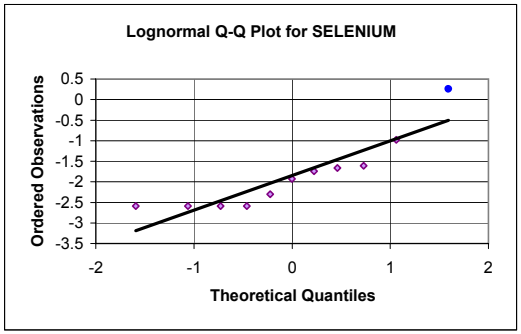


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

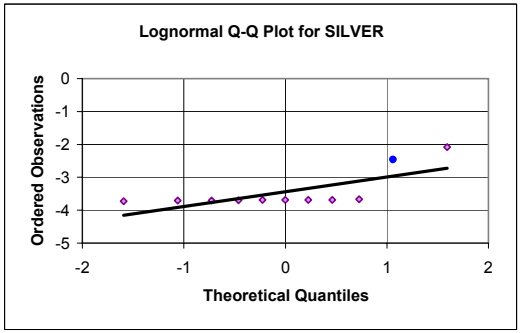
SELENIUM

Frequency of Detection	1/11
Mean	-1.848
Standard Deviation	0.879
Slope =	0.844
Y Intercept =	-1.848
Correlation =	0.906
Shapiro-Wilks Statistics	0.825
Crtitical Value	0.850
Data are not lognormal	



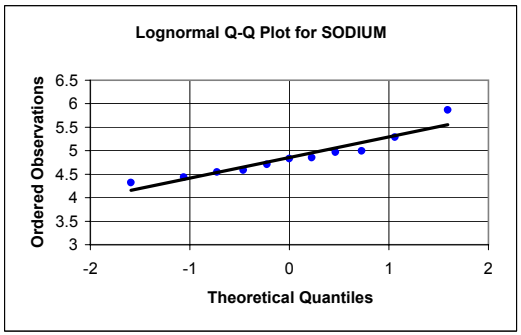
SILVER

Frequency of Detection	1/11
Mean	-3.438
Standard Deviation	0.583
Slope =	0.447
Y Intercept =	-3.438
Correlation =	0.724
Shapiro-Wilks Statistics	0.534
Crtitical Value	0.850
Data are not lognormal	



SODIUM

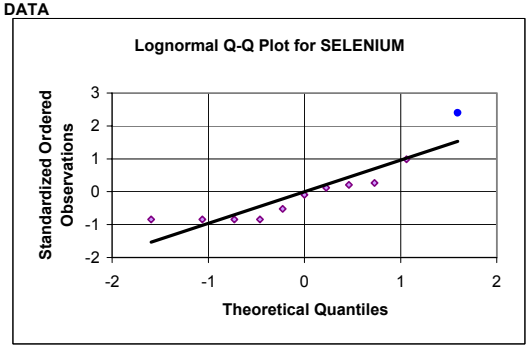
Frequency of Detection	11/11
Mean	4.86
Standard Deviation	0.435
Slope =	0.438
Y Intercept =	4.86
Correlation =	0.949
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

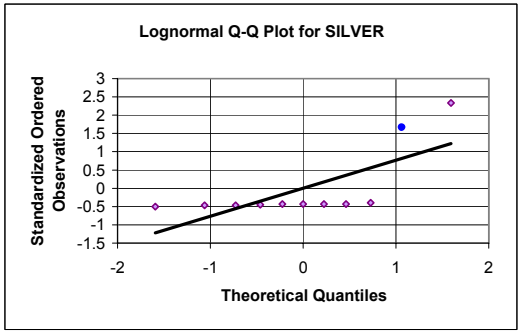
SELENIUM

Frequency of Detection	1/11
Mean	-1.848
Standard Deviation	0.879
Slope =	0.960
Y Intercept =	0
Correlation =	0.906
Shapiro-Wilks Statistics	0.825
Crtitical Value	0.850
Data are not lognormal	



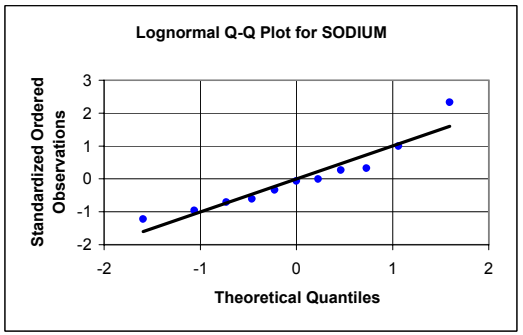
SILVER

Frequency of Detection	1/11
Mean	-3.438
Standard Deviation	0.583
Slope =	0.767
Y Intercept =	0
Correlation =	0.724
Shapiro-Wilks Statistics	0.534
Crtitical Value	0.850
Data are not lognormal	



SODIUM

Frequency of Detection	11/11
Mean	4.86
Standard Deviation	0.435
Slope =	1.01
Y Intercept =	0
Correlation =	0.949
Shapiro-Wilks Statistics	0.912
Crtitical Value	0.850
Data are lognormal	

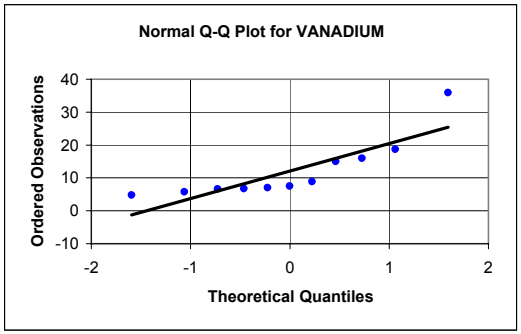


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

VANADIUM

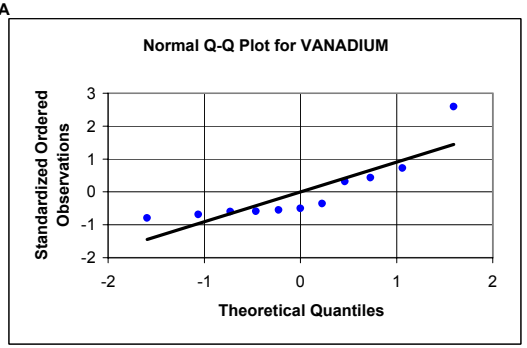
Frequency of Detection	11/11
Mean	12.1
Standard Deviation	9.19
Slope =	8.34
Y Intercept =	12.1
Correlation =	0.857
Shapiro-Wilks Statistics	0.749
Crtitical Value	0.850
Data are not normal	



NORMAL - STANDARDIZED DATA

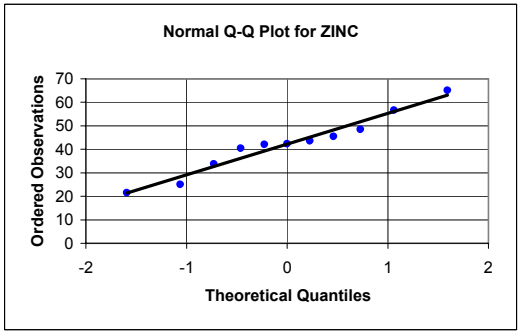
VANADIUM

Frequency of Detection	11/11
Mean	12.1
Standard Deviation	9.19
Slope =	0.908
Y Intercept =	0
Correlation =	0.857
Shapiro-Wilks Statistics	0.749
Crtitical Value	0.850
Data are not normal	



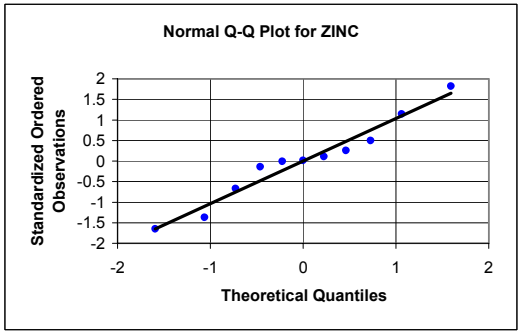
ZINC

Frequency of Detection	11/11
Mean	42.2
Standard Deviation	12.6
Slope =	13.1
Y Intercept =	42.2
Correlation =	0.980
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.850
Data are normal	



ZINC

Frequency of Detection	11/11
Mean	42.2
Standard Deviation	12.6
Slope =	1.04
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.963
Crtitical Value	0.850
Data are normal	

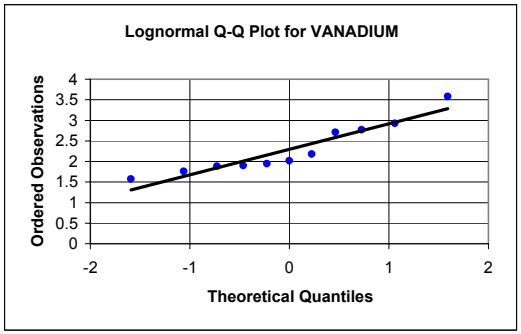


APPENDIX E5, FIGURE E5-12
PROBABILITY PLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

VANADIUM

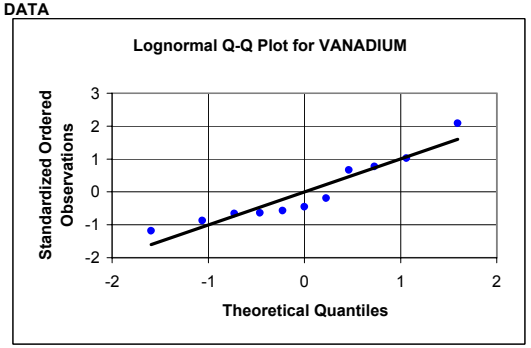
Frequency of Detection	11/11
Mean	2.30
Standard Deviation	0.617
Slope =	0.619
Y Intercept =	2.30
Correlation =	0.947
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.850
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

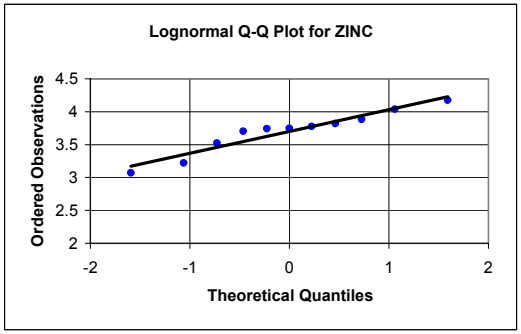
VANADIUM

Frequency of Detection	11/11
Mean	2.30
Standard Deviation	0.617
Slope =	1.00
Y Intercept =	0
Correlation =	0.947
Shapiro-Wilks Statistics	0.897
Crtitical Value	0.850
Data are lognormal	



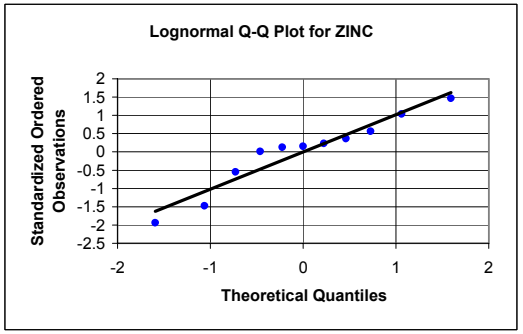
ZINC

Frequency of Detection	11/11
Mean	3.70
Standard Deviation	0.325
Slope =	0.332
Y Intercept =	3.70
Correlation =	0.962
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.850
Data are lognormal	



ZINC

Frequency of Detection	11/11
Mean	3.70
Standard Deviation	0.325
Slope =	1.02
Y Intercept =	0
Correlation =	0.962
Shapiro-Wilks Statistics	0.930
Crtitical Value	0.850
Data are lognormal	

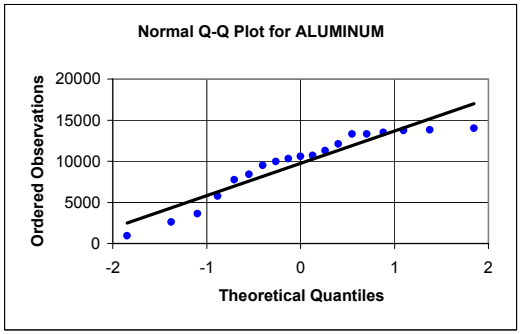


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

ALUMINUM

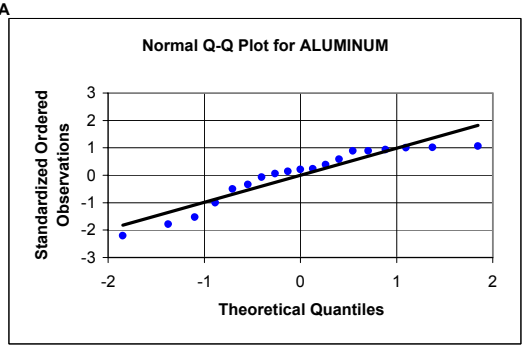
Frequency of Detection	19/19
Mean	9748
Standard Deviation	3996
Slope =	3931
Y Intercept =	9748
Correlation =	0.946
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.901
Data are not normal	



NORMAL - STANDARDIZED DATA

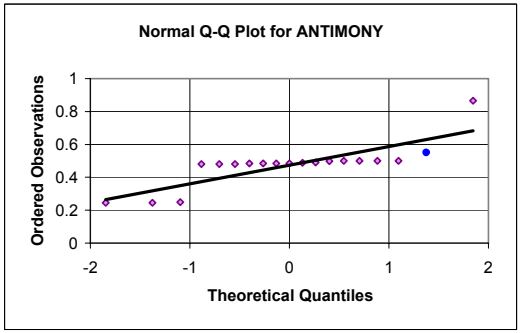
ALUMINUM

Frequency of Detection	19/19
Mean	9748
Standard Deviation	3996
Slope =	0.984
Y Intercept =	0
Correlation =	0.946
Shapiro-Wilks Statistics	0.885
Crtitical Value	0.901
Data are not normal	



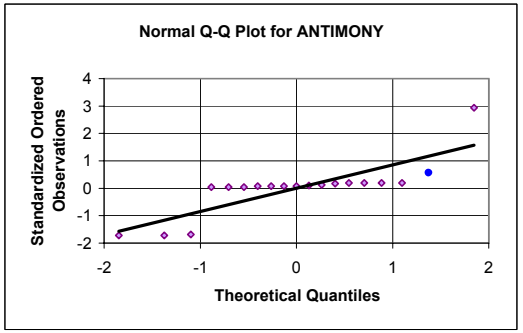
ANTIMONY

Frequency of Detection	1/19
Mean	0.474
Standard Deviation	0.133
Slope =	0.113
Y Intercept =	0.474
Correlation =	0.820
Shapiro-Wilks Statistics	0.701
Crtitical Value	0.901
Data are not normal	



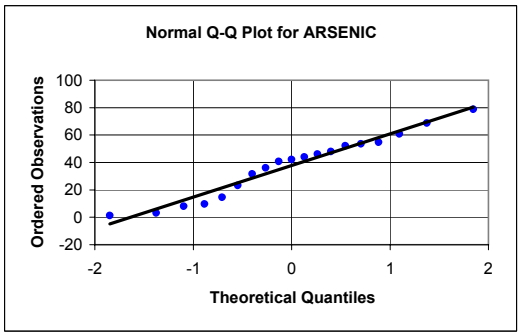
ANTIMONY

Frequency of Detection	1/19
Mean	0.474
Standard Deviation	0.133
Slope =	0.853
Y Intercept =	0
Correlation =	0.820
Shapiro-Wilks Statistics	0.701
Crtitical Value	0.901
Data are not normal	



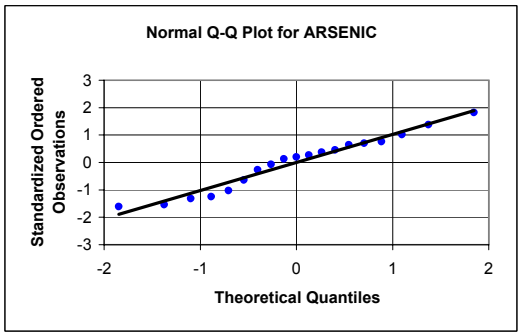
ARSENIC

Frequency of Detection	19/19
Mean	37.8
Standard Deviation	22.6
Slope =	23.1
Y Intercept =	37.8
Correlation =	0.983
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.901
Data are normal	



ARSENIC

Frequency of Detection	19/19
Mean	37.8
Standard Deviation	22.6
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.957
Crtitical Value	0.901
Data are normal	

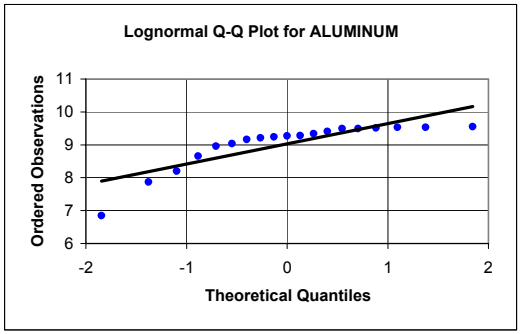


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

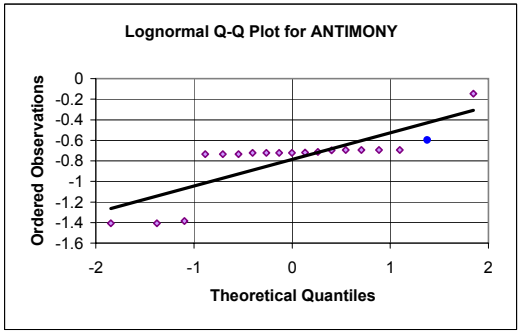
ALUMINUM

Frequency of Detection	19/19
Mean	9.03
Standard Deviation	0.700
Slope =	0.616
Y Intercept =	9.03
Correlation =	0.846
Shapiro-Wilks Statistics	0.726
Crtitical Value	0.901
Data are not lognormal	



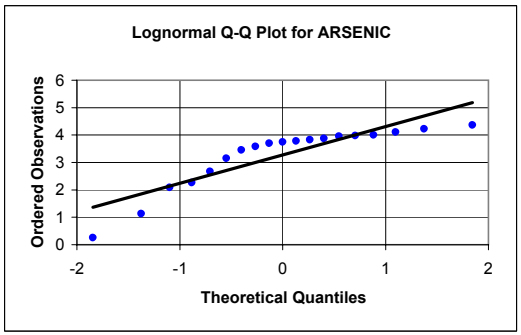
ANTIMONY

Frequency of Detection	1/19
Mean	-0.786
Standard Deviation	0.303
Slope =	0.258
Y Intercept =	-0.786
Correlation =	0.820
Shapiro-Wilks Statistics	0.691
Crtitical Value	0.901
Data are not lognormal	



ARSENIC

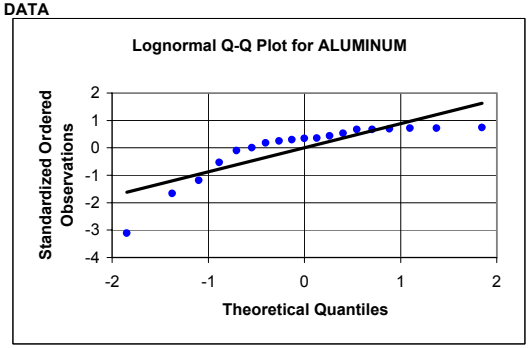
Frequency of Detection	19/19
Mean	3.27
Standard Deviation	1.11
Slope =	1.03
Y Intercept =	3.27
Correlation =	0.894
Shapiro-Wilks Statistics	0.803
Crtitical Value	0.901
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

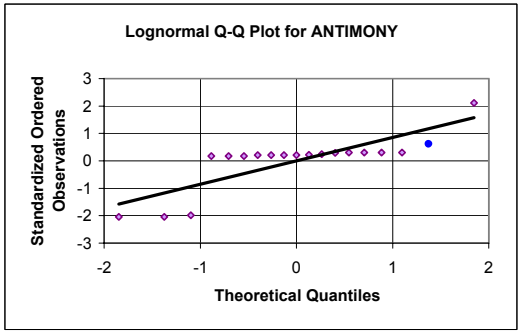
ALUMINUM

Frequency of Detection	19/19
Mean	9.03
Standard Deviation	0.700
Slope =	0.879
Y Intercept =	0
Correlation =	0.846
Shapiro-Wilks Statistics	0.726
Crtitical Value	0.901
Data are not lognormal	



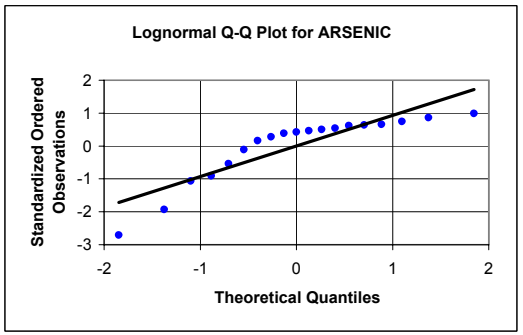
ANTIMONY

Frequency of Detection	1/19
Mean	-0.786
Standard Deviation	0.303
Slope =	0.852
Y Intercept =	0
Correlation =	0.820
Shapiro-Wilks Statistics	0.691
Crtitical Value	0.901
Data are not lognormal	



ARSENIC

Frequency of Detection	19/19
Mean	3.27
Standard Deviation	1.11
Slope =	0.929
Y Intercept =	0
Correlation =	0.894
Shapiro-Wilks Statistics	0.803
Crtitical Value	0.901
Data are not lognormal	

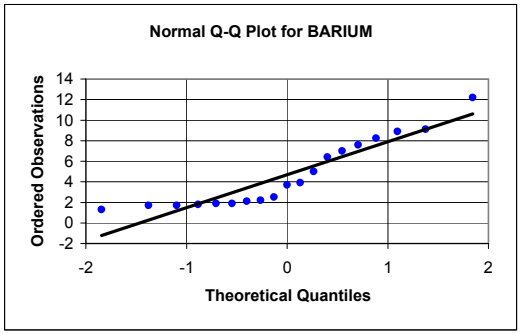


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

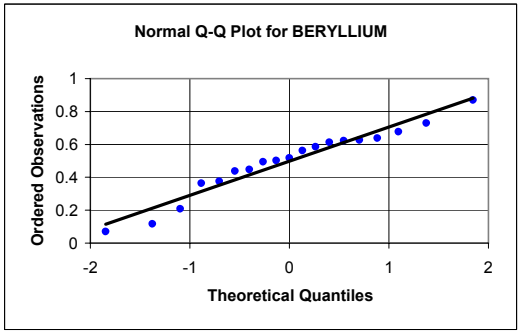
BARIUM

Frequency of Detection	19/19
Mean	4.69
Standard Deviation	3.30
Slope =	3.20
Y Intercept =	4.69
Correlation =	0.935
Shapiro-Wilks Statistics	0.864
Crtitical Value	0.901
Data are not normal	



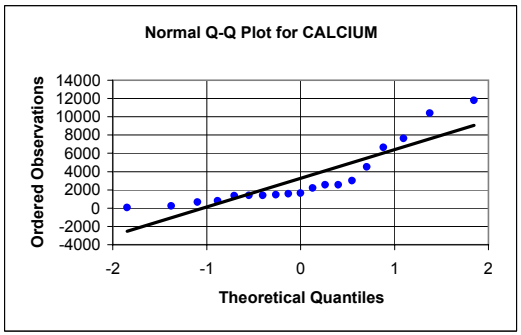
BERYLLIUM

Frequency of Detection	19/19
Mean	0.498
Standard Deviation	0.205
Slope =	0.207
Y Intercept =	0.498
Correlation =	0.975
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.901
Data are normal	



CALCIUM

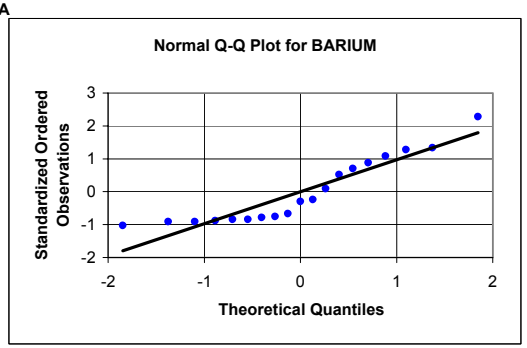
Frequency of Detection	19/19
Mean	3259
Standard Deviation	3409
Slope =	3142
Y Intercept =	3259
Correlation =	0.887
Shapiro-Wilks Statistics	0.785
Crtitical Value	0.901
Data are not normal	



NORMAL - STANDARDIZED DATA

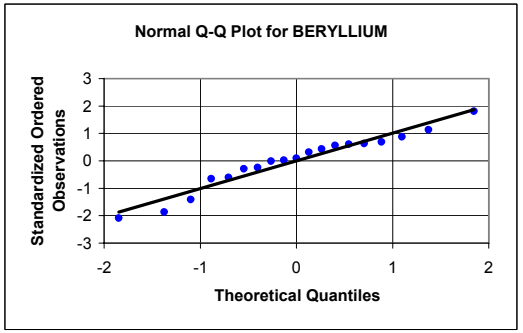
BARIUM

Frequency of Detection	19/19
Mean	4.69
Standard Deviation	3.30
Slope =	0.972
Y Intercept =	0
Correlation =	0.935
Shapiro-Wilks Statistics	0.864
Crtitical Value	0.901
Data are not normal	



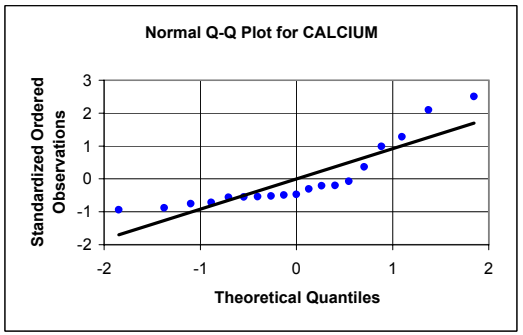
BERYLLIUM

Frequency of Detection	19/19
Mean	0.498
Standard Deviation	0.205
Slope =	1.01
Y Intercept =	0
Correlation =	0.975
Shapiro-Wilks Statistics	0.952
Crtitical Value	0.901
Data are normal	



CALCIUM

Frequency of Detection	19/19
Mean	3259
Standard Deviation	3409
Slope =	0.922
Y Intercept =	0
Correlation =	0.887
Shapiro-Wilks Statistics	0.785
Crtitical Value	0.901
Data are not normal	

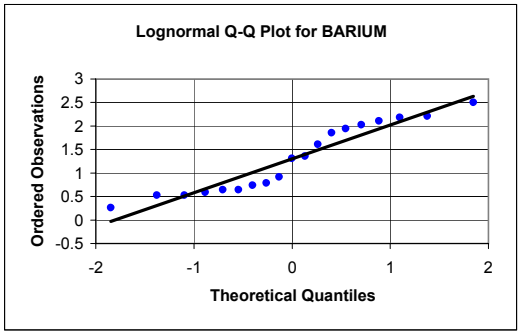


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

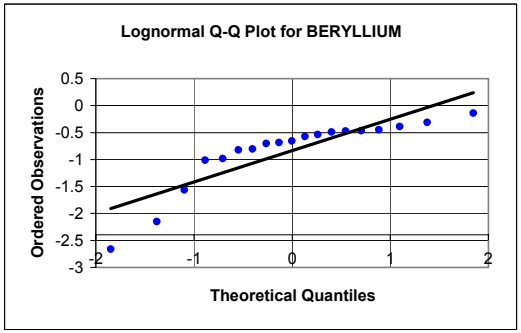
BARIUM

Frequency of Detection	19/19
Mean	1.30
Standard Deviation	0.723
Slope =	0.721
Y Intercept =	1.30
Correlation =	0.959
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.901
Data are lognormal	



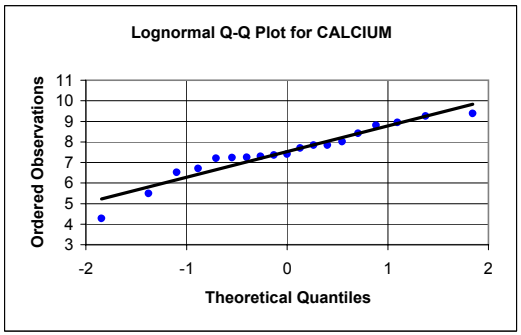
BERYLLIUM

Frequency of Detection	19/19
Mean	-0.836
Standard Deviation	0.640
Slope =	0.583
Y Intercept =	-0.836
Correlation =	0.876
Shapiro-Wilks Statistics	0.778
Crtitical Value	0.901
Data are not lognormal	



CALCIUM

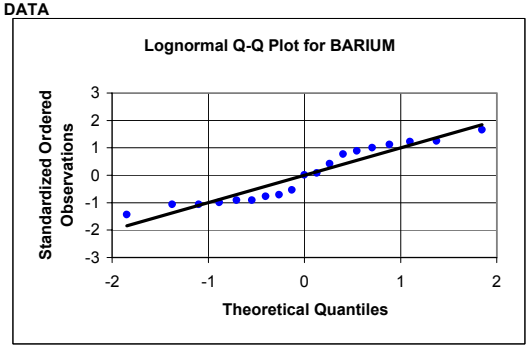
Frequency of Detection	19/19
Mean	7.52
Standard Deviation	1.25
Slope =	1.25
Y Intercept =	7.52
Correlation =	0.963
Shapiro-Wilks Statistics	0.934
Crtitical Value	0.901
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

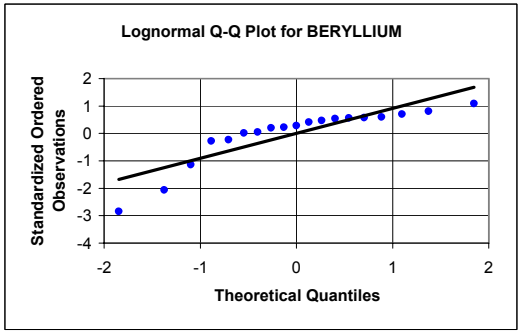
BARIUM

Frequency of Detection	19/19
Mean	1.30
Standard Deviation	0.723
Slope =	0.997
Y Intercept =	0
Correlation =	0.959
Shapiro-Wilks Statistics	0.903
Crtitical Value	0.901
Data are lognormal	



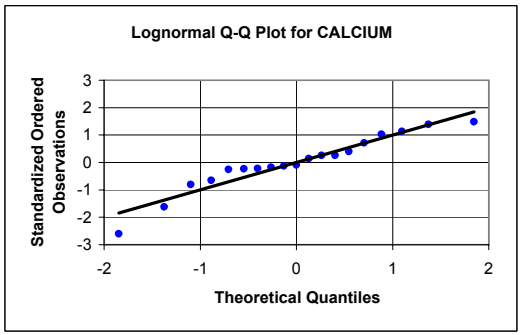
BERYLLIUM

Frequency of Detection	19/19
Mean	-0.836
Standard Deviation	0.640
Slope =	0.911
Y Intercept =	0
Correlation =	0.876
Shapiro-Wilks Statistics	0.778
Crtitical Value	0.901
Data are not lognormal	



CALCIUM

Frequency of Detection	19/19
Mean	7.52
Standard Deviation	1.25
Slope =	1.00
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.934
Crtitical Value	0.901
Data are lognormal	

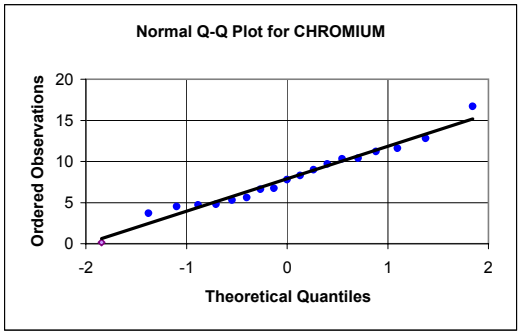


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

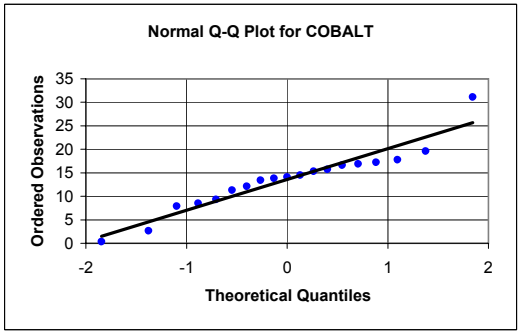
CHROMIUM

Frequency of Detection	18/19
Mean	7.89
Standard Deviation	3.85
Slope =	3.95
Y Intercept =	7.89
Correlation =	0.986
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.901
Data are normal	



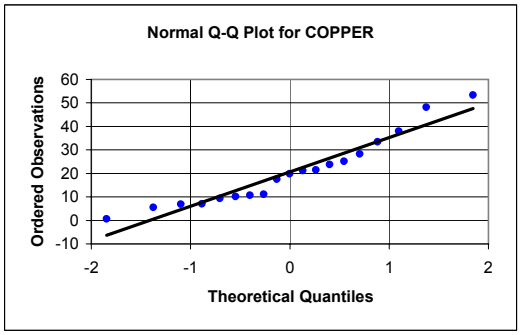
COBALT

Frequency of Detection	19/19
Mean	13.6
Standard Deviation	6.60
Slope =	6.54
Y Intercept =	13.6
Correlation =	0.955
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.901
Data are normal	



COPPER

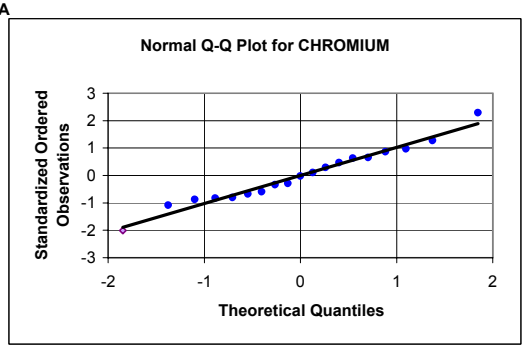
Frequency of Detection	19/19
Mean	20.6
Standard Deviation	14.6
Slope =	14.6
Y Intercept =	20.6
Correlation =	0.965
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.901
Data are normal	



NORMAL - STANDARDIZED DATA

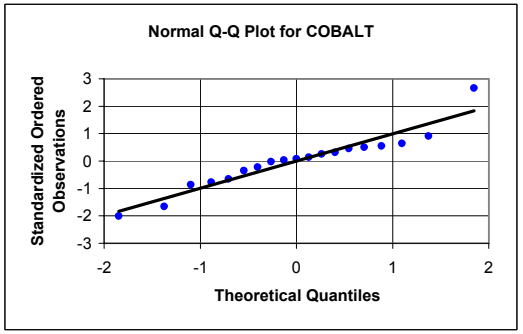
CHROMIUM

Frequency of Detection	18/19
Mean	7.89
Standard Deviation	3.85
Slope =	1.03
Y Intercept =	0
Correlation =	0.986
Shapiro-Wilks Statistics	0.982
Crtitical Value	0.901
Data are normal	



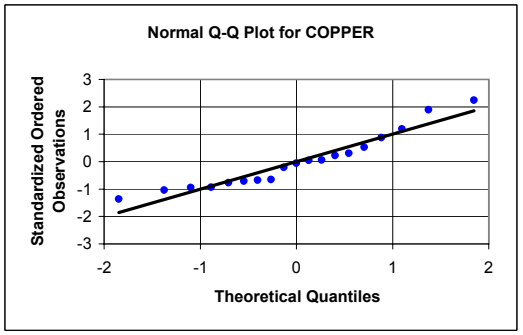
COBALT

Frequency of Detection	19/19
Mean	13.6
Standard Deviation	6.60
Slope =	0.992
Y Intercept =	0
Correlation =	0.955
Shapiro-Wilks Statistics	0.932
Crtitical Value	0.901
Data are normal	



COPPER

Frequency of Detection	19/19
Mean	20.6
Standard Deviation	14.6
Slope =	1.00
Y Intercept =	0
Correlation =	0.965
Shapiro-Wilks Statistics	0.926
Crtitical Value	0.901
Data are normal	

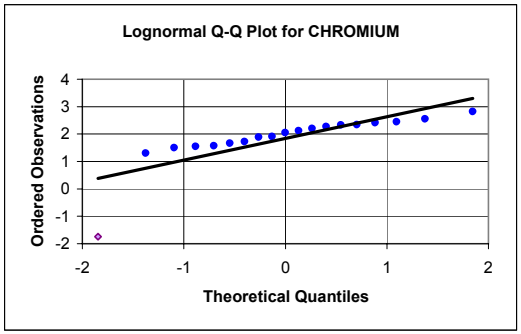


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

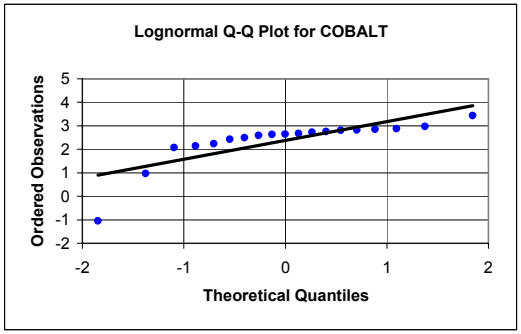
CHROMIUM

Frequency of Detection	18/19
Mean	1.84
Standard Deviation	0.958
Slope =	0.790
Y Intercept =	1.84
Correlation =	0.793
Shapiro-Wilks Statistics	0.659
Crtitical Value	0.901
Data are not lognormal	



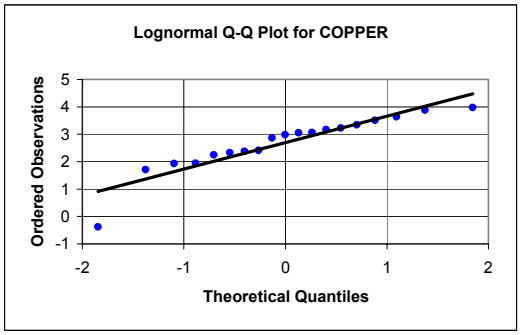
COBALT

Frequency of Detection	19/19
Mean	2.37
Standard Deviation	0.966
Slope =	0.800
Y Intercept =	2.37
Correlation =	0.797
Shapiro-Wilks Statistics	0.664
Crtitical Value	0.901
Data are not lognormal	



COPPER

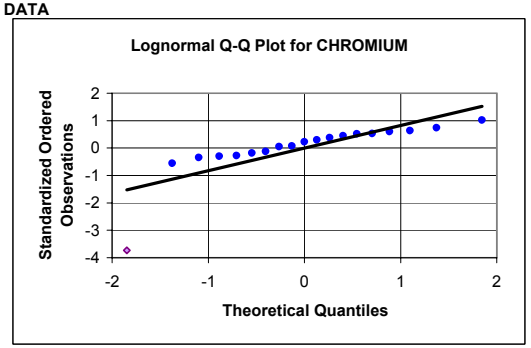
Frequency of Detection	19/19
Mean	2.70
Standard Deviation	1.00
Slope =	0.965
Y Intercept =	2.70
Correlation =	0.928
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.901
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

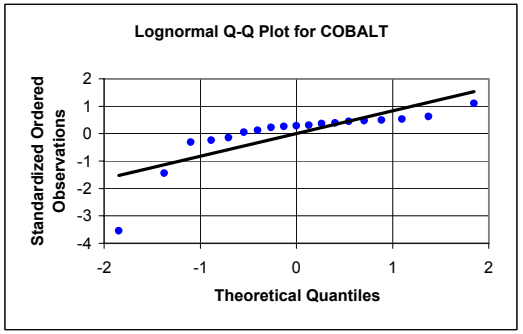
CHROMIUM

Frequency of Detection	18/19
Mean	1.84
Standard Deviation	0.958
Slope =	0.825
Y Intercept =	0
Correlation =	0.793
Shapiro-Wilks Statistics	0.659
Crtitical Value	0.901
Data are not lognormal	



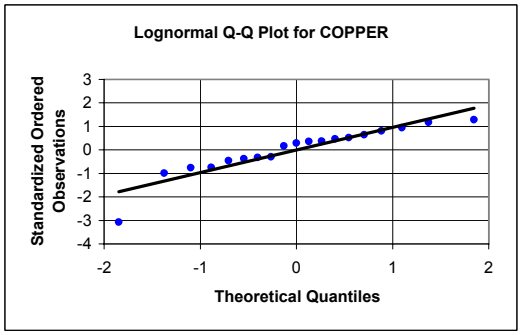
COBALT

Frequency of Detection	19/19
Mean	2.37
Standard Deviation	0.966
Slope =	0.829
Y Intercept =	0
Correlation =	0.797
Shapiro-Wilks Statistics	0.664
Crtitical Value	0.901
Data are not lognormal	



COPPER

Frequency of Detection	19/19
Mean	2.70
Standard Deviation	1.00
Slope =	0.964
Y Intercept =	0
Correlation =	0.928
Shapiro-Wilks Statistics	0.875
Crtitical Value	0.901
Data are not lognormal	

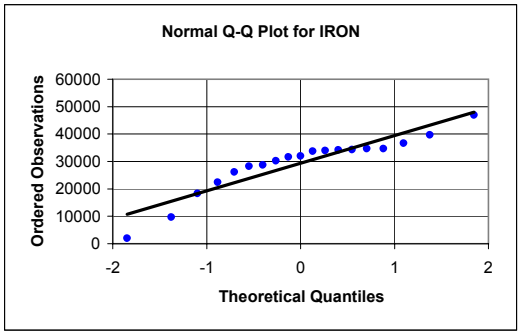


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

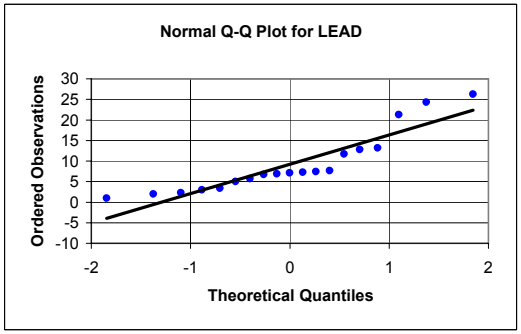
IRON

Frequency of Detection	19/19
Mean	29388
Standard Deviation	10394
Slope =	10088
Y Intercept =	29388
Correlation =	0.934
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.901
Data are not normal	



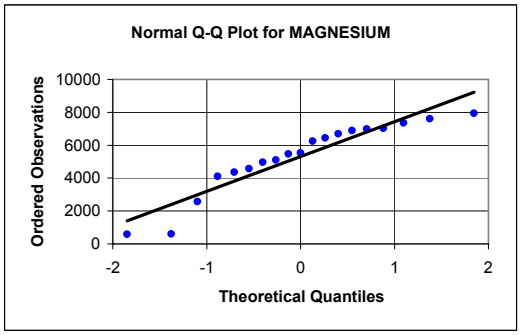
LEAD

Frequency of Detection	19/19
Mean	9.21
Standard Deviation	7.43
Slope =	7.12
Y Intercept =	9.21
Correlation =	0.921
Shapiro-Wilks Statistics	0.844
Crtitical Value	0.901
Data are not normal	



MAGNESIUM

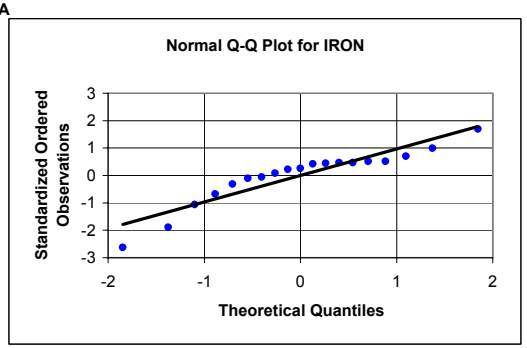
Frequency of Detection	19/19
Mean	5316
Standard Deviation	2158
Slope =	2120
Y Intercept =	5316
Correlation =	0.945
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.901
Data are not normal	



NORMAL - STANDARDIZED DATA

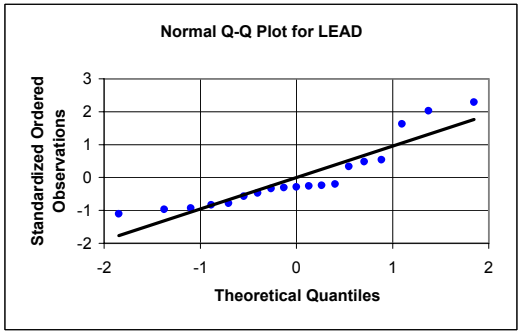
IRON

Frequency of Detection	19/19
Mean	29388
Standard Deviation	10394
Slope =	0.971
Y Intercept =	0
Correlation =	0.934
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.901
Data are not normal	



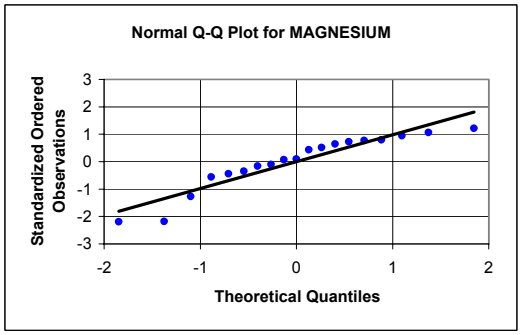
LEAD

Frequency of Detection	19/19
Mean	9.21
Standard Deviation	7.43
Slope =	0.957
Y Intercept =	0
Correlation =	0.921
Shapiro-Wilks Statistics	0.844
Crtitical Value	0.901
Data are not normal	



MAGNESIUM

Frequency of Detection	19/19
Mean	5316
Standard Deviation	2158
Slope =	0.982
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.886
Crtitical Value	0.901
Data are not normal	

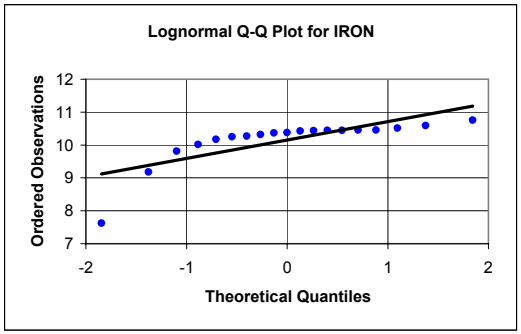


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

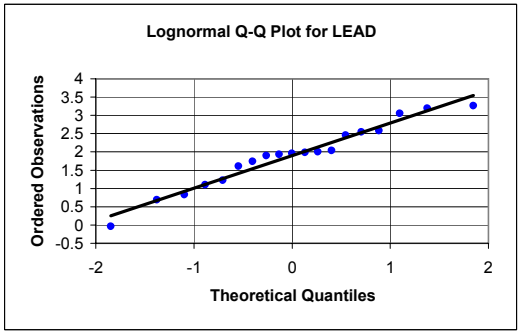
IRON

Frequency of Detection	19/19
Mean	10.2
Standard Deviation	0.700
Slope =	0.558
Y Intercept =	10.2
Correlation =	0.767
Shapiro-Wilks Statistics	0.615
Crtitical Value	0.901
Data are not lognormal	



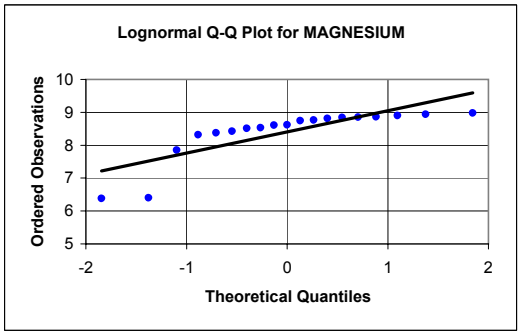
LEAD

Frequency of Detection	19/19
Mean	1.90
Standard Deviation	0.871
Slope =	0.891
Y Intercept =	1.90
Correlation =	0.983
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.901
Data are lognormal	



MAGNESIUM

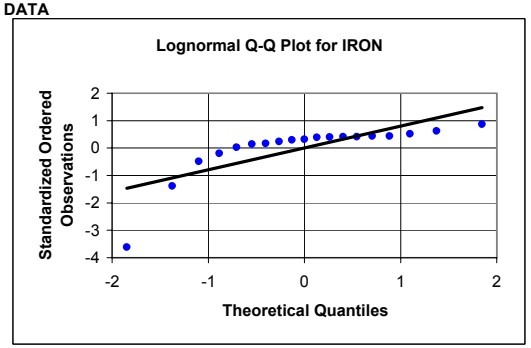
Frequency of Detection	19/19
Mean	8.41
Standard Deviation	0.761
Slope =	0.641
Y Intercept =	8.41
Correlation =	0.811
Shapiro-Wilks Statistics	0.662
Crtitical Value	0.901
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

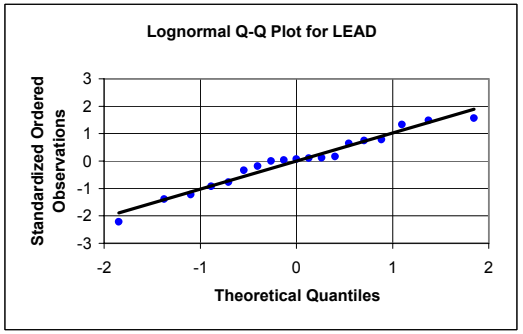
IRON

Frequency of Detection	19/19
Mean	10.2
Standard Deviation	0.700
Slope =	0.797
Y Intercept =	0
Correlation =	0.767
Shapiro-Wilks Statistics	0.615
Crtitical Value	0.901
Data are not lognormal	



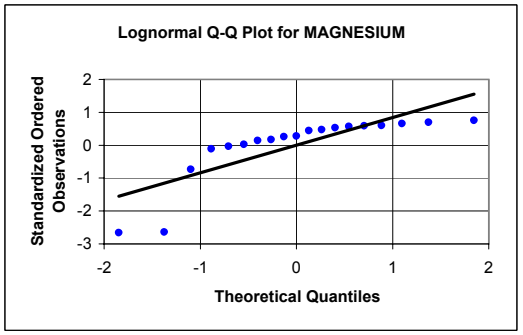
LEAD

Frequency of Detection	19/19
Mean	1.90
Standard Deviation	0.871
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.965
Crtitical Value	0.901
Data are lognormal	



MAGNESIUM

Frequency of Detection	19/19
Mean	8.41
Standard Deviation	0.761
Slope =	0.843
Y Intercept =	0
Correlation =	0.811
Shapiro-Wilks Statistics	0.662
Crtitical Value	0.901
Data are not lognormal	

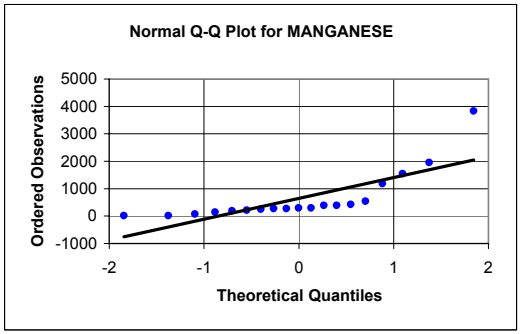


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

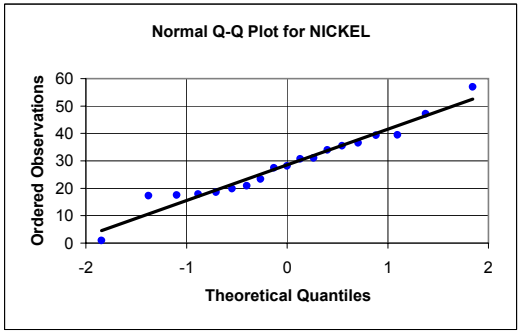
MANGANESE

Frequency of Detection	19/19
Mean	646
Standard Deviation	930
Slope =	762
Y Intercept =	646
Correlation =	0.787
Shapiro-Wilks Statistics	0.639
Crtitical Value	0.901
Data are not normal	



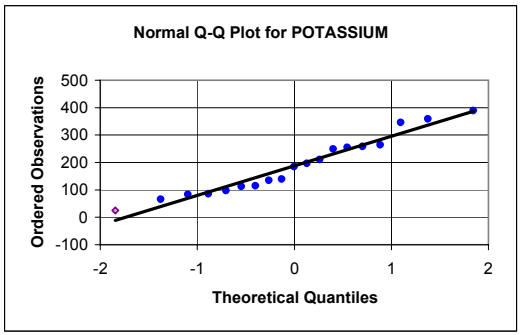
NICKEL

Frequency of Detection	19/19
Mean	28.5
Standard Deviation	12.8
Slope =	13.0
Y Intercept =	28.5
Correlation =	0.980
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.901
Data are normal	



POTASSIUM

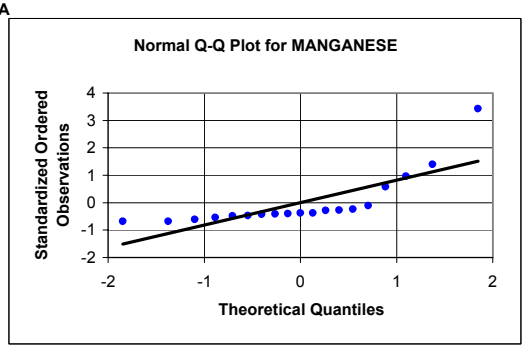
Frequency of Detection	18/19
Mean	188
Standard Deviation	106
Slope =	108
Y Intercept =	188
Correlation =	0.979
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.901
Data are normal	



NORMAL - STANDARDIZED DATA

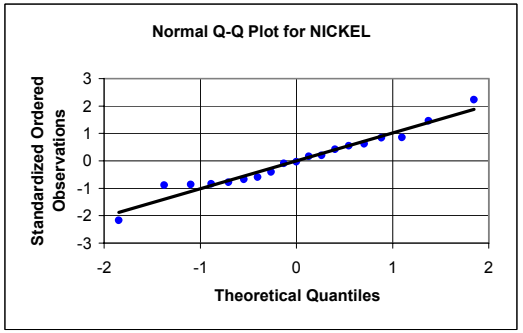
MANGANESE

Frequency of Detection	19/19
Mean	646
Standard Deviation	930
Slope =	0.819
Y Intercept =	0
Correlation =	0.787
Shapiro-Wilks Statistics	0.639
Crtitical Value	0.901
Data are not normal	



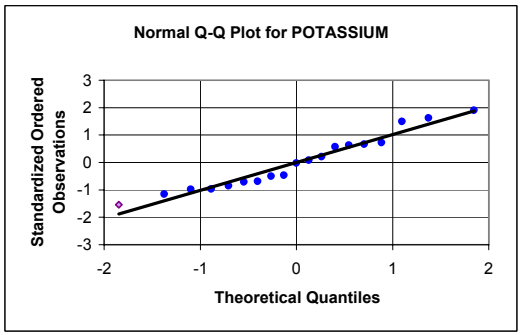
NICKEL

Frequency of Detection	19/19
Mean	28.5
Standard Deviation	12.8
Slope =	1.02
Y Intercept =	0
Correlation =	0.980
Shapiro-Wilks Statistics	0.972
Crtitical Value	0.901
Data are normal	



POTASSIUM

Frequency of Detection	18/19
Mean	188
Standard Deviation	106
Slope =	1.02
Y Intercept =	0
Correlation =	0.979
Shapiro-Wilks Statistics	0.949
Crtitical Value	0.901
Data are normal	

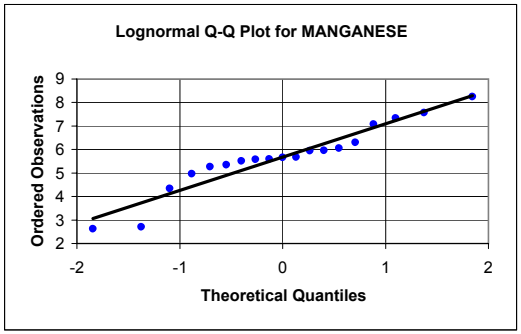


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

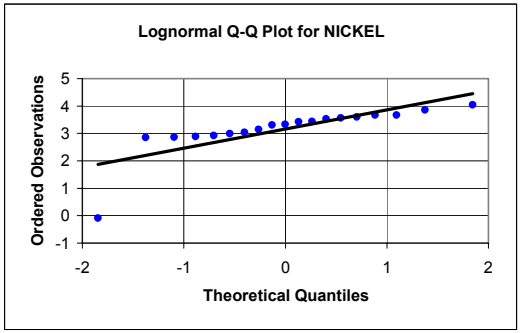
MANGANESE

Frequency of Detection	19/19
Mean	5.67
Standard Deviation	1.42
Slope =	1.42
Y Intercept =	5.67
Correlation =	0.960
Shapiro-Wilks Statistics	0.927
Crtitical Value	0.901
Data are lognormal	



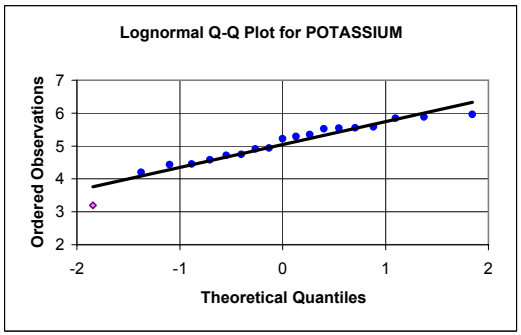
NICKEL

Frequency of Detection	19/19
Mean	3.16
Standard Deviation	0.864
Slope =	0.701
Y Intercept =	3.16
Correlation =	0.781
Shapiro-Wilks Statistics	0.641
Crtitical Value	0.901
Data are not lognormal	



POTASSIUM

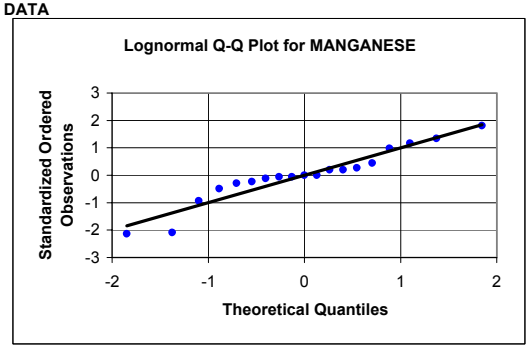
Frequency of Detection	18/19
Mean	5.05
Standard Deviation	0.695
Slope =	0.696
Y Intercept =	5.05
Correlation =	0.963
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.901
Data are lognormal	



LOGNORMAL - STANDARDIZED DATA

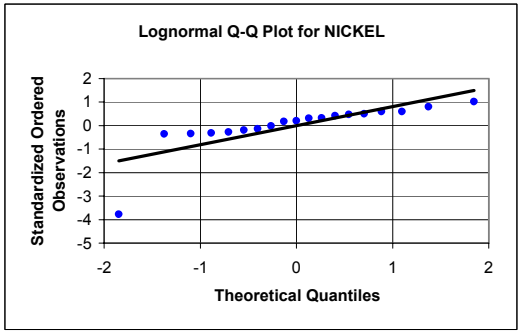
MANGANESE

Frequency of Detection	19/19
Mean	5.67
Standard Deviation	1.42
Slope =	0.998
Y Intercept =	0
Correlation =	0.960
Shapiro-Wilks Statistics	0.927
Crtitical Value	0.901
Data are lognormal	



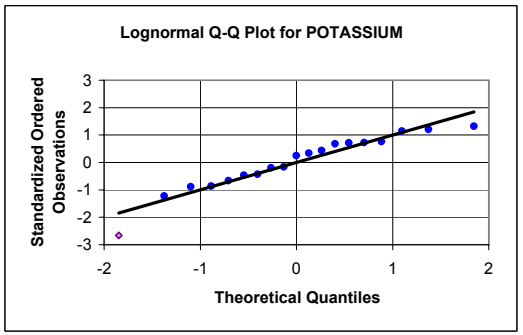
NICKEL

Frequency of Detection	19/19
Mean	3.16
Standard Deviation	0.864
Slope =	0.812
Y Intercept =	0
Correlation =	0.781
Shapiro-Wilks Statistics	0.641
Crtitical Value	0.901
Data are not lognormal	



POTASSIUM

Frequency of Detection	18/19
Mean	5.05
Standard Deviation	0.695
Slope =	1.00
Y Intercept =	0
Correlation =	0.963
Shapiro-Wilks Statistics	0.931
Crtitical Value	0.901
Data are lognormal	

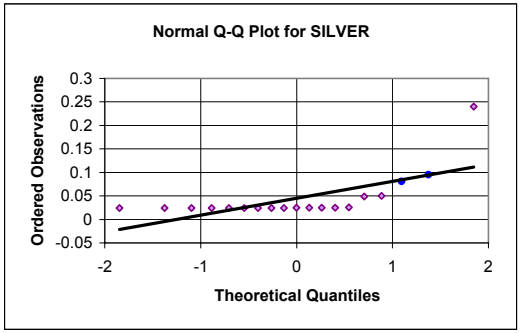


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NORMAL - RAW DATA

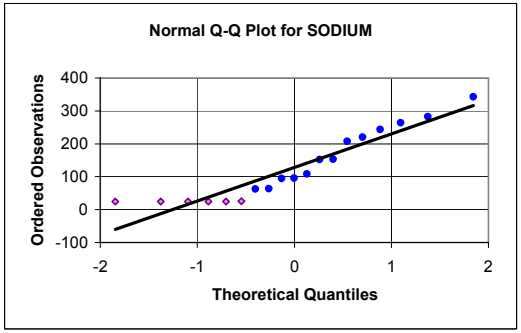
SILVER

Frequency of Detection	2/19
Mean	0.045
Standard Deviation	0.051
Slope =	0.036
Y Intercept =	0.045
Correlation =	0.672
Shapiro-Wilks Statistics	0.477
Crtitical Value	0.901
Data are not normal	



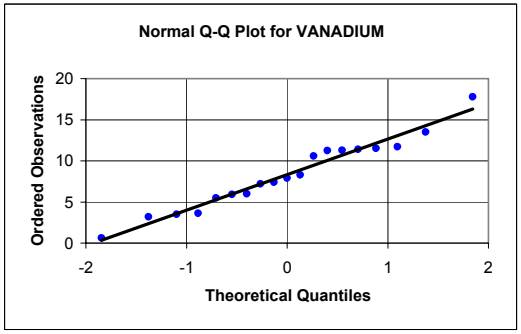
SODIUM

Frequency of Detection	13/19
Mean	128
Standard Deviation	104
Slope =	102
Y Intercept =	128
Correlation =	0.947
Shapiro-Wilks Statistics	0.882
Crtitical Value	0.901
Data are not normal	



VANADIUM

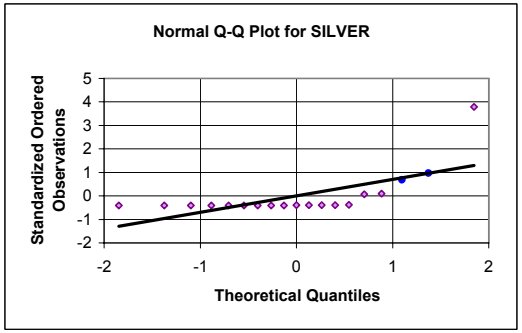
Frequency of Detection	19/19
Mean	8.32
Standard Deviation	4.24
Slope =	4.33
Y Intercept =	8.32
Correlation =	0.983
Shapiro-Wilks Statistics	0.970
Crtitical Value	0.901
Data are normal	



NORMAL - STANDARDIZED DATA

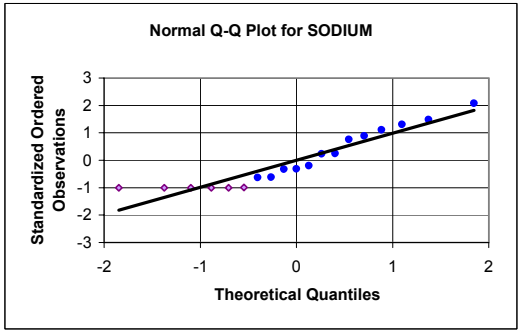
SILVER

Frequency of Detection	2/19
Mean	0.045
Standard Deviation	0.051
Slope =	0.699
Y Intercept =	0
Correlation =	0.672
Shapiro-Wilks Statistics	0.477
Crtitical Value	0.901
Data are not normal	



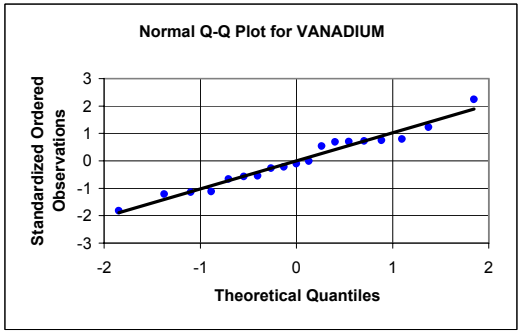
SODIUM

Frequency of Detection	13/19
Mean	128
Standard Deviation	104
Slope =	0.985
Y Intercept =	0
Correlation =	0.947
Shapiro-Wilks Statistics	0.882
Crtitical Value	0.901
Data are not normal	



VANADIUM

Frequency of Detection	19/19
Mean	8.32
Standard Deviation	4.24
Slope =	1.02
Y Intercept =	0
Correlation =	0.983
Shapiro-Wilks Statistics	0.970
Crtitical Value	0.901
Data are normal	

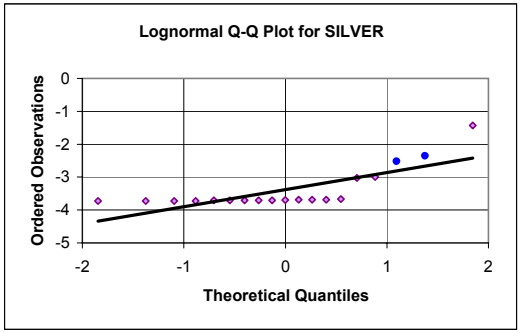


APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LOGNORMAL - RAW DATA

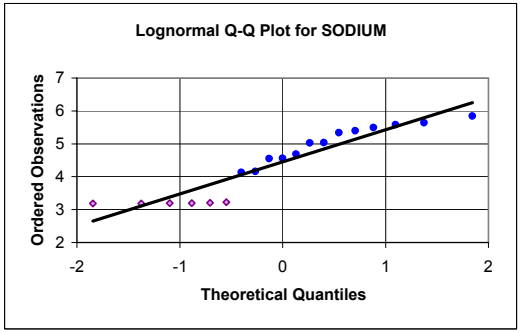
SILVER

Frequency of Detection	2/19
Mean	-3.380
Standard Deviation	0.640
Slope =	0.519
Y Intercept =	-3.380
Correlation =	0.779
Shapiro-Wilks Statistics	0.617
Crtitical Value	0.901
Data are not lognormal	



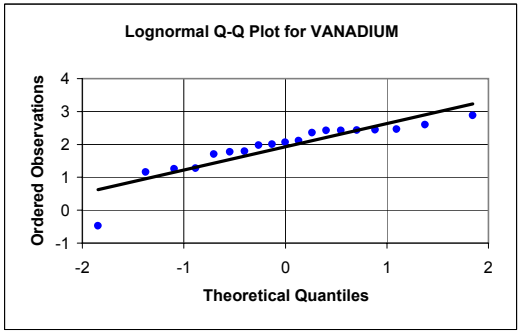
SODIUM

Frequency of Detection	13/19
Mean	4.45
Standard Deviation	0.991
Slope =	0.974
Y Intercept =	4.45
Correlation =	0.945
Shapiro-Wilks Statistics	0.868
Crtitical Value	0.901
Data are not lognormal	



VANADIUM

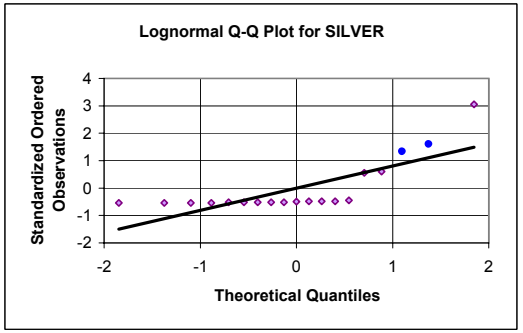
Frequency of Detection	19/19
Mean	1.93
Standard Deviation	0.754
Slope =	0.706
Y Intercept =	1.93
Correlation =	0.901
Shapiro-Wilks Statistics	0.830
Crtitical Value	0.901
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA

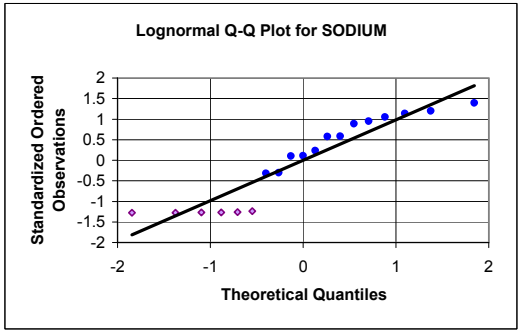
SILVER

Frequency of Detection	2/19
Mean	-3.380
Standard Deviation	0.640
Slope =	0.810
Y Intercept =	0
Correlation =	0.779
Shapiro-Wilks Statistics	0.617
Crtitical Value	0.901
Data are not lognormal	



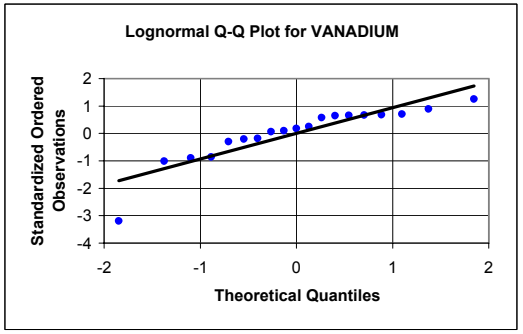
SODIUM

Frequency of Detection	13/19
Mean	4.45
Standard Deviation	0.991
Slope =	0.982
Y Intercept =	0
Correlation =	0.945
Shapiro-Wilks Statistics	0.868
Crtitical Value	0.901
Data are not lognormal	



VANADIUM

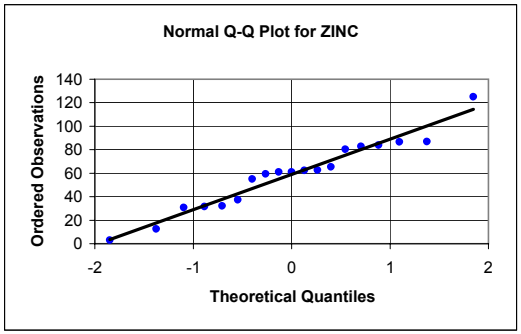
Frequency of Detection	19/19
Mean	1.93
Standard Deviation	0.754
Slope =	0.936
Y Intercept =	0
Correlation =	0.901
Shapiro-Wilks Statistics	0.830
Crtitical Value	0.901
Data are not lognormal	



APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

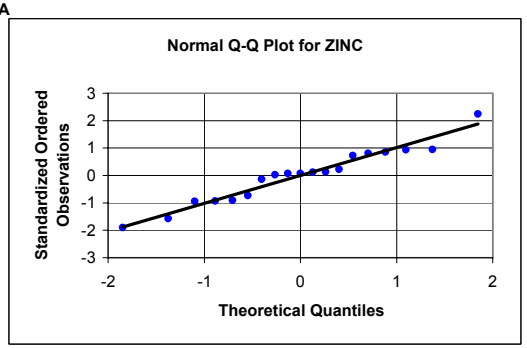
NORMAL - RAW DATA
ZINC

Frequency of Detection	19/19
Mean	59.0
Standard Deviation	29.5
Slope =	30.0
Y Intercept =	59.0
Correlation =	0.978
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.901
Data are normal	



NORMAL - STANDARDIZED DATA
ZINC

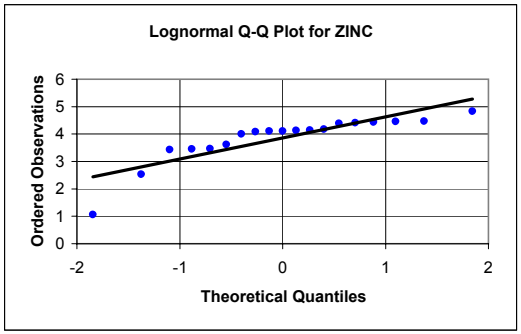
Frequency of Detection	19/19
Mean	59.0
Standard Deviation	29.5
Slope =	1.02
Y Intercept =	0
Correlation =	0.978
Shapiro-Wilks Statistics	0.962
Crtitical Value	0.901
Data are normal	



APPENDIX E5, FIGURE E5-13
PROBABILITY PLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

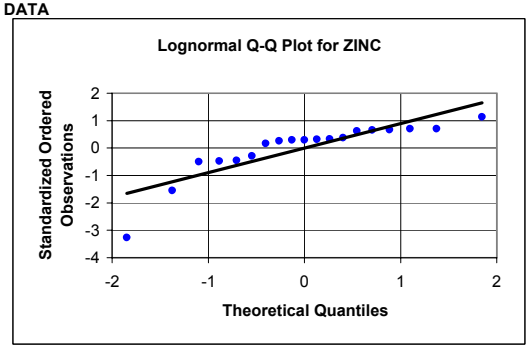
LOGNORMAL - RAW DATA
ZINC

Frequency of Detection	19/19
Mean	3.86
Standard Deviation	0.855
Slope =	0.767
Y Intercept =	3.86
Correlation =	0.863
Shapiro-Wilks Statistics	0.765
Crtitical Value	0.901
Data are not lognormal	



LOGNORMAL - STANDARDIZED DATA
ZINC

Frequency of Detection	19/19
Mean	3.86
Standard Deviation	0.855
Slope =	0.897
Y Intercept =	0
Correlation =	0.863
Shapiro-Wilks Statistics	0.765
Crtitical Value	0.901
Data are not lognormal	



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

Q-Q PLOTS FOR ALUMINUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (AL):

W	0.964
p-value	< 0.0001
alpha	0.05

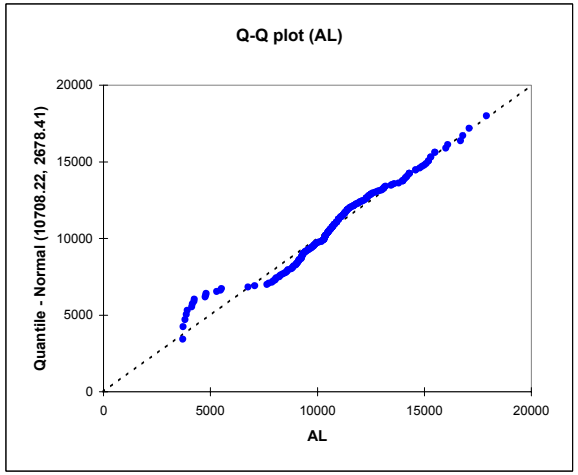
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (AL):

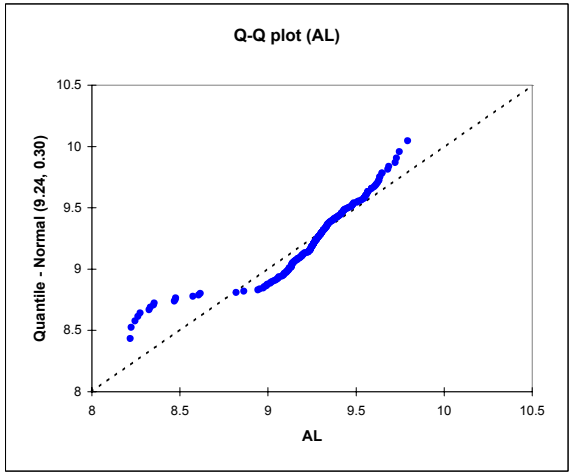
W	0.864
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (AL):



LOGNORMAL Q-Q plot (AL):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR ARSENIC, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (AS):

W	0.736
p-value	< 0.0001
alpha	0.05

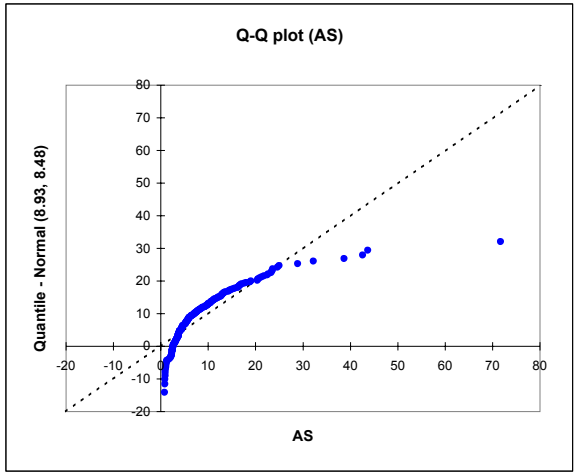
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (AS):

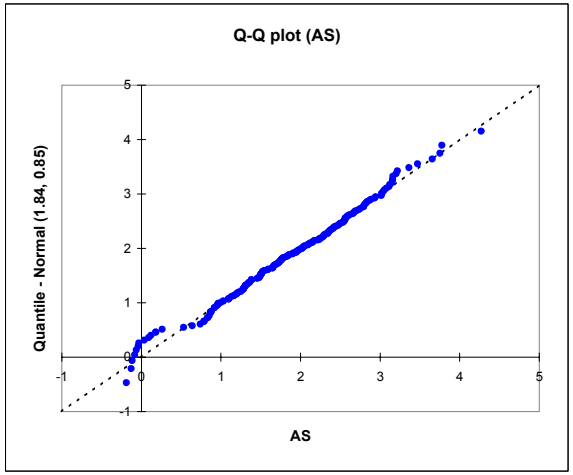
W	0.991
p-value	0.210
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 21.01%.

NORMAL Q-Q plot (AS):



LOGNORMAL Q-Q plot (AS):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR BARIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (BA):

W	0.972
p-value	0.000
alpha	0.05

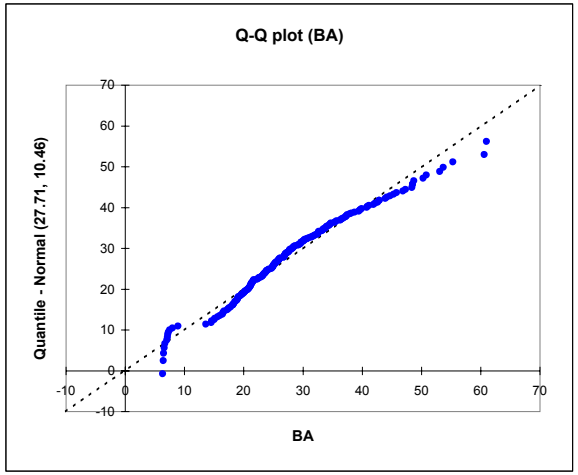
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.03%.

Shapiro-Wilk test (BA):

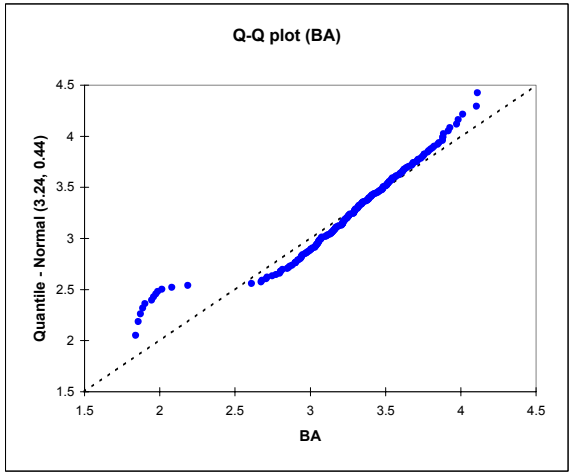
W	0.916
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (BA):



LOGNORMAL Q-Q plot (BA):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR BERYLLIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (BE):

W	0.979
p-value	0.003
alpha	0.05

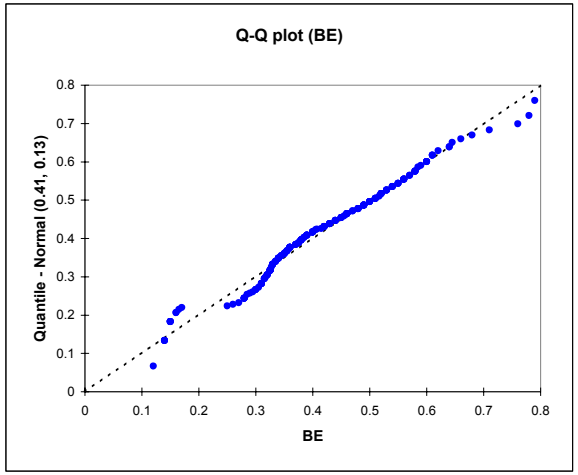
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.27%.

Shapiro-Wilk test (BE):

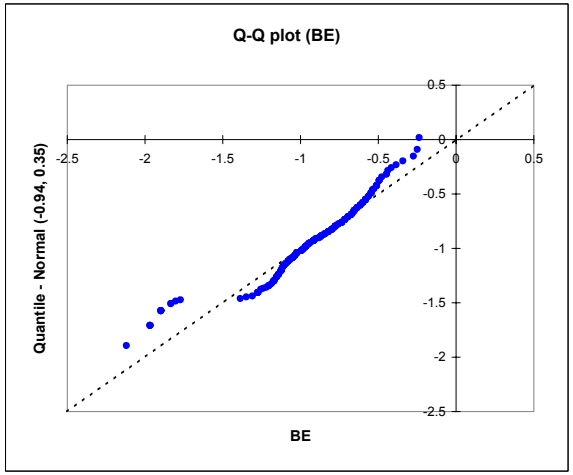
W	0.917
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (BE):



LOGNORMAL Q-Q plot (BE):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR CADMIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (CD):

W	0.610
p-value	< 0.0001
alpha	0.05

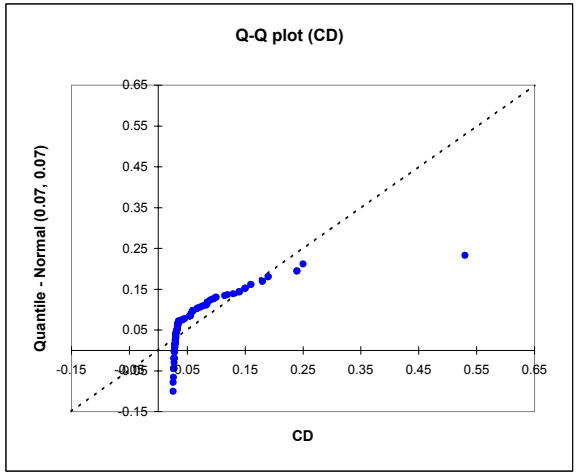
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (CD):

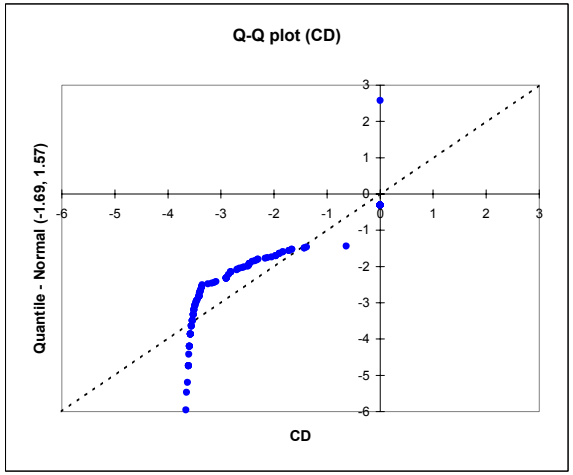
W	0.765
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (CD):



LOGNORMAL Q-Q plot (CD):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR CALCIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (CA):

W	0.801
p-value	< 0.0001
alpha	0.05

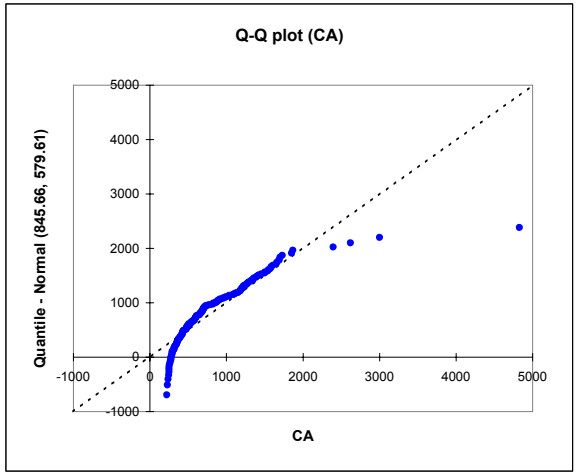
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (CA):

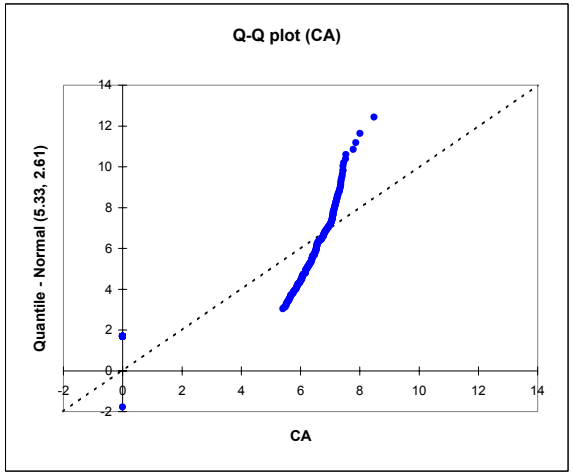
W	0.670
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (CA):



LOGNORMAL Q-Q plot (CA):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR CHROMIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (CR):

W	0.959
p-value	< 0.0001
alpha	0.05

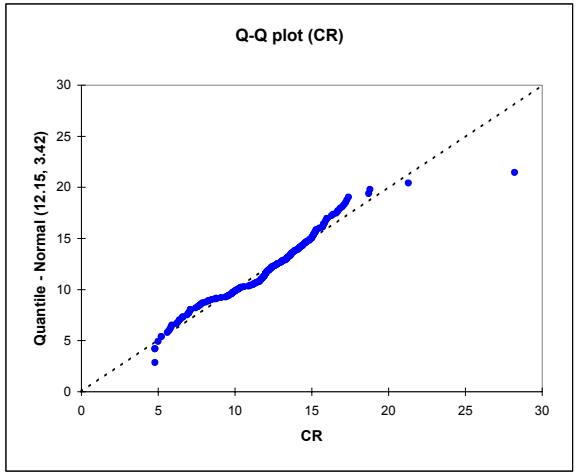
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (CR):

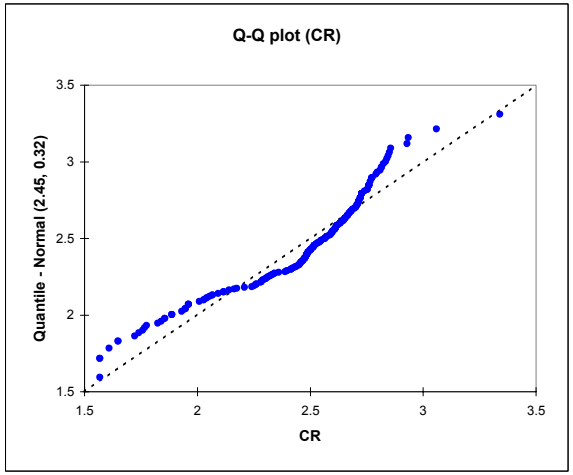
W	0.920
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (CR):



LOGNORMAL Q-Q plot (CR):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR COBALT, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (CO):

W	0.939
p-value	< 0.0001
alpha	0.05

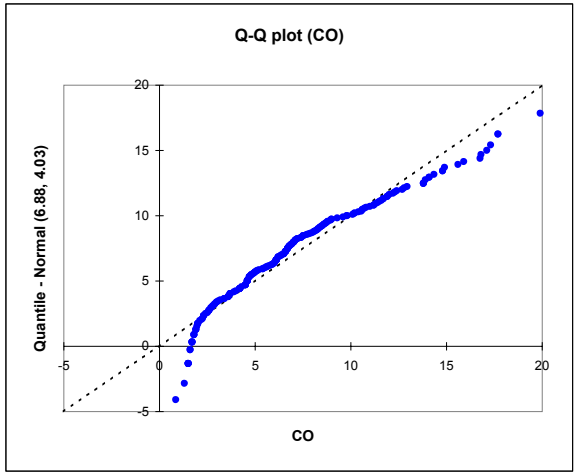
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (CO):

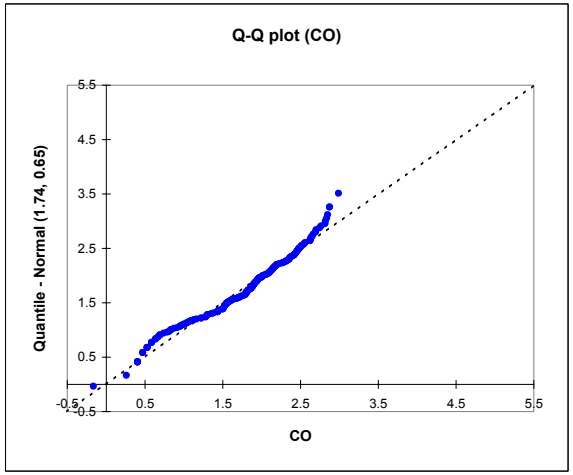
W	0.970
p-value	0.000
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.02%.

NORMAL Q-Q plot (CO):



LOGNORMAL Q-Q plot (CO):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR COPPER, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (CU):

W	0.937
p-value	< 0.0001
alpha	0.05

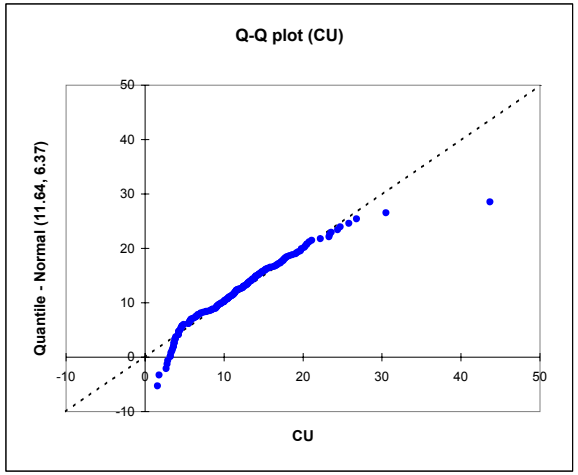
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (CU):

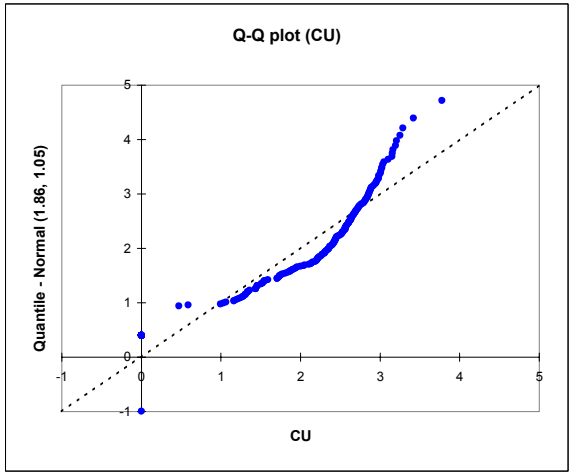
W	0.867
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (CU):



LOGNORMAL Q-Q plot (CU):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR IRON, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (FE):

W	0.929
p-value	< 0.0001
alpha	0.05

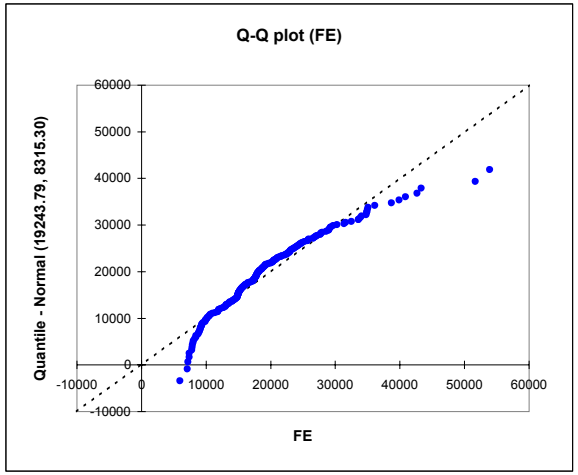
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (FE):

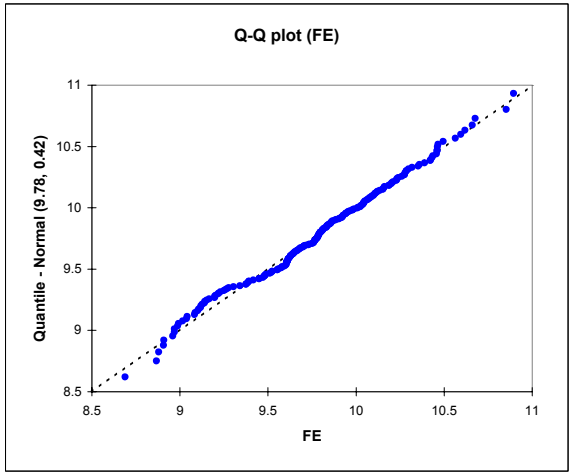
W	0.991
p-value	0.219
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 21.89%.

NORMAL Q-Q plot (FE):



LOGNORMAL Q-Q plot (FE):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR LEAD, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (PB):

W	0.826
p-value	< 0.0001
alpha	0.05

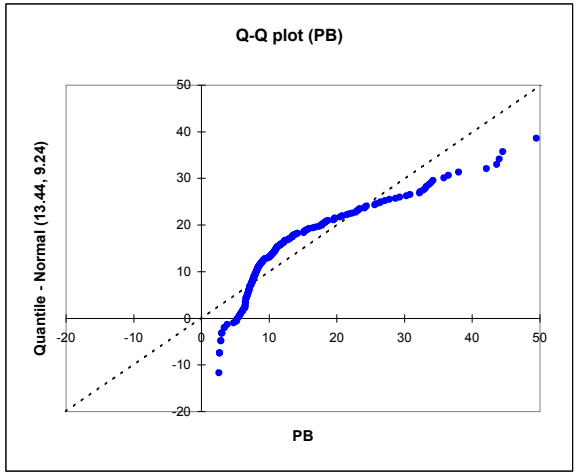
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (PB):

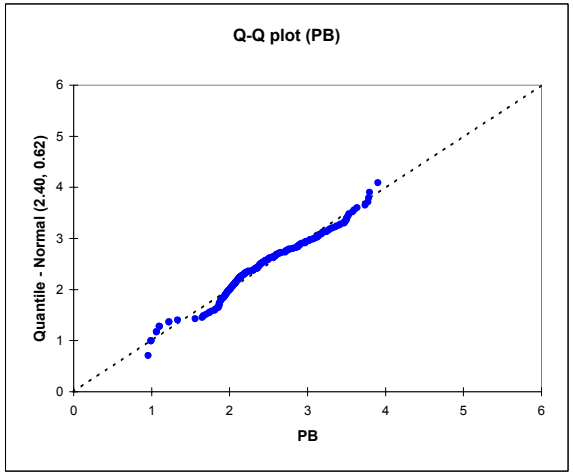
W	0.972
p-value	0.000
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.03%.

NORMAL Q-Q plot (PB):



LOGNORMAL Q-Q plot (PB):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

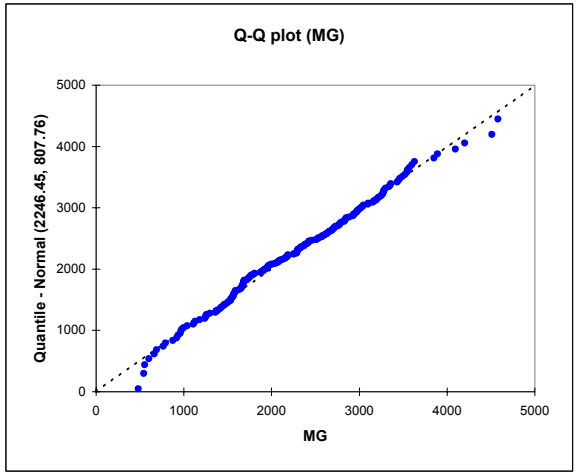
Q-Q PLOTS FOR MAGNESIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (MG):

W	0.991
p-value	0.233
alpha	0.05

Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 23.30%.

NORMAL Q-Q plot (MG):

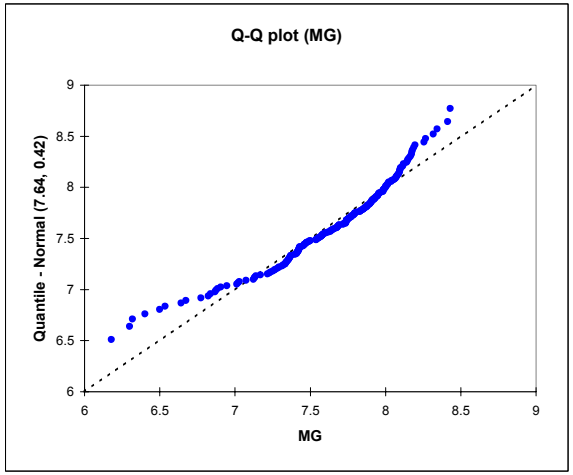


Shapiro-Wilk test (MG):

W	0.946
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

LOGNORMAL Q-Q plot (MG):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR MANGANESE, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (MN):

W	0.729
p-value	< 0.0001
alpha	0.05

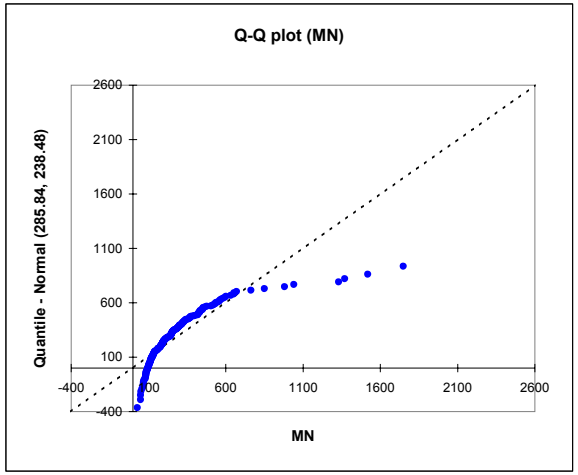
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (MN):

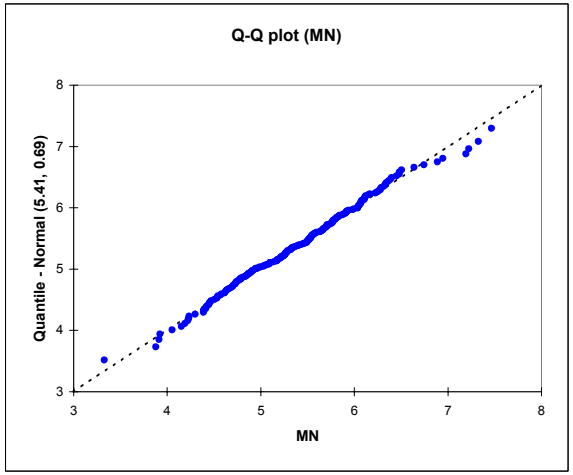
W	0.995
p-value	0.653
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 65.33%.

NORMAL Q-Q plot (MN):



LOGNORMAL Q-Q plot (MN):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR MERCURY, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (HG):

W	0.472
p-value	< 0.0001
alpha	0.05

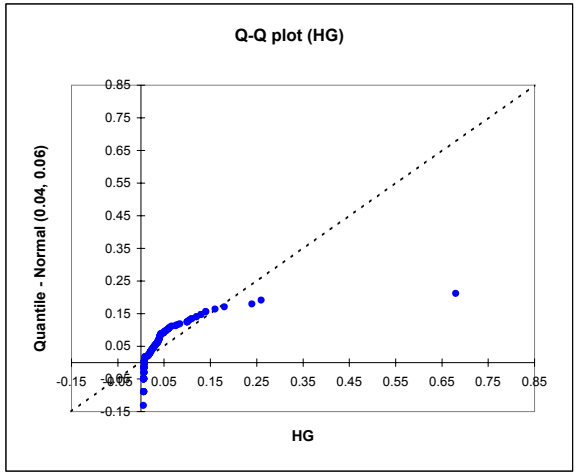
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (HG):

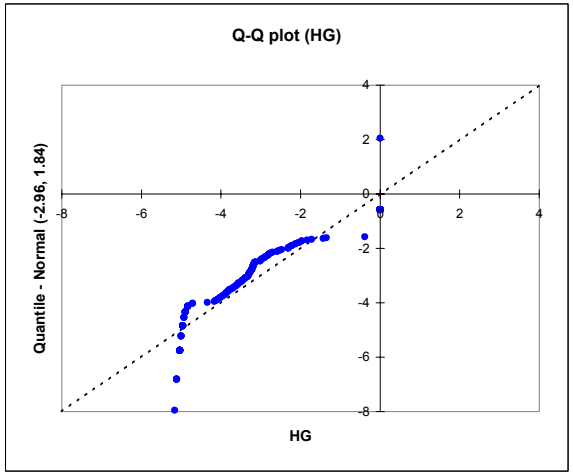
W	0.850
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (HG):



LOGNORMAL Q-Q plot (HG):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR NICKEL, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (NI):

W	0.933
p-value	< 0.0001
alpha	0.05

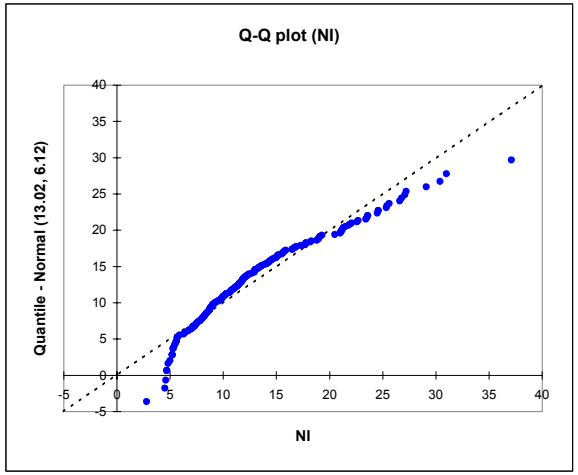
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (NI):

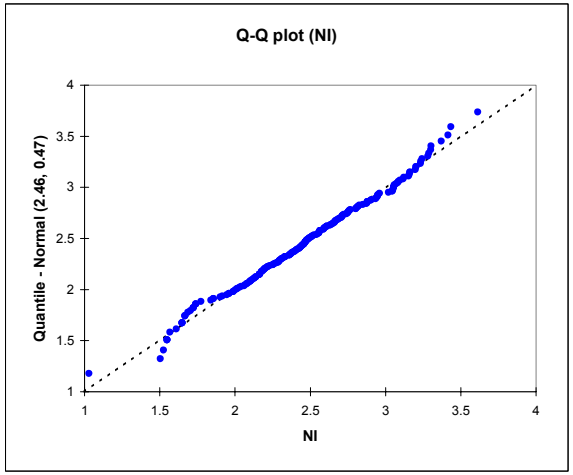
W	0.991
p-value	0.243
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 24.30%.

NORMAL Q-Q plot (NI):



LOGNORMAL Q-Q plot (NI):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR POTASSIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (K):

W	0.722
p-value	< 0.0001
alpha	0.05

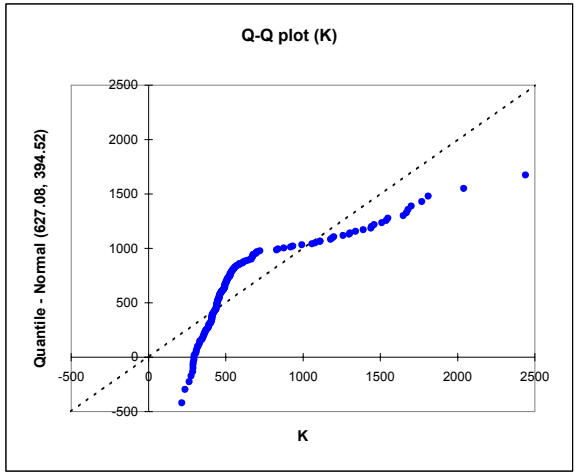
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (K):

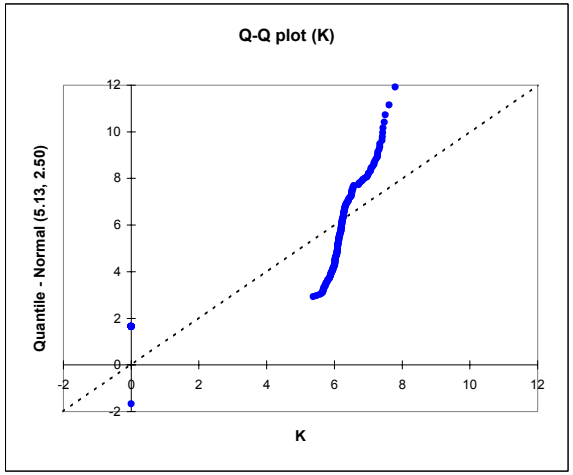
W	0.634
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (K):



LOGNORMAL Q-Q plot (K):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR SELENIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (SE):

W	0.819
p-value	< 0.0001
alpha	0.05

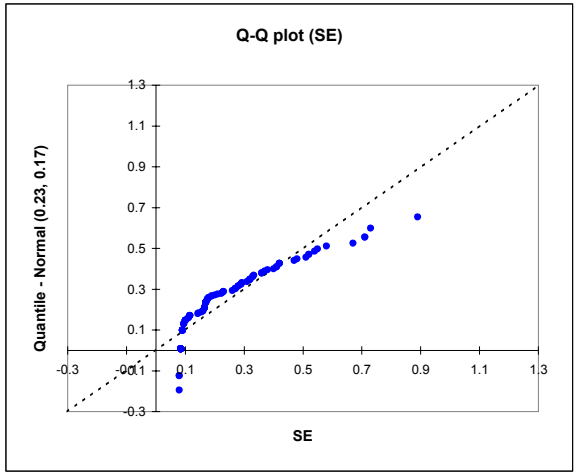
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (SE):

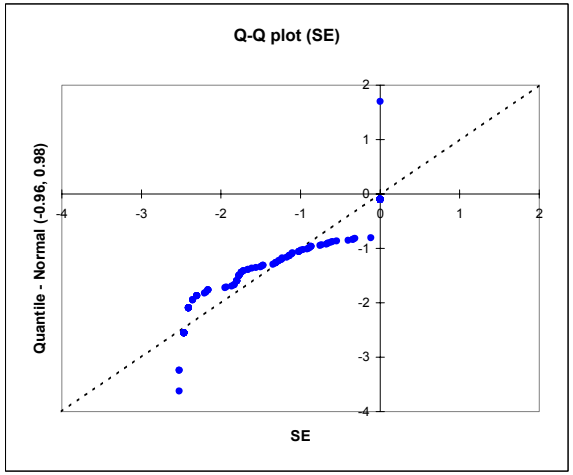
W	0.809
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (SE):



LOGNORMAL Q-Q plot (SE):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR SODIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (NA):

W	0.593
p-value	< 0.0001
alpha	0.05

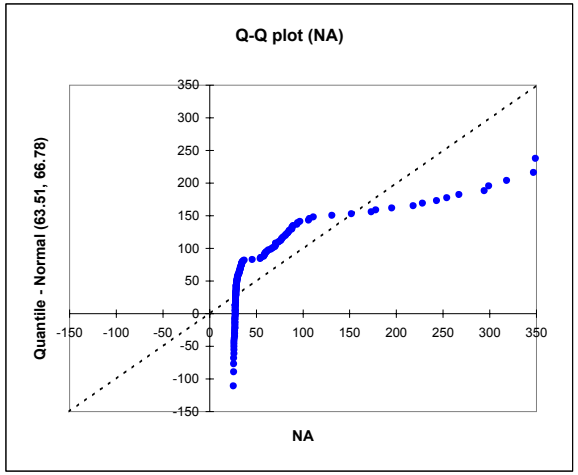
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (NA):

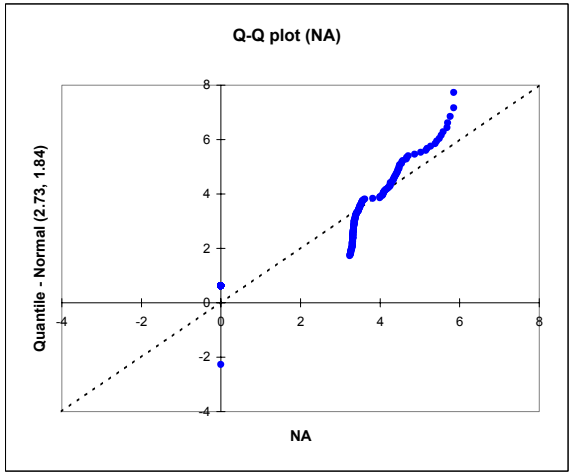
W	0.802
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (NA):



LOGNORMAL Q-Q plot (NA):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR VANADIUM, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (V):

W	0.976
p-value	0.001
alpha	0.05

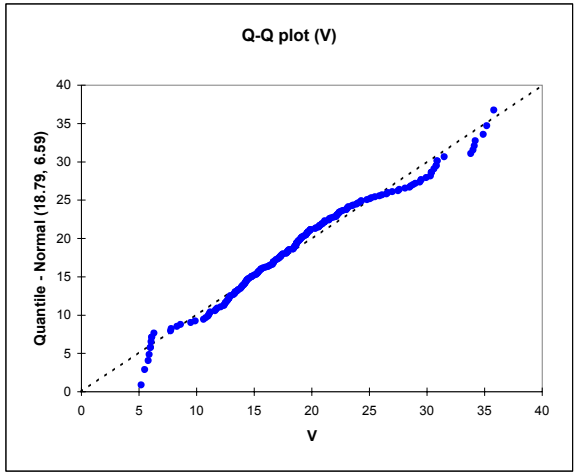
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.12%.

Shapiro-Wilk test (V):

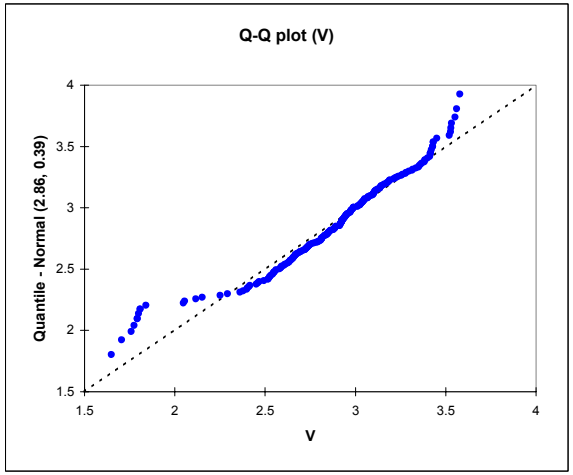
W	0.946
p-value	< 0.0001
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

NORMAL Q-Q plot (V):



LOGNORMAL Q-Q plot (V):



APPENDIX E, FIGURE E5-14
PROBABILITY PLOTS FOR ALL SOIL TYPES COMBINED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Q-Q PLOTS FOR ZINC, ALL SOIL TYPES COMBINED

Shapiro-Wilk test (ZN):

W	0.945
p-value	< 0.0001
alpha	0.05

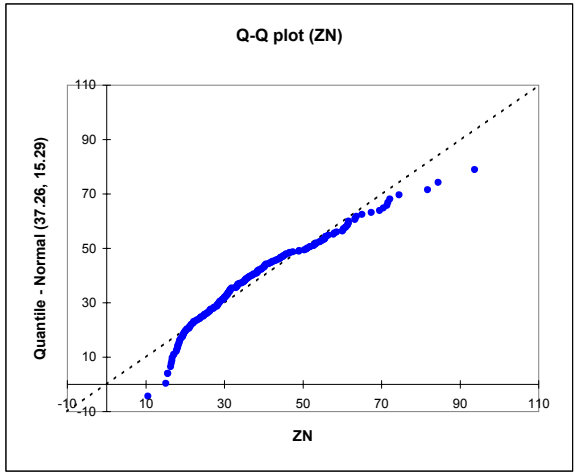
Test interpretation:
H0: The sample follows a Normal distribution.
Ha: The sample does not follow a Normal distribution.
one should reject the null hypothesis H0, and accept the alternative hypothesis Ha.
The risk to reject the null hypothesis H0 while it is true is lower than 0.01%.

Shapiro-Wilk test (ZN):

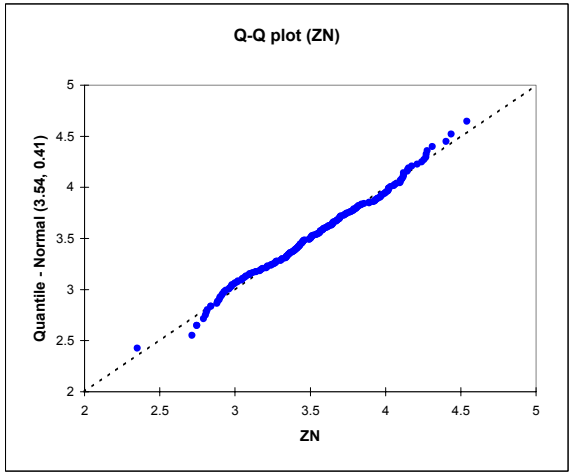
W	0.992
p-value	0.251
alpha	0.05

Test interpretation:
H0: The sample follows a Lognormal distribution.
Ha: The sample does not follow a Lognormal distribution.
one should accept the null hypothesis H0.
The risk to reject the null hypothesis H0 while it is true is 25.15%.

NORMAL Q-Q plot (ZN):



LOGNORMAL Q-Q plot (ZN):



APPENDIX E, PART 6

COMPARATIVE STATISTICAL TESTS BETWEEN SOIL TYPES

APPENDIX E, TABLE E6-1
STATISTICAL (ONE-WAY) COMPARISON OF BEACHES SURFACE SOIL (BASS) TO OTHER SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher BaSS Freq. > OthrSS Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are BaSS? # BaSS (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of BaSS > OthrSS? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test BaSS Mean > OthrSS Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations BaSS Standard Deviation =OthrSS Std.Dev.? #s>2,#b>2, BaSS & OthrSS both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: BaSS>OthrSS?	YN	OthrSS Freq.	BaSS Freq.	P Value	YN	r	k	P Value	YN	P Value	Test	Used	YN	OthrSS Mean@	BaSS Mean@	t Value	t Table	YN	OthrSS Distrib.	BaSS Distrib.	Std.Dev. OthrSS@	Std.Dev. BaSS@	F Value	F Table	YN
Substance																									
Aluminum	N	102/102	13/13		NA	10		1.0000	N	1.0000			N	11900	4270			NA	nonpar.	normal					NA
Arsenic	N	102/102	13/13		NA	39		1.0000	N	1.0000			N	7.96	1.03			NA	nonpar.	normal					NA
Barium	N	102/102	13/13		NA	31		1.0000	N	1.0000			N	32.2	7.69			NA	lognor.	nonpar.					NA
Beryllium	N	64/102	13/13	0.0038	Y				NA	1.0000	Gehan	Test	N	0.396	0.151			NA	nonpar.	normal					NA
Calcium	Y	62/102	13/13		NA	4	3	0.0043	Y	<.0001	Gehan	Test	Y	479	1420			NA	nonpar.	nonpar.					NA
Chromium	N	102/102	13/13		NA	17		1.0000	N	1.0000			N	11.9	5.84			NA	nonpar.	normal					NA
Cobalt	N	102/102	13/13		NA	10		1.0000	N	1.0000			N	4.69	1.95			NA	nonpar.	normal					NA
Copper	N	62/102	13/13		NA				NA	0.9986	Gehan	Test	N	6.32	4.13			NA	lognor.	nonpar.					NA
Iron	N	102/102	13/13		NA	26		1.0000	N	1.0000			N	16600	8210			NA	nonpar.	normal					NA
Lead	N	102/102	13/13		NA	48		1.0000	N	1.0000			N	19.8	3.14			NA	lognor.	nonpar.					NA
Magnesium	Y	97/102	13/13	0.5427	N	79	13	0.0054	Y	0.0072			Y	1650	1970			NA	normal	lognor.					NA
Manganese	N	102/102	13/13		NA	80	8	0.8389	N	0.9775			N	172	116			NA	lognor.	normal					NA
Nickel	N	102/102	13/13		NA	80	3	1.0000	N	0.9999			N	9.63	6.24			NA	nonpar.	lognor.					NA
Potassium	Y	62/102	13/13	0.0026	Y	1	1	0.1130	N	<.0001	Gehan	Test	Y	307	552			NA	nonpar.	nonpar.					NA
Sodium	Y	12/74	13/13		NA				NA	<.0001	Gehan	Test	Y	67	254			NA	nonpar.	normal					NA
Vanadium	N	102/102	13/13		NA	10		1.0000	N	1.0000			N	22.3	6.37			NA	nonpar.	nonpar.					NA
Zinc	N	102/102	13/13		NA	45	1	0.9990	N	0.9999			N	35.6	20.9			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare BaSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is BaSS > OthrSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of BaSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of BaSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines BaSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined BaSS and OthrSS data set are comprised of BaSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-2
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO BEACHES SURFACE SOIL (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSS Freq. > BaSS Freq.?				Majority are OthrSS?				Ranks of OthrSS > BaSS?				OthrSS Mean > BaSS Mean ?					OthrSS Standard Deviation =BaSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSS & BaSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrxSS>BaxSS?		BaSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	BaSS	OthrSS	t	t	YN	BaSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	BaSS@	OthrSS@	Value	Table	
Aluminum	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	4270	11900			NA	lognor.	nonpar.					NA
Arsenic	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	1.03	7.96			NA	lognor.	nonpar.					NA
Barium	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	7.69	32.2			NA	nonpar.	lognor.					NA
Beryllium	Y	13/13	64/102	1.0000	N				NA	<.0001	Gehan	Test	Y	0.151	0.396			NA	lognor.	nonpar.					NA
Cadmium	NA	0/13	9/102		NA				NA				NA		0.166			NA							NA
Calcium	N	13/13	62/102		NA	3	1	0.9988	N	1.0000	Gehan	Test	N	1420	479			NA	nonpar.	nonpar.					NA
Chromium	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	5.84	11.9			NA	lognor.	nonpar.					NA
Cobalt	Y	13/13	102/102		NA	81	81	<.0001	Y	<.0001			Y	1.95	4.69			NA	lognor.	nonpar.					NA
Copper	Y	13/13	62/102		NA	3	3	0.6954	N	0.0012	Gehan	Test	Y	4.13	6.32			NA	nonpar.	lognor.					NA
Iron	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	8210	16600			NA	lognor.	nonpar.					NA
Lead	Y	13/13	102/102		NA	82	82	<.0001	Y	<.0001			Y	3.14	19.8			NA	nonpar.	lognor.					NA
Magnesium	N	13/13	97/102	1.0000	N	11	11	0.2504	N	0.9929			N	1970	1650			NA	lognor.	normal					NA
Manganese	Y	13/13	102/102		NA	70	66	0.0207	Y	0.0230			Y	116	172			NA	lognor.	lognor.					NA
Mercury	N	0/13	66/102		NA	3	3	0.6954	N				NA		0.0605			NA							NA
Nickel	Y	13/13	102/102		NA	80	77	0.0003	Y	0.0001			Y	6.24	9.63			NA	lognor.	nonpar.					NA
Potassium	N	13/13	62/102	1.0000	N	5	4	0.9027	N	1.0000	Gehan	Test	N	552	307			NA	nonpar.	nonpar.					NA
Selenium	NA	0/13	45/100		NA				NA				NA		1.09			NA							NA
Sodium	N	13/13	12/74		NA				NA	1.0000	Gehan	Test	N	254	67			NA	normal	nonpar.					NA
Vanadium	Y	13/13	102/102		NA	80	80	<.0001	Y	<.0001			Y	6.37	22.3			NA	nonpar.	nonpar.					NA
Zinc	Y	13/13	102/102		NA	80	78	<.0001	Y	0.0001			Y	20.9	35.6			NA	nonpar.	lognor.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to BaSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > BaSS) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or BaSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of BaSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > BaSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and BaSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-3
STATISTICAL (ONE-WAY) COMPARISON OF MANSFIELD MUCKY SILT LOAM SURFACE SOIL (MASS) TO OTHER SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher MaSS Freq. > OthrSS Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are MaSS? # MaSS (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of MaSS > OthrSS? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test MaSS Mean > OthrSS Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations MaSS Standard Deviation =OthrSS Std.Dev.? #s>2,#b>2, MaSS & OthrSS both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: MaSS>OthrSS?	YN	OthrSS Freq.	MaSS Freq.	P Value	YN	r	k	P Value	YN	P Value	Test	Used	YN	OthrSS Mean@	MaSS Mean@	t Value	t Table	YN	OthrSS Distrib.	MaSS Distrib.	Std.Dev. OthrSS@	Std.Dev. MaSS@	F Value	F Table	YN
Substance																									
Aluminum	N	95/95	20/20		NA	77	17	0.0472	N	0.4399			N	11000	11300			NA	nonpar.	normal					NA
Arsenic	N	95/95	20/20		NA	80	16	0.2003	N	0.2963			N	7.2	7.05			NA	nonpar.	lognor.					NA
Barium	Y	95/95	20/20		NA	78	19	0.0023	Y	<.0001			Y	27.3	39.4			NA	nonpar.	normal					NA
Beryllium	N	57/95	20/20	0.0001	Y				NA	0.4294	Gehan	Test	N	0.365	0.388			NA	nonpar.	normal					NA
Cadmium	NA*	6/95	3/20		NA				NA	0.1609	Gehan	Test	N	0.173	0.0453			NA	nonpar.	nonpar.					NA
Calcium	Y	55/95	20/20		NA	3	1	0.4394	N	<.0001	Gehan	Test	Y	502	981			NA	nonpar.	lognor.					NA
Chromium	Y	95/95	20/20		NA	76	18	0.0094	Y	0.1569			N	11	12			NA	nonpar.	normal					NA
Cobalt	N	95/95	20/20		NA	79	16	0.1760	N	0.4926			N	4.44	4.08			NA	nonpar.	normal					NA
Copper	N	55/95	20/20		NA				NA	0.5094	Gehan	Test	N	6.12	5.82			NA	nonpar.	normal					NA
Iron	N	95/95	20/20		NA	80	15	0.3854	N	0.6763			N	15800	14800			NA	nonpar.	normal					NA
Lead	N	95/95	20/20		NA	82	17	0.1086	N	0.4124			N	18	17.6			NA	nonpar.	lognor.					NA
Magnesium	N	90/95	20/20	0.3775	N	10	3	0.2393	N	0.4809			N	1680	1720			NA	nonpar.	normal					NA
Manganese	N	95/95	20/20		NA	28	4	0.7794	N	0.9854			N	173	128			NA	lognor.	normal					NA
Mercury	N	46/95	20/20		NA				NA	0.0477	Gehan	Test	N	0.0557	0.0479			NA	nonpar.	normal					NA
Nickel	N	95/95	20/20		NA	20	6	0.0985	N	0.1696			N	9.15	9.75			NA	nonpar.	normal					NA
Potassium	N	55/95	20/20	0.0001	Y	5		1.0000	N	0.5476	Gehan	Test	N	332	351			NA	nonpar.	normal					NA
Selenium	Y	29/93	16/20		NA				NA	0.0006	Gehan	Test	Y	1.1	0.37			NA	nonpar.	normal					NA
Sodium	N	14/67	11/20		NA				NA	0.0647	Gehan	Test	N	102	69.5			NA	nonpar.	nonpar.					NA
Vanadium	N	95/95	20/20		NA	59	13	0.1351	N	0.3465			N	20.4	21.1			NA	nonpar.	normal					NA
Zinc	Y	95/95	20/20		NA	73	18	0.0047	Y	0.2394			N	34.1	33.1			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare MaSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is MaSS > OthrSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of MaSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of MaSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines MaSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined MaSS and OthrSS data set are comprised of MaSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-4
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO MANSFIELD MUCKY SILT LOAM SURFACE SOIL (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSS Freq. > MaSS Freq.?				Majority are OthrSS?				Ranks of OthrSS > MaSS?				OthrSS Mean > MaSS Mean ?					OthrSS Standard Deviation =MaSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSS & MaSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSS>MaSS?	YN	MaSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	MaSS	OthrSS	t	t	YN	MaSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	MaSS@	OthrSS@	Value	Table	
Aluminum	N	20/20	95/95		NA	18	17	0.1314	N	0.5631			N	11300	11000			NA	normal	nonpar.					NA
Arsenic	N	20/20	95/95		NA	40	35	0.2287	N	0.7062			N	7.05	7.2			NA	lognor.	nonpar.					NA
Barium	N	20/20	95/95		NA	16	11	0.9666	N	1.0000			N	39.4	27.3			NA	normal	nonpar.					NA
Beryllium	N	20/20	57/95	1.0000	N				NA	0.5342	Gehan	Test	N	0.388	0.365			NA	normal	nonpar.					NA
Cadmium	NA*	3/20	6/95		NA				NA	0.8436	Gehan	Test	N	0.0453	0.173			NA	nonpar.	nonpar.					NA
Calcium	N	20/20	55/95		NA	2	2	0.6812	N	1.0000	Gehan	Test	N	981	502			NA	lognor.	nonpar.					NA
Chromium	N	20/20	95/95		NA	44	38	0.2833	N	0.8449			N	12	11			NA	normal	nonpar.					NA
Cobalt	N	20/20	95/95		NA	31	28	0.1464	N	0.5103			N	4.08	4.44			NA	normal	nonpar.					NA
Copper	N	20/20	55/95		NA	3	3	0.5606	N	0.5259	Gehan	Test	N	5.82	6.12			NA	normal	nonpar.					NA
Iron	N	20/20	95/95		NA	57	50	0.1173	N	0.3264			N	14800	15800			NA	normal	nonpar.					NA
Lead	N	20/20	95/95		NA	44	39	0.1374	N	0.5905			N	17.6	18			NA	lognor.	nonpar.					NA
Magnesium	N	20/20	90/95	1.0000	N	64	55	0.2094	N	0.5220			N	1720	1680			NA	normal	nonpar.					NA
Manganese	Y	20/20	95/95		NA	80	70	0.0368	N	0.0147			Y	128	173			NA	lognor.	lognor.					NA
Mercury	N	20/20	46/95		NA	3	3	0.5606	N	0.9518	Gehan	Test	N	0.0479	0.0557			NA	lognor.	nonpar.					NA
Nickel	N	20/20	95/95		NA	10	9	0.4508	N	0.8323			N	9.75	9.15			NA	normal	nonpar.					NA
Potassium	N	20/20	55/95	1.0000	N	7	7	0.2522	N	0.4555	Gehan	Test	N	351	332			NA	lognor.	nonpar.					NA
Selenium	N	16/20	29/93		NA				NA	0.9994	Gehan	Test	N	0.37	1.1			NA	normal	nonpar.					NA
Sodium	N	11/20	14/67		NA				NA	0.9372	Gehan	Test	N	69.5	102			NA	nonpar.	nonpar.					NA
Vanadium	N	20/20	95/95		NA	13	13	0.0714	N	0.6562			N	21.1	20.4			NA	normal	nonpar.					NA
Zinc	N	20/20	95/95		NA	10	10	0.1356	N	0.7629			N	33.1	34.1			NA	normal	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to MaSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > MaSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or MaSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of MaSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > MaSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and MaSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-5
STATISTICAL (ONE-WAY) COMPARISON OF MERRIMACK SANDY LOAM SURFACE SOIL (MMSS) TO OTHER SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		MmSS Freq. > OthrSS Freq.?				Majority are MmSS?				Ranks of MmSS > OthrSS?				MmSS Mean > OthrSS Mean ?					MmSS Standard Deviation =OthrSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# MmSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, MmSS & OthrSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: MmSS>OthrSS?	YN	OthrSS	MmSS	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSS	MmSS	t	t	YN	OthrSS	MmSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSS@	MmSS@	Value	Table	
Aluminum	N	95/95	20/20		NA	30	8	0.1028	N	0.3118			N	10900	11800			NA	nonpar.	nonpar.					NA
Arsenic	N	95/95	20/20		NA	79	13	0.7482	N	0.9941			N	7.83	4.03			NA	nonpar.	normal					NA
Barium	N	95/95	20/20		NA	64	6	0.9975	N	0.9995			N	30.9	22.4			NA	nonpar.	nonpar.					NA
Beryllium	N	57/95	20/20	0.0001	Y				NA	0.1051	Gehan	Test	N	0.358	0.419			NA	nonpar.	normal					NA
Calcium	N	55/95	20/20		NA				NA	0.9990	Gehan	Test	N	640	323			NA	nonpar.	normal					NA
Chromium	N	95/95	20/20		NA	80	12	0.8996	N	0.9683			N	11.5	9.87			NA	nonpar.	normal					NA
Cobalt	N	95/95	20/20		NA	81	12	0.9160	N	0.9996			N	4.7	2.87			NA	nonpar.	normal					NA
Copper	N	55/95	20/20		NA				NA	0.0766	Gehan	Test	N	5.91	6.84			NA	nonpar.	normal					NA
Iron	N	95/95	20/20		NA	78	13	0.7170	N	0.9104			N	16000	13800			NA	nonpar.	normal					NA
Lead	N	95/95	20/20		NA	79	8	0.9993	N	0.9999			N	19.4	10.8			NA	nonpar.	normal					NA
Magnesium	N	90/95	20/20	0.3775	N	25	4	0.6824	N	0.9295			N	1720	1520			NA	nonpar.	normal					NA
Manganese	N	95/95	20/20		NA	79	16	0.1760	N	0.6921			N	171	141			NA	lognor.	normal					NA
Mercury	N	48/95	18/20		NA				NA	0.9904	Gehan	Test	N	0.0601	0.0271			NA	nonpar.	normal					NA
Nickel	N	95/95	20/20		NA	72	12	0.7015	N	0.9911			N	9.58	7.7			NA	nonpar.	nonpar.					NA
Potassium	Y	55/95	20/20	0.0001	Y	5	4	0.0031	Y	<.0001	Gehan	Test	Y	302	494			NA	nonpar.	normal					NA
Selenium	N	32/93	13/20		NA				NA	0.5941	Gehan	Test	N	1.13	0.251			NA	nonpar.	nonpar.					NA
Sodium	N	24/67	1/20		NA				NA	0.9993	Gehan	Test	N	114	32.3			NA	nonpar.	nonpar.					NA
Vanadium	N	95/95	20/20		NA	78	11	0.9443	N	0.9961			N	21.2	17			NA	nonpar.	normal					NA
Zinc	N	95/95	20/20		NA	80	10	0.9891	N	1.0000			N	36.4	22			NA	lognor.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare MmSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is MmSS > OthrSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of MmSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of MmSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines MmSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined MmSS and OthrSS data set are comprised of MmSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-6
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO MERRIMACK SANDY LOAM SURFACE SOIL (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSS Freq. > MmSS Freq.?				Majority are OthrSS?				Ranks of OthrSS > MmSS?				OthrSS Mean > MmSS Mean ?					OthrSS Standard Deviation =MmSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSS & MmSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSS>MmSS?	YN	MmSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	MmSS	OthrSS	t	t	YN	MmSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	MmSS@	OthrSS@	Value	Table	
Aluminum	N	20/20	95/95		NA	6	6	0.3089	N	0.6908			N	11800	10900			NA	nonpar.	nonpar.					NA
Arsenic	Y	20/20	95/95		NA	67	63	0.0002	Y	0.0060			Y	4.03	7.83			NA	lognor.	nonpar.					NA
Barium	Y	20/20	95/95		NA	80	72	0.0025	Y	0.0005			Y	22.4	30.9			NA	nonpar.	nonpar.					NA
Beryllium	N	20/20	57/95	1.0000	N				NA	0.8811	Gehan	Test	N	0.419	0.358			NA	lognor.	nonpar.					NA
Cadmium	NA	0/20	9/95		NA				NA				NA		0.173			NA							NA
Calcium	Y	20/20	55/95		NA	4	4	0.4605	N	0.0010	Gehan	Test	Y	323	640			NA	lognor.	nonpar.					NA
Chromium	Y	20/20	95/95		NA	72	64	0.0217	Y	0.0323			N	9.87	11.5			NA	normal	nonpar.					NA
Cobalt	Y	20/20	95/95		NA	77	68	0.0229	Y	0.0004			Y	2.87	4.7			NA	normal	nonpar.					NA
Copper	N	20/20	55/95		NA	3	3	0.5606	N	0.9352	Gehan	Test	N	6.84	5.91			NA	normal	nonpar.					NA
Iron	Y	20/20	95/95		NA	40	38	0.0075	Y	0.0908			N	13800	16000			NA	lognor.	nonpar.					NA
Lead	Y	20/20	95/95		NA	82	74	0.0013	Y	0.0001			Y	10.8	19.4			NA	normal	nonpar.					NA
Magnesium	N	20/20	90/95	1.0000	N	80	70	0.0368	N	0.0715			N	1520	1720			NA	normal	nonpar.					NA
Manganese	Y	20/20	95/95		NA	38	36	0.0117	Y	0.3105			N	141	171			NA	normal	lognor.					NA
Mercury	Y	18/20	48/95		NA	3	3	0.5606	N	0.0085	Gehan	Test	Y	0.0271	0.0601			NA	normal	nonpar.					NA
Nickel	Y	20/20	95/95		NA	51	47	0.0134	Y	0.0090			Y	7.7	9.58			NA	nonpar.	nonpar.					NA
Potassium	N	20/20	55/95	1.0000	N	1	1	0.8261	N	1.0000	Gehan	Test	N	494	302			NA	lognor.	nonpar.					NA
Selenium	N	13/20	32/93		NA				NA	0.4770	Gehan	Test	N	0.251	1.13			NA	nonpar.	nonpar.					NA
Sodium	Y	1/20	24/67		NA				NA	0.0007	Gehan	Test	Y	32.3	114			NA	nonpar.	nonpar.					NA
Vanadium	Y	20/20	95/95		NA	73	65	0.0173	Y	0.0039			Y	17	21.2			NA	lognor.	nonpar.					NA
Zinc	Y	20/20	95/95		NA	79	70	0.0141	Y	<.0001			Y	22	36.4			NA	normal	lognor.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to MmSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > MmSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or MmSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of MmSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > MmSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and MmSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-7
STATISTICAL (ONE-WAY) COMPARISON OF SOIL TYPE NEWPORT SILT LOAM SURFACE SOIL (NESS) TO OTHER SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher NeSS Freq. > OthrSS Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are NeSS? # NeSS (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of NeSS > OthrSS? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test NeSS Mean > OthrSS Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations NeSS Standard Deviation =OthrSS Std.Dev.? #s>2,#b>2, NeSS & OthrSS both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: NeSS>OthrSS? YN		OthrSS	NeSS	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSS	NeSS	t	t	YN	OthrSS	NeSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSS@	NeSS@	Value	Table	
Aluminum	Y	93/93	22/22		NA	43	13	0.0192	Y	0.0012			Y	10600	13100			NA	nonpar.	nonpar.					NA
Arsenic	N	93/93	22/22		NA	52	11	0.3948	N	0.6932			N	7.38	6.28			NA	nonpar.	nonpar.					NA
Barium	N	93/93	22/22		NA	80	15	0.6667	N	0.9788			N	30.4	25.2			NA	nonpar.	normal					NA
Beryllium	Y	55/93	22/22	<.0001	Y				NA	<.0001	Gehan	Test	Y	0.341	0.485			NA	nonpar.	normal					NA
Cadmium	N	3/93	6/22		NA				NA	0.0957	Gehan	Test	N	0.169	0.0748			NA	nonpar.	nonpar.					NA
Calcium	N	53/93	22/22		NA				NA	0.9596	Gehan	Test	N	636	370			NA	nonpar.	normal					NA
Chromium	N	93/93	22/22		NA	28	9	0.0451	N	0.3068			N	11.2	11.3			NA	nonpar.	nonpar.					NA
Cobalt	N	93/93	22/22		NA	54	10	0.6521	N	0.8633			N	4.51	3.83			NA	nonpar.	normal					NA
Copper	Y	53/93	22/22		NA	3	3	0.0062	Y	<.0001	Gehan	Test	Y	5.12	10.1			NA	nonpar.	nonpar.					NA
Iron	N	93/93	22/22		NA	27	7	0.2237	N	0.4519			N	15800	15100			NA	nonpar.	nonpar.					NA
Lead	N	93/93	22/22		NA	82	17	0.3427	N	0.7018			N	18.2	16.6			NA	nonpar.	lognor.					NA
Magnesium	N	88/93	22/22	0.3386	N	31	10	0.0314	N	0.4197			N	1680	1740			NA	nonpar.	normal					NA
Manganese	Y	93/93	22/22		NA	79	20	0.0087	Y	0.0429			N	164	171			NA	lognor.	normal					NA
Mercury	Y	44/93	22/22		NA	3	1	0.4744	N	0.0002	Gehan	Test	Y	0.0472	0.0844			NA	nonpar.	lognor.					NA
Nickel	Y	93/93	22/22		NA	30	10	0.0242	Y	0.4674			N	9.21	9.44			NA	nonpar.	nonpar.					NA
Potassium	Y	53/93	22/22	<.0001	Y	7	1	0.7838	N	0.0237	Gehan	Test	Y	319	402			NA	nonpar.	nonpar.					NA
Selenium	N	29/91	16/22		NA				NA	0.1323	Gehan	Test	N	1.13	0.295			NA	nonpar.	nonpar.					NA
Vanadium	N	93/93	22/22		NA	79	15	0.6296	N	0.9788			N	21	18.1			NA	nonpar.	normal					NA
Zinc	N	93/93	22/22		NA	51	11	0.3598	N	0.3898			N	34.9	29.9			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare NeSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is NeSS > OthrSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of NeSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of NeSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines NeSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined NeSS and OthrSS data set are comprised of NeSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-8
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO NEWPORT SILT LOAM SURFACE SOIL (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSS Freq. > NeSS Freq.?				Majority are OthrSS?				Ranks of OthrSS > NeSS?				OthrSS Mean > NeSS Mean ?					OthrSS Standard Deviation =NeSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSS & NeSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSS>NeSS?	YN	NeSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	NeSS	OthrSS	t	t	YN	NeSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	NeSS@	OthrSS@	Value	Table	
Aluminum	N	22/22	93/93		NA	63	49	0.8787	N	0.9988			N	13100	10600			NA	nonpar.	nonpar.					NA
Arsenic	N	22/22	93/93		NA	80	68	0.0766	N	0.3093			N	6.28	7.38			NA	nonpar.	nonpar.					NA
Barium	Y	22/22	93/93		NA	67	59	0.0194	Y	0.0215			Y	25.2	30.4			NA	lognor.	nonpar.					NA
Beryllium	N	22/22	55/93	1.0000	N				NA	1.0000	Gehan	Test	N	0.485	0.341			NA	normal	nonpar.					NA
Cadmium	N	6/22	3/93		NA				NA	0.9072	Gehan	Test	N	0.0748	0.169			NA	nonpar.	nonpar.					NA
Calcium	N	22/22	53/93		NA	4	4	0.4223	N	0.0404	Gehan	Test	N	370	636			NA	lognor.	nonpar.					NA
Chromium	N	22/22	93/93		NA	80	67	0.1755	N	0.6957			N	11.3	11.2			NA	nonpar.	nonpar.					NA
Cobalt	N	22/22	93/93		NA	10	10	0.1084	N	0.1383			N	3.83	4.51			NA	normal	nonpar.					NA
Copper	N	22/22	53/93		NA				NA	1.0000	Gehan	Test	N	10.1	5.12			NA	nonpar.	nonpar.					NA
Iron	N	22/22	93/93		NA	10	10	0.1084	N	0.5509			N	15100	15800			NA	nonpar.	nonpar.					NA
Lead	N	22/22	93/93		NA	23	22	0.0334	N	0.3006			N	16.6	18.2			NA	lognor.	nonpar.					NA
Magnesium	N	22/22	88/93	1.0000	N	77	65	0.1311	N	0.5831			N	1740	1680			NA	normal	nonpar.					NA
Manganese	N	22/22	93/93		NA	12	12	0.0676	N	0.9577			N	171	164			NA	lognor.	lognor.					NA
Mercury	N	22/22	44/93		NA	2	2	0.6526	N	0.9999	Gehan	Test	N	0.0844	0.0472			NA	lognor.	nonpar.					NA
Nickel	N	22/22	93/93		NA	80	68	0.0766	N	0.5355			N	9.44	9.21			NA	nonpar.	nonpar.					NA
Potassium	N	22/22	53/93	1.0000	N	6	6	0.2709	N	0.9767	Gehan	Test	N	402	319			NA	nonpar.	nonpar.					NA
Selenium	N	16/22	29/91		NA				NA	0.8564	Gehan	Test	N	0.295	1.13			NA	nonpar.	nonpar.					NA
Sodium	NA	0/22	25/65		NA				NA				NA		117			NA							NA
Vanadium	Y	22/22	93/93		NA	67	59	0.0194	Y	0.0215			Y	18.1	21			NA	normal	nonpar.					NA
Zinc	N	22/22	93/93		NA	28	26	0.0504	N	0.0942			N	29.9	34.9			NA	nonpar.	lognor.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to NeSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > NeSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or NeSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of NeSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > NeSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and NeSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-9
STATISTICAL (ONE-WAY) COMPARISON OF PITTSTOWN SILT LOAM SURFACE SOIL (PMSS) TO OTHER SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		PmSS Freq. > OthrSS Freq.?				Majority are PmSS?				Ranks of PmSS > OthrSS?				PmSS Mean > OthrSS Mean ?					PmSS Standard Deviation =OthrSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# PmSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, PmSS & OthrSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: PmSS>OthrSS?	YN	OthrSS	PmSS	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSS	PmSS	t	t	YN	OthrSS	PmSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSS@	PmSS@	Value	Table	
Aluminum	N	95/95	20/20		NA	80	16	0.2003	N	0.5746			N	11000	11200			NA	nonpar.	normal					NA
Arsenic	Y	95/95	20/20		NA	79	20	0.0002	Y	0.0002			Y	6.66	9.59			NA	nonpar.	lognor.					NA
Barium	Y	95/95	20/20		NA	78	20	0.0002	Y	<.0001			Y	27.3	39.7			NA	nonpar.	normal					NA
Beryllium	N	76/95	1/20	1.0000	N				NA	0.4859	Gehan	Test	N	0.377	0.33			NA	nonpar.	normal					NA
Chromium	Y	95/95	20/20		NA	74	20	0.0001	Y	0.0001			Y	10.7	13.5			NA	nonpar.	normal					NA
Cobalt	Y	95/95	20/20		NA	79	20	0.0002	Y	<.0001			Y	3.78	7.25			NA	nonpar.	lognor.					NA
Iron	Y	95/95	20/20		NA	76	20	0.0001	Y	0.0003			Y	14800	19800			NA	nonpar.	lognor.					NA
Lead	Y	95/95	20/20		NA	77	20	0.0001	Y	<.0001			Y	15.1	31.2			NA	nonpar.	normal					NA
Magnesium	N	90/95	20/20	0.3775	N	77	15	0.2861	N	0.8634			N	1700	1610	-1.2773	1.9842	N	normal	normal	578	177	25.9278	3.8411	N
Manganese	Y	95/95	20/20		NA	79	19	0.0030	Y	<.0001			Y	140	289			NA	nonpar.	normal					NA
Mercury	N	62/95	4/20		NA	2	2	0.0290	N	0.0934	Gehan	Test	N	0.0479	0.0848			NA	nonpar.	nonpar.					NA
Nickel	Y	95/95	20/20		NA	80	20	0.0003	Y	0.0268			N	9.03	10.3			NA	nonpar.	normal					NA
Vanadium	Y	95/95	20/20		NA	78	20	0.0002	Y	<.0001			Y	18.4	30.5			NA	nonpar.	normal					NA
Zinc	Y	95/95	20/20		NA	71	20	<.0001	Y	<.0001			Y	30.5	50.2			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare PmSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is PmSS > OthrSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of PmSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of PmSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines PmSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined PmSS and OthrSS data set are comprised of PmSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-10
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO PITTSTOWN SILT LOAM SURFACE SOIL (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSS Freq. > PmSS Freq.?				Majority are OthrSS?				Ranks of OthrSS > PmSS?				OthrSS Mean > PmSS Mean ?					OthrSS Standard Deviation =PmSS Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSS & PmSS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSS>PmSS?	YN	PmSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	PmSS	OthrSS	t	t	YN	PmSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	PmSS@	OthrSS@	Value	Table	
Aluminum	N	20/20	95/95		NA	40	37	0.0327	N	0.4283			N	11200	11000			NA	lognor.	nonpar.					NA
Arsenic	N	20/20	95/95		NA	3	3	0.5606	N	0.9998			N	9.59	6.66			NA	lognor.	nonpar.					NA
Barium	N	20/20	95/95		NA	4	4	0.4605	N	1.0000			N	39.7	27.3			NA	normal	nonpar.					NA
Beryllium	N	1/20	76/95	<.0001	Y				NA	0.5167	Gehan	Test	N	0.33	0.377			NA	lognor.	nonpar.					NA
Cadmium	NA	0/20	9/95		NA				NA				NA		0.113			NA							NA
Calcium	N	0/20	75/95		NA	4	4	0.4605	N				NA		639			NA							NA
Chromium	N	20/20	95/95		NA	12	11	0.3419	N	0.9999			N	13.5	10.7			NA	lognor.	nonpar.					NA
Cobalt	N	20/20	95/95		NA	3	2	0.9223	N	1.0000			N	7.25	3.78			NA	lognor.	nonpar.					NA
Copper	N	0/20	75/95		NA	3	3	0.5606	N				NA		6.35			NA							NA
Iron	N	20/20	95/95		NA	1	1	0.8261	N	0.9997			N	19800	14800			NA	lognor.	nonpar.					NA
Lead	N	20/20	95/95		NA	3	1	0.9954	N	1.0000			N	31.2	15.1			NA	normal	nonpar.					NA
Magnesium	Y	20/20	90/95	1.0000	N	52	48	0.0108	Y	0.1382			N	1610	1700	1.2773	1.9842	N	normal	normal	177	578	25.9278	3.8411	N
Manganese	N	20/20	95/95		NA	80	61	0.9997	N	1.0000			N	289	140			NA	normal	nonpar.					NA
Mercury	N	4/20	62/95		NA	3	1	0.9954	N	0.7022	Gehan	Test	N	0.0848	0.0479			NA	nonpar.	nonpar.					NA
Nickel	N	20/20	95/95		NA	21	19	0.2391	N	0.9736			N	10.3	9.03			NA	lognor.	nonpar.					NA
Potassium	N	0/20	75/95	<.0001	Y	7	7	0.2522	N				NA		380			NA							NA
Selenium	NA	0/18	45/95		NA				NA				NA		0.723			NA							NA
Sodium	NA	0/6	25/81		NA				NA				NA		94			NA							NA
Vanadium	N	20/20	95/95		NA	4	1	0.9993	N	1.0000			N	30.5	18.4			NA	lognor.	nonpar.					NA
Zinc	N	20/20	95/95		NA	3	1	0.9954	N	1.0000			N	50.2	30.5			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to PmSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > PmSS) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or PmSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of PmSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > PmSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and PmSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-11
STATISTICAL (ONE-WAY) COMPARISON OF STISSING SILT LOAM SURFACE SOIL (SESS) TO OTHER SURFACE SOILS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher SeSS Freq. > OthrSS Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are SeSS? # SeSS (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of SeSS > OthrSS? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test SeSS Mean > OthrSS Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations SeSS Standard Deviation =OthrSS Std.Dev.? #s>2,#b>2, SeSS & OthrSS both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: SeSS>OthrSS? YN		OthrSS	SeSS	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSS	SeSS	t	t	YN	OthrSS	SeSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSS@	SeSS@	Value	Table	
Aluminum	N	95/95	20/20		NA	61	15	0.0260	N	0.0996			N	10800	12100			NA	nonpar.	normal					NA
Arsenic	Y	95/95	20/20		NA	79	19	0.0030	Y	0.0001			Y	5.94	13			NA	nonpar.	lognor.					NA
Barium	Y	95/95	20/20		NA	78	18	0.0145	Y	0.0262			N	28.3	35			NA	nonpar.	normal					NA
Beryllium	N	76/95	1/20	1.0000	N				NA	0.5862	Gehan	Test	N	0.372	0.35			NA	nonpar.	normal					NA
Chromium	N	95/95	20/20		NA	78	17	0.0563	N	0.1015			N	10.9	12.7			NA	nonpar.	nonpar.					NA
Cobalt	Y	95/95	20/20		NA	79	20	0.0002	Y	0.0075			Y	4.14	5.52			NA	nonpar.	nonpar.					NA
Iron	Y	95/95	20/20		NA	74	18	0.0059	Y	0.0026			Y	14800	19600			NA	nonpar.	nonpar.					NA
Lead	Y	95/95	20/20		NA	77	20	0.0001	Y	0.0005			Y	16.8	23.2			NA	nonpar.	normal					NA
Magnesium	N	95/95	15/20	1.0000	N	13	5	0.0489	N	0.2851	Gehan	Test	N	1690	1660			NA	normal	normal					NA
Manganese	N	95/95	20/20		NA	12	2	0.6581	N	0.9972			N	173	130			NA	nonpar.	lognor.					NA
Mercury	N	64/95	2/20		NA				NA	0.2809	Gehan	Test	N	0.054	0.0559			NA	nonpar.	lognor.					NA
Nickel	Y	95/95	20/20		NA	72	17	0.0181	Y	0.0044			Y	8.88	11			NA	nonpar.	normal					NA
Vanadium	Y	95/95	20/20		NA	78	19	0.0023	Y	0.0013			Y	19.5	25.1			NA	nonpar.	normal					NA
Zinc	Y	95/95	20/20		NA	67	18	0.0010	Y	0.0002			Y	31.9	43.3			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare SeSS to OthrSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is SeSS > OthrSS) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of SeSS (s) or OthrSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of SeSS results must not be different from the standard deviation of OthrSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines SeSS > OthrSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined SeSS and OthrSS data set are comprised of SeSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-12
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SURFACE SOIL TYPES TO STISSING SILT LOAM SURFACE SOIL (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher OthrSS Freq. > SeSS Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are OthrSS? # OthrSS (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of OthrSS > SeSS? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test OthrSS Mean > SeSS Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations OthrSS Standard Deviation =SeSS Std.Dev.? #s>2,#b>2, OthrSS & SeSS both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSS>SeSS? YN		SeSS	OthrSS	P	YN	r	k	P	YN	P	Test	Used	YN	SeSS	OthrSS	t	t	YN	SeSS	OthrSS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	SeSS@	OthrSS@	Value	Table	
Aluminum	N	20/20	95/95		NA	30	26	0.3539	N	0.9017			N	12100	10800			NA	normal	nonpar.					NA
Arsenic	N	20/20	95/95		NA	13	9	0.9511	N	0.9999			N	13	5.94			NA	lognor.	nonpar.					NA
Barium	N	20/20	95/95		NA	8	7	0.5791	N	0.9743			N	35	28.3			NA	lognor.	nonpar.					NA
Beryllium	N	1/20	76/95	<.0001	Y				NA	0.4113	Gehan	Test	N	0.35	0.372			NA	normal	nonpar.					NA
Cadmium	NA	0/20	9/95		NA				NA				NA		0.109			NA							NA
Calcium	N	0/20	75/95		NA	4	4	0.4605	N				NA		624			NA							NA
Chromium	N	20/20	95/95		NA	20	17	0.5247	N	0.8998			N	12.7	10.9			NA	nonpar.	nonpar.					NA
Cobalt	N	20/20	95/95		NA	26	22	0.5094	N	0.9926			N	5.52	4.14			NA	nonpar.	nonpar.					NA
Copper	N	0/20	75/95		NA	3	3	0.5606	N				NA		6.56			NA							NA
Iron	N	20/20	95/95		NA	5	4	0.7924	N	0.9974			N	19600	14800			NA	nonpar.	nonpar.					NA
Lead	N	20/20	95/95		NA	5	5	0.3775	N	0.9995			N	23.2	16.8			NA	lognor.	nonpar.					NA
Magnesium	N	15/20	95/95	0.0001	Y	49	41	0.4990	N	0.6996	Gehan	Test	N	1660	1690			NA	normal	normal					NA
Manganese	Y	20/20	95/95		NA	80	73	0.0005	Y	0.0028			Y	130	173			NA	lognor.	nonpar.					NA
Mercury	N	2/20	64/95		NA	3	3	0.5606	N	0.7208	Gehan	Test	N	0.0559	0.054			NA	lognor.	nonpar.					NA
Nickel	N	20/20	95/95		NA	34	26	0.9160	N	0.9956			N	11	8.88			NA	normal	nonpar.					NA
Potassium	N	0/20	75/95	<.0001	Y	7	7	0.2522	N				NA		372			NA							NA
Selenium	NA	0/20	45/93		NA				NA				NA		0.655			NA							NA
Sodium	NA	0/6	25/81		NA				NA				NA		81.9			NA							NA
Vanadium	N	20/20	95/95		NA	3	3	0.5606	N	0.9987			N	25.1	19.5			NA	normal	nonpar.					NA
Zinc	N	20/20	95/95		NA	8	7	0.5791	N	0.9998			N	43.3	31.9			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSS to SeSS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSS > SeSS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSS (s) or SeSS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSS results must not be different from the standard deviation of SeSS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSS > SeSS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSS and SeSS data set are comprised of OthrSS data if both populations are in fact equal.

APPENDIX E, TABLE E6-13
STATISTICAL (ONE-WAY) COMPARISON OF MANSFIELD MUCKY SILT SUBSURFACE SOIL (MASB) TO OTHER SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher MaSB Freq. > OthrSB Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are MaSB? # MaSB (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of MaSB > OthrSB? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test MaSB Mean > OthrSB Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations MaSB Standard Deviation =OthrSB Std.Dev.? #s>2,#b>2, MaSB & OthrSB both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: MaSB>OthrSB?	YN	OthrSB	MaSB	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSB	MaSB	t	t	YN	OthrSB	MaSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSB@	MaSB@	Value	Table	
Aluminum	N	79/79	20/20		NA	47	12	0.1575	N	0.1835			N	10200	10600			NA	nonpar.	normal					NA
Arsenic	Y	79/79	20/20		NA	70	20	0.0004	Y	0.0007			Y	9.49	16.8			NA	nonpar.	lognor.					NA
Barium	N	79/79	20/20		NA	3	2	0.1030	N	0.2361			N	25.5	26.6			NA	lognor.	normal					NA
Beryllium	N	79/79	20/20		NA	19	7	0.0503	N	0.0789			N	0.457	0.497			NA	lognor.	normal					NA
Cadmium	N	15/79	3/20		NA	3		1.0000	N	0.7431	Gehan	Test	N	0.0665	0.0547			NA	nonpar.	nonpar.					NA
Calcium	Y	79/79	20/20		NA	69	20	0.0003	Y	<.0001			Y	843	1390			NA	nonpar.	nonpar.					NA
Chromium	Y	79/79	20/20		NA	67	18	0.0128	Y	0.0057			Y	12.9	14.5			NA	nonpar.	normal					NA
Cobalt	N	79/79	20/20		NA	64	17	0.0268	N	0.1519			N	9.63	10.4			NA	nonpar.	normal					NA
Copper	Y	79/79	20/20		NA	36	12	0.0150	Y	0.1905			N	15.1	15.3			NA	nonpar.	normal					NA
Iron	Y	79/79	20/20		NA	57	17	0.0044	Y	0.0068			Y	22400	27200			NA	nonpar.	lognor.					NA
Lead	Y	79/79	20/20		NA	62	17	0.0167	Y	0.0228			Y	8.1	8.75			NA	nonpar.	lognor.					NA
Magnesium	N	79/79	20/20		NA	21	7	0.0869	N	0.5226			N	2900	2880			NA	lognor.	normal					NA
Manganese	Y	79/79	20/20		NA	51	15	0.0167	Y	0.0625			N	406	501			NA	nonpar.	lognor.					NA
Mercury	N	3/79	2/20	0.2647	N	2	2	0.0392	N	0.0349	Gehan	Test	N	0.00729	0.00829			NA	isomet.	nonpar.					NA
Nickel	Y	79/79	20/20		NA	36	12	0.0150	Y	0.0189			Y	16.9	19.3			NA	lognor.	nonpar.					NA
Potassium	N	79/79	20/20		NA	36	6	0.8211	N	0.9848			N	833	521			NA	nonpar.	normal					NA
Selenium	N	2/79	2/20		NA				NA	0.1092	Gehan	Test	N	0.13	0.148			NA	nonpar.	nonpar.					NA
Sodium	N	26/79	7/20	0.5353	N	4	3	0.0252	N	0.2464	Gehan	Test	N	42.7	47.3			NA	nonpar.	nonpar.					NA
Vanadium	Y	79/79	20/20		NA	67	20	0.0001	Y	0.0041			Y	16.3	18.9			NA	nonpar.	lognor.					NA
Zinc	Y	79/79	20/20		NA	62	18	0.0033	Y	0.0007			Y	39.1	49.3			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare MaSB to OthrSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is MaSB > OthrSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of MaSB (s) or OthrSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of MaSB results must not be different from the standard deviation of OthrSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines MaSB > OthrSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined MaSB and OthrSB data set are comprised of MaSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-14
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SUBSURFACE SOIL TYPES TO MANSFIELD MUCKY SILT LOAM SUBSURFACE SOIL (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher OthrSB Freq. > MaSB Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are OthrSB? # OthrSB (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of OthrSB > MaSB? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test OthrSB Mean > MaSB Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations OthrSB Standard Deviation =MaSB Std.Dev.? #s>2,#b>2, OthrSB & MaSB both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSB>MaSB? YN		MaSB	OthrSB	P	YN	r	k	P	YN	P	Test	Used	YN	MaSB	OthrSB	t	t	YN	MaSB	OthrSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	MaSB@	OthrSB@	Value	Table	
Aluminum	N	20/20	79/79		NA	10	9	0.3567	N	0.8188			N	10600	10200			NA	lognor.	nonpar.					NA
Arsenic	N	20/20	79/79		NA	21	16	0.7835	N	0.9993			N	16.8	9.49			NA	lognor.	nonpar.					NA
Barium	N	20/20	79/79		NA	49	39	0.6181	N	0.7666			N	26.6	25.5			NA	lognor.	lognor.					NA
Beryllium	N	20/20	79/79		NA	45	36	0.5830	N	0.9224			N	0.497	0.457			NA	lognor.	lognor.					NA
Cadmium	N	3/20	15/79		NA	3	3	0.5042	N	0.3897	Gehan	Test	N	0.0547	0.0665			NA	nonpar.	nonpar.					NA
Calcium	N	20/20	79/79		NA	65	47	0.9990	N	1.0000			N	1390	843			NA	nonpar.	nonpar.					NA
Chromium	N	20/20	79/79		NA	2	2	0.6351	N	0.9943			N	14.5	12.9			NA	lognor.	nonpar.					NA
Cobalt	N	20/20	79/79		NA	15	14	0.1406	N	0.8502			N	10.4	9.63			NA	lognor.	nonpar.					NA
Copper	N	20/20	79/79		NA	11	10	0.3003	N	0.8119			N	15.3	15.1			NA	normal	nonpar.					NA
Iron	N	20/20	79/79		NA	13	11	0.4858	N	0.9933			N	27200	22400			NA	lognor.	nonpar.					NA
Lead	N	20/20	79/79		NA	14	12	0.4277	N	0.9778			N	8.75	8.1			NA	lognor.	nonpar.					NA
Magnesium	N	20/20	79/79		NA	69	57	0.2143	N	0.4809			N	2880	2900			NA	lognor.	lognor.					NA
Manganese	N	20/20	79/79		NA	21	17	0.5762	N	0.9385			N	501	406			NA	lognor.	nonpar.					NA
Mercury	N	2/20	3/79	0.9453	N				NA	0.9672	Gehan	Test	N	0.00829	0.00729			NA	nonpar.	isomet.					NA
Nickel	N	20/20	79/79		NA	9	9	0.1189	N	0.9814			N	19.3	16.9			NA	nonpar.	lognor.					NA
Potassium	Y	20/20	79/79		NA	29	29	0.0004	Y	0.0153			Y	521	833			NA	normal	nonpar.					NA
Selenium	NA*	2/20	2/79		NA	1	1	0.7980	N	0.8963	Gehan	Test	N	0.148	0.13			NA	nonpar.	nonpar.					NA
Sodium	N	7/20	26/79	0.6709	N	16	13	0.5897	N	0.7570	Gehan	Test	N	47.3	42.7			NA	nonpar.	nonpar.					NA
Vanadium	N	20/20	79/79		NA	2	2	0.6351	N	0.9960			N	18.9	16.3			NA	lognor.	nonpar.					NA
Zinc	N	20/20	79/79		NA	2	2	0.6351	N	0.9993			N	49.3	39.1			NA	normal	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSB to MaSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSB > MaSB) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSB (s) or MaSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSB results must not be different from the standard deviation of MaSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSB > MaSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSB and MaSB data set are comprised of OthrSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-15
STATISTICAL (ONE-WAY) COMPARISON OF MERRIMACK SANDY LOAM SUBSURFACE SOIL (MMSB) TO OTHER SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		MmSB Freq. > OthrSB Freq.?				Majority are MmSB?				Ranks of MmSB > OthrSB?				MmSB Mean > OthrSB Mean ?					MmSB Standard Deviation =OthrSB Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# MmSB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, MmSB & OthrSB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: MmSB>OthrSB?	YN	OthrSB	MmSB	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSB	MmSB	t	t	YN	OthrSB	MmSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSB@	MmSB@	Value	Table	
Aluminum	N	55/55	20/20		NA	10	1	0.9647	N	1.0000			N	10700	8830			NA	nonpar.	normal					NA
Arsenic	N	55/55	20/20		NA	54	10	0.9972	N	0.9999			N	12	4.04			NA	lognor.	lognor.					NA
Barium	N	55/55	20/20		NA	1	1	0.2667	N	0.9072			N	26.2	24.3			NA	lognor.	lognor.					NA
Beryllium	N	55/55	20/20		NA	2	1	0.4649	N	0.9999			N	0.467	0.384			NA	lognor.	nonpar.					NA
Calcium	N	55/55	20/20		NA	51	9	0.9974	N	0.9996			N	1020	605			NA	nonpar.	normal					NA
Chromium	N	55/55	20/20		NA	1	1	0.2667	N	0.9974			N	13.4	11.4			NA	nonpar.	normal					NA
Cobalt	N	55/55	20/20		NA	53	11	0.9796	N	0.9995			N	10.1	6.95			NA	lognor.	lognor.					NA
Copper	N	55/55	20/20		NA	1	1	0.2667	N	0.9561			N	15.6	14.3			NA	lognor.	nonpar.					NA
Iron	N	55/55	20/20		NA	52	8	0.9998	N	1.0000			N	24500	16200			NA	lognor.	normal					NA
Lead	N	55/55	20/20		NA	20	5	0.6820	N	0.8609			N	8.44	7.66			NA	nonpar.	normal					NA
Magnesium	N	55/55	20/20		NA	2	2	0.0685	N	0.4240			N	2930	2990	0.4328	1.9930	N	normal	normal	547	693	1.6564	3.8412	Y
Manganese	N	55/55	20/20		NA	51	14	0.5287	N	0.8798			N	411	316			NA	nonpar.	nonpar.					NA
Nickel	N	55/55	20/20		NA	52	10	0.9923	N	0.9998			N	18.5	12.9			NA	lognor.	lognor.					NA
Potassium	Y	55/55	20/20		NA	50	20	0.0001	Y	<.0001			Y	712	1300			NA	nonpar.	normal					NA
Sodium	N	11/55	2/20	0.9192	N				NA	0.9307	Gehan	Test	N	37.4	30.5			NA	nonpar.	nonpar.					NA
Vanadium	N	55/55	20/20		NA	14	1	0.9922	N	1.0000			N	17	13.2			NA	lognor.	normal					NA
Zinc	N	55/55	20/20		NA	52	8	0.9998	N	1.0000			N	44.7	29.6			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare MmSB to OthrSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is MmSB > OthrSB) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of MmSB (s) or OthrSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of MmSB results must not be different from the standard deviation of OthrSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines MmSB > OthrSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined MmSB and OthrSB data set are comprised of MmSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-16
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SUBSURFACE SOIL TYPES TO MERRIMACK SANDY LOAM SUBSURFACE SOIL (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSB Freq. > MmSB Freq.?				Majority are OthrSB?				Ranks of OthrSB > MmSB?				OthrSB Mean > MmSB Mean ?					OthrSB Standard Deviation =MmSB Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSB & MmSB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSB>MmSB?	YN	MmSB	OthrSB	P	YN	r	k	P	YN	P	Test	Used	YN	MmSB	OthrSB	t	t	YN	MmSB	OthrSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	MmSB@	OthrSB@	Value	Table	
Aluminum	Y	20/20	55/55		NA	53	46	0.0001	Y	<.0001			Y	8830	10700			NA	normal	nonpar.					NA
Arsenic	Y	20/20	55/55		NA	54	44	0.0133	Y	0.0001			Y	4.04	12			NA	lognor.	lognor.					NA
Barium	N	20/20	55/55		NA	42	35	0.0259	N	0.0948			N	24.3	26.2			NA	lognor.	lognor.					NA
Beryllium	Y	20/20	55/55		NA	53	46	0.0001	Y	0.0001			Y	0.384	0.467			NA	nonpar.	lognor.					NA
Cadmium	N	0/20	16/55		NA	3	3	0.3885	N				NA		0.0683			NA							NA
Calcium	Y	20/20	55/55		NA	52	43	0.0077	Y	0.0004			Y	605	1020			NA	lognor.	nonpar.					NA
Chromium	Y	20/20	55/55		NA	53	44	0.0047	Y	0.0027			Y	11.4	13.4			NA	lognor.	nonpar.					NA
Cobalt	Y	20/20	55/55		NA	50	41	0.0181	Y	0.0005			Y	6.95	10.1			NA	lognor.	lognor.					NA
Copper	Y	20/20	55/55		NA	30	27	0.0066	Y	0.0450			N	14.3	15.6			NA	nonpar.	lognor.					NA
Iron	Y	20/20	55/55		NA	51	44	0.0004	Y	<.0001			Y	16200	24500			NA	lognor.	lognor.					NA
Lead	N	20/20	55/55		NA	9	9	0.0506	N	0.1417			N	7.66	8.44			NA	lognor.	nonpar.					NA
Magnesium	N	20/20	55/55		NA	14	12	0.2082	N	0.5807			N	2990	2930	-0.4328	1.9930	N	normal	normal	693	547	1.6564	3.8412	Y
Manganese	Y	20/20	55/55		NA	35	30	0.0212	Y	0.1226			N	316	411			NA	nonpar.	nonpar.					NA
Mercury	N	0/20	4/55	0.2806	N	2	2	0.5351	N				NA		0.00774			NA							NA
Nickel	Y	20/20	55/55		NA	50	41	0.0181	Y	0.0002			Y	12.9	18.5			NA	lognor.	lognor.					NA
Potassium	N	20/20	55/55		NA	13	8	0.9162	N	1.0000			N	1300	712			NA	lognor.	nonpar.					NA
Selenium	NA	0/20	3/55		NA				NA				NA		0.138			NA							NA
Sodium	N	2/20	11/55	0.2603	N	3	3	0.3885	N	0.0720	Gehan	Test	N	30.5	37.4			NA	nonpar.	nonpar.					NA
Vanadium	Y	20/20	55/55		NA	52	45	0.0002	Y	<.0001			Y	13.2	17			NA	lognor.	lognor.					NA
Zinc	Y	20/20	55/55		NA	51	44	0.0004	Y	<.0001			Y	29.6	44.7			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSB to MmSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSB > MmSB) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSB (s) or MmSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSB results must not be different from the standard deviation of MmSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSB > MmSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSB and MmSB data set are comprised of OthrSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-17
STATISTICAL (ONE-WAY) COMPARISON OF NEWPORT SILT LOAM SUBSURFACE SOIL (NESB) TO OTHER SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		NeSB Freq. > OthrSB Freq.?				Majority are NeSB?				Ranks of NeSB > OthrSB?				NeSB Mean > OthrSB Mean ?					NeSB Standard Deviation =OthrSB Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# NeSB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, NeSB & OthrSB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: NeSB>OthrSB?	YN	OthrSB	NeSB	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSB	NeSB	t	t	YN	OthrSB	NeSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSB@	NeSB@	Value	Table	
Aluminum	Y	79/79	20/20		NA	62	17	0.0167	Y	0.1755			N	10200	10600	1.1899	2.0167	N	normal	normal	1650	1110	4.0461	3.8411	N
Arsenic	N	79/79	20/20		NA	70	8	0.9998	N	1.0000			N	12.8	3.71			NA	nonpar.	nonpar.					NA
Barium	Y	79/79	20/20		NA	19	8	0.0133	Y	0.4549			N	25.5	26.5			NA	nonpar.	lognor.					NA
Beryllium	N	79/79	20/20		NA	70	10	0.9934	N	0.9999			N	0.483	0.394			NA	lognor.	normal					NA
Cadmium	N	16/79	2/20		NA	3		1.0000	N	0.9905	Gehan	Test	N	0.0722	0.0322			NA	nonpar.	nonpar.					NA
Calcium	N	79/79	20/20		NA	65	5	1.0000	N	1.0000			N	1060	540			NA	nonpar.	normal					NA
Chromium	N	79/79	20/20		NA	33	2	0.9986	N	0.9999			N	13.7	11.3			NA	nonpar.	normal					NA
Cobalt	N	79/79	20/20		NA	65	9	0.9917	N	1.0000			N	10.5	7.07			NA	nonpar.	normal					NA
Copper	N	79/79	20/20		NA	51	9	0.8167	N	0.9710			N	15.7	12.9			NA	nonpar.	normal					NA
Iron	N	79/79	20/20		NA	69	12	0.9061	N	0.9998			N	24800	18000			NA	nonpar.	normal					NA
Lead	N	79/79	20/20		NA	69	8	0.9997	N	1.0000			N	8.6	6.77			NA	nonpar.	normal					NA
Magnesium	N	79/79	20/20		NA	69	16	0.1997	N	0.3268			N	2880	2940			NA	lognor.	normal					NA
Manganese	N	79/79	20/20		NA	12	1	0.9446	N	0.9997			N	461	285			NA	nonpar.	lognor.					NA
Mercury	N	3/79	2/20	0.2647	N				NA	0.4216	Gehan	Test	N	0.00744	0.0077			NA	nonpar.	nonpar.					NA
Nickel	N	79/79	20/20		NA	57	9	0.9360	N	0.9997			N	18.4	13.5			NA	nonpar.	normal					NA
Potassium	Y	79/79	20/20		NA	24	10	0.0046	Y	0.0237			Y	705	1030			NA	nonpar.	nonpar.					NA
Sodium	N	32/79	1/20	0.9999	N	11		1.0000	N	0.9992	Gehan	Test	N	47.3	29.3			NA	nonpar.	nonpar.					NA
Vanadium	N	79/79	20/20		NA	35	1	1.0000	N	1.0000			N	17.5	14			NA	nonpar.	normal					NA
Zinc	N	79/79	20/20		NA	66	10	0.9773	N	0.9998			N	43.5	32			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.
Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.
Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.
Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.
Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare NeSB to OthrSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is NeSB > OthrSB) for each chemical appears at the left and is based on four criteria:
(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of NeSB (s) or OthrSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of NeSB results must not be different from the standard deviation of OthrSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines NeSB > OthrSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined NeSB and OthrSB data set are comprised of NeSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-18
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SUBSURFACE SOIL TYPES TO NEWPORT SILT LOAM SUBSURFACE SOIL (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher OthrSB Freq. > NeSB Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are OthrSB? # OthrSB (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of OthrSB > NeSB? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test OthrSB Mean > NeSB Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations OthrSB Standard Deviation =NeSB Std.Dev.? #s>2,#b>2, OthrSB & NeSB both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSB>NeSB? YN		NeSB	OthrSB	P	YN	r	k	P	YN	P	Test	Used	YN	NeSB	OthrSB	t	t	YN	NeSB	OthrSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	NeSB@	OthrSB@	Value	Table	
Aluminum	N	20/20	79/79		NA	7	7	0.1947	N	0.8268			N	10600	10200	-1.1899	2.0167	N	normal	normal	1110	1650	4.0461	3.8411	N
Arsenic	Y	20/20	79/79		NA	70	62	0.0014	Y	<.0001			Y	3.71	12.8			NA	nonpar.	nonpar.					NA
Barium	N	20/20	79/79		NA	69	57	0.2143	N	0.5486			N	26.5	25.5			NA	lognor.	nonpar.					NA
Beryllium	Y	20/20	79/79		NA	67	59	0.0043	Y	0.0001			Y	0.394	0.483			NA	lognor.	lognor.					NA
Cadmium	Y	2/20	16/79		NA	3	3	0.5042	N	0.0097	Gehan	Test	Y	0.0322	0.0722			NA	nonpar.	nonpar.					NA
Calcium	Y	20/20	79/79		NA	69	64	<.0001	Y	<.0001			Y	540	1060			NA	lognor.	nonpar.					NA
Chromium	Y	20/20	79/79		NA	69	62	0.0003	Y	0.0001			Y	11.3	13.7			NA	normal	nonpar.					NA
Cobalt	Y	20/20	79/79		NA	70	61	0.0066	Y	<.0001			Y	7.07	10.5			NA	lognor.	nonpar.					NA
Copper	Y	20/20	79/79		NA	37	34	0.0167	Y	0.0296			N	12.9	15.7			NA	normal	nonpar.					NA
Iron	Y	20/20	79/79		NA	63	55	0.0150	Y	0.0002			Y	18000	24800			NA	lognor.	nonpar.					NA
Lead	Y	20/20	79/79		NA	69	61	0.0020	Y	<.0001			Y	6.77	8.6			NA	normal	nonpar.					NA
Magnesium	N	20/20	79/79		NA	4	4	0.3991	N	0.6763			N	2940	2880			NA	lognor.	lognor.					NA
Manganese	Y	20/20	79/79		NA	69	60	0.0093	Y	0.0003			Y	285	461			NA	lognor.	nonpar.					NA
Mercury	N	2/20	3/79	0.9453	N	2	2	0.6351	N	0.5844	Gehan	Test	N	0.0077	0.00744			NA	nonpar.	nonpar.					NA
Nickel	Y	20/20	79/79		NA	69	60	0.0093	Y	0.0003			Y	13.5	18.4			NA	lognor.	nonpar.					NA
Potassium	N	20/20	79/79		NA	60	48	0.5725	N	0.9768			N	1030	705			NA	nonpar.	nonpar.					NA
Selenium	N	0/20	4/79		NA	1	1	0.7980	N				NA		0.138			NA							NA
Sodium	Y	1/20	32/79	0.0014	Y	16	16	0.0191	Y	0.0008	Gehan	Test	Y	29.3	47.3			NA	nonpar.	nonpar.					NA
Vanadium	Y	20/20	79/79		NA	69	65	<.0001	Y	<.0001			Y	14	17.5			NA	lognor.	nonpar.					NA
Zinc	Y	20/20	79/79		NA	62	54	0.0197	Y	0.0002			Y	32	43.5			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSB to NeSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSB > NeSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSB (s) or NeSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSB results must not be different from the standard deviation of NeSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSB > NeSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSB and NeSB data set are comprised of OthrSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-19
STATISTICAL (ONE-WAY) COMPARISON OF PITTSTOWN SILT LOAM SUBSURFACE SOIL (PMSB) TO OTHER SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		PMSB Freq. > OthrSB Freq.?				Majority are PMSB?				Ranks of PMSB > OthrSB?				PMSB Mean > OthrSB Mean ?					PMSB Standard Deviation =OthrSB Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# PMSB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, PMSB & OthrSB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: PmSB>OthrSB?	YN	OthrSB	PMSB	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSB	PMSB	t	t	YN	OthrSB	PMSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSB@	PMSB@	Value	Table	
Aluminum	N	99/99	24/24		NA	87	20	0.1005	N	0.2393			N	10300	10600			NA	nonpar.	normal					NA
Arsenic	Y	99/99	24/24		NA	88	24	0.0001	Y	0.0016			Y	11	14.3			NA	nonpar.	normal					NA
Barium	N	99/99	24/24		NA	82	19	0.1120	N	0.3195			N	25.7	25.8			NA	lognor.	normal					NA
Beryllium	Y	99/99	24/24		NA	89	23	0.0021	Y	0.0023			Y	0.465	0.529			NA	lognor.	lognor.					NA
Cadmium	NA*	18/99	2/24		NA	3		1.0000	NA*	0.5752	Gehan	Test	NA*	0.0641	0.0717			NA	nonpar.	lognor.					NA
Calcium	Y	99/99	24/24		NA	86	22	0.0063	Y	0.0492			N	954	1090			NA	nonpar.	normal					NA
Chromium	Y	99/99	24/24		NA	82	21	0.0116	Y	0.0535			N	13.3	14.4			NA	nonpar.	nonpar.					NA
Cobalt	Y	99/99	24/24		NA	77	20	0.0149	Y	0.0081			Y	9.78	11.5			NA	nonpar.	normal					NA
Copper	N	99/99	24/24		NA	62	14	0.2621	N	0.5344			N	15.1	14.6			NA	nonpar.	normal					NA
Iron	Y	99/99	24/24		NA	85	22	0.0049	Y	0.0110			Y	23400	26900			NA	nonpar.	normal					NA
Lead	N	99/99	24/24		NA	24	6	0.3099	N	0.4140			N	8.23	8.22			NA	nonpar.	normal					NA
Magnesium	N	99/99	24/24		NA	79	15	0.6717	N	0.8589			N	2900	2750			NA	lognor.	normal					NA
Manganese	Y	99/99	24/24		NA	85	21	0.0224	Y	0.0028			Y	425	549			NA	nonpar.	lognor.					NA
Mercury	NA*	5/99	1/24	0.7363	NA*				NA	0.5166	Gehan	Test	NA*	0.00749	0.00757			NA	nonpar.	isomet.					NA
Nickel	N	99/99	24/24		NA	87	21	0.0338	N	0.1009			N	17.4	18.5			NA	lognor.	normal					NA
Potassium	N	99/99	24/24		NA	82	11	0.9953	N	0.9998			N	770	462			NA	nonpar.	normal					NA
Selenium	NA*	4/99	1/24		NA	2	1	0.3535	N	0.4088	Gehan	Test	NA*	0.133	0.148			NA	nonpar.	nonpar.					NA
Sodium	Y	33/99	20/24	<.0001	Y	29	13	0.0003	Y	<.0001	Gehan	Test	Y	43.6	68.7			NA	nonpar.	nonpar.					NA
Vanadium	Y	99/99	24/24		NA	83	23	0.0004	Y	0.0011			Y	16.8	19.3			NA	nonpar.	nonpar.					NA
Zinc	N	99/99	24/24		NA	86	21	0.0276	N	0.1341			N	41.2	42.6			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare PMSB to OthrSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is PMSB > OthrSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of PMSB (s) or OthrSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of PMSB results must not be different from the standard deviation of OthrSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines PMSB > OthrSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined PMSB and OthrSB data set are comprised of PMSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-20
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SUBSURFACE SOIL TYPES TO PITTSTOWN SILT LOAM SUBSURFACE SOIL (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher OthrSB Freq. > PMSB Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are OthrSB? # OthrSB (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of OthrSB > PMSB? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test OthrSB Mean > PMSB Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations OthrSB Standard Deviation =PMSB Std.Dev.? #s>2,#b>2, OthrSB & PMSB both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSB>PMSB? YN		PMSB	OthrSB	P	YN	r	k	P	YN	P	Test	Used	YN	PMSB	OthrSB	t	t	YN	PMSB	OthrSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	PMSB@	OthrSB@	Value	Table	
Aluminum	N	24/24	99/99		NA	15	13	0.4043	N	0.7627			N	10600	10300			NA	normal	nonpar.					NA
Arsenic	N	24/24	99/99		NA	8	8	0.1662	N	0.9984			N	14.3	11			NA	normal	nonpar.					NA
Barium	N	24/24	99/99		NA	11	11	0.0818	N	0.6828			N	25.8	25.7			NA	normal	lognor.					NA
Beryllium	N	24/24	99/99		NA	24	19	0.6901	N	0.9977			N	0.529	0.465			NA	lognor.	lognor.					NA
Cadmium	N	2/24	18/99		NA	3	3	0.5183	N	0.3186	Gehan	Test	N	0.0717	0.0641			NA	lognor.	nonpar.					NA
Calcium	N	24/24	99/99		NA	20	18	0.1972	N	0.9515			N	1090	954			NA	normal	nonpar.					NA
Chromium	N	24/24	99/99		NA	17	15	0.3091	N	0.9472			N	14.4	13.3			NA	nonpar.	nonpar.					NA
Cobalt	N	24/24	99/99		NA	4	4	0.4146	N	0.9920			N	11.5	9.78			NA	normal	nonpar.					NA
Copper	N	24/24	99/99		NA	18	16	0.2677	N	0.4682			N	14.6	15.1			NA	lognor.	nonpar.					NA
Iron	N	24/24	99/99		NA	4	4	0.4146	N	0.9891			N	26900	23400			NA	normal	nonpar.					NA
Lead	N	24/24	99/99		NA	6	6	0.2637	N	0.5884			N	8.22	8.23			NA	lognor.	nonpar.					NA
Magnesium	Y	24/24	99/99		NA	16	16	0.0239	Y	0.1425			N	2750	2900			NA	normal	lognor.					NA
Manganese	N	24/24	99/99		NA	1	1	0.8049	N	0.9972			N	549	425			NA	lognor.	nonpar.					NA
Mercury	NA*	1/24	5/99	0.6676	N	2	2	0.6465	NA*	0.4166	Gehan	Test	NA*	0.00757	0.00749			NA	isomet.	nonpar.					NA
Nickel	N	24/24	99/99		NA	28	24	0.3092	N	0.9002			N	18.5	17.4			NA	normal	lognor.					NA
Potassium	Y	24/24	99/99		NA	86	75	0.0054	Y	0.0002			Y	462	770			NA	lognor.	nonpar.					NA
Selenium	NA*	1/24	4/99		NA	2	1	0.9632	NA*	0.5993	Gehan	Test	NA*	0.148	0.133			NA	nonpar.	nonpar.					NA
Sodium	N	20/24	33/99	1.0000	N	2	2	0.6465	N	1.0000	Gehan	Test	N	68.7	43.6			NA	nonpar.	nonpar.					NA
Vanadium	N	24/24	99/99		NA	20	15	0.8386	N	0.9989			N	19.3	16.8			NA	nonpar.	nonpar.					NA
Zinc	N	24/24	99/99		NA	9	9	0.1315	N	0.8673			N	42.6	41.2			NA	lognor.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSB to PMSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSB > PMSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSB (s) or PMSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSB results must not be different from the standard deviation of PMSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSB > PMSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSB and PMSB data set are comprised of OthrSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-21
STATISTICAL (ONE-WAY) COMPARISON OF STISSING SILT LOAM SUBSURFACE SOIL (SESB) TO OTHER SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test: Question Posed: Assumptions Valid: Test Criterion:		Detection Freq: Z or Fisher SeSB Freq. > OthrSB Freq.? #ND & Pos.>=5 or use Fisher P value <= 0.025 ?				Upper Ranks Majority are SeSB? # SeSB (s) in Top r P<=0.025 that #s>=k				Mann-Whitney/Gehan Ranks of SeSB > OthrSB? <40% ND or use Gehan P value <=0.025 ?				Student's or Satterthwaite T-test SeSB Mean > OthrSB Mean ? #s>2,#b>2,>=85% Pos; both norm/log t-Value > t-Table					Bartlett's Test for Equal Standard Deviations SeSB Standard Deviation =OthrSB Std.Dev.? #s>2,#b>2, SeSB & OthrSB both normal or both lognorm. F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: SeSB>OthrSB? YN		OthrSB	SeSB	P	YN	r	k	P	YN	P	Test	Used	YN	OthrSB	SeSB	t	t	YN	OthrSB	SeSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	OthrSB@	SeSB@	Value	Table	
Aluminum	Y	84/84	15/15		NA	16	6	0.0146	Y	0.0558			N	10200	11100			NA	nonpar.	normal					NA
Arsenic	Y	84/84	15/15		NA	51	12	0.0155	Y	0.0010			Y	9.92	16.8			NA	nonpar.	normal					NA
Barium	N	84/84	15/15		NA	61	11	0.2373	N	0.4863			N	25.8	25.2			NA	lognor.	normal					NA
Beryllium	Y	84/84	15/15		NA	70	15	0.0034	Y	0.0013			Y	0.455	0.524			NA	lognor.	normal					NA
Cadmium	Y	7/84	11/15		NA	3	3	0.0029	Y	<.0001	Gehan	Test	Y	0.0516	0.135			NA	nonpar.	normal					NA
Calcium	Y	84/84	15/15		NA	61	15	0.0003	Y	0.0064			Y	916	1170			NA	nonpar.	normal					NA
Chromium	Y	84/84	15/15		NA	66	15	0.0012	Y	0.0040			Y	13	14.8			NA	nonpar.	normal					NA
Cobalt	Y	84/84	15/15		NA	60	15	0.0002	Y	<.0001			Y	9.09	13.7			NA	nonpar.	normal					NA
Copper	Y	84/84	15/15		NA	39	10	0.0206	Y	0.0009			Y	14.3	19.6			NA	nonpar.	normal					NA
Iron	Y	84/84	15/15		NA	49	12	0.0101	Y	0.0013			Y	22300	29600			NA	nonpar.	normal					NA
Lead	Y	84/84	15/15		NA	69	15	0.0026	Y	0.0001			Y	7.86	10.3			NA	nonpar.	normal					NA
Magnesium	N	84/84	15/15		NA	9	4	0.0280	N	0.2873			N	2880	2970			NA	nonpar.	normal					NA
Manganese	N	84/84	15/15		NA	5	2	0.1637	N	0.3923			N	419	461			NA	nonpar.	lognor.					NA
Nickel	Y	84/84	15/15		NA	68	15	0.0021	Y	<.0001			Y	16.2	24.2			NA	nonpar.	normal					NA
Potassium	N	84/84	15/15		NA	63	13	0.0374	N	0.6627			N	809	548			NA	nonpar.	normal					NA
Selenium	NA*	3/84	1/15		NA				NA	0.2695	Gehan	Test	NA*	0.129	0.155			NA	nonpar.	nonpar.					NA
Sodium	N	30/84	3/15	0.9368	N	11		1.0000	N	0.8828	Gehan	Test	N	45.1	35.2			NA	nonpar.	nonpar.					NA
Vanadium	Y	84/84	15/15		NA	65	15	0.0010	Y	0.0042			Y	16.5	18.7			NA	nonpar.	normal					NA
Zinc	Y	84/84	15/15		NA	60	15	0.0002	Y	<.0001			Y	38.6	55.4			NA	nonpar.	normal					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare SeSB to OthrSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is SeSB > OthrSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of SeSB (s) or OthrSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of SeSB results must not be different from the standard deviation of OthrSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines SeSB > OthrSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined SeSB and OthrSB data set are comprised of SeSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-22
STATISTICAL (ONE-WAY) COMPARISON OF OTHER SUBSURFACE SOIL TYPES TO STISSING SILT LOAM SUBSURFACE SOIL (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		OthrSB Freq. > SeSB Freq.?				Majority are OthrSB?				Ranks of OthrSB > SeSB?				OthrSB Mean > SeSB Mean ?					OthrSB Standard Deviation =SeSB Std.Dev.?						
Assumptions Valid:		#ND & Pos.>=5 or use Fisher				# OthrSB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, OthrSB & SeSB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: OthrSB>SeSB?	YN	SeSB	OthrSB	P	YN	r	k	P	YN	P	Test	Used	YN	SeSB	OthrSB	t	t	YN	SeSB	OthrSB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	SeSB@	OthrSB@	Value	Table	
Aluminum	N	15/15	84/84		NA	69	59	0.4994	N	0.9453			N	11100	10200			NA	lognor.	nonpar.					NA
Arsenic	N	15/15	84/84		NA	3	3	0.6075	N	0.9990			N	16.8	9.92			NA	normal	nonpar.					NA
Barium	Y	15/15	84/84		NA	20	20	0.0250	Y	0.5175			N	25.2	25.8			NA	lognor.	lognor.					NA
Beryllium	N	15/15	84/84		NA	7	7	0.3042	N	0.9987			N	0.524	0.455			NA	lognor.	lognor.					NA
Cadmium	N	11/15	7/84		NA	3		1.0000	N	1.0000	Gehan	Test	N	0.135	0.0516			NA	normal	nonpar.					NA
Calcium	N	15/15	84/84		NA	11	11	0.1474	N	0.9937			N	1170	916			NA	normal	nonpar.					NA
Chromium	N	15/15	84/84		NA	3	3	0.6075	N	0.9961			N	14.8	13			NA	lognor.	nonpar.					NA
Cobalt	N	15/15	84/84		NA	1	1	0.8485	N	1.0000			N	13.7	9.09			NA	lognor.	nonpar.					NA
Copper	N	15/15	84/84		NA	1	1	0.8485	N	0.9992			N	19.6	14.3			NA	normal	nonpar.					NA
Iron	N	15/15	84/84		NA	1	1	0.8485	N	0.9987			N	29600	22300			NA	normal	nonpar.					NA
Lead	N	15/15	84/84		NA	54	42	0.9942	N	0.9999			N	10.3	7.86			NA	lognor.	nonpar.					NA
Magnesium	N	15/15	84/84		NA	33	29	0.3921	N	0.7160			N	2970	2880			NA	lognor.	nonpar.					NA
Manganese	N	15/15	84/84		NA	69	59	0.4994	N	0.6114			N	461	419			NA	lognor.	nonpar.					NA
Mercury	NA*	0/15	5/84	0.4316	N	2	2	0.7186	NA*				NA		0.00757			NA							NA
Nickel	N	15/15	84/84		NA	49	37	0.9983	N	1.0000			N	24.2	16.2			NA	normal	nonpar.					NA
Potassium	Y	15/15	84/84		NA	36	35	0.0068	Y	0.3409			N	548	809			NA	normal	nonpar.					NA
Selenium	NA*	1/15	3/84		NA	1	1	0.8485	NA*	0.7414	Gehan	Test	NA*	0.155	0.129			NA	nonpar.	nonpar.					NA
Sodium	N	3/15	30/84	0.1880	N	16	16	0.0565	N	0.1197	Gehan	Test	N	35.2	45.1			NA	nonpar.	nonpar.					NA
Vanadium	N	15/15	84/84		NA	8	8	0.2546	N	0.9959			N	18.7	16.5			NA	normal	nonpar.					NA
Zinc	N	15/15	84/84		NA	3	1	0.9971	N	1.0000			N	55.4	38.6			NA	normal	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare OthrSB to SeSB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is OthrSB > SeSB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of OthrSB (s) or SeSB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of OthrSB results must not be different from the standard deviation of SeSB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines OthrSB > SeSB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined OthrSB and SeSB data set are comprised of OthrSB data if both populations are in fact equal.

APPENDIX E, TABLE E6-23
STATISTICAL (ONE-WAY) COMPARISON OF ALL SURFACE SOIL TYPES TO ALL SUBSURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		SS Freq. > SB Freq.?				Majority are SS?				Ranks of SS > SB?				SS Mean > SB Mean ?					SS Standard Deviation =SB Std.Dev.?						
assumptions Valid:		#ND & Pos.>=5 or use Fisher				# SS (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, SS & SB both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: SS>SB?	YN	SB	SS	P	YN	r	k	P	YN	P	Test	Used	YN	SB	SS	t	t	YN	SB	SS	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	SB@	SS@	Value	Table	
Aluminum	Y	99/99	115/115		NA	102	63	0.0173	Y	0.0027			Y	10300	11100			NA	nonpar.	nonpar.					NA
Arsenic	N	99/99	115/115		NA	1	1	0.5374	N	0.9997			N	11	7.17			NA	nonpar.	nonpar.					NA
Barium	Y	99/99	115/115		NA	124	75	0.0144	Y	0.0059			Y	25.7	29.4			NA	lognor.	normal					NA
Beryllium	N	99/99	77/115	1.0000	N				NA	0.9990	Gehan	Test	N	0.465	0.369			NA	lognor.	nonpar.					NA
Cadmium	N	18/99	9/115		NA				NA	0.9213	Gehan	Test	N	0.0641	0.151			NA	nonpar.	nonpar.					NA
Calcium	N	99/99	75/115		NA	4	4	0.0814	N	1.0000	Gehan	Test	N	954	585			NA	nonpar.	nonpar.					NA
Chromium	N	99/99	115/115		NA	1	1	0.5374	N	1.0000			N	13.3	11.2			NA	nonpar.	nonpar.					NA
Cobalt	N	99/99	115/115		NA	19	1	1.0000	N	1.0000			N	9.78	4.38			NA	nonpar.	nonpar.					NA
Copper	N	99/99	75/115		NA	16	2	1.0000	N	1.0000	Gehan	Test	N	15.1	6.07			NA	nonpar.	lognor.					NA
Iron	N	99/99	115/115		NA	1	1	0.5374	N	1.0000			N	23400	15700			NA	nonpar.	nonpar.					NA
Lead	Y	99/99	115/115		NA	148	98	<.0001	Y	<.0001			Y	8.23	17.9			NA	nonpar.	nonpar.					NA
Magnesium	N	99/99	110/115	1.0000	N	84	9	1.0000	N	1.0000			N	2900	1690			NA	lognor.	normal					NA
Manganese	N	99/99	115/115		NA	29	2	1.0000	N	1.0000			N	425	166			NA	nonpar.	lognor.					NA
Mercury	Y	5/99	66/115		NA	3	3	0.1533	N	<.0001	Gehan	Test	Y	0.00749	0.0543			NA	nonpar.	nonpar.					NA
Nickel	N	99/99	115/115		NA	35	1	1.0000	N	1.0000			N	17.4	9.25			NA	lognor.	nonpar.					NA
Potassium	N	99/99	75/115	1.0000	N	43	7	1.0000	N	1.0000	Gehan	Test	N	770	335			NA	nonpar.	nonpar.					NA
Selenium	Y	4/99	45/113		NA				NA	<.0001	Gehan	Test	Y	0.133	0.971			NA	nonpar.	nonpar.					NA
Sodium	N	33/99	25/87		NA				NA	0.0258	Gehan	Test	N	43.6	94.9			NA	nonpar.	nonpar.					NA
Vanadium	Y	99/99	115/115		NA	125	76	0.0102	Y	<.0001			Y	16.8	20.5			NA	nonpar.	nonpar.					NA
Zinc	N	99/99	115/115		NA	3	3	0.1533	N	1.0000			N	41.2	33.9			NA	nonpar.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare SS to SB Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all assumptions are met. The overall decision (is SS > SB) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of SS (s) or SB (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of SS results must not be different from the standard deviation of SB results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines SS > SB with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined SS and SB data set are comprised of SS data if both populations are in fact equal.

APPENDIX E, TABLE E6-24
STATISTICAL (ONE-WAY) COMPARISON OF ALL SUBSURFACE SOIL TYPES TO ALL SURFACE SOIL TYPES
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Name of Test:		Detection Freq: Z or Fisher				Upper Ranks				Mann-Whitney/Gehan				Student's or Satterthwaite T-test					Bartlett's Test for Equal Standard Deviations						
Question Posed:		SB Freq. > SS Freq.?				Majority are SB?				Ranks of SB > SS?				SB Mean > SS Mean ?					SB Standard Deviation =SS Std.Dev.?						
ASSumptions Valid:		#ND & Pos.>=5 or use Fisher				# SB (s) in Top r				<40% ND or use Gehan				#s>2,#b>2,>=85% Pos; both norm/log					#s>2,#b>2, SB & SS both normal or both lognorm.						
Test Criterion:		P value <= 0.025 ?				P<=0.025 that #s>=k				P value <=0.025 ?				t-Value > t-Table					F-Value<=F-Table (Students T). If not, Satterthwaite						
Conclusion: SB>SS? YN		SS	SB	P	YN	r	k	P	YN	P	Test	Used	YN	SS	SB	t	t	YN	SS	SB	Std.Dev.	Std.Dev.	F	F	YN
Substance		Freq.	Freq.	Value				Value		Value				Mean@	Mean@	Value	Table		Distrib.	Distrib.	SS@	SB@	Value	Table	
Aluminum	N	115/115	99/99		NA	138	63	0.6499	N	0.9973			N	11100	10300			NA	nonpar.	nonpar.					NA
Arsenic	Y	115/115	99/99		NA	150	78	0.0073	Y	0.0003			Y	7.17	11			NA	nonpar.	nonpar.					NA
Barium	N	115/115	99/99		NA	149	70	0.4331	N	0.9941			N	29.4	25.7			NA	normal	lognor.					NA
Beryllium	Y	77/115	99/99	<.0001	Y				NA	0.0012	Gehan	Test	Y	0.369	0.465			NA	nonpar.	lognor.					NA
Cadmium	N	9/115	18/99		NA				NA	0.0613	Gehan	Test	N	0.151	0.0641			NA	nonpar.	nonpar.					NA
Calcium	Y	75/115	99/99		NA				NA	<.0001	Gehan	Test	Y	585	954			NA	nonpar.	nonpar.					NA
Chromium	Y	115/115	99/99		NA	148	81	0.0001	Y	<.0001			Y	11.2	13.3			NA	nonpar.	nonpar.					NA
Cobalt	Y	115/115	99/99		NA	109	83	<.0001	Y	<.0001			Y	4.38	9.78			NA	nonpar.	nonpar.					NA
Copper	Y	75/115	99/99		NA	24	21	<.0001	Y	<.0001	Gehan	Test	Y	6.07	15.1			NA	lognor.	nonpar.					NA
Iron	Y	115/115	99/99		NA	152	89	<.0001	Y	<.0001			Y	15700	23400			NA	nonpar.	nonpar.					NA
Lead	N	115/115	99/99		NA	149	51	1.0000	N	1.0000			N	17.9	8.23			NA	nonpar.	nonpar.					NA
Magnesium	Y	110/115	99/99	0.0430	N	67	62	<.0001	Y	<.0001			Y	1690	2900			NA	normal	lognor.					NA
Manganese	Y	115/115	99/99		NA	104	82	<.0001	Y	<.0001			Y	166	425			NA	lognor.	nonpar.					NA
Mercury	N	66/115	5/99		NA				NA	1.0000	Gehan	Test	N	0.0543	0.00749			NA	nonpar.	nonpar.					NA
Nickel	Y	115/115	99/99		NA	149	96	<.0001	Y	<.0001			Y	9.25	17.4			NA	nonpar.	lognor.					NA
Potassium	Y	75/115	99/99	<.0001	Y	46	39	<.0001	Y	<.0001	Gehan	Test	Y	335	770			NA	nonpar.	nonpar.					NA
Selenium	N	45/113	4/99		NA				NA	1.0000	Gehan	Test	N	0.971	0.133			NA	nonpar.	nonpar.					NA
Sodium	N	25/87	33/99		NA				NA	0.9743	Gehan	Test	N	94.9	43.6			NA	nonpar.	nonpar.					NA
Vanadium	N	115/115	99/99		NA	149	67	0.7657	N	1.0000			N	20.5	16.8			NA	nonpar.	nonpar.					NA
Zinc	Y	115/115	99/99		NA	147	85	<.0001	Y	<.0001			Y	33.9	41.2			NA	nonpar.	nonpar.					NA

Notes: Units are mg/kg.

Interpretation of Z-Test or Fisher's Exact Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different detection frequencies that suggest the data belong to two different populations.

Interpretation of Upper Ranks Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of upper rank values. Since "k" samples from the top "r" ranks of the combined data set belonged to the first soil subgroup, this would be unlikely if the data sets came from the same population.

Interpretation of Mann Whitney / Gehan Test: If the "P-Value" is less than 0.025, then it can be concluded that the two data sets have different a distribution of ranked values, based on combining the data together and comparing the rank sums belonging to each group. This indicates the data belong to two populations having different medians.

Interpretation of Student's t- / Satterthwaite's t-Test: If the "t-Value" exceeds the lookup "t-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different means.

Interpretation of Bartlett's Test: If the "F-Value" exceeds the lookup "F-Table" and both soil type distributions match a "normal" shape, then it can be concluded that the data sets belong to two populations having different standard deviations. In this case, the Satterthwaite t-Test must be used rather than the Student's t-Test.

A statistical significance level (P value) of 0.025 is used for all tests that directly compare SB to SS Soil. A two-sided significance level of 0.1 is used for Bartlett's test for equal variance.
For each test, a YES or NO decision is presented only if all aSSumptions are met. The overall decision (is SB > SS) for each chemical appears at the left and is based on four criteria:

(1) Overall decision is YES if any one of the Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is YES, regardless of other test results.
(2) Overall decision is NO if at least one of Mann-Whitney/Gehan, Upper Ranks Test, or T-Test is NO, and none of the aforementioned tests are YES.
(3) Overall decision is YES/NO if Z/Fisher Test is YES/NO, respectively, and other tests are NA. Z-test is treated as lowest priority since it relies on detection frequency, not magnitude of results.
(4) Overall decision is NA if all tests are NA. (Might occur if too few detections to be capable of detecting a statistically significant difference even if one exists.)

* Very low frequency of detected values with detections close to the detection limits, which interferes with the power of statistical tests to detect a significant difference between groups.
** Test of proportions would have insufficient power to detect a significant difference between groups because given this many detects in the reference group, no number of detects in the comparison group could be judged to be significantly greater.

Abbreviations:

# NDs or # Pos.	Number of non-detected (ND) or positive (Pos.) results in data set, not including rejected data or blank-qualified data.
# s or # b	Number of SB (s) or SS (b) samples, not including rejected data or blank-qualified data.
s = b	Standard deviation of SB results must not be different from the standard deviation of SS results.
P value	Probability or significance level is defined as the chance of a false positive. If P <= 0.025 then test determines SB > SS with 95 % confidence.
% ND	Mann-Whitney test used if < 40% of data Non-Detected and detect. limits uniformly below the range of positive values. If not, the Gehan Test is used.
@	For the t-test, the arithmetic mean and standard deviation of un-transformed data are shown in every case, since the t-test cannot be run if site and background do not both match a normal distribution.
r,k	The upper ranks test calculates the probability that k or more samples from the top r ranks of the combined SB and SS data set are comprised of SB data if both populations are in fact equal.

APPENDIX E, PART 7

STATISTICAL POWER ANALYSIS OF COMPARATIVE TESTS BETWEEN SOIL TYPES

APPENDIX E, TABLE E7-1
MINIMUM DETECTABLE DIFFERENCE FOR T-, WRS, AND QUANTILE TESTS GIVEN POWER AND SAMPLE SIZE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

N1=N2 = 20	Power=	0.9	0.8	0.95
	beta=	0.1	0.2	0.05
	Z(1-beta)=	1.282	0.842	1.645
alpha	Z(1-alpha)	**MDD for t-Test**		
0.025	1.960	1.05	0.91	1.17
0.05	1.645	0.94	0.80	1.06
0.1	1.282	0.82	0.68	0.94
0.2	0.842	0.67	0.53	0.79
alpha	Z(1-alpha)	**MDD for WRS Test**		
0.025	1.960	1.17	0.98	1.34
0.05	1.645	1.03	0.85	1.19
0.1	1.282	0.88	0.72	1.03
0.2	0.842	0.72	0.56	0.85

N1, N2= 20 7	Power=	0.9	0.8	0.95
	beta=	0.1	0.2	0.05
	Z(1-beta)=	1.282	0.842	1.645
alpha	Z(1-alpha)	**MDD for t-Test**		
0.025	1.960	1.48	1.28	1.65
0.05	1.645	1.32	1.12	1.48
0.1	1.282	1.14	0.94	1.30
0.2	0.842	0.92	0.73	1.08
alpha	Z(1-alpha)	**MDD for WRS Test**		
0.025	1.960	1.90	1.50	2.43
0.05	1.645	1.60	1.27	1.96
0.1	1.282	1.32	1.04	1.60
0.2	0.842	1.04	0.80	1.27

N1, N2= 20 8	Power=	0.9	0.8	0.95
	beta=	0.1	0.2	0.05
	Z(1-beta)=	1.282	0.842	1.645
alpha	Z(1-alpha)	**MDD for t-Test**		
0.025	1.960	1.41	1.22	1.57
0.05	1.645	1.26	1.07	1.41
0.1	1.282	1.08	0.90	1.24
0.2	0.842	0.88	0.70	1.03
alpha	Z(1-alpha)	**MDD for WRS Test**		
0.025	1.960	1.75	1.40	2.15
0.05	1.645	1.49	1.19	1.79
0.1	1.282	1.24	0.98	1.49
0.2	0.842	0.98	0.76	1.19

N1, N2= 20 9	Power=	0.9	0.8	0.95
	beta=	0.1	0.2	0.05
	Z(1-beta)=	1.282	0.842	1.645
alpha	Z(1-alpha)	**MDD for t-Test**		
0.025	1.960	1.35	1.17	1.50
0.05	1.645	1.20	1.02	1.35
0.1	1.282	1.04	0.86	1.19
0.2	0.842	0.84	0.67	0.99
alpha	Z(1-alpha)	**MDD for WRS Test**		
0.025	1.960	1.63	1.32	1.97
0.05	1.645	1.40	1.13	1.67
0.1	1.282	1.18	0.94	1.40
0.2	0.842	0.94	0.72	1.13

Quantile Test: Detectable Fraction (F) of Samples Having Shift of Area 2 Mean Vs. Area 1 Mean = 4 Standard Dev

N1=N2 = 20	Power= 0.8	Power= 0.9
α=0.025	**MDD = 4**	
F =	0.30	0.40

N1=N2 = 20	Power= 0.8	Power= 0.9
α=0.05	**MDD = 4**	
F =	0.30	0.30

Notes:
MDD - Minimum Detectable Difference, expressed in units of shift in mean divided by standard deviation.
Power - Probability the test will conclude Area 2 > Area 1 if the true shift in the 2 populations' MDD is as given.
Beta - Probability the test does not conclude Area 2 > Area 1 if the true shift in the MDD is as given.
Alpha - Probability the test will conclude Area 2 > Area 1 if the true shift in the 2 populations' MDD is zero.
Z(value) - Normal distribution function of probability shown in parenthesis.

Sample Size Equation for t-Test, Given N1 = N2:
EPA, 1992. Methods for Evaluating the Attainment of Cleanup Standards. Volume 3: Reference-Based Standards for Soils and Solid Media. Office of Policy, Planning, and Evaluation. Washington, DC.
Sample Size Equation for t-Test, Given N1 not equal to N2:
Dixon, W.J., 1983. Introduction to Statistical Analysis. McGraw-Hill Book Co.. New York, New York.
Sample Size Equation for WRS Test, Given N1=N2:
EPA, 1996. Guidance for Data Quality Assessment. EPA QA/G-9, EPA/600/R-96084. Office of Research and Development, Quality Assurance Division. Washington, D.C.
Sample Size Equation for WRS Test, Given N1 not equal to N2:
EPA, 1992. Methods for Evaluating the Attainment of Cleanup Standards. Volume 3: Reference-Based Standards for Soils and Solid Media. Office of Policy, Planning, and Evaluation. Washington, DC.
Sample Size Tables for Quantile Test, Given N1 = N2:
NFEC, 2002. Guidance for Environmental Background Analysis. Volume I: Soil. NFESC UG-2049-ENV. April.

APPENDIX E, TABLE E7-2
POWER OF THE 2 SAMPLE TEST OF PROPORTIONS GIVEN EQUAL SAMPLE SIZES AND REFERENCE AREA FREQUENCY OF DETECTION**
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Test of Proportions Estimated Power** Calculated Using:				Average Detect.	MDD Freq.	Detection Freq.	Detection Freq. in Area 2					Assumed No. of	Smallest* No. of Detects in Area 2 Which Yields 80% Power:				No. of Samples
Method (1)	Method (2)	Method (3)	Method (4)	Freq. Method (1)	Method (1)	in Area 1	Meth.1	Meth.2	Meth.3	Meth.4	Alpha	Detects in Area 1	Method (1)	Method (2)	Method (3)	Method (4)	in Each Area (N)
0.76	0.78	0.75	NA	0.15	0.3	0	0.3	0.35	0.3	NA	0.025	0	6	7	6	NA	20
0.76	0.78	0.83	0.75	0.225	0.35	0.05	0.4	0.45	0.45	0.5	0.025	1	8	9	9	10	20
0.79	0.82	0.78	0.81	0.3	0.4	0.1	0.5	0.55	0.5	0.6	0.025	2	10	11	10	12	20
0.76	0.78	0.83	0.78	0.35	0.4	0.15	0.55	0.6	0.6	0.65	0.025	3	11	12	12	13	20
0.82	0.76	0.81	0.76	0.425	0.45	0.2	0.65	0.65	0.65	0.7	0.025	4	13	13	13	14	20
0.81	0.75	0.80	0.76	0.475	0.45	0.25	0.7	0.7	0.7	0.75	0.025	5	14	14	14	15	20
0.81	0.75	0.80	0.76	0.525	0.45	0.3	0.75	0.75	0.75	0.8	0.025	6	15	15	15	16	20
0.82	0.76	0.81	0.78	0.575	0.45	0.35	0.8	0.8	0.8	0.85	0.025	7	16	16	16	17	20
0.84	0.78	0.83	0.81	0.625	0.45	0.4	0.85	0.85	0.85	0.9	0.025	8	17	17	17	18	20
0.76	0.82	0.86	0.85	0.65	0.4	0.45	0.85	0.9	0.9	0.95	0.025	9	17	18	18	19	20
0.79	0.86	0.78	0.75	0.7	0.4	0.5	0.9	0.95	0.9	0.95	0.025	10	18	19	18	19	20
0.83	0.78	0.83	0.83	0.75	0.4	0.55	0.95	0.95	0.95	1	0.025	11	19	19	19	20	20
0.76	0.86	0.90	0.73 a	0.775	0.35	0.6	0.95	1	1	1	0.025	12	19	20	20	a	20
0.83	0.78	0.84	0.61 a	0.825	0.35	0.65	1	1	1	1	0.025	13	20	20	20	a	20
0.76	0.68 a	0.75	0.49 a	0.85	0.3	0.7	1	1	1	1	0.025	14	20	a	20	a	20
0.67 a	0.56 a	0.65 a	0.36 a	0.875	0.25	0.75	1	1	1	1	0.025	15	a	a	a	a	20
0.56 a	0.45 a	0.54 a	0.24 a	0.9	0.2	0.8	1	1	1	1	0.025	16	a	a	a	a	20
0.44 a	0.33 a	0.43 a	0.14 a	0.925	0.15	0.85	1	1	1	1	0.025	17	a	a	a	a	20
0.31 a	0.23 a	0.32 a	0.06 a	0.95	0.1	0.9	1	1	1	1	0.025	18	a	a	a	a	20
0.17 a	0.17 a	0.23 a	NA	0.975	0.05	0.95	1	1	1	1	0.025	19	a	a	a	a	20

** Power is defined as the probability the test of proportions will conclude there is a difference in frequencies of detection given 2 populations with true frequencies in Area 2 and Area 1 as given
*For a fixed number of detects in Area 1, power was recalculated while incrementing the number of detects in Area 2, stopping when power >= 0.8 plus or minus 0.05
(a) - Indicates that given the number of detects in the reference Area 1, it is not possible to achieve a power of 80 percent, regardless of number of detects in Area 2
NA - Indicates power calculation method is invalid for the given values for frequency of detection

Using the four methods cited below, power was estimated for the test of proportions given alpha=0.025, with the null hypothesis Ho: Freq.2 <=Freq.1, and the alternative hypothesis Ha: Freq.2 > Freq.1

Method (1): Z-test equation from EPA QA-G9, 2000: (No. of samples in each area) = 2 x ((1.96+InverseNormalDistribution{0.8})^2) x (average Freq.) x (1-average Freq.) / MDD^2, where
MDD = minimum detectable difference. The equation was rearranged and solved to yield: Power = Normal Distribution [SQRT (N x 0.5 x Observed MDD^2 / ((Average Freq.) x (1-Average Freq.))) - 1.96)
The power equation assumes alpha = 0.025 (Z-alpha=1.96) and utilizes the calculated individual and average frequencies and MDD given the number of detects in Area 1, Area 2, and N

Method (2): Uncorrected Chi-Square, Rosner, Fundamentals of Biostatistics 4th ed., p.385 as coded in SAS by R. Bosch, 1996, Harvard University Dept. of Biostatistics (http://www.biostat.harvard.edu/~rbosch/p1p2.html)
Power = Normal Distribution [term 1] + Normal Distribution [term 2], where term 1 and term 2 are defined below:
term 1 = (p2-p1)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2) - InverseNormalDistribution [1-0.025/2] *SQRT(((n1*p1+n2*p2)/(n1+n2))*(1-((n1*p1+n2*p2)/(n1+n2)))*(1/n1+1/n2))/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2)
term 2 = -(p2-p1)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2) + InverseNormalDistribution [0.025/2] *SQRT(((n1*p1+n2*p2)/(n1+n2))*(1- ((n1*p1+n2*p2)/(n1+n2)))*(1/n1+1/n2)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2)

Method (3): Same source equation as method 2 (Rosner, Fundamentals of Biostatistics 4th ed., p.385 as coded in SAS by R. Bosch, 1996, Harvard University), but with a continuity correction for n1 and n2
corrected n1 = n1/4 x (1+SQRT(1+((1/n1+1/n2)/ABS(p2-p1))))^2
corrected n2 = n2/n1 x (corrected n1)
Source of continuity correction: Richardson, P., 2005, Calculation of Sample Size and Power, Houston Center for Quality of Care and Utilization Studies, Department of Medicine,
Baylor College of Medicine: http://www.hsrd.houston.med.va.gov/seminars.htm#

Method (4): Fisher Exact Test power, from Dupont WD, Plummer WD, Jr: Power and Sample Size Calculations: A Review and Computer Program. Controlled Clinical Trials 11:116-128, 1990. Fisher's Exact Test power calculation method from Casagrande JT, Pike MC, Smith PG: "An Improved Approximate Formula for Calculating Sample Sizes for Comparing Two Binomial Distributions", Biometrics, 1978; 34:483-486.
Generalization for unequal sample sizes adapted from Fleiss JL: "Statistical Methods for Rates and Proportions" 2nd Ed. NewYork: John Wiley, 1981:38-46.
Download website: http://biostat.mc.vanderbilt.edu/twiki/bin/view/Main/PowerSampleSize. Department of Statistics, Vanderbilt University School of Medicine.

APPENDIX E, TABLE E7-3
POWER OF THE 2 SAMPLE TEST OF PROPORTIONS GIVEN UNEQUAL SAMPLE SIZES AND REFERENCE AREA FREQUENCY OF DETECTION**
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Test of Proportions Estimated Power** Calculated Using:			Number of	Number of	Detection Freq.	Detect Freq. in Area 2				Assumed No. of	Smallest* No. of Detects in Area 2 Which Yields 80% Power:		
Method (1)	Method (2)	Method (3)	Samples in Area 1	Samples in Area 2	in Area 1	Meth.1	Meth.2	Meth.3	Alpha	Detects in Area 1	Method (1)	Method (2)	Method (3)
0.80	0.86	NA	20	7	0	0.4286	0.4286	NA	0.05	0	3	3	NA
0.83	0.88	0.88	20	7	0.05	0.5714	0.5714	0.7143	0.05	1	4	4	5
0.90	0.79	0.78	20	7	0.1	0.7143	0.5714	0.7143	0.05	2	5	4	5
0.82	0.87	0.91	20	7	0.15	0.7143	0.7143	0.8571	0.05	3	5	5	6
0.93	0.79	0.82	20	7	0.2	0.8571	0.7143	0.8571	0.05	4	6	5	6
0.87	0.92	0.99	20	7	0.25	0.8571	0.8571	1	0.05	5	6	6	7
0.78	0.85	0.95	20	7	0.3	0.8571	0.8571	1	0.05	6	6	6	7
0.98	0.76	0.88	20	7	0.35	1	0.8571	1	0.05	7	7	6	7
0.76	0.83	NA	20	8	0	0.375	0.375	NA	0.05	0	3	3	NA
0.77	0.83	0.80	20	8	0.05	0.5	0.5	0.625	0.05	1	4	4	5
0.82	0.87	0.87	20	8	0.1	0.625	0.625	0.75	0.05	2	5	5	6
0.90	0.78	0.77	20	8	0.15	0.75	0.625	0.75	0.05	3	6	5	6
0.81	0.87	0.90	20	8	0.2	0.75	0.75	0.875	0.05	4	6	6	7
0.93	0.78	0.81	20	8	0.25	0.875	0.75	0.875	0.05	5	7	6	7
0.86	0.91	0.98	20	8	0.3	0.875	0.875	1	0.05	6	7	7	8
0.77	0.84	0.92	20	8	0.35	0.875	0.875	1	0.05	7	7	7	8
0.96	0.75	0.83	20	8	0.4	1	0.875	1	0.05	8	8	7	8
0.85	0.80	NA	20	9	0	0.4444	0.3333	NA	0.05	0	4	3	NA
0.86	0.78	0.89	20	9	0.05	0.5556	0.4444	0.6667	0.05	1	5	4	6
0.75	0.81	0.78	20	9	0.1	0.5556	0.5556	0.6667	0.05	2	5	5	6
0.81	0.86	0.86	20	9	0.15	0.6667	0.6667	0.7778	0.05	3	6	6	7
0.88	0.76	0.76	20	9	0.2	0.7778	0.6667	0.7778	0.05	4	7	6	7
0.80	0.85	0.88	20	9	0.25	0.7778	0.7778	0.8889	0.05	5	7	7	8
0.91	0.76	0.78	20	9	0.3	0.8889	0.7778	0.8889	0.05	6	8	7	8
0.84	0.89	0.95	20	9	0.35	0.8889	0.8889	1	0.05	7	8	8	9
0.97	0.81	0.89	20	9	0.4	1	0.8889	1	0.05	8	9	8	9
0.93	0.97	0.78	20	9	0.45	1	1	1	0.05	9	9	9	9
0.75	0.80	NA	40	15	0	0.2	0.2	NA	0.05	0	3	3	NA
0.84	0.79	0.85	40	15	0.025	0.3333	0.2667	0.4	0.05	1	5	4	6
0.75	0.80	0.87	40	15	0.05	0.3333	0.3333	0.4667	0.05	2	5	5	7
0.79	0.83	0.81	40	15	0.075	0.4	0.4	0.4667	0.05	3	6	6	7
0.83	0.75	0.85	40	15	0.1	0.4667	0.4	0.5333	0.05	4	7	6	8
0.76	0.80	0.79	40	15	0.125	0.4667	0.4667	0.5333	0.05	5	7	7	8
0.81	0.85	0.84	40	15	0.15	0.5333	0.5333	0.6	0.05	6	8	8	9
0.75	0.79	0.78	40	15	0.175	0.5333	0.5333	0.6	0.05	7	8	8	9
0.81	0.85	0.85	40	15	0.2	0.6	0.6	0.6667	0.05	8	9	9	10
0.75	0.80	0.79	40	15	0.225	0.6	0.6	0.6667	0.05	9	9	9	10
0.83	0.86	0.87	40	15	0.25	0.6667	0.6667	0.7333	0.05	10	10	10	11
0.77	0.81	0.82	40	15	0.275	0.6667	0.6667	0.7333	0.05	11	10	10	11
0.85	0.75	0.76	40	15	0.3	0.7333	0.6667	0.7333	0.05	12	11	10	11
0.80	0.84	0.85	40	15	0.325	0.7333	0.7333	0.8	0.05	13	11	11	12
0.89	0.79	0.80	40	15	0.35	0.8	0.7333	0.8	0.05	14	12	11	12
0.84	0.88	0.90	40	15	0.375	0.8	0.8	0.8667	0.05	15	12	12	13

**** Power is defined as the probability the test of proportions will conclude there is a difference in frequencies of detection given 2 populations with true frequencies in Area 2 and Area 1 as given**
***For a fixed number of detects in Area 1, power was recalculated while incrementing the number of detects in Area 2, stopping when power >= 0.8 plus or minus 0.05**
(a) - Indicates that given the number of detects in the reference Area 1, it is not possible to achieve a power of 80 percent, regardless of number of detects in Area 2.
NA - Indicates power calculation method is invalid for the given values for frequency of detection

Using the three methods cited below, power was estimated for the test of proportions given alpha=0.025, with the null hypothesis Ho: Freq.2 <=Freq.1, and the alternative hypothesis Ha: Freq.2 > Freq.1

Method (1): Uncorrected Chi-Square, Rosner, Fundamentals of Biostatistics 4th ed., p.385 as coded in SAS by R. Bosch, 1996, Harvard University Dept. of Biostatistics (http://www.biostat.harvard.edu/~rbosch/p1p2.html)
Power = Normal Distribution [term 1] + Normal Distribution [term 2], where term 1 and term 2 are defined below:
term 1 = (p2-p1)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2) - InverseNormalDistribution [1-0.025/2] *SQRT(((n1*p1+n2*p2)/(n1+n2))*(1-((n1*p1+n2*p2)/(n1+n2)))*(1/n1+1/n2))/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2))
term 2 = -(p2-p1)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2) + InverseNormalDistribution [0.025/2] *SQRT(((n1*p1+n2*p2)/(n1+n2))*(1- ((n1*p1+n2*p2)/(n1+n2)))*(1/n1+1/n2)/SQRT(p1*(1-p1)/n1 + p2*(1-p2)/n2)

Method (2): Same source equation as method 2 (Rosner, Fundamentals of Biostatistics 4th ed., p.385 as coded in SAS by R. Bosch, 1996, Harvard University), but with a continuity correction for n1 and n2
corrected n1 = n1/4 x (1+SQRT(1+((1/n1+1/n2)/ABS(p2-p1))))^2
corrected n2 = n2/n1 x (corrected n1)
Source of continuity correction: Richardson, P., 2005, Calculation of Sample Size and Power, Houston Center for Quality of Care and Utilization Studies, Department of Medicine,
Baylor College of Medicine: http://www.hsrd.houston.med.va.gov/seminars.htm#

Method (3): Fisher Exact Test power, from Dupont WD, Plummer WD, Jr: Power and Sample Size Calculations: A Review and Computer Program. Controlled Clinical Trials 11:116-128, 1990. Fisher's Exact Test power calculation method from Casagrande JT, Pike MC, Smith PG: "An Improved Approximate Formula for Calculating Sample Sizes for Comparing Two Binomial Distributions", Biometrics, 1978; 34:483-486
Generalization for unequal sample sizes adapted from Fleiss JL: "Statistical Methods for Rates and Proportions" 2nd Ed. NewYork: John Wiley, 1981:38-46.
Download website: http://biostat.mc.vanderbilt.edu/twiki/bin/view/Main/PowerSampleSize. Department of Statistics, Vanderbilt University School of Medicine.

APPENDIX F

ELEMENTAL CORRELATION ANALYSIS

APPENDIX F, PART 1

PEARSON CORRELATION MATRIX AND SCATTERPLOTS FOR EACH SOIL TYPE

APPENDIX F, FIGURE F1-1
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

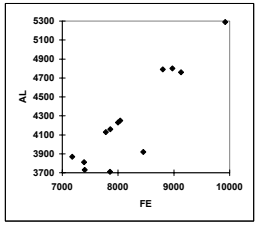
Correlation matrix (Pearson)

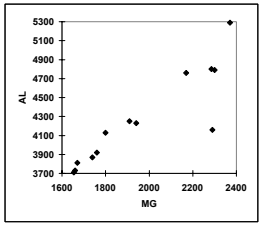
Correlation matrix (Pearson):

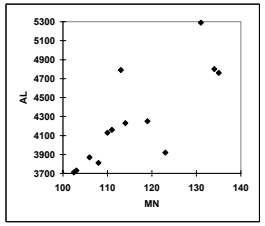
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

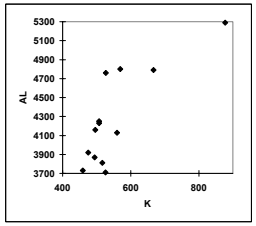
ariables	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	NA	V	ZN
AL	1.00	0.57	0.73	0.47	-0.34	0.68	0.74	-0.14	0.91	-0.04	0.89	**0.79**	0.62	**0.80**	0.06	**0.84**	-0.13
AS	0.57	1.00	0.28	0.55	0.11	0.50	**0.80**	0.15	0.72	0.45	0.51	0.58	0.49	0.41	0.43	0.73	0.28
BA	0.73	0.28	1.00	0.33	-0.28	0.39	0.62	0.00	0.71	-0.04	0.53	0.39	0.36	0.97	-0.20	0.62	-0.05
BE	0.47	0.55	0.33	1.00	0.13	0.30	0.43	0.46	0.62	0.58	0.30	0.54	0.15	0.36	0.13	0.39	0.59
CA	-0.34	0.11	-0.28	0.13	1.00	-0.20	0.04	0.09	-0.05	0.28	-0.38	0.00	-0.22	-0.32	0.58	-0.25	0.26
CR	0.68	0.50	0.39	0.30	-0.20	1.00	**0.81**	0.33	0.68	0.33	**0.83**	0.56	0.93	0.52	0.25	**0.75**	0.22
CO	0.74	**0.80**	0.62	0.43	0.04	**0.81**	1.00	0.23	**0.84**	0.38	0.73	0.58	**0.79**	0.73	0.38	0.89	0.22
CU	-0.14	0.15	0.00	0.46	0.09	0.33	0.23	1.00	0.03	**0.81**	-0.03	-0.21	0.20	0.05	0.17	0.09	0.93
FE	0.91	0.72	0.71	0.62	-0.05	0.68	**0.84**	0.03	1.00	0.18	**0.78**	0.85	0.59	**0.76**	0.19	**0.80**	0.11
PB	-0.04	0.45	-0.04	0.58	0.28	0.33	0.38	**0.81**	0.18	1.00	-0.06	0.02	0.14	0.07	0.46	0.31	0.92
MG	0.89	0.51	0.53	0.30	-0.38	**0.83**	0.73	-0.03	**0.78**	-0.06	1.00	0.67	**0.84**	0.62	0.13	**0.79**	-0.13
MN	**0.79**	0.58	0.39	0.54	0.00	0.56	0.58	-0.21	0.85	0.02	0.67	1.00	0.49	0.43	0.14	0.56	-0.09
NI	0.62	0.49	0.36	0.15	-0.22	0.93	**0.79**	0.20	0.59	0.14	**0.84**	0.49	1.00	0.48	0.18	0.71	0.03
K	**0.80**	0.41	0.97	0.36	-0.32	0.52	0.73	0.05	**0.76**	0.07	0.62	0.43	0.48	1.00	-0.07	**0.77**	0.01
NA	0.06	0.43	-0.20	0.13	0.58	0.25	0.38	0.17	0.19	0.46	0.13	0.14	0.18	-0.07	1.00	0.36	0.33
V	**0.84**	0.73	0.62	0.39	-0.25	**0.75**	0.89	0.09	**0.80**	0.31	**0.79**	0.56	0.71	**0.77**	0.36	1.00	0.11
ZN	-0.13	0.28	-0.05	0.59	0.26	0.22	0.22	0.93	0.11	0.92	-0.13	-0.09	0.03	0.01	0.33	0.11	1.00

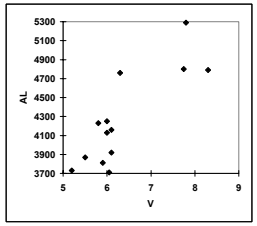
ALUMINUM SCATTERPLOTS



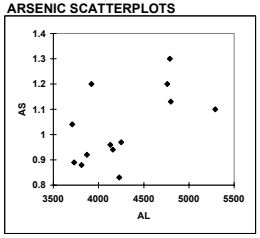


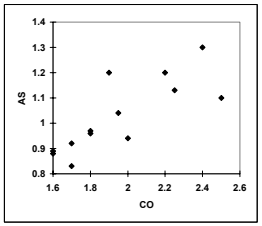


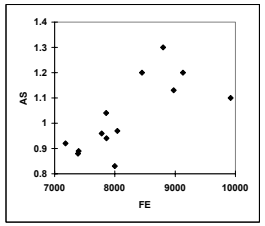




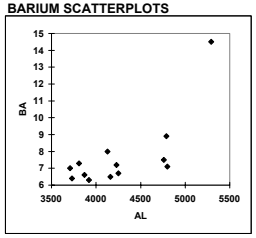
ARSENIC SCATTERPLOTS

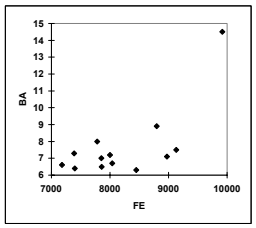


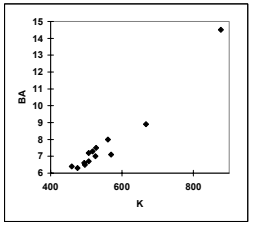




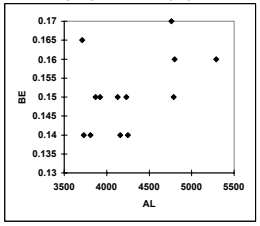
BARIUM SCATTERPLOTS

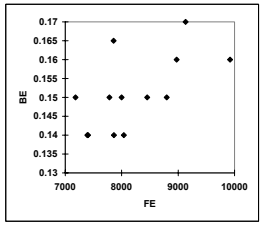




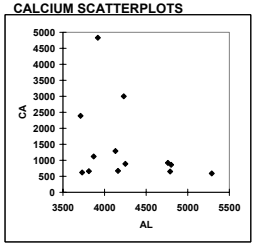


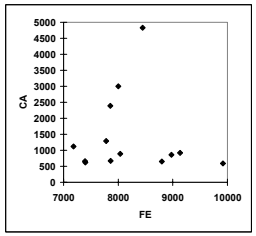
BERYLLIUM SCATTERPLOTS





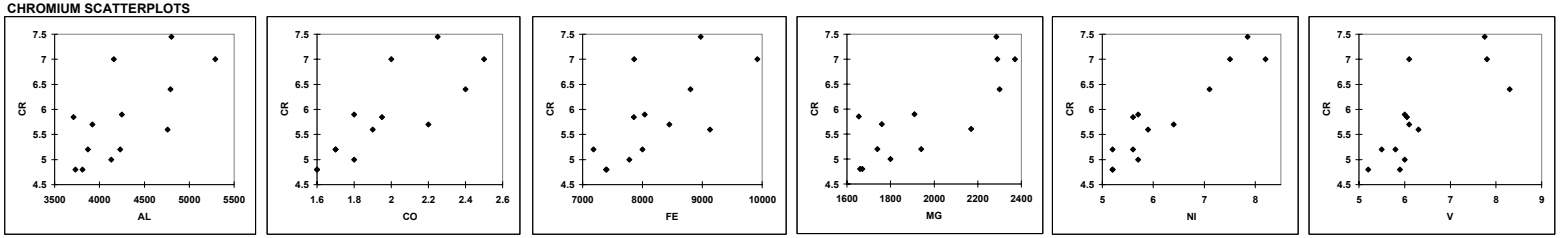
CALCIUM SCATTERPLOTS



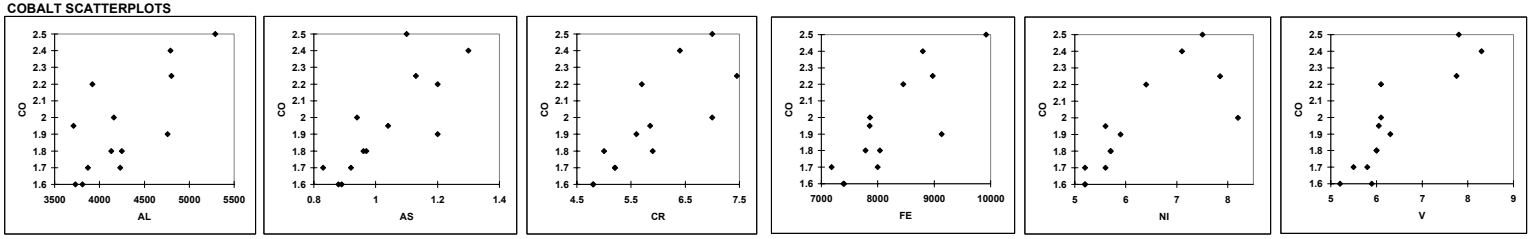


APPENDIX F, FIGURE F1-1
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

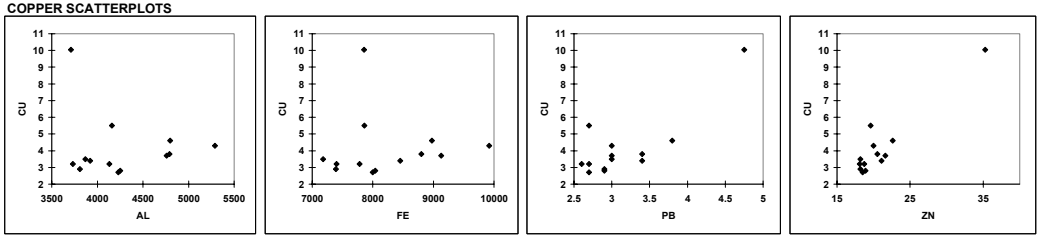
CHROMIUM SCATTERPLOTS



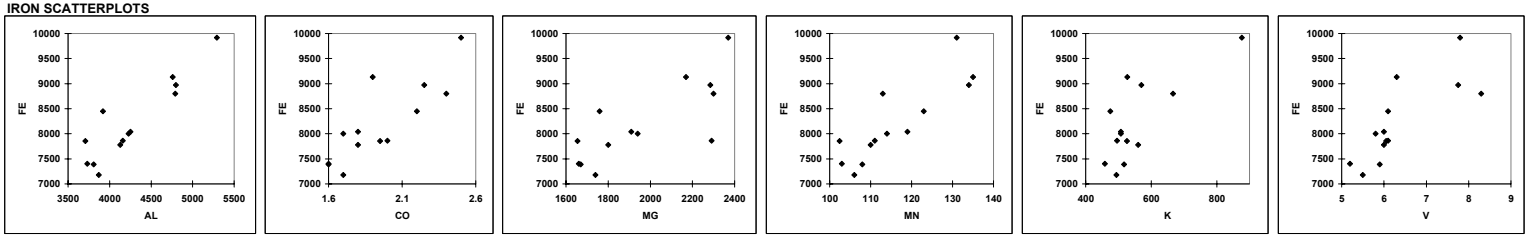
COBALT SCATTERPLOTS



COPPER SCATTERPLOTS

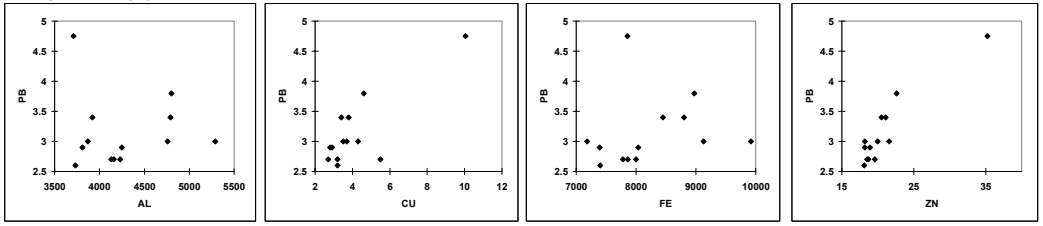


IRON SCATTERPLOTS

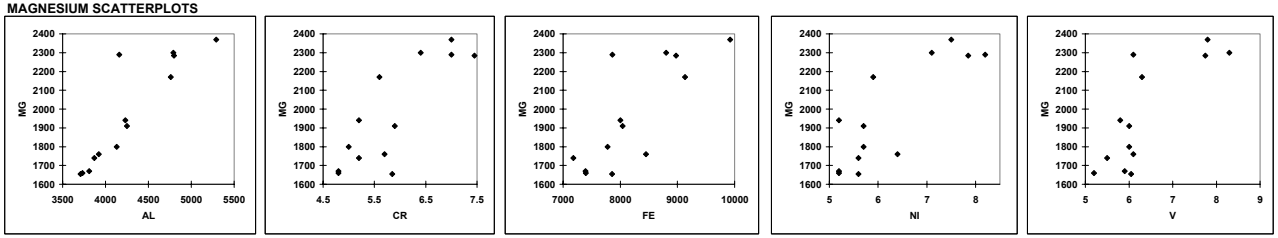


APPENDIX F, FIGURE F1-1
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

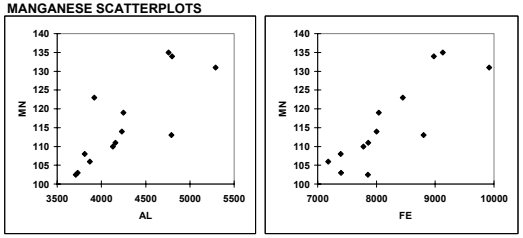
LEAD SCATTERPLOTS



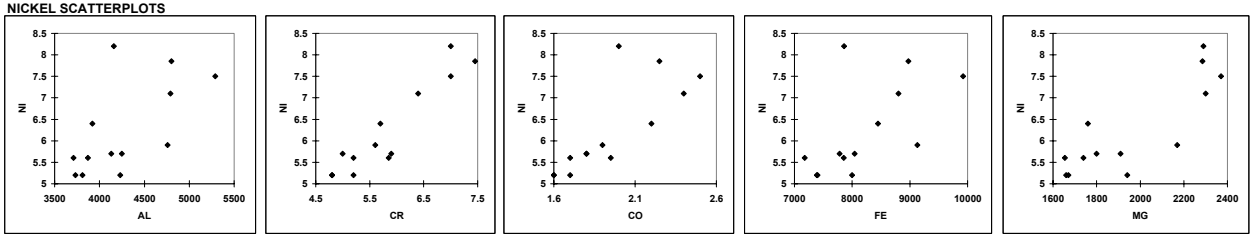
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

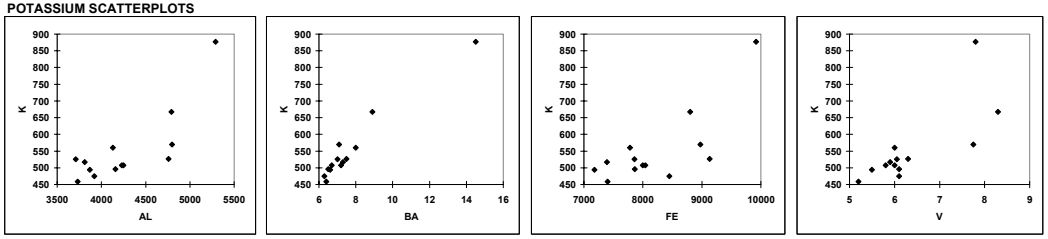


NICKEL SCATTERPLOTS

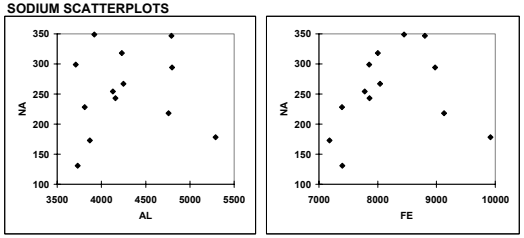


APPENDIX F, FIGURE F1-1
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: BEACHES (BASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

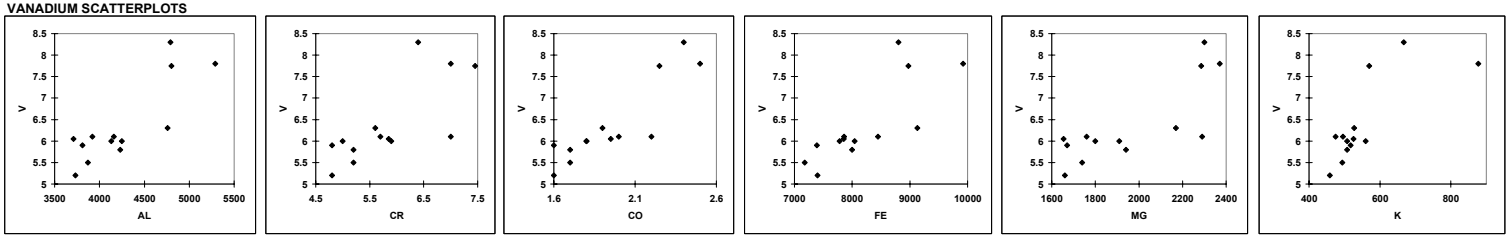
POTASSIUM SCATTERPLOTS



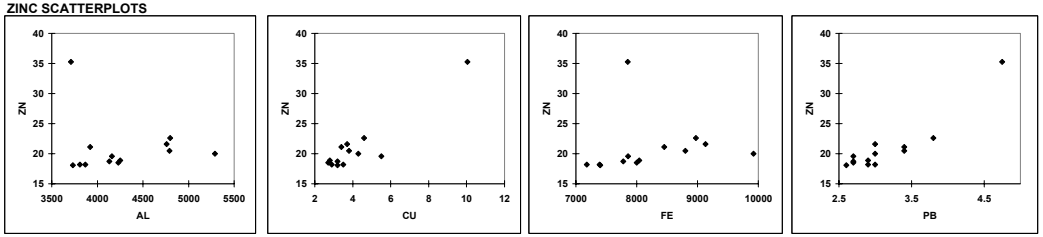
SODIUM SCATTERPLOTS



VANADIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

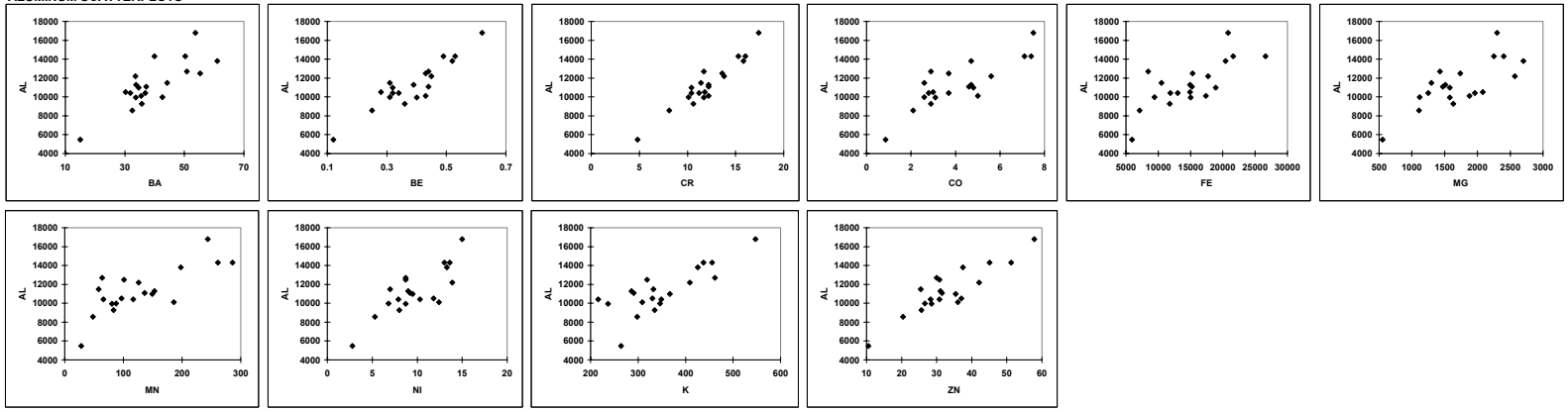
Correlation matrix (Pearson)

Correlation matrix (Pearson):

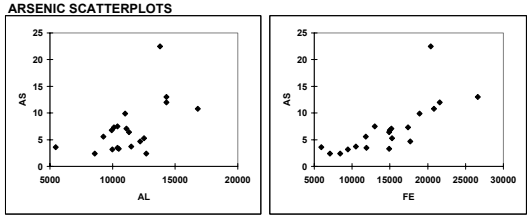
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	NA	V	ZN
AL	1.00	0.57	**0.80**	0.91	0.69	0.49	0.95	**0.83**	0.63	0.74	0.57	**0.75**	**0.76**	0.50	**0.81**	**0.79**	0.24	0.29	0.68	0.89
AS	0.57	1.00	0.53	0.62	0.36	0.62	0.64	0.60	0.58	0.75	0.43	0.63	0.72	0.12	0.58	0.41	-0.05	0.35	0.51	0.54
BA	**0.80**	0.53	1.00	0.73	0.40	0.49	**0.76**	0.47	0.42	0.46	0.27	0.54	0.48	0.41	0.49	0.65	0.10	0.17	0.47	0.51
BE	0.91	0.62	0.73	1.00	0.60	0.53	0.94	**0.84**	**0.76**	**0.76**	0.47	**0.76**	**0.78**	0.43	**0.83**	0.68	0.17	0.50	0.67	0.86
CD	0.69	0.36	0.40	0.60	1.00	0.11	0.61	0.71	0.47	0.56	0.71	0.40	0.69	0.59	0.52	0.70	0.28	0.24	0.61	0.73
CA	0.49	0.62	0.49	0.53	0.11	1.00	0.54	0.43	0.52	0.43	0.05	**0.75**	0.47	0.11	0.65	0.59	-0.35	0.16	-0.03	0.49
CR	0.95	0.64	**0.76**	0.94	0.61	0.54	1.00	0.87	0.74	**0.84**	0.45	0.87	**0.82**	0.29	0.90	0.69	0.10	0.38	0.69	0.90
CO	**0.83**	0.60	0.47	**0.84**	0.71	0.43	0.87	1.00	**0.75**	0.91	0.63	**0.78**	0.95	0.32	0.87	0.68	0.20	0.52	0.71	0.93
CU	0.63	0.58	0.42	**0.76**	0.47	0.52	0.74	**0.75**	1.00	0.73	0.50	0.73	0.71	0.20	**0.82**	0.49	0.01	0.57	0.57	**0.76**
FE	0.74	0.75	0.46	**0.76**	0.56	0.43	**0.84**	0.91	0.73	1.00	0.56	**0.82**	0.92	0.06	0.85	0.52	0.01	0.48	0.73	0.85
PB	0.57	0.43	0.27	0.47	0.71	0.05	0.45	0.63	0.50	0.56	1.00	0.23	0.61	0.65	0.41	0.47	0.56	0.36	0.73	0.64
MG	**0.75**	0.63	0.54	**0.76**	0.40	**0.75**	0.87	**0.78**	0.73	**0.82**	0.23	1.00	**0.75**	-0.02	0.95	0.64	-0.29	0.30	0.38	**0.83**
MN	**0.76**	0.72	0.48	**0.78**	0.69	0.47	**0.82**	0.95	0.71	0.92	0.61	**0.75**	1.00	0.29	**0.82**	0.65	0.18	0.51	0.68	0.86
HG	0.50	0.12	0.41	0.43	0.59	0.11	0.29	0.32	0.20	0.06	0.65	-0.02	0.29	1.00	0.15	0.54	0.62	0.07	0.32	0.39
NI	**0.81**	0.58	0.49	**0.83**	0.52	0.65	0.90	0.87	**0.82**	0.85	0.41	0.95	**0.82**	0.15	1.00	0.67	-0.09	0.46	0.50	0.94
K	**0.79**	0.41	0.65	0.68	0.70	0.59	0.69	0.68	0.49	0.52	0.47	0.64	0.65	0.54	0.67	1.00	0.00	0.13	0.28	0.75
SE	0.24	-0.05	0.10	0.17	0.28	-0.35	0.10	0.20	0.01	0.01	0.56	-0.29	0.18	0.62	-0.09	0.00	1.00	0.13	0.54	0.15
NA	0.29	0.35	0.17	0.50	0.24	0.16	0.38	0.52	0.57	0.48	0.36	0.30	0.51	0.07	0.46	0.13	0.13	1.00	0.45	0.43
V	0.68	0.51	0.47	0.67	0.61	-0.03	0.69	0.71	0.57	0.73	0.73	0.38	0.68	0.32	0.50	0.28	0.54	0.45	1.00	0.65
ZN	0.89	0.54	0.51	0.86	0.73	0.49	0.90	0.93	**0.76**	0.85	0.64	**0.83**	0.86	0.39	0.94	0.75	0.15	0.43	0.65	1.00

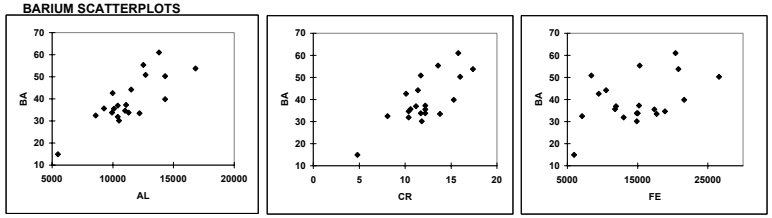
ALUMINUM SCATTERPLOTS



ARSENIC SCATTERPLOTS

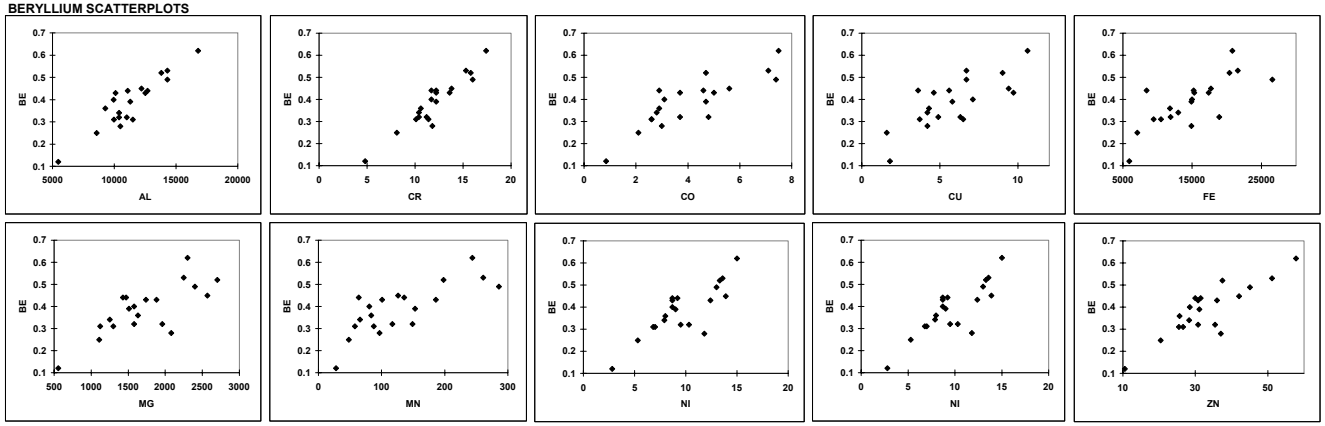


BARIUM SCATTERPLOTS

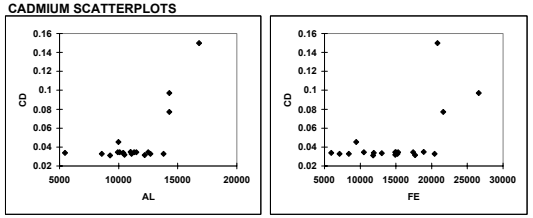


APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

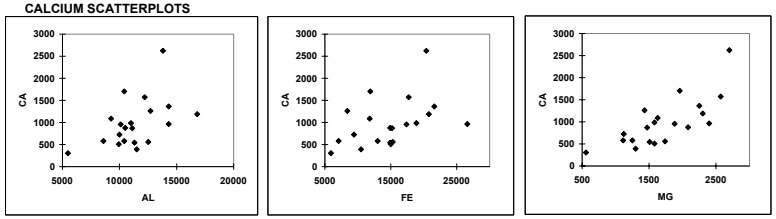
BERYLLIUM SCATTERPLOTS



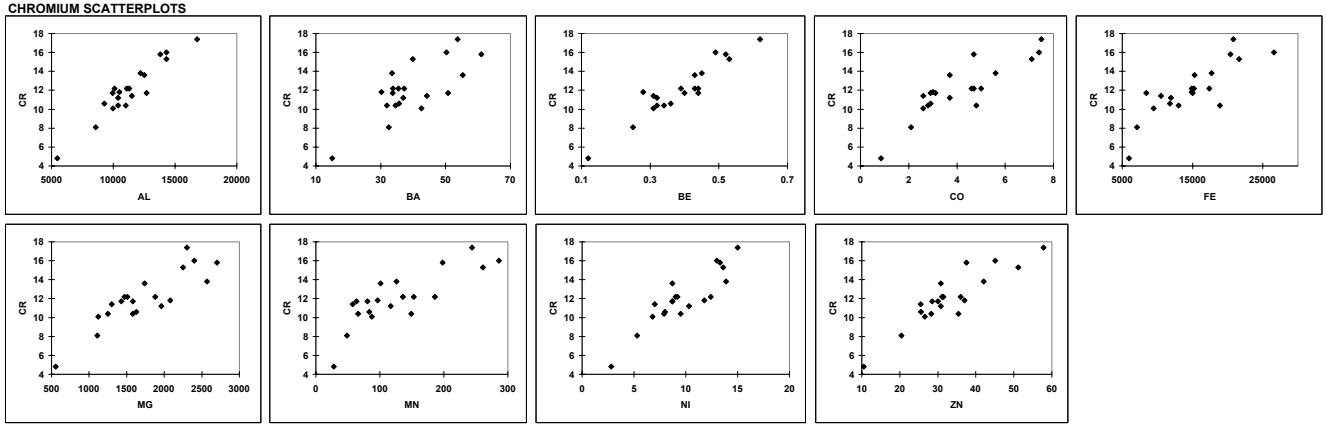
CADMIUM SCATTERPLOTS



CALCIUM SCATTERPLOTS

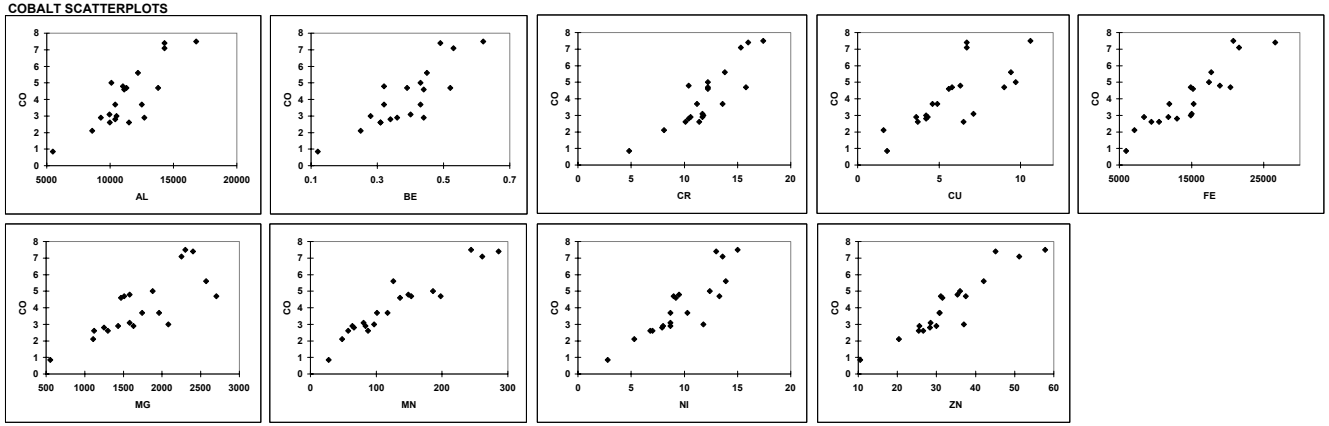


CHROMIUM SCATTERPLOTS

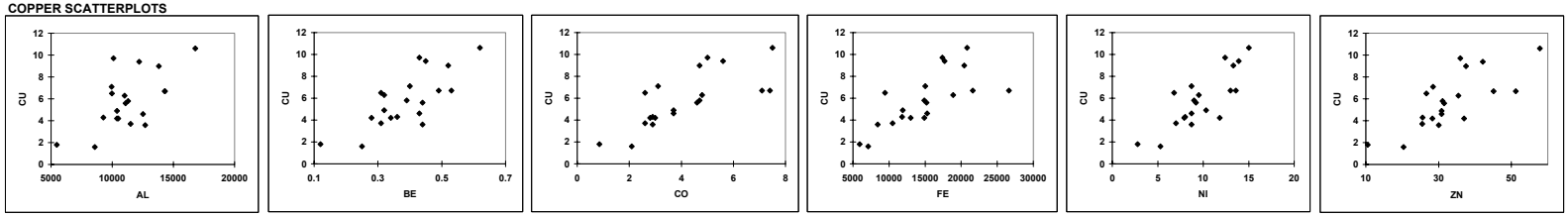


APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

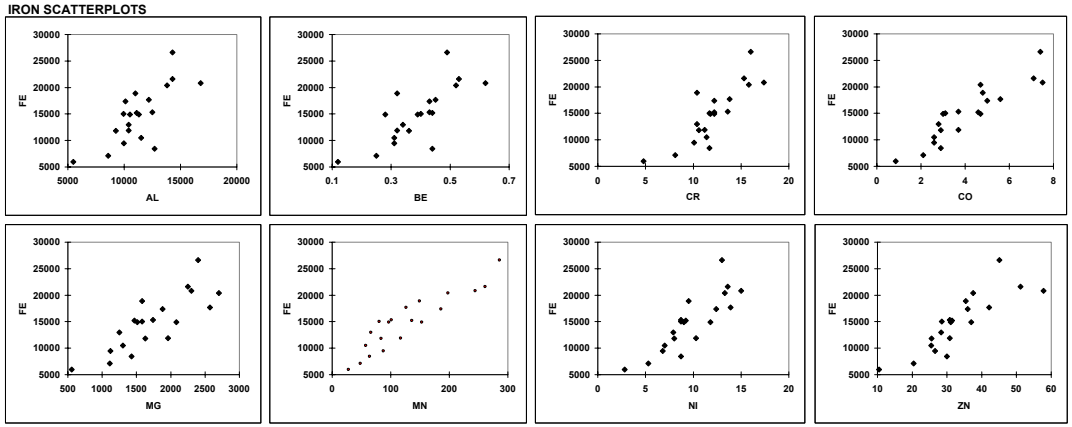
COBALT SCATTERPLOTS



COPPER SCATTERPLOTS

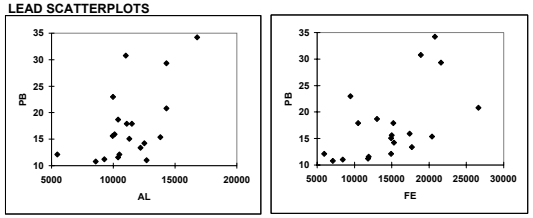


IRON SCATTERPLOTS

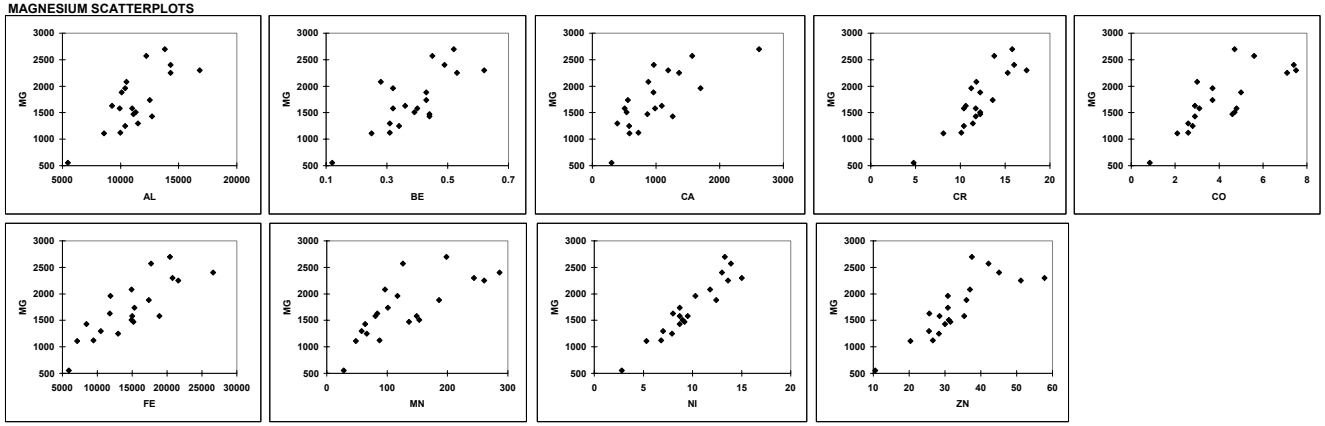


APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

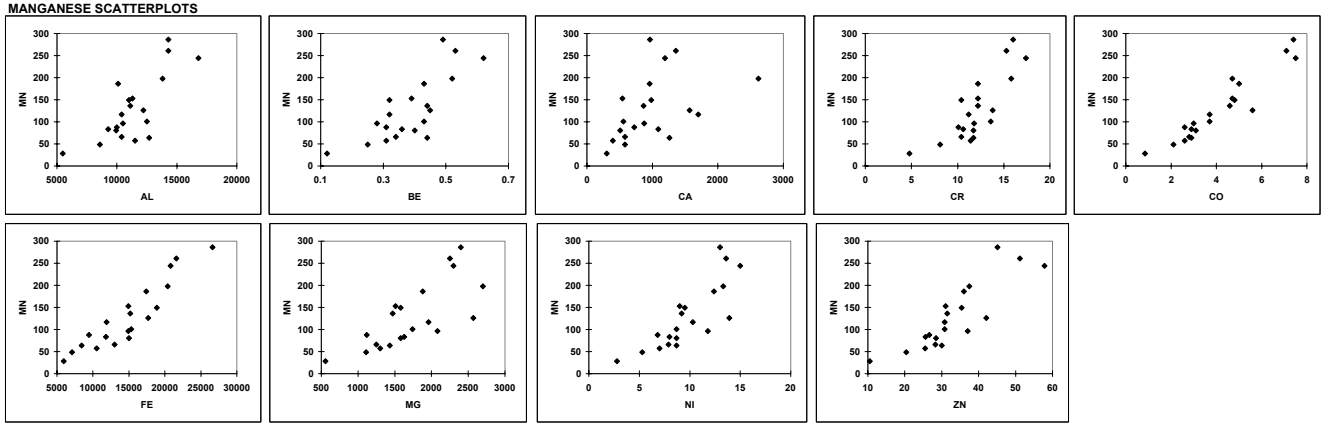
LEAD SCATTERPLOTS



MAGNESIUM SCATTERPLOTS

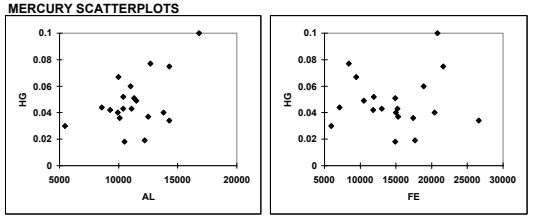


MANGANESE SCATTERPLOTS

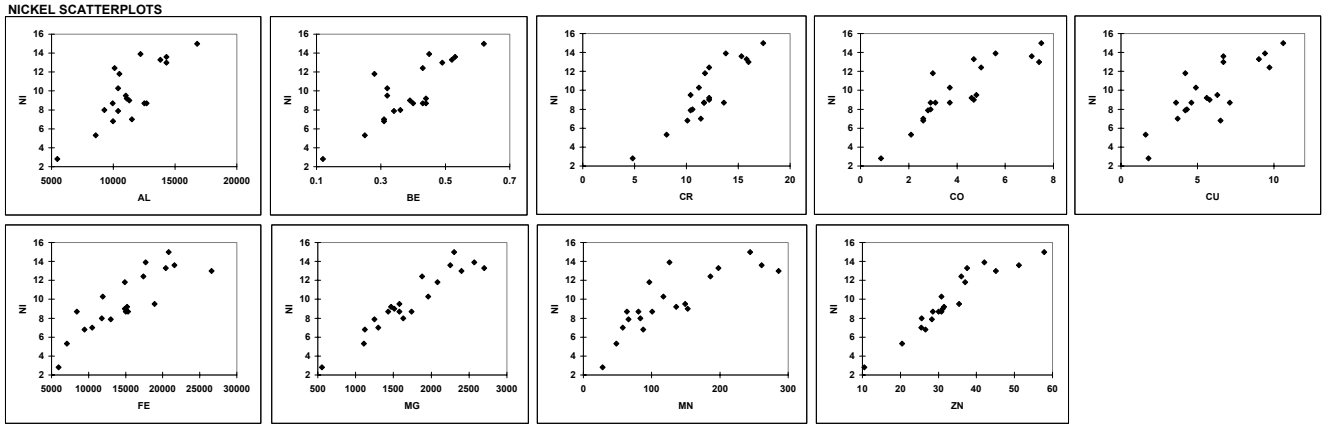


APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

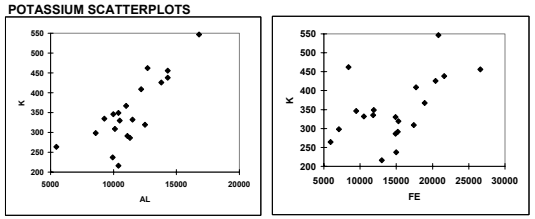
MERCURY SCATTERPLOTS



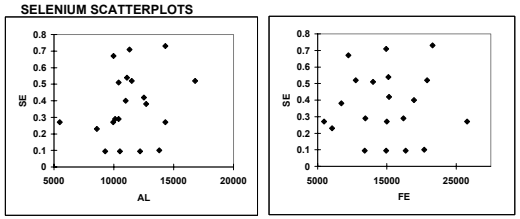
NICKEL SCATTERPLOTS



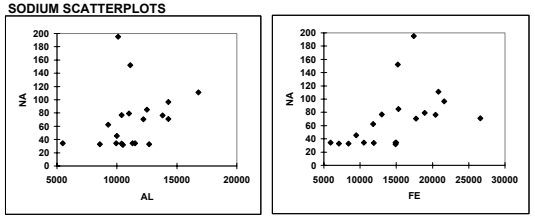
POTASSIUM SCATTERPLOTS



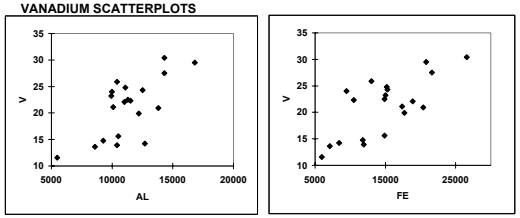
SELENIUM SCATTERPLOTS



SODIUM SCATTERPLOTS

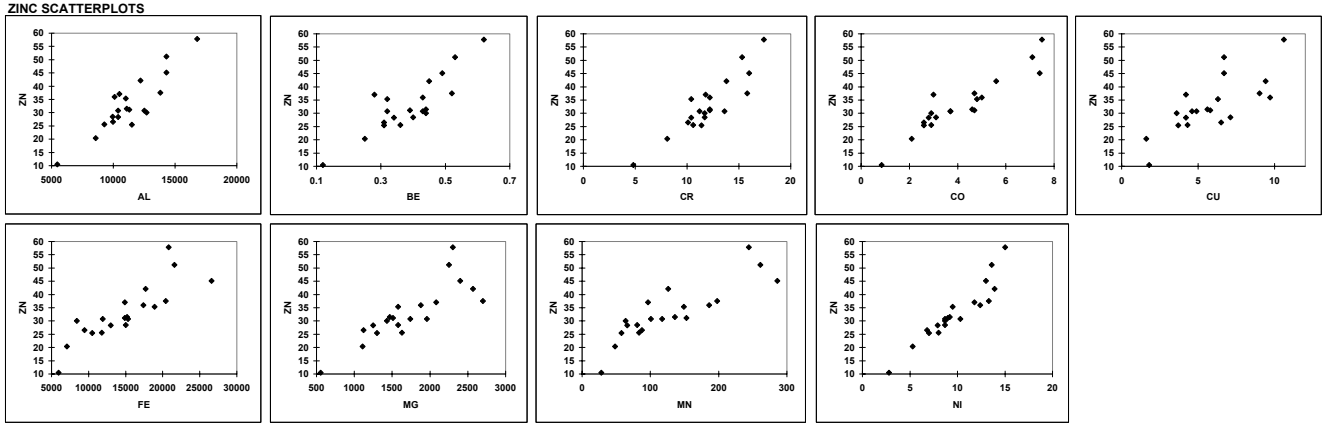


VANADIUM SCATTERPLOTS



APPENDIX F, FIGURE F1-2
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-3
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

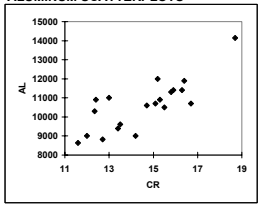
Correlation matrix (Pearson)

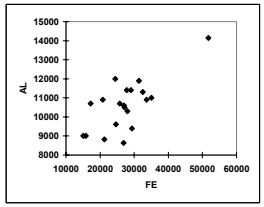
Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

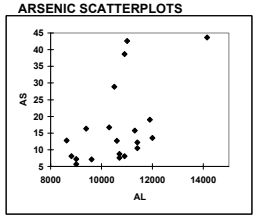
Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	NA	V	ZN
AL	1.00	0.54	0.05	0.40	0.22	0.03	**0.79**	0.23	0.35	0.72	0.56	0.55	0.12	0.24	0.43	0.30	0.54	-0.37	0.57	0.51
AS	0.54	1.00	-0.36	-0.06	0.59	0.08	0.34	0.45	0.59	**0.81**	0.55	0.52	0.10	-0.13	0.55	0.18	0.45	-0.49	0.06	0.65
BA	0.05	-0.36	1.00	0.69	-0.22	-0.41	0.09	-0.24	-0.32	-0.44	-0.30	-0.53	-0.16	0.60	-0.48	-0.21	0.09	0.31	0.40	-0.54
BE	0.40	-0.06	0.69	1.00	-0.18	-0.47	0.39	-0.34	-0.21	-0.06	0.18	-0.37	-0.24	0.37	-0.41	-0.29	0.14	0.33	**0.83**	-0.38
CD	0.22	0.59	-0.22	-0.18	1.00	0.23	0.20	**0.75**	0.45	0.56	0.31	0.35	0.22	-0.19	0.54	0.21	0.32	-0.34	-0.07	0.58
CA	0.03	0.08	-0.41	-0.47	0.23	1.00	0.37	0.34	0.42	0.11	-0.05	0.67	0.33	-0.66	0.59	**0.77**	-0.29	0.01	-0.15	0.46
CR	**0.79**	0.34	0.09	0.39	0.20	0.37	1.00	0.23	0.38	0.51	0.38	0.60	0.13	-0.02	0.46	0.53	0.21	-0.18	0.64	0.42
CO	0.23	0.45	-0.24	-0.34	**0.75**	0.34	0.23	1.00	**0.78**	0.60	0.39	0.55	0.58	-0.15	**0.83**	0.46	0.22	-0.51	-0.33	**0.81**
CU	0.35	0.59	-0.32	-0.21	0.45	0.42	0.38	**0.78**	1.00	0.66	0.57	0.69	0.46	-0.33	0.87	0.58	0.02	-0.46	-0.21	**0.84**
FE	0.72	**0.81**	-0.44	-0.06	0.56	0.11	0.51	0.60	0.66	1.00	**0.78**	0.70	0.22	-0.08	0.74	0.26	0.48	-0.61	0.10	0.85
PB	0.56	0.55	-0.30	0.18	0.31	-0.05	0.38	0.39	0.57	**0.78**	1.00	0.41	0.16	0.01	0.48	0.08	0.41	-0.46	0.18	0.63
MG	0.55	0.52	-0.53	-0.37	0.35	0.67	0.60	0.55	0.69	0.70	0.41	1.00	0.33	-0.40	0.89	0.73	0.10	-0.54	-0.08	0.88
MN	0.12	0.10	-0.16	-0.24	0.22	0.33	0.13	0.58	0.46	0.22	0.16	0.33	1.00	-0.13	0.49	0.50	-0.08	-0.17	-0.26	0.43
HG	0.24	-0.13	0.60	0.37	-0.19	-0.66	-0.02	-0.15	-0.33	-0.08	0.01	-0.40	-0.13	1.00	-0.36	-0.40	0.63	-0.14	0.18	-0.26
NI	0.43	0.55	-0.48	-0.41	0.54	0.59	0.46	**0.83**	0.87	0.74	0.48	0.89	0.49	-0.36	1.00	0.73	0.12	-0.55	-0.27	0.95
K	0.30	0.18	-0.21	-0.29	0.21	**0.77**	0.53	0.46	0.58	0.26	0.08	0.73	0.50	-0.40	0.73	1.00	-0.19	-0.26	-0.16	0.55
SE	0.54	0.45	0.09	0.14	0.32	-0.29	0.21	0.22	0.02	0.48	0.41	0.10	-0.08	0.63	0.12	-0.19	1.00	-0.49	0.15	0.30
NA	-0.37	-0.49	0.31	0.33	-0.34	0.01	-0.18	-0.51	-0.46	-0.61	-0.46	-0.54	-0.17	-0.14	-0.55	-0.26	-0.49	1.00	0.31	-0.66
V	0.57	0.06	0.40	**0.83**	-0.07	-0.15	0.64	-0.33	-0.21	0.10	0.18	-0.08	-0.26	0.18	-0.27	-0.16	0.15	0.31	1.00	-0.22
ZN	0.51	0.65	-0.54	-0.38	0.58	0.46	0.42	**0.81**	**0.84**	0.85	0.63	0.88	0.43	-0.26	0.95	0.55	0.30	-0.66	-0.22	1.00

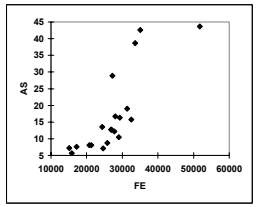
ALUMINUM SCATTERPLOTS



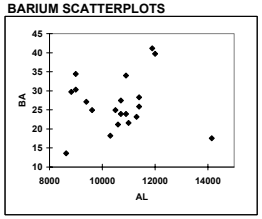


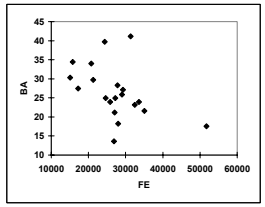
ARSENIC SCATTERPLOTS



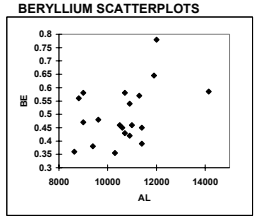


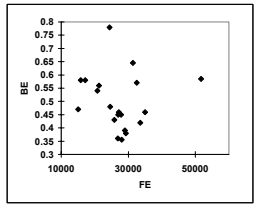
BARIUM SCATTERPLOTS

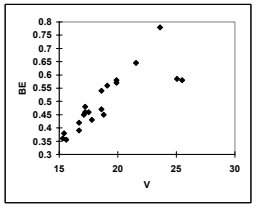




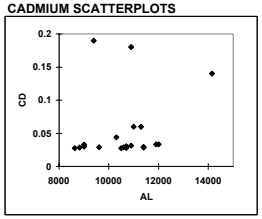
BERYLLIUM SCATTERPLOTS

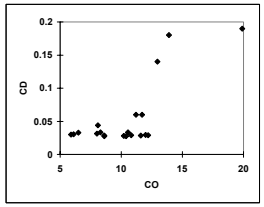


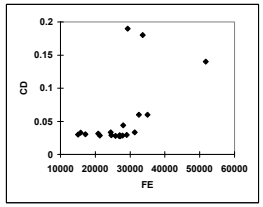




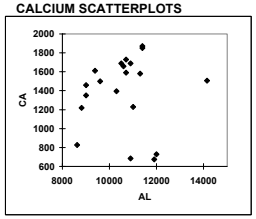
CADMIUM SCATTERPLOTS

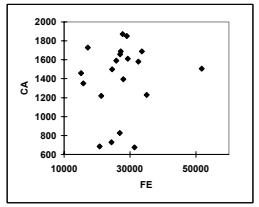


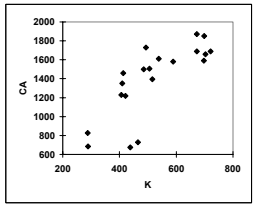




CALCIUM SCATTERPLOTS

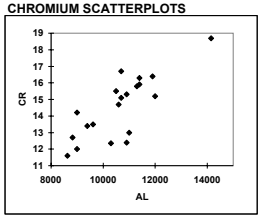


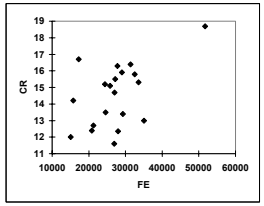




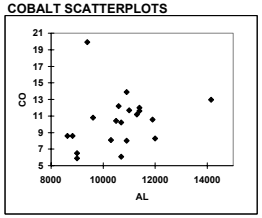
APPENDIX F, FIGURE F1-3
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

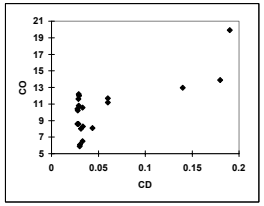
CHROMIUM SCATTERPLOTS

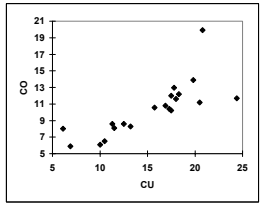


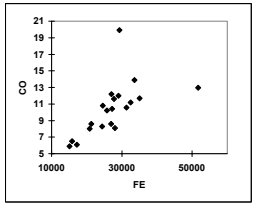


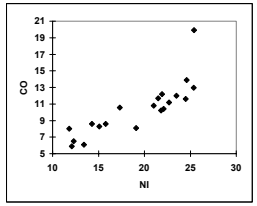
COBALT SCATTERPLOTS

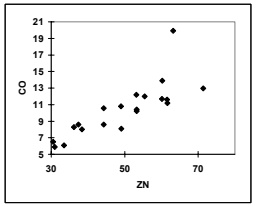




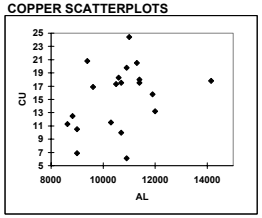


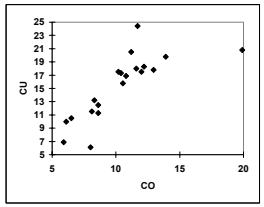


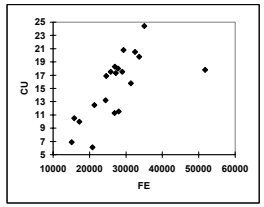


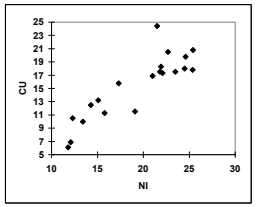


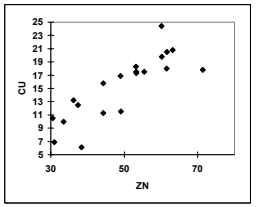
COPPER SCATTERPLOTS



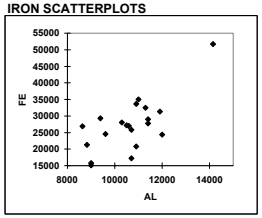


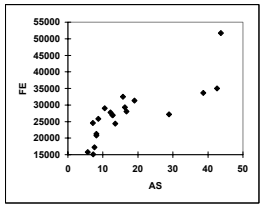


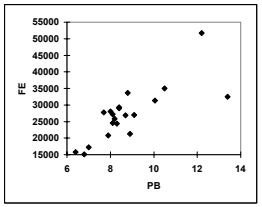


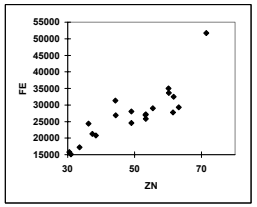


IRON SCATTERPLOTS



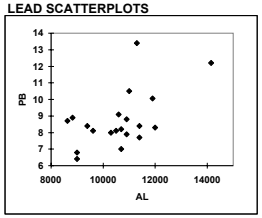


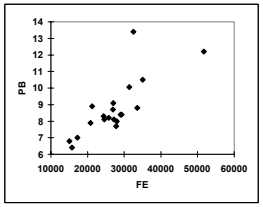




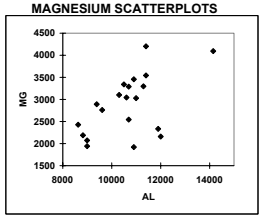
APPENDIX F, FIGURE F1-3
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

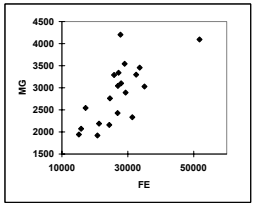
LEAD SCATTERPLOTS

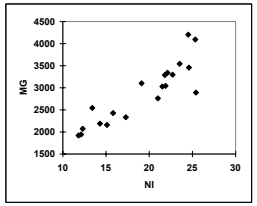


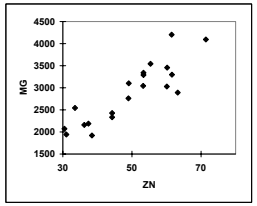


MAGNESIUM SCATTERPLOTS

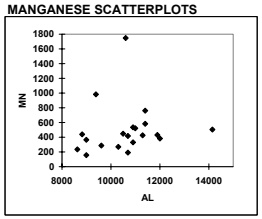


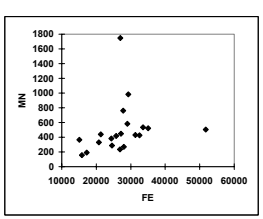




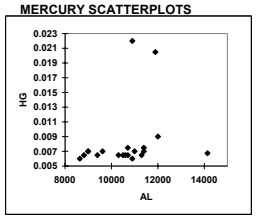


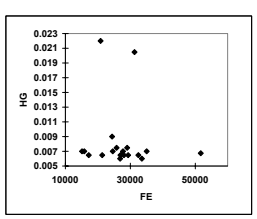
MANGANESE SCATTERPLOTS



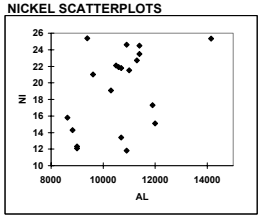


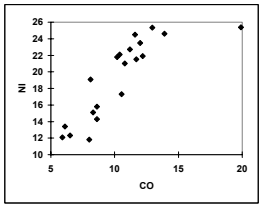
MERCURY SCATTERPLOTS

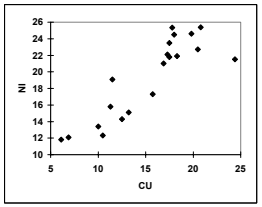


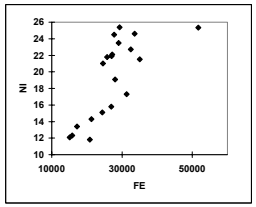


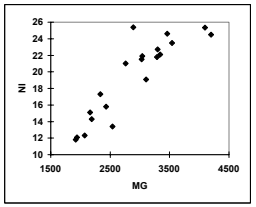
NICKEL SCATTERPLOTS

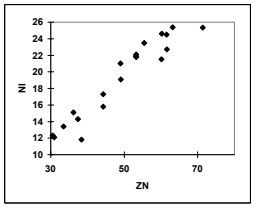




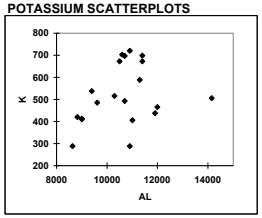


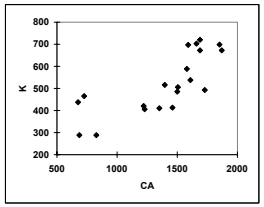


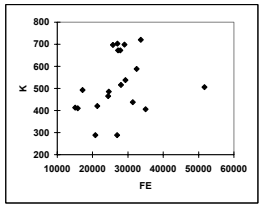




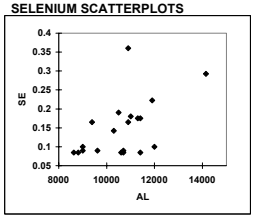
POTASSIUM SCATTERPLOTS

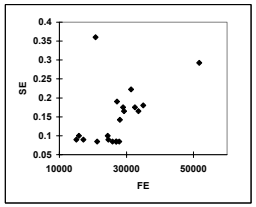






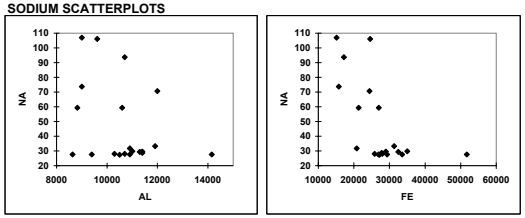
SELENIUM SCATTERPLOTS



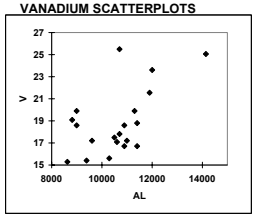


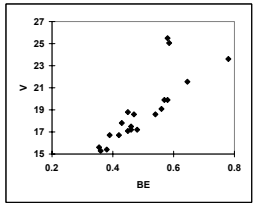
APPENDIX F, FIGURE F1-3
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MANSFIELD MUCKY SILT LOAM (MASB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

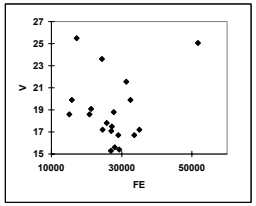
SODIUM SCATTERPLOTS



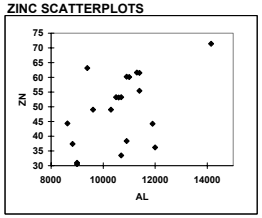
VANADIUM SCATTERPLOTS

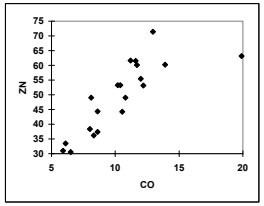


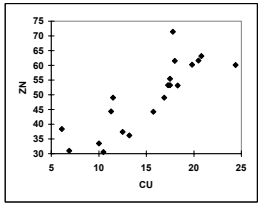


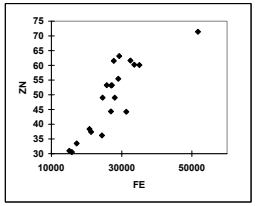


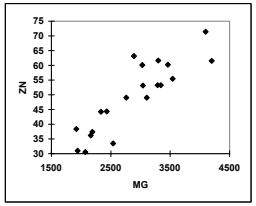
ZINC SCATTERPLOTS

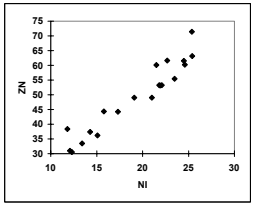












APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

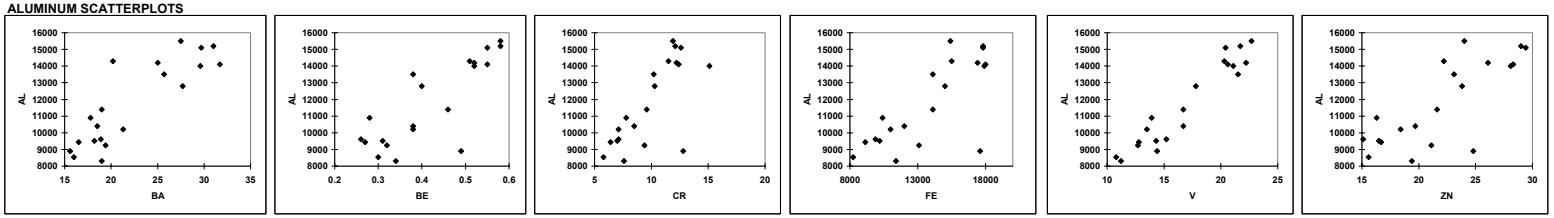
Correlation matrix (Pearson)

Correlation matrix (Pearson):

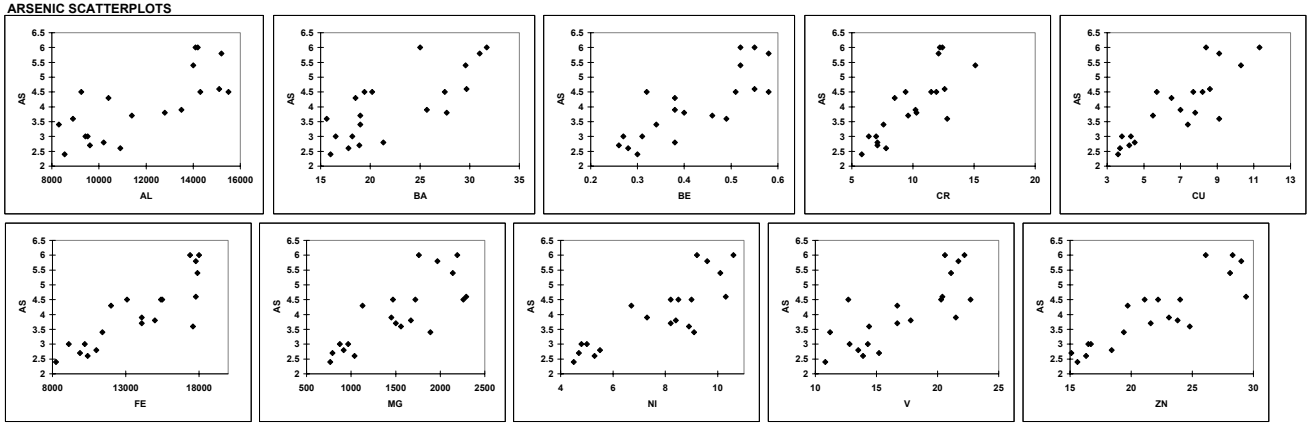
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

Variables	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	NA	V	ZN
AL	1.00	0.75	0.86	**0.82**	0.31	**0.76**	0.29	0.55	**0.76**	0.65	0.54	0.27	0.65	0.61	0.37	0.64	0.43	0.96	**0.78**
AS	0.75	1.00	**0.76**	**0.81**	0.50	**0.82**	0.70	**0.85**	0.85	0.45	**0.79**	0.66	0.42	**0.84**	0.64	0.62	0.45	**0.78**	0.87
BA	0.86	**0.76**	1.00	0.73	0.48	0.71	0.45	0.72	0.74	0.64	0.66	0.48	0.53	0.69	0.51	0.54	0.43	**0.81**	**0.83**
BE	**0.82**	**0.81**	0.73	1.00	0.56	0.88	0.57	0.75	0.91	0.30	0.67	0.60	0.46	**0.81**	0.45	0.53	0.40	**0.81**	0.90
CA	0.31	0.50	0.48	0.56	1.00	0.63	**0.77**	0.71	0.61	-0.10	0.75	**0.80**	0.03	**0.78**	**0.79**	0.26	0.45	0.32	0.65
CR	**0.76**	**0.82**	0.71	0.88	0.63	1.00	0.74	0.86	0.97	0.33	**0.78**	0.66	0.36	0.86	0.65	0.48	0.59	**0.79**	0.93
CO	0.29	0.70	0.45	0.57	**0.77**	0.74	1.00	0.89	0.74	-0.11	0.91	0.90	-0.11	0.90	0.88	0.11	0.38	0.31	0.74
CU	0.55	**0.85**	0.72	0.75	0.71	0.86	0.89	1.00	0.88	0.28	0.87	**0.82**	0.20	0.93	**0.76**	0.36	0.41	0.59	0.91
FE	**0.76**	0.85	0.74	0.91	0.61	0.97	0.74	0.88	1.00	0.35	**0.81**	0.72	0.38	0.90	0.61	0.47	0.43	**0.79**	0.97
PB	0.65	0.45	0.64	0.30	-0.10	0.33	-0.11	0.28	0.35	1.00	0.08	-0.14	0.67	0.14	-0.04	0.61	0.14	0.72	0.40
MG	0.54	**0.79**	0.66	0.67	0.75	**0.78**	0.91	0.87	**0.81**	0.08	1.00	0.86	0.10	0.96	0.90	0.24	0.36	0.50	**0.84**
MN	0.27	0.66	0.48	0.60	**0.80**	0.66	0.90	**0.82**	0.72	-0.14	0.86	1.00	-0.05	0.87	**0.79**	0.15	0.37	0.28	0.74
HG	0.65	0.42	0.53	0.46	0.03	0.36	-0.11	0.20	0.38	0.67	0.10	-0.05	1.00	0.17	0.01	0.69	0.26	0.69	0.45
NI	0.61	**0.84**	0.69	**0.81**	**0.78**	0.86	0.90	0.93	0.90	0.14	0.96	0.87	0.17	1.00	**0.82**	0.35	0.38	0.60	0.91
K	0.37	0.64	0.51	0.45	**0.79**	0.65	0.88	**0.76**	0.61	-0.04	0.90	**0.79**	0.01	**0.82**	1.00	0.22	0.50	0.36	0.66
SE	0.64	0.62	0.54	0.53	0.26	0.48	0.11	0.36	0.47	0.61	0.24	0.15	0.69	0.35	0.22	1.00	0.41	0.71	0.51
NA	0.43	0.45	0.43	0.40	0.45	0.59	0.38	0.41	0.43	0.14	0.36	0.37	0.26	0.38	0.50	0.41	1.00	0.46	0.44
V	0.96	**0.78**	**0.81**	**0.81**	0.32	**0.79**	0.31	0.59	**0.79**	0.72	0.50	0.28	0.69	0.60	0.36	0.71	0.46	1.00	**0.78**
ZN	**0.78**	0.87	**0.83**	0.90	0.65	0.93	0.74	0.91	0.97	0.40	**0.84**	0.74	0.45	0.91	0.66	0.51	0.44	**0.78**	1.00

ALUMINUM SCATTERPLOTS

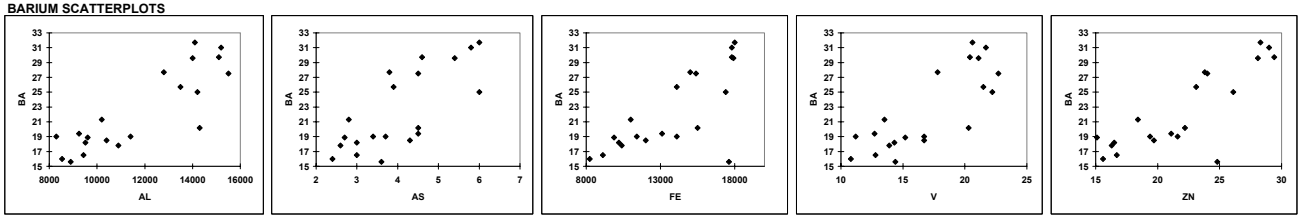


ARSENIC SCATTERPLOTS

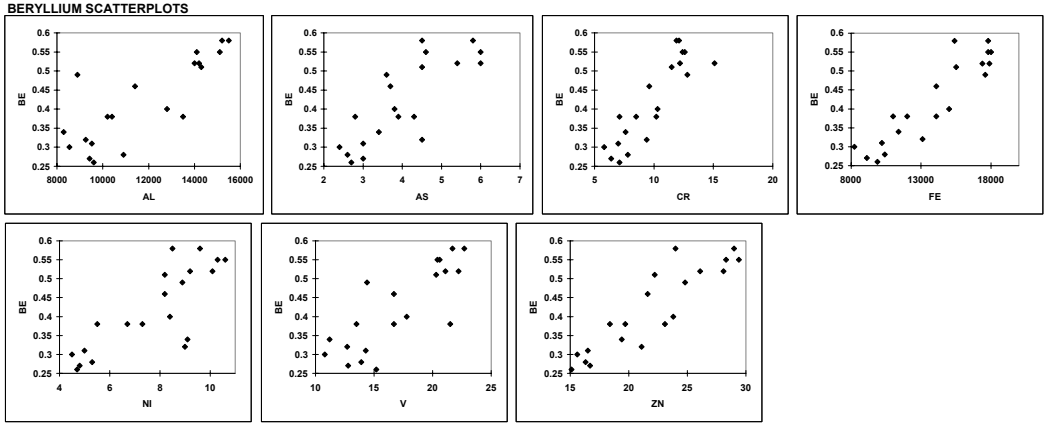


APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

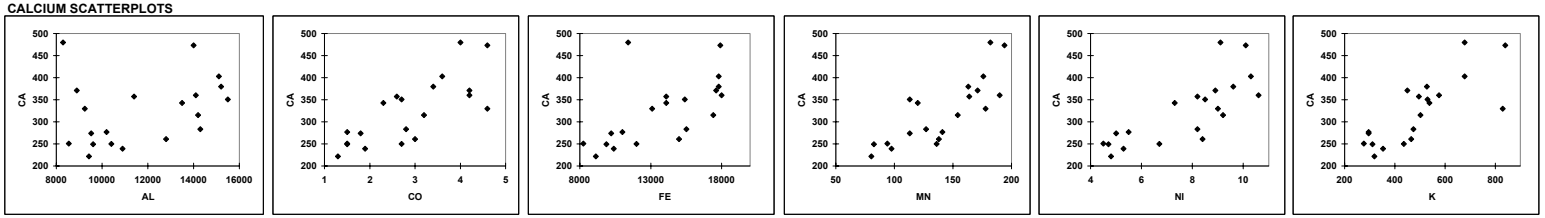
BARIUM SCATTERPLOTS



BERYLLIUM SCATTERPLOTS

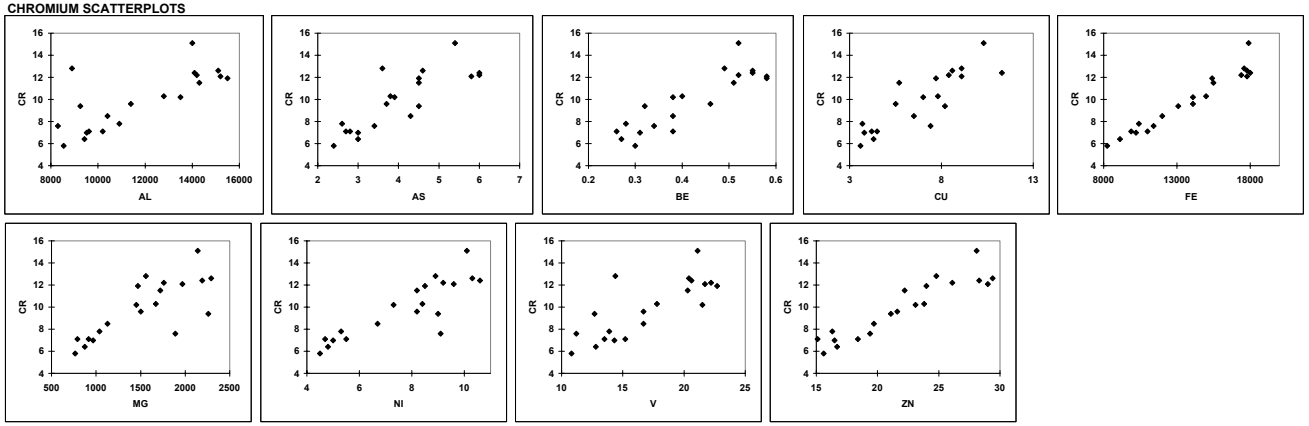


CALCIUM SCATTERPLOTS

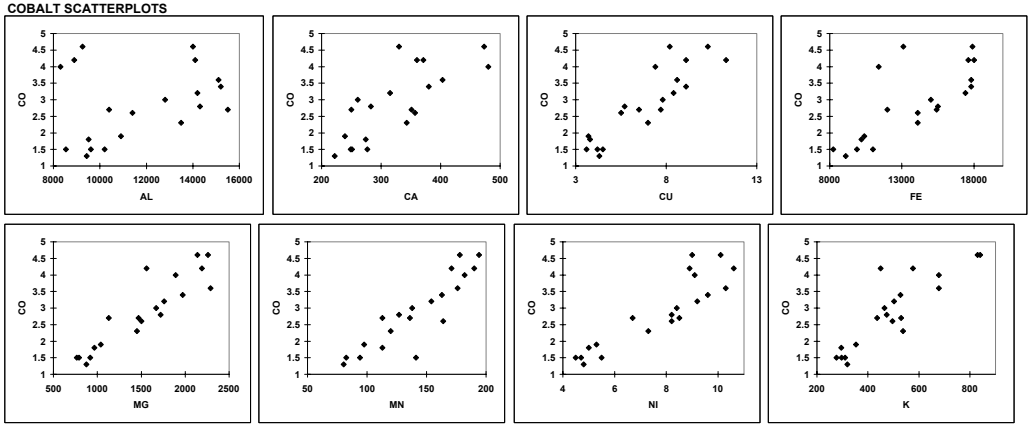


APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

CHROMIUM SCATTERPLOTS

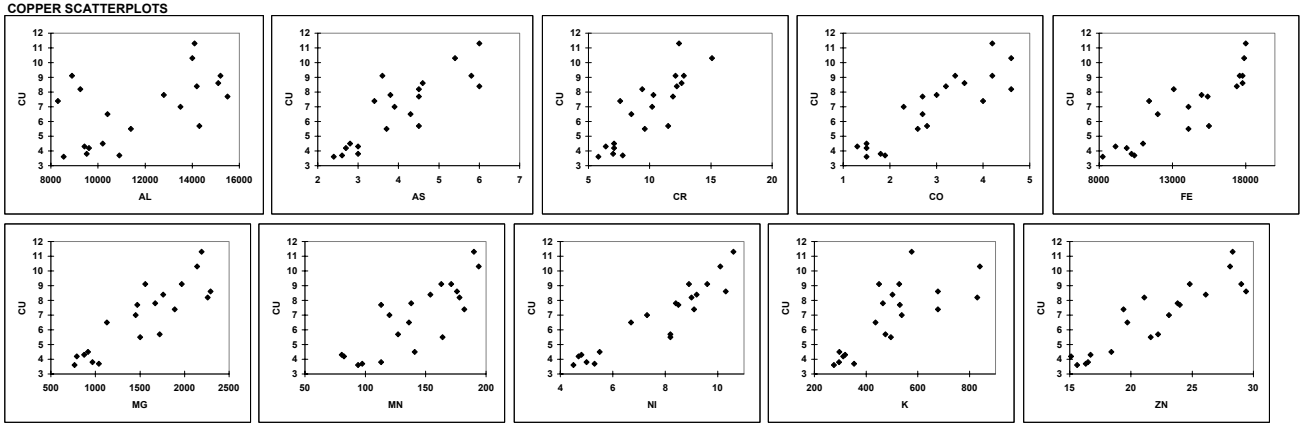


COBALT SCATTERPLOTS

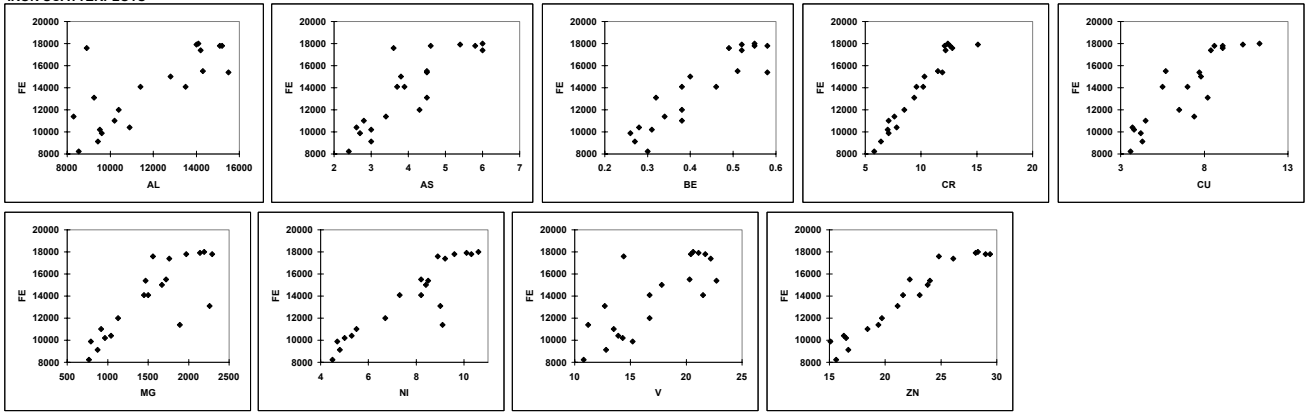


APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COPPER SCATTERPLOTS

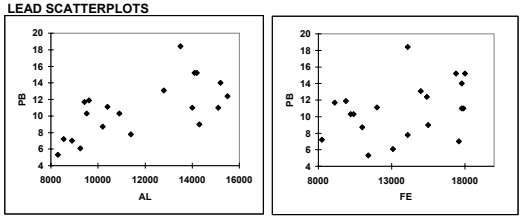


IRON SCATTERPLOTS

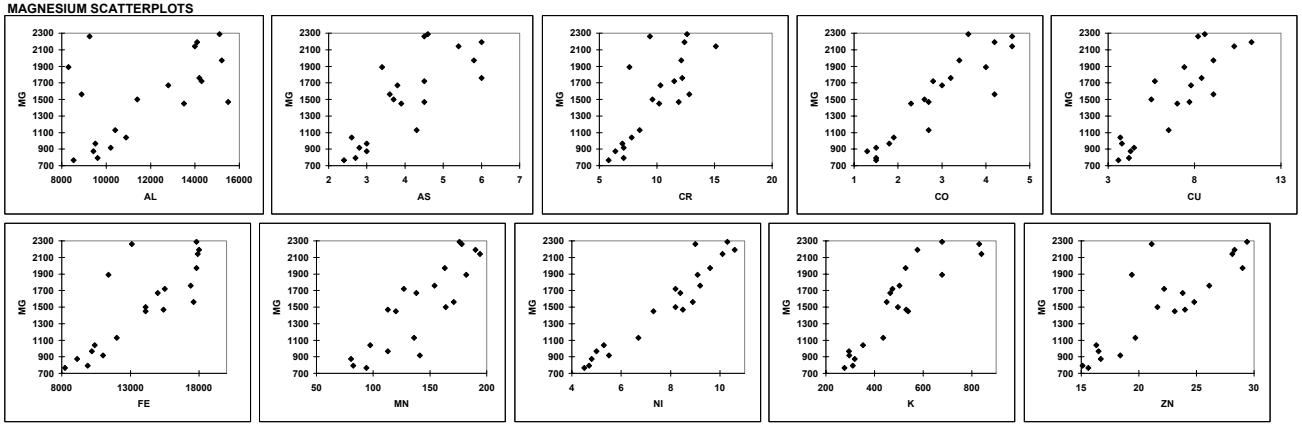


APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

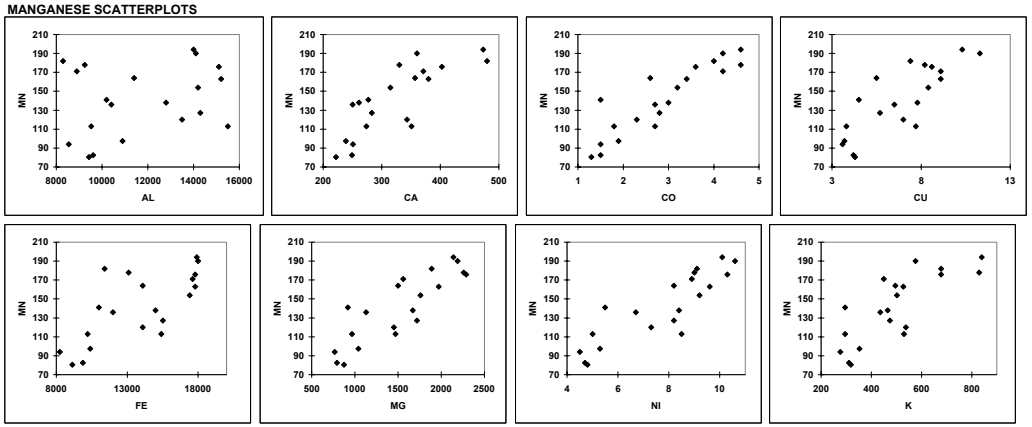
LEAD SCATTERPLOTS



MAGNESIUM SCATTERPLOTS

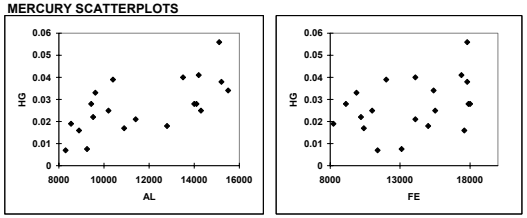


MANGANESE SCATTERPLOTS

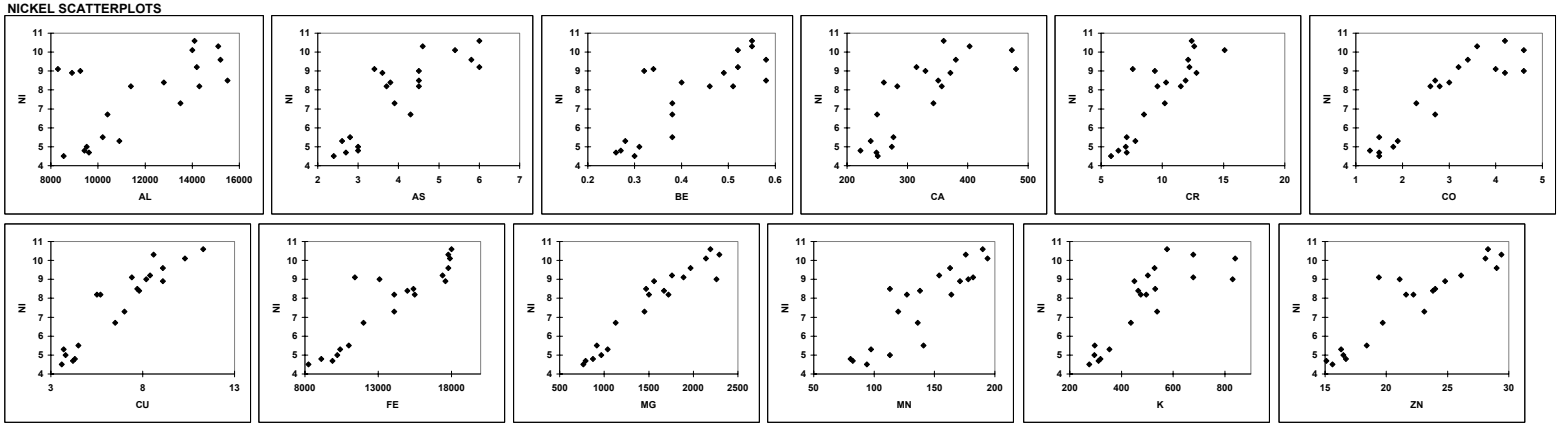


APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

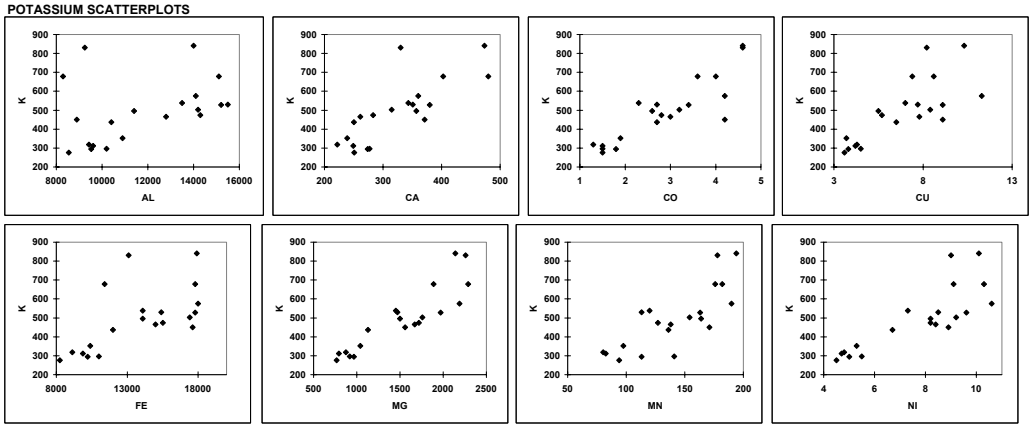
MERCURY SCATTERPLOTS



NICKEL SCATTERPLOTS

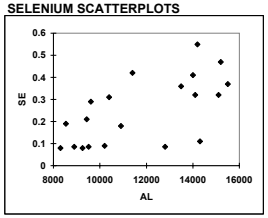


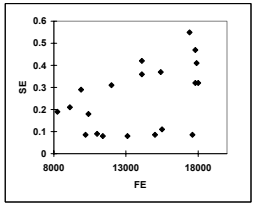
POTASSIUM SCATTERPLOTS



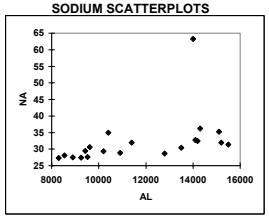
APPENDIX F, FIGURE F1-4
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

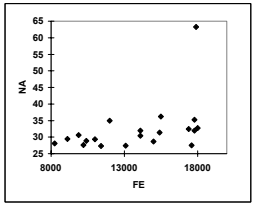
SELENIUM SCATTERPLOTS



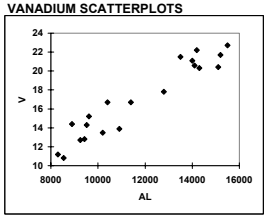


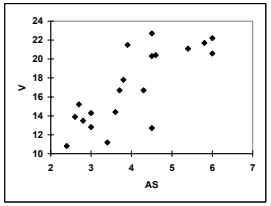
SODIUM SCATTERPLOTS

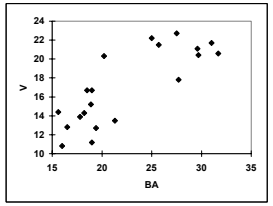


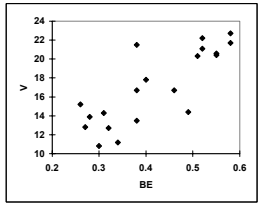


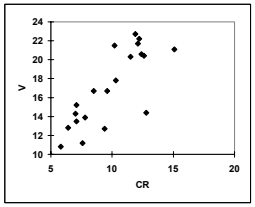
VANADIUM SCATTERPLOTS

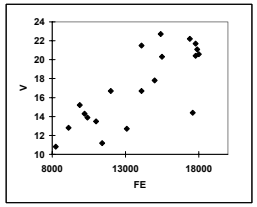


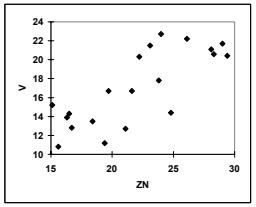




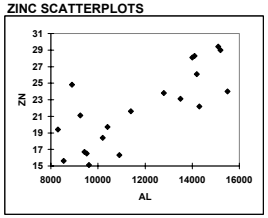


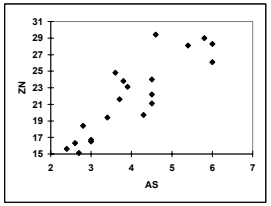


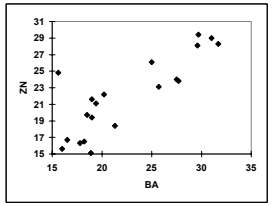


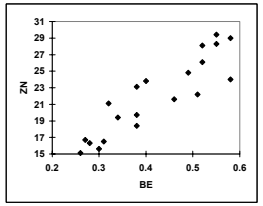


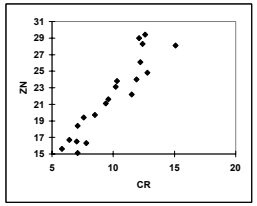
ZINC SCATTERPLOTS

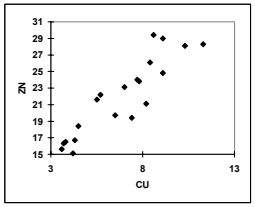


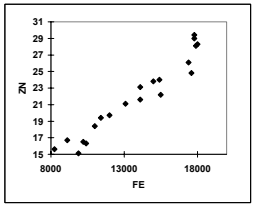


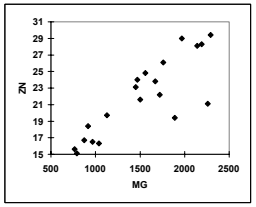


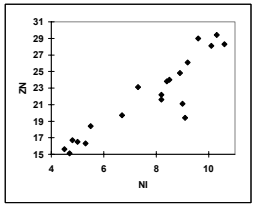


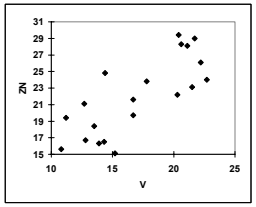












APPENDIX F, FIGURE F1-5
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

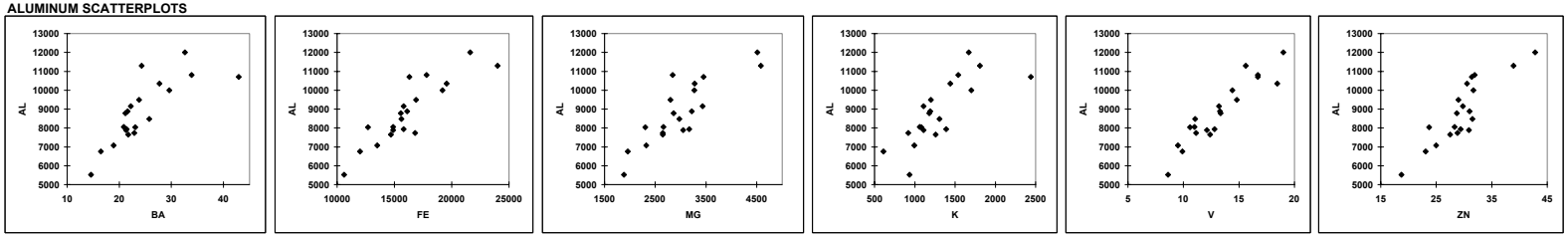
Correlation matrix (Pearson)

Correlation matrix (Pearson):

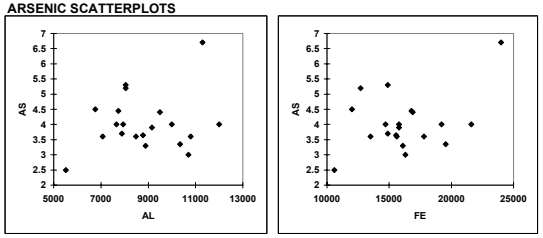
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

Variables	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	NA	V	ZN
AL	1.00	0.20	**0.80**	0.22	0.45	0.56	0.38	0.40	0.88	0.28	**0.85**	0.42	0.31	**0.78**	0.54	0.93	0.87
AS	0.20	1.00	-0.13	0.19	0.01	0.15	0.48	0.68	0.39	0.48	0.29	-0.03	0.06	-0.03	0.00	-0.01	0.28
BA	**0.80**	-0.13	1.00	0.09	0.56	0.28	0.15	0.00	0.54	0.09	0.54	0.30	0.08	0.88	0.44	**0.77**	0.59
BE	0.22	0.19	0.09	1.00	-0.11	0.04	-0.02	0.10	0.16	0.35	0.04	-0.04	0.05	-0.10	0.47	0.23	0.17
CA	0.45	0.01	0.56	-0.11	1.00	0.21	-0.08	-0.15	0.22	-0.21	0.44	0.20	0.11	0.52	0.16	0.41	0.39
CR	0.56	0.15	0.28	0.04	0.21	1.00	0.36	0.31	0.56	0.16	0.56	0.13	0.33	0.31	0.31	0.55	0.61
CO	0.38	0.48	0.15	-0.02	-0.08	0.36	1.00	0.48	0.48	0.51	0.48	0.37	0.52	0.16	0.30	0.25	0.57
CU	0.40	0.68	0.00	0.10	-0.15	0.31	0.48	1.00	0.64	0.44	0.63	0.11	0.28	0.26	0.08	0.23	0.57
FE	0.88	0.39	0.54	0.16	0.22	0.56	0.48	0.64	1.00	0.48	0.90	0.45	0.33	0.64	0.42	**0.81**	0.91
PB	0.28	0.48	0.09	0.35	-0.21	0.16	0.51	0.44	0.48	1.00	0.28	0.14	0.45	-0.04	0.27	0.13	0.46
MG	**0.85**	0.29	0.54	0.04	0.44	0.56	0.48	0.63	0.90	0.28	1.00	0.44	0.45	0.70	0.40	**0.77**	0.94
MN	0.42	-0.03	0.30	-0.04	0.20	0.13	0.37	0.11	0.45	0.14	0.44	1.00	0.60	0.26	0.19	0.54	0.45
NI	0.31	0.06	0.08	0.05	0.11	0.33	0.52	0.28	0.33	0.45	0.45	0.60	1.00	0.02	0.20	0.29	0.49
K	**0.78**	-0.03	0.88	-0.10	0.52	0.31	0.16	0.26	0.64	-0.04	0.70	0.26	0.02	1.00	0.25	0.74	0.64
NA	0.54	0.00	0.44	0.47	0.16	0.31	0.30	0.08	0.42	0.27	0.40	0.19	0.20	0.25	1.00	0.54	0.57
V	0.93	-0.01	**0.77**	0.23	0.41	0.55	0.25	0.23	**0.81**	0.13	**0.77**	0.54	0.29	0.74	0.54	1.00	**0.78**
ZN	0.87	0.28	0.59	0.17	0.39	0.61	0.57	0.57	0.91	0.46	0.94	0.45	0.49	0.64	0.57	**0.78**	1.00

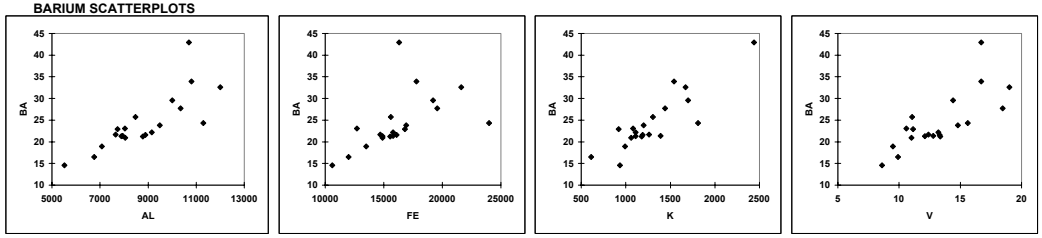
ALUMINUM SCATTERPLOTS



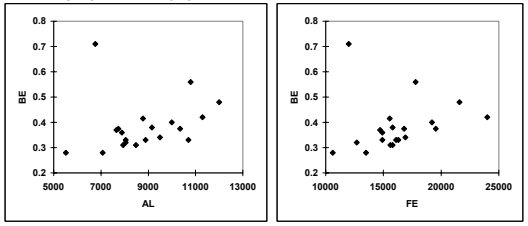
ARSENIC SCATTERPLOTS



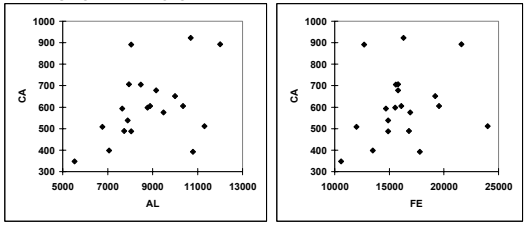
BARIUM SCATTERPLOTS



BERYLLIUM SCATTERPLOTS

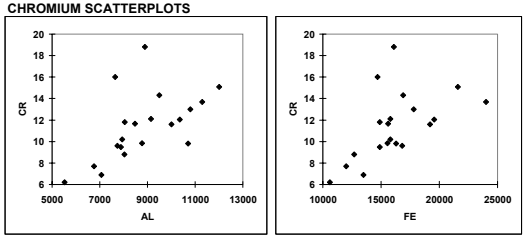


CALCIUM SCATTERPLOTS

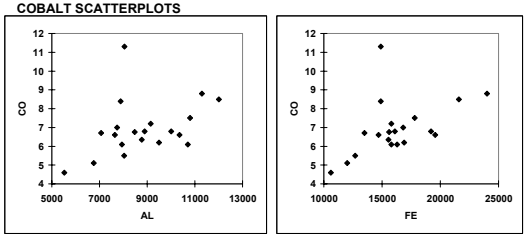


APPENDIX F, FIGURE F1-5
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

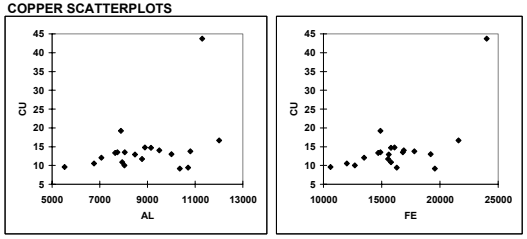
CHROMIUM SCATTERPLOTS



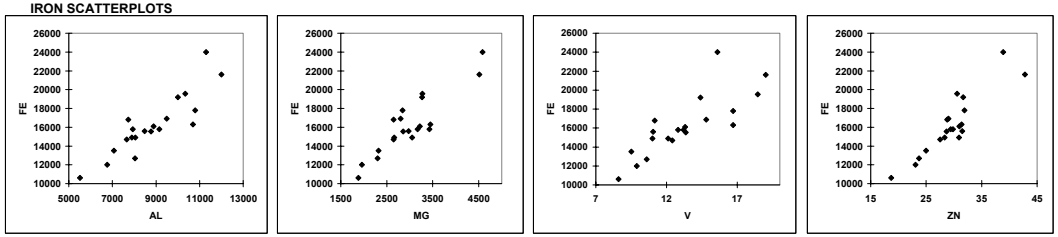
COBALT SCATTERPLOTS



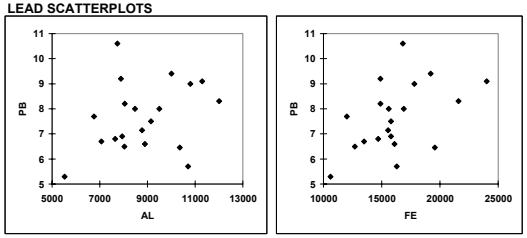
COPPER SCATTERPLOTS



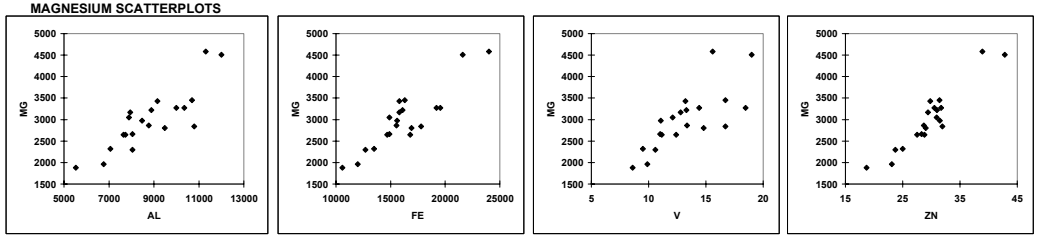
IRON SCATTERPLOTS



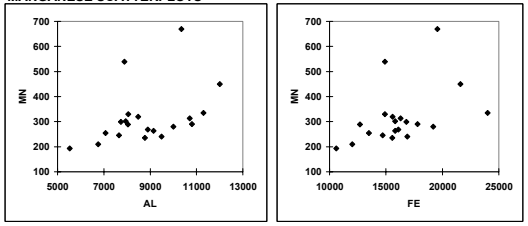
LEAD SCATTERPLOTS



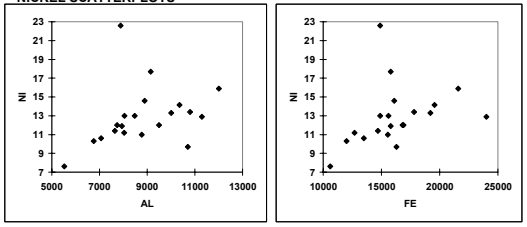
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

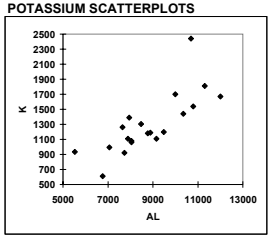


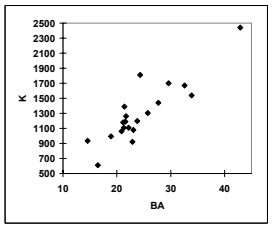
NICKEL SCATTERPLOTS

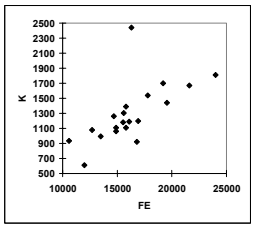


APPENDIX F, FIGURE F1-5
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: MERRIMACK SANDY LOAM (MMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

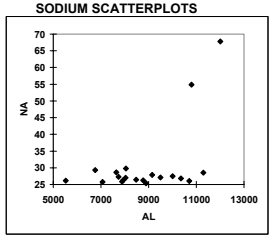
POTASSIUM SCATTERPLOTS

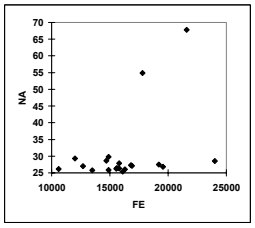




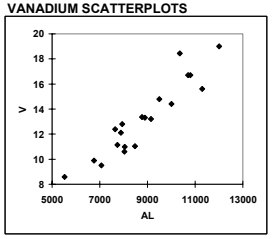


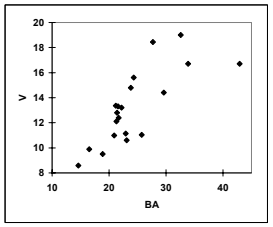
SODIUM SCATTERPLOTS

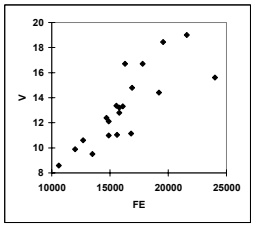


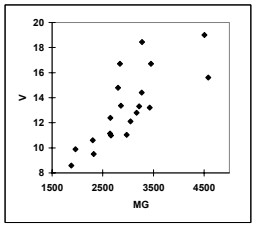


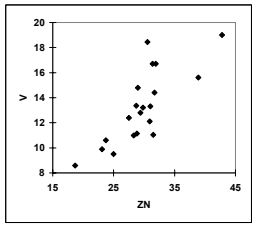
VANADIUM SCATTERPLOTS



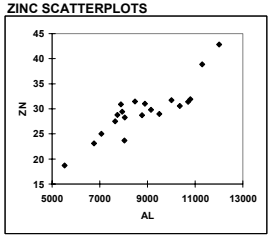


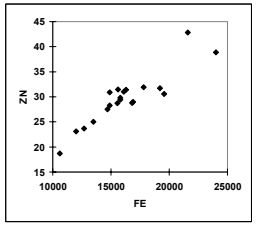


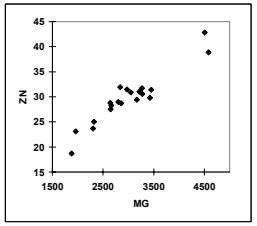


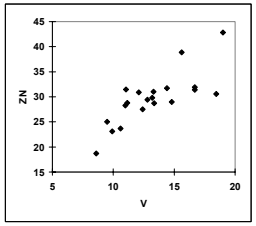


ZINC SCATTERPLOTS









APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Correlation matrix (Pearson)

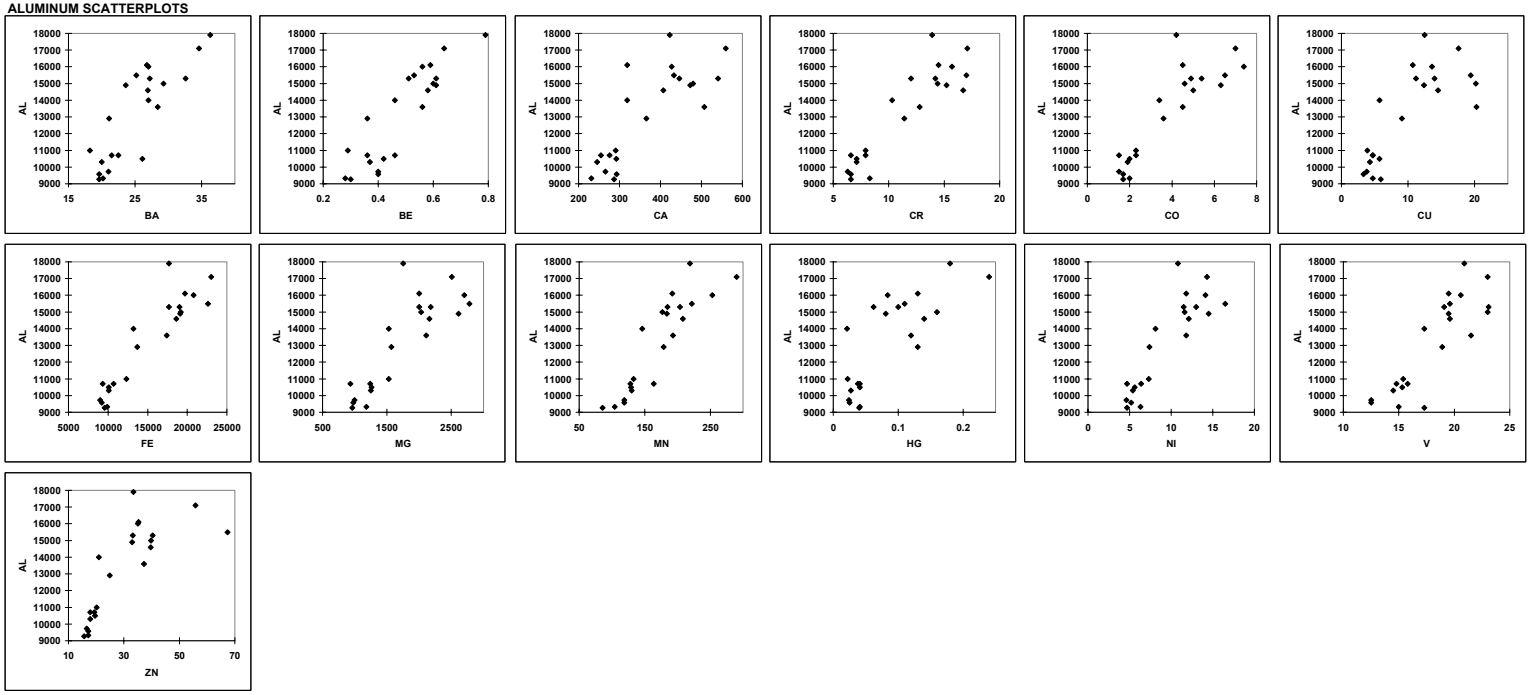
Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

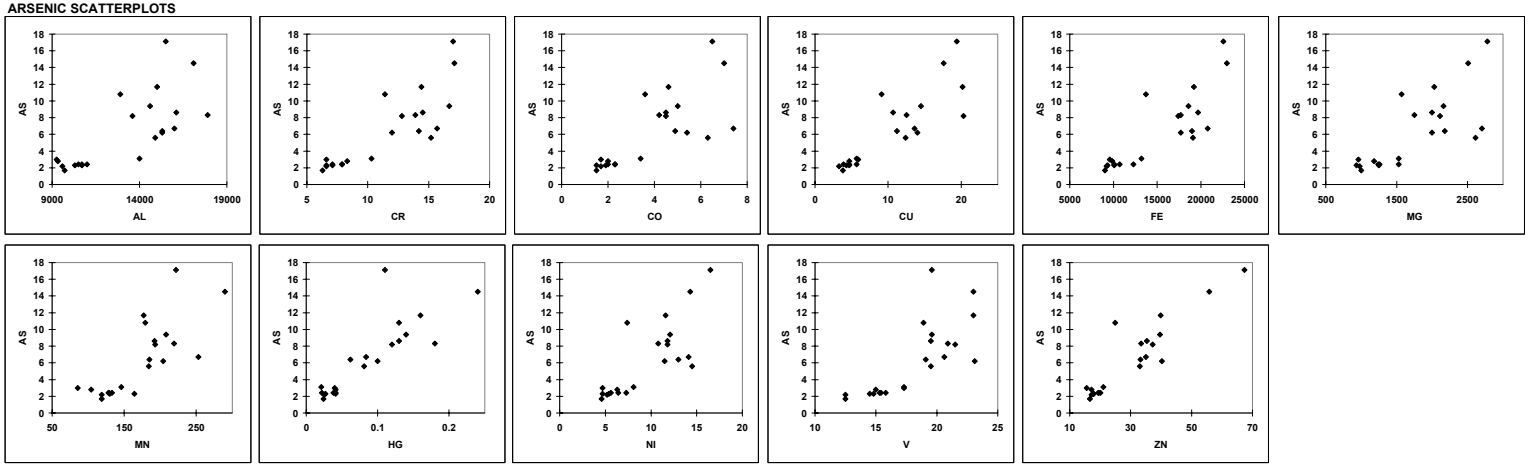
Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	V	ZN
AL	1.00	0.74	0.84	0.89	0.30	0.81	0.91	0.88	0.78	0.93	0.21	0.85	0.89	0.78	0.88	-0.07	0.30	0.86	0.79
AS	0.74	1.00	0.56	0.59	0.27	0.71	0.84	0.76	0.86	0.84	0.23	0.76	0.78	0.84	0.79	-0.37	0.34	0.75	0.92
BA	0.84	0.56	1.00	0.85	0.35	0.77	0.68	0.65	0.70	0.71	0.38	0.58	0.76	0.77	0.64	0.11	0.44	0.80	0.64
BE	0.89	0.59	0.85	1.00	0.07	0.73	0.79	0.72	0.72	0.79	0.09	0.69	0.79	0.73	0.75	-0.13	0.17	0.71	0.66
CD	0.30	0.27	0.35	0.07	1.00	0.45	0.22	0.34	0.28	0.27	0.71	0.24	0.32	0.25	0.25	-0.15	0.81	0.44	0.36
CA	0.81	0.71	0.77	0.73	0.45	1.00	0.81	0.86	0.89	0.85	0.49	0.82	0.80	0.75	0.84	-0.18	0.40	0.90	0.80
CR	0.91	0.84	0.68	0.79	0.22	0.81	1.00	0.94	0.86	0.98	0.14	0.94	0.88	0.79	0.96	-0.26	0.21	0.84	0.88
CO	0.88	0.76	0.65	0.72	0.34	0.86	0.94	1.00	0.83	0.96	0.21	0.98	0.90	0.69	0.97	-0.20	0.28	0.83	0.86
CU	0.78	0.86	0.70	0.72	0.28	0.89	0.86	0.83	1.00	0.88	0.42	0.84	0.78	0.80	0.86	-0.30	0.30	0.89	0.89
FE	0.93	0.84	0.71	0.79	0.27	0.85	0.98	0.96	0.88	1.00	0.23	0.96	0.89	0.77	0.98	-0.27	0.24	0.87	0.91
PB	0.21	0.23	0.38	0.09	0.71	0.49	0.14	0.21	0.42	0.23	1.00	0.19	0.23	0.31	0.19	-0.13	0.55	0.52	0.32
MG	0.85	0.76	0.58	0.69	0.24	0.82	0.94	0.98	0.84	0.96	0.19	1.00	0.84	0.63	0.98	-0.24	0.14	0.79	0.87
MN	0.89	0.78	0.76	0.79	0.32	0.80	0.88	0.90	0.78	0.89	0.23	0.84	1.00	0.81	0.84	-0.21	0.40	0.79	0.83
HG	0.78	0.84	0.77	0.73	0.25	0.75	0.79	0.69	0.80	0.77	0.31	0.63	0.81	1.00	0.67	-0.29	0.47	0.82	0.75
NI	0.88	0.79	0.64	0.75	0.25	0.84	0.96	0.97	0.86	0.98	0.19	0.98	0.84	0.67	1.00	-0.27	0.15	0.81	0.90
K	-0.07	-0.37	0.11	-0.13	-0.15	-0.18	-0.26	-0.20	-0.30	-0.27	-0.13	-0.24	-0.21	-0.29	-0.27	1.00	-0.25	-0.13	-0.34
SE	0.30	0.34	0.44	0.17	0.81	0.40	0.21	0.28	0.30	0.24	0.55	0.14	0.40	0.47	0.15	-0.25	1.00	0.47	0.30
V	0.86	0.75	0.80	0.71	0.44	0.90	0.84	0.83	0.89	0.87	0.52	0.79	0.79	0.82	0.81	-0.13	0.47	1.00	0.77
ZN	0.79	0.92	0.64	0.66	0.36	0.80	0.88	0.86	0.89	0.91	0.32	0.87	0.83	0.75	0.90	-0.34	0.30	0.77	1.00

ALUMINUM SCATTERPLOTS

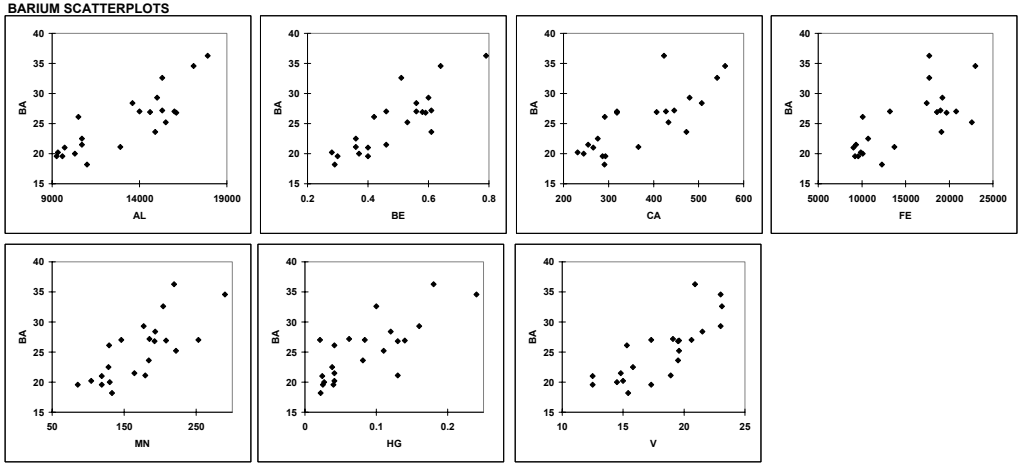


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ARSENIC SCATTERPLOTS

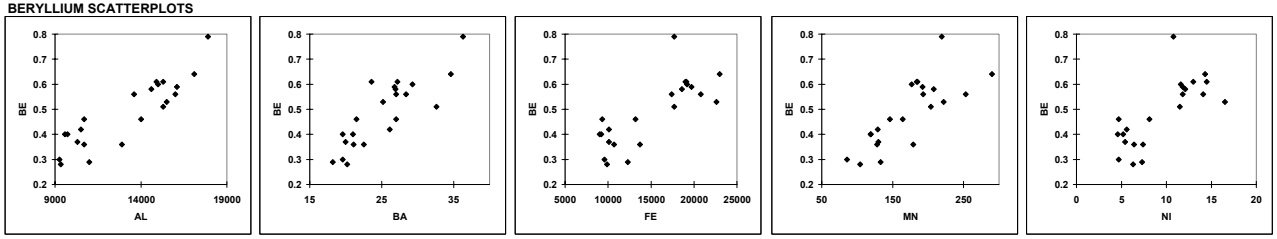


BARIUM SCATTERPLOTS

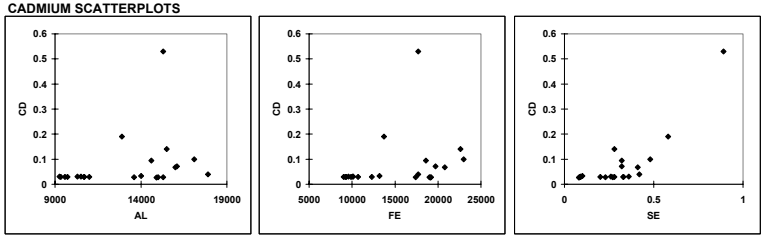


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

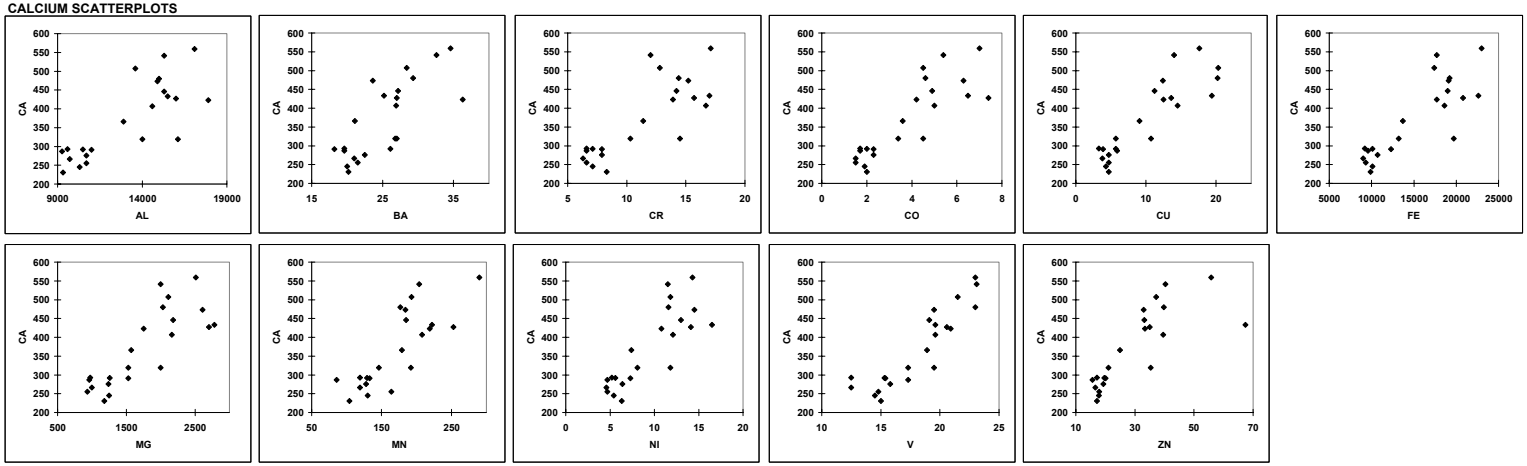
BERYLLIUM SCATTERPLOTS



CADMIUM SCATTERPLOTS

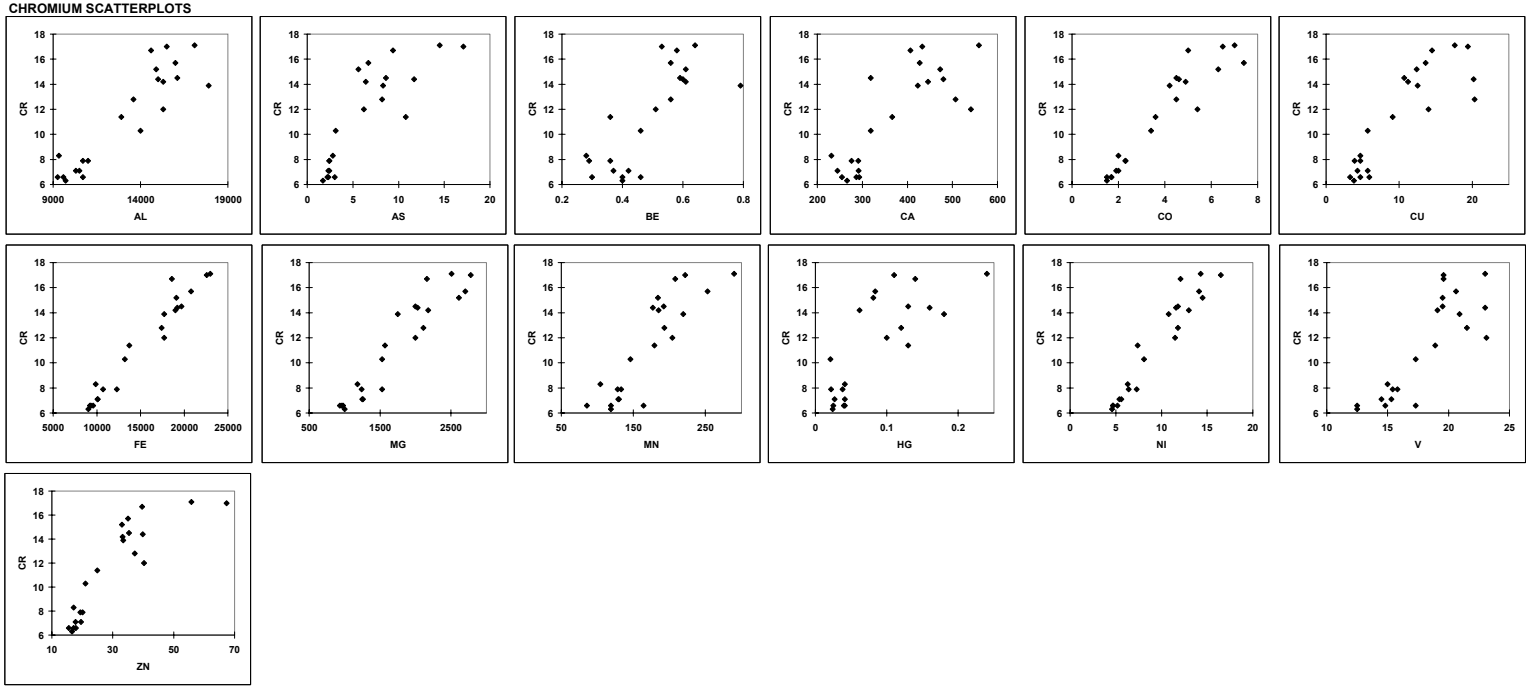


CALCIUM SCATTERPLOTS

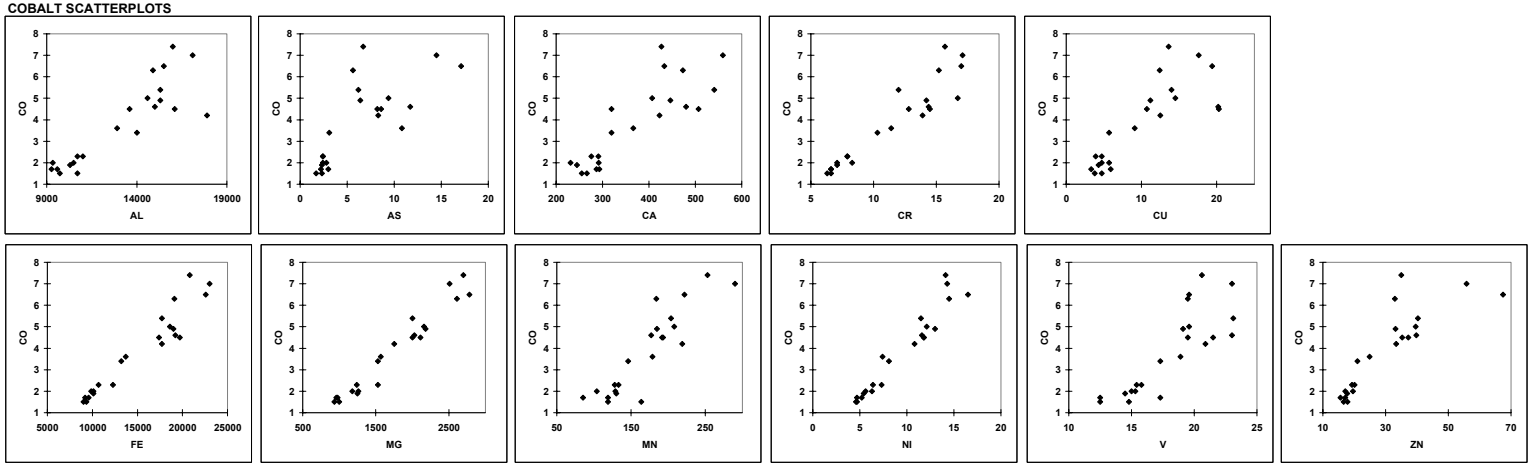


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

CHROMIUM SCATTERPLOTS

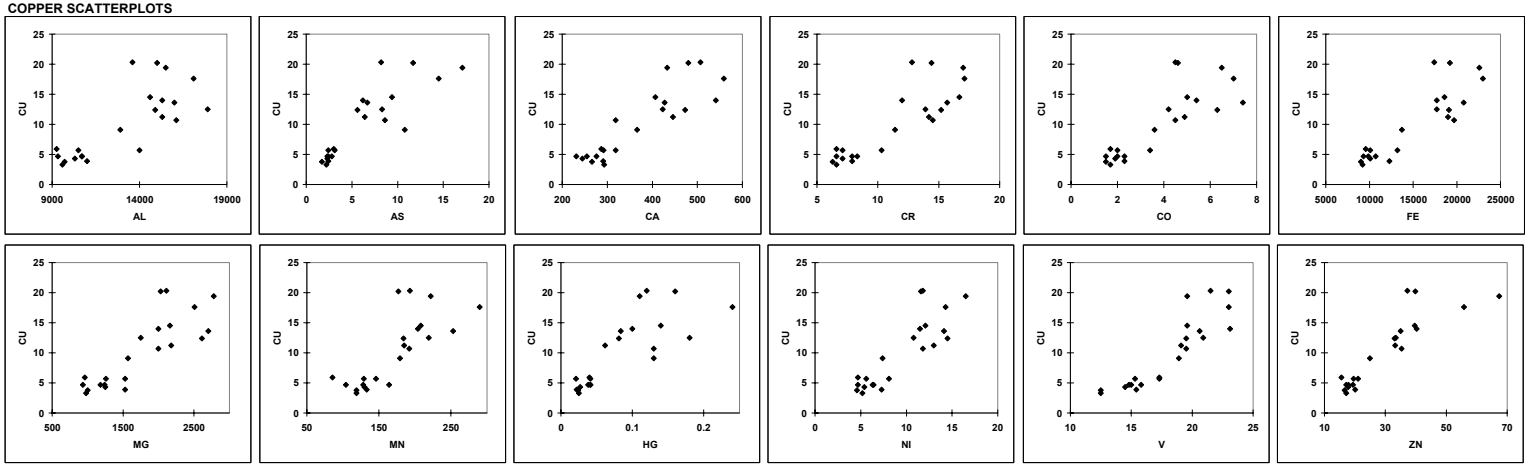


COBALT SCATTERPLOTS

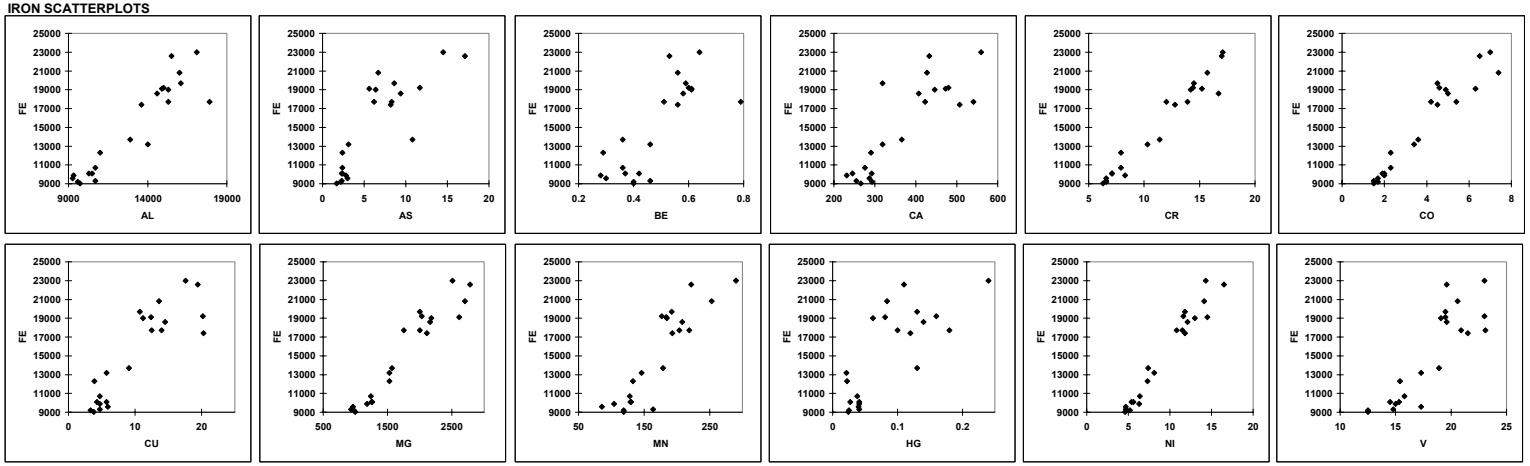


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

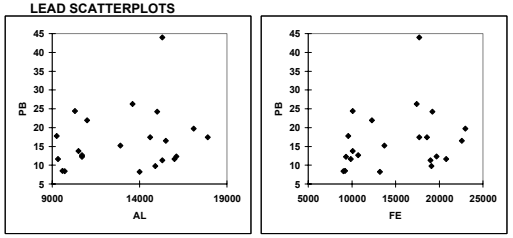
COPPER SCATTERPLOTS



IRON SCATTERPLOTS

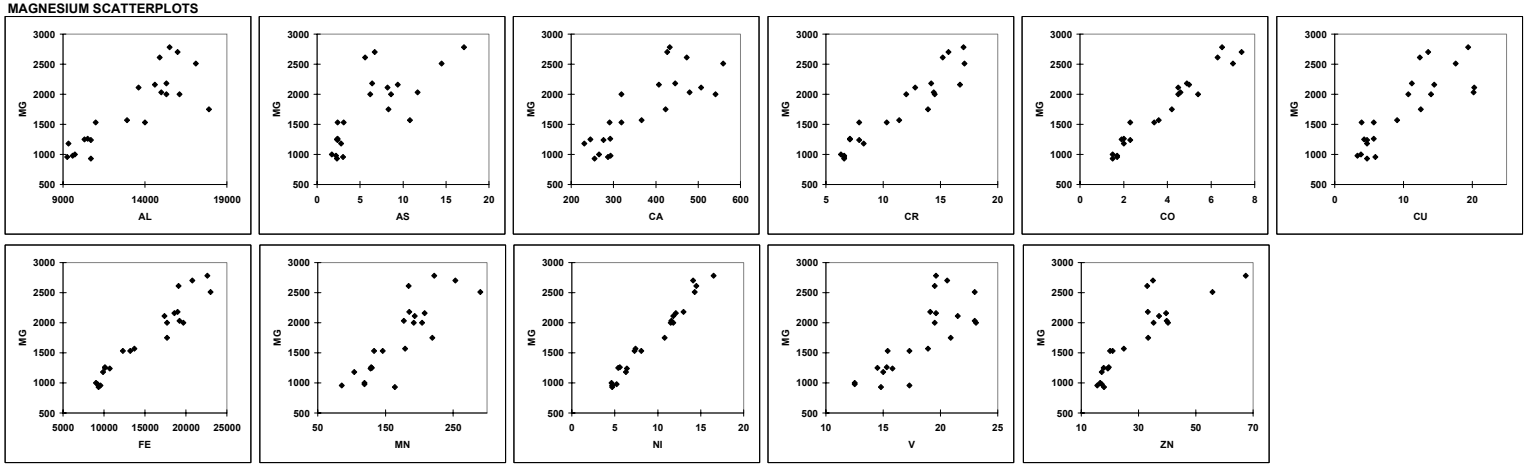


LEAD SCATTERPLOTS

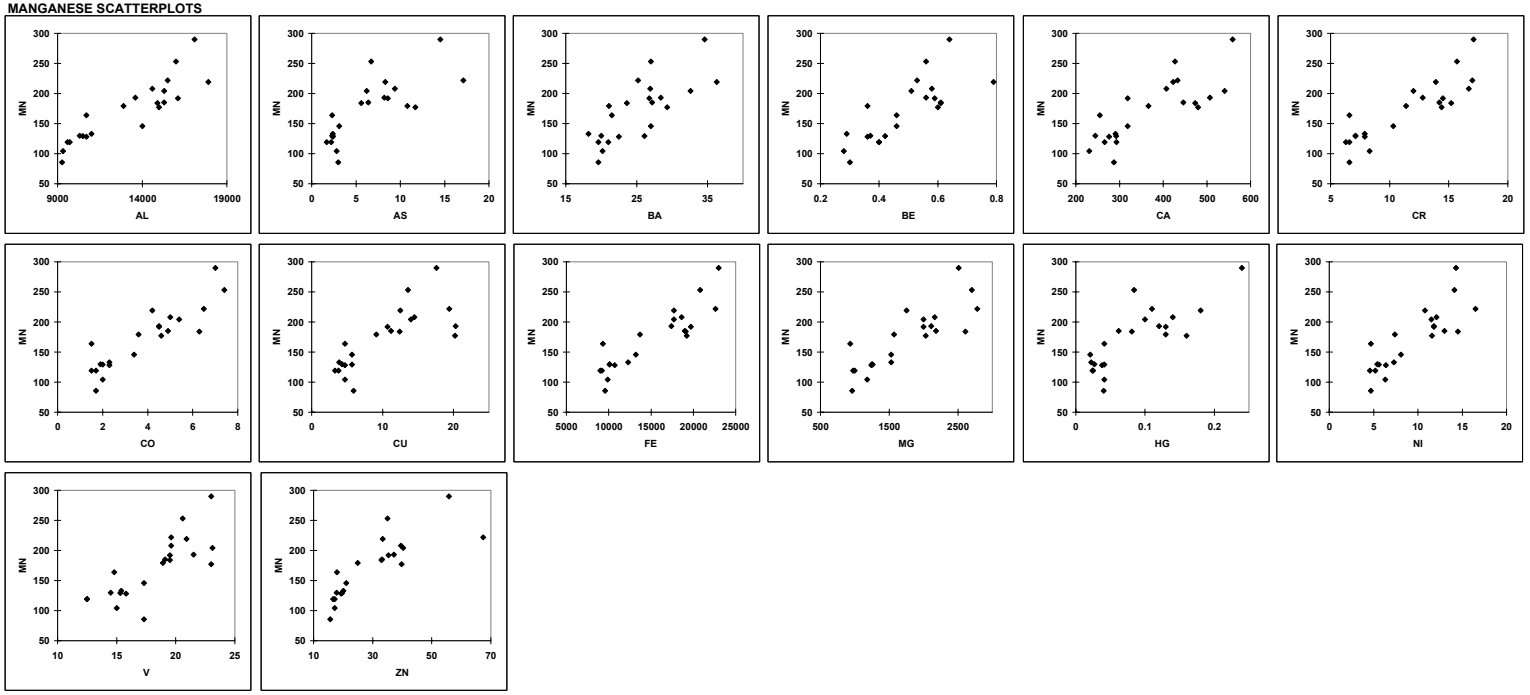


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MAGNESIUM SCATTERPLOTS

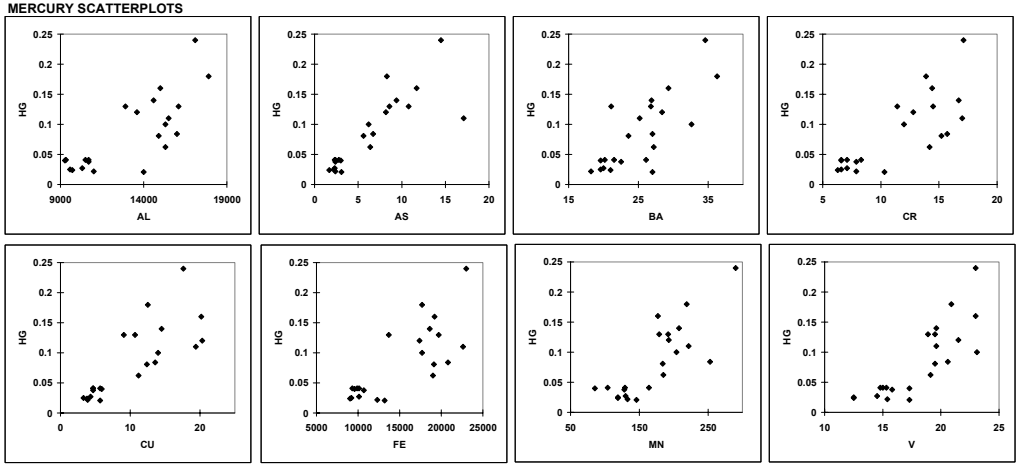


MANGANESE SCATTERPLOTS

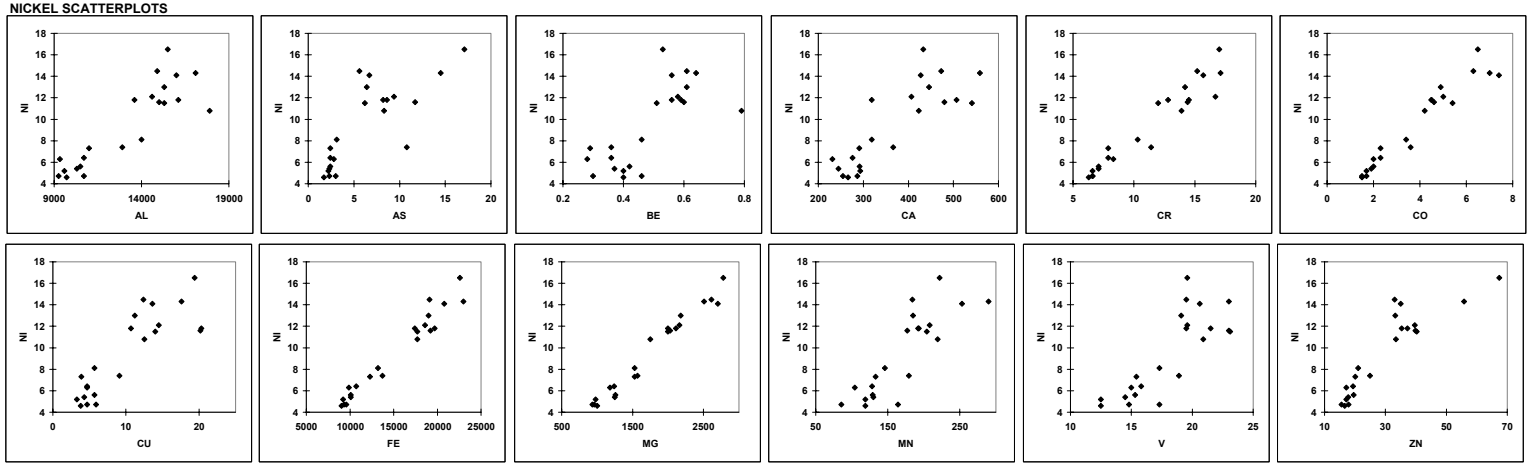


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

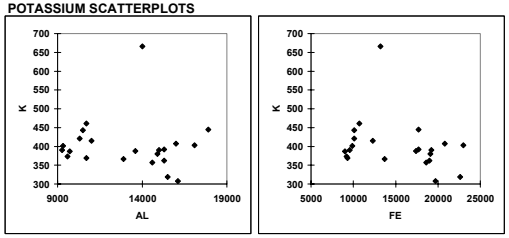
MERCURY SCATTERPLOTS



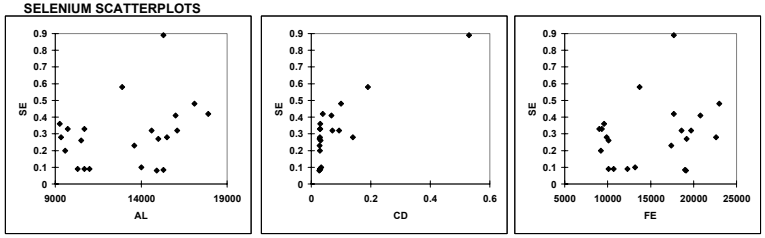
NICKEL SCATTERPLOTS



POTASSIUM SCATTERPLOTS

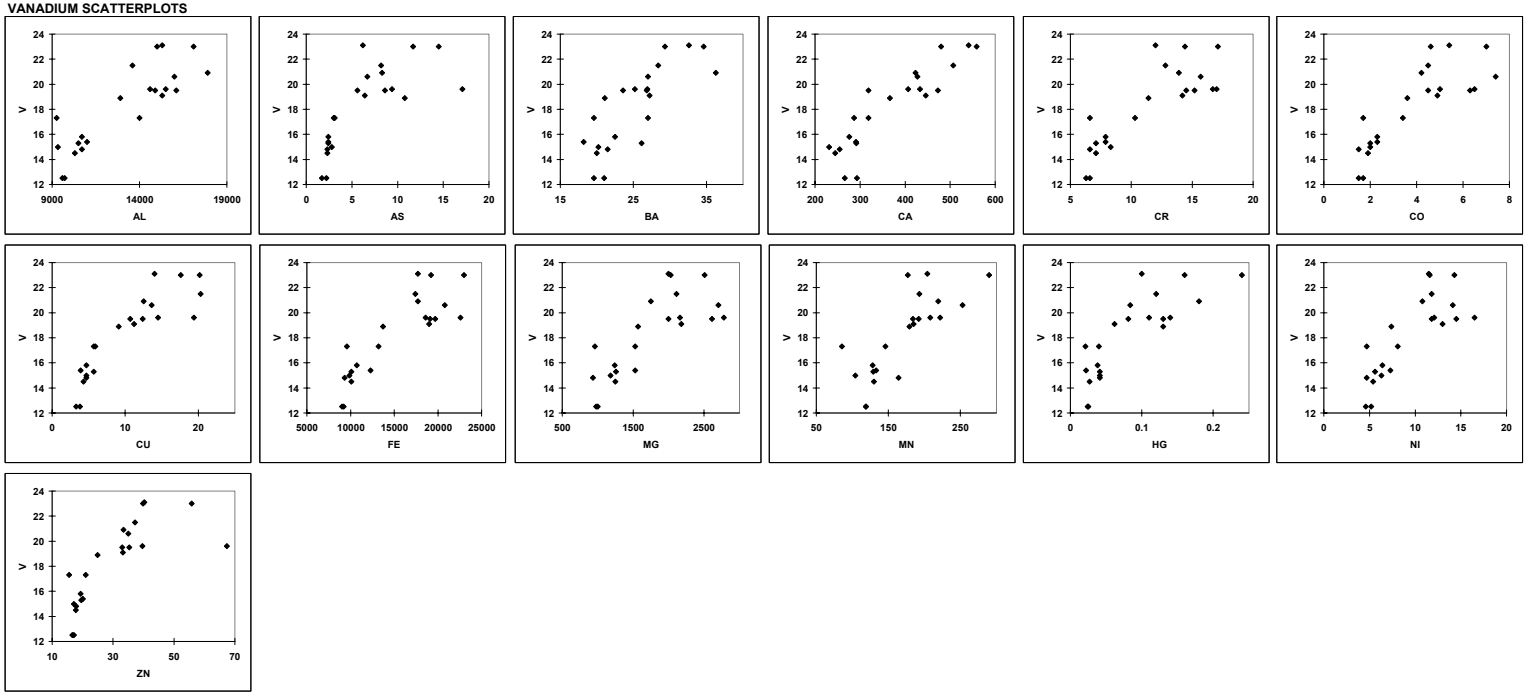


SELENIUM SCATTERPLOTS

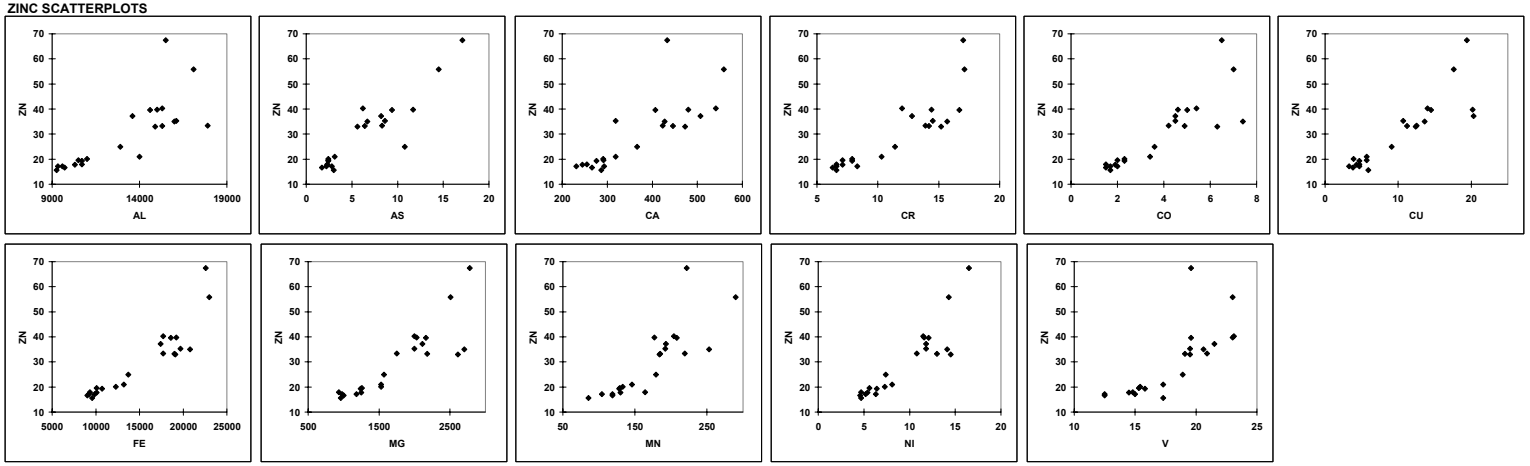


APPENDIX F, FIGURE F1-6
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

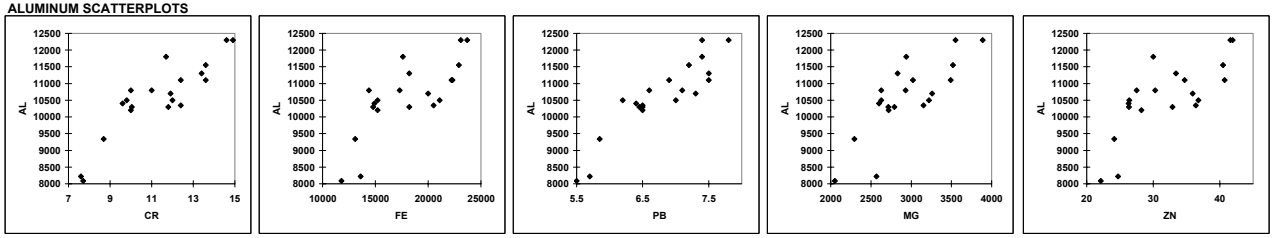
Correlation matrix (Pearson)

Correlation matrix (Pearson):

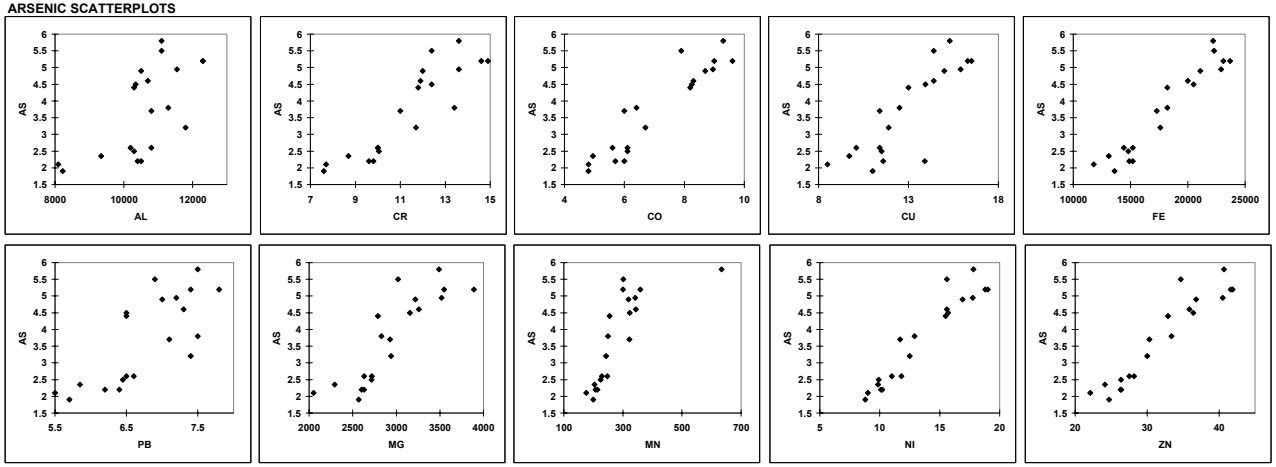
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	NA	V	ZN
AL	1.00	0.66	-0.10	0.67	0.35	0.19	0.88	0.70	0.72	**0.76**	0.91	**0.79**	0.45	0.26	0.71	-0.35	0.03	0.48	**0.75**
AS	0.66	1.00	-0.52	0.47	0.49	0.66	0.89	0.94	**0.84**	0.96	**0.76**	0.86	**0.77**	0.33	0.96	-0.81	0.06	-0.12	0.94
BA	-0.10	-0.52	1.00	-0.14	-0.02	-0.75	-0.43	-0.56	-0.56	-0.54	-0.13	-0.41	-0.04	-0.31	-0.56	**0.81**	0.28	0.29	-0.51
BE	0.67	0.47	-0.14	1.00	-0.08	0.06	0.62	0.39	0.32	0.48	0.74	0.40	0.14	0.21	0.43	-0.23	0.31	0.67	0.46
CD	0.35	0.49	-0.02	-0.08	1.00	0.33	0.48	0.52	0.46	0.47	0.36	0.57	0.69	-0.15	0.50	-0.36	-0.08	-0.17	0.51
CA	0.19	0.66	-0.75	0.06	0.33	1.00	0.54	**0.75**	0.70	0.67	0.24	0.60	0.46	0.22	0.73	-0.85	-0.34	-0.39	0.69
CR	0.88	0.89	-0.43	0.62	0.48	0.54	1.00	0.90	0.86	0.94	0.90	0.91	0.65	0.33	0.92	-0.71	-0.04	0.23	0.95
CO	0.70	0.94	-0.56	0.39	0.52	**0.75**	0.90	1.00	0.93	0.96	0.74	0.92	0.73	0.32	0.98	-0.82	-0.13	-0.13	0.96
CU	0.72	**0.84**	-0.56	0.32	0.46	0.70	0.86	0.93	1.00	0.93	0.72	0.92	0.64	0.27	0.90	-0.76	-0.14	-0.02	0.92
FE	**0.76**	0.96	-0.54	0.48	0.47	0.67	0.94	0.96	0.93	1.00	**0.81**	0.94	0.70	0.29	0.97	-0.78	-0.01	-0.02	0.98
PB	0.91	**0.76**	-0.13	0.74	0.36	0.24	0.90	0.74	0.72	**0.81**	1.00	**0.83**	0.62	0.27	**0.76**	-0.45	0.11	0.41	**0.82**
MG	**0.79**	0.86	-0.41	0.40	0.57	0.60	0.91	0.92	0.92	0.94	**0.83**	1.00	0.72	0.20	0.92	-0.65	-0.01	0.02	0.96
MN	0.45	**0.77**	-0.04	0.14	0.69	0.46	0.65	0.73	0.64	0.70	0.62	0.72	1.00	0.01	0.71	-0.52	0.09	-0.18	0.74
HG	0.26	0.33	-0.31	0.21	-0.15	0.22	0.33	0.32	0.27	0.29	0.27	0.20	0.01	1.00	0.37	-0.34	-0.04	-0.12	0.32
NI	0.71	0.96	-0.56	0.43	0.50	0.73	0.92	0.98	0.90	0.97	**0.76**	0.92	0.71	0.37	1.00	-0.82	-0.10	-0.11	0.98
K	-0.35	-0.81	**0.81**	-0.23	-0.36	-0.85	-0.71	-0.82	-0.76	-0.78	-0.45	-0.65	-0.52	-0.34	-0.82	1.00	0.35	0.28	-0.79
NA	0.03	0.06	0.28	0.31	-0.08	-0.34	-0.04	-0.13	-0.14	-0.01	0.11	-0.01	0.09	-0.04	-0.10	0.35	1.00	0.24	-0.06
V	0.48	-0.12	0.29	0.67	-0.17	-0.39	0.23	-0.13	-0.02	-0.02	0.41	0.02	-0.18	-0.12	-0.11	0.28	0.24	1.00	-0.02
ZN	**0.75**	0.94	-0.51	0.46	0.51	0.69	0.95	0.96	0.92	0.98	**0.82**	0.96	0.74	0.32	0.98	-0.79	-0.06	-0.02	1.00

ALUMINUM SCATTERPLOTS

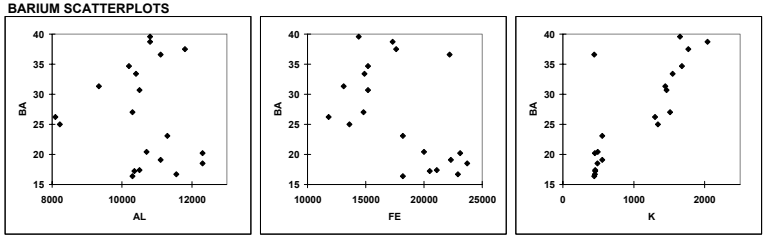


ARSENIC SCATTERPLOTS

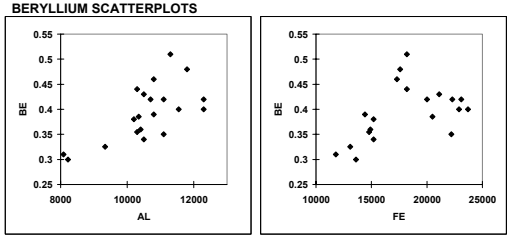


APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

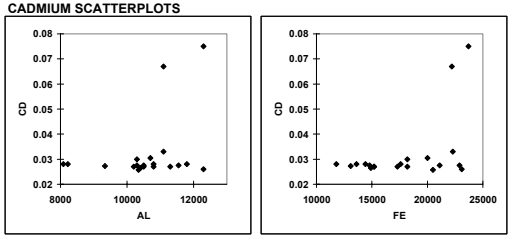
BARIUM SCATTERPLOTS



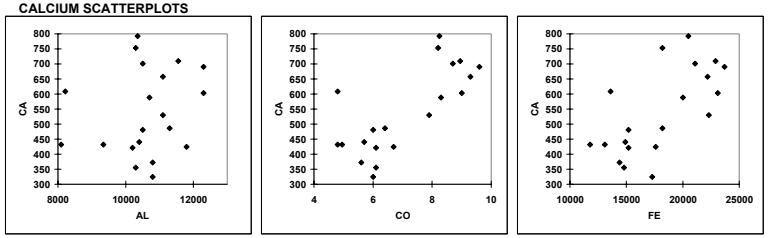
BERYLLIUM SCATTERPLOTS



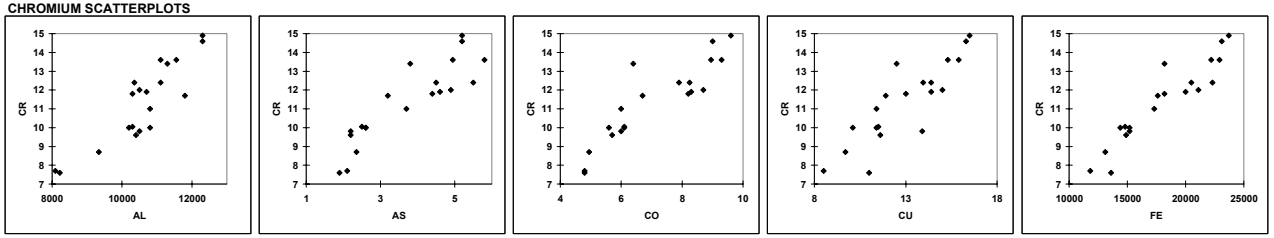
CADMIUM SCATTERPLOTS

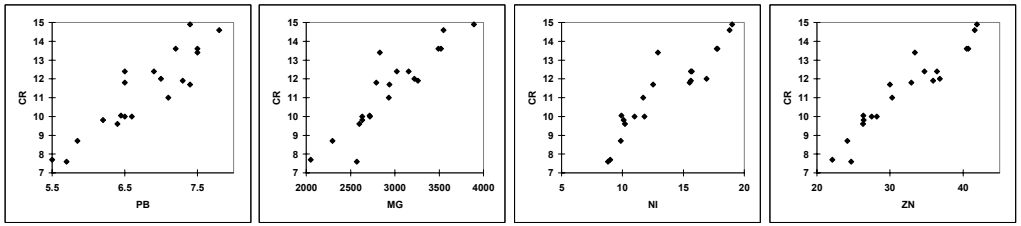


CALCIUM SCATTERPLOTS



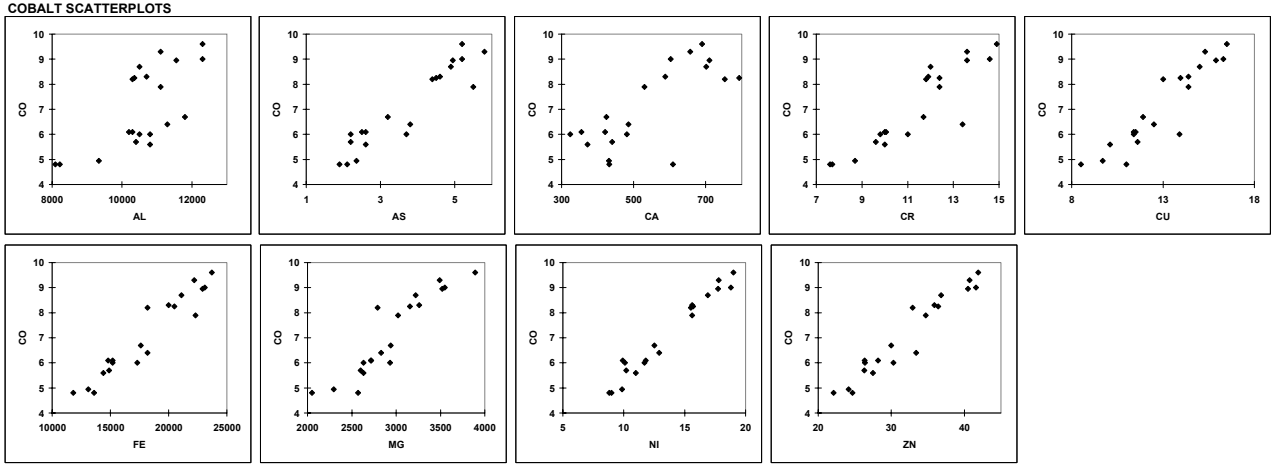
CHROMIUM SCATTERPLOTS



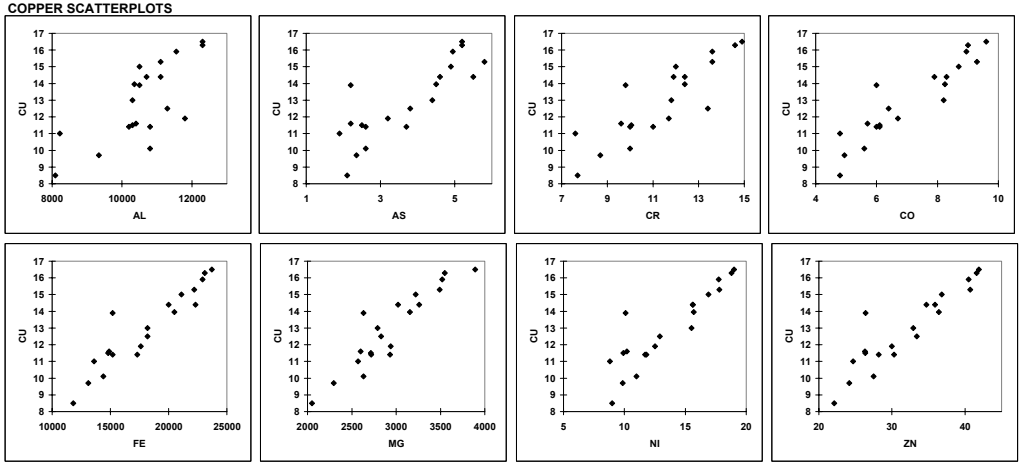


APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COBALT SCATTERPLOTS

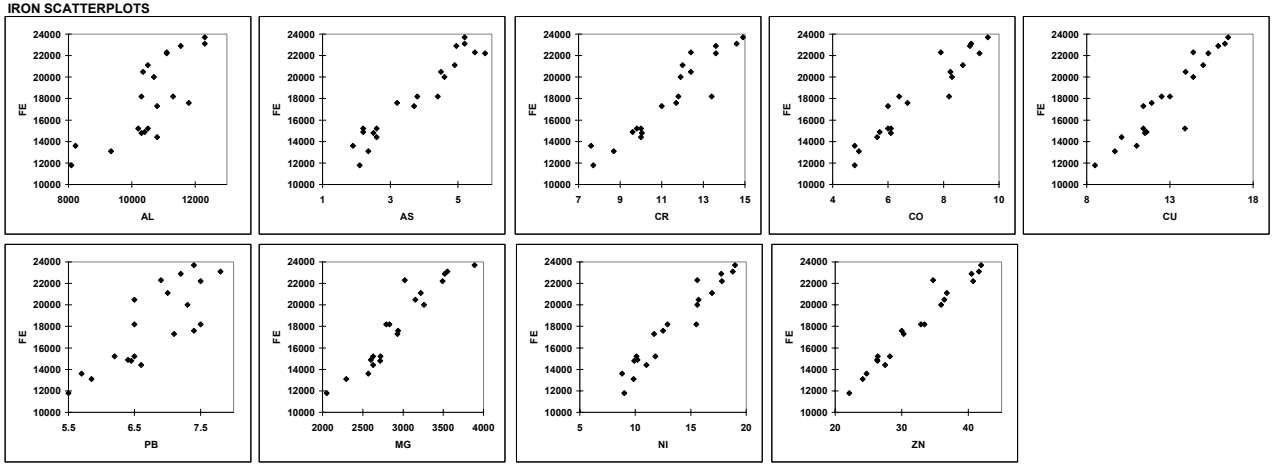


COPPER SCATTERPLOTS

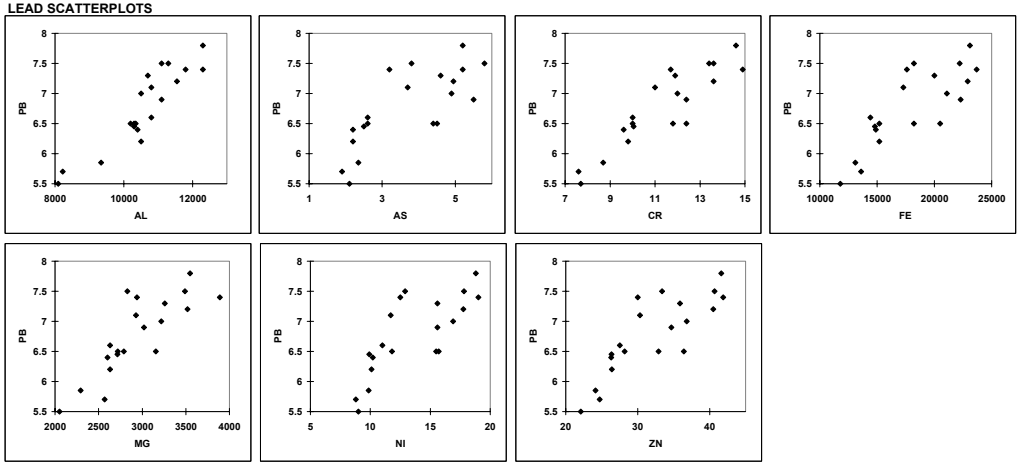


APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

IRON SCATTERPLOTS

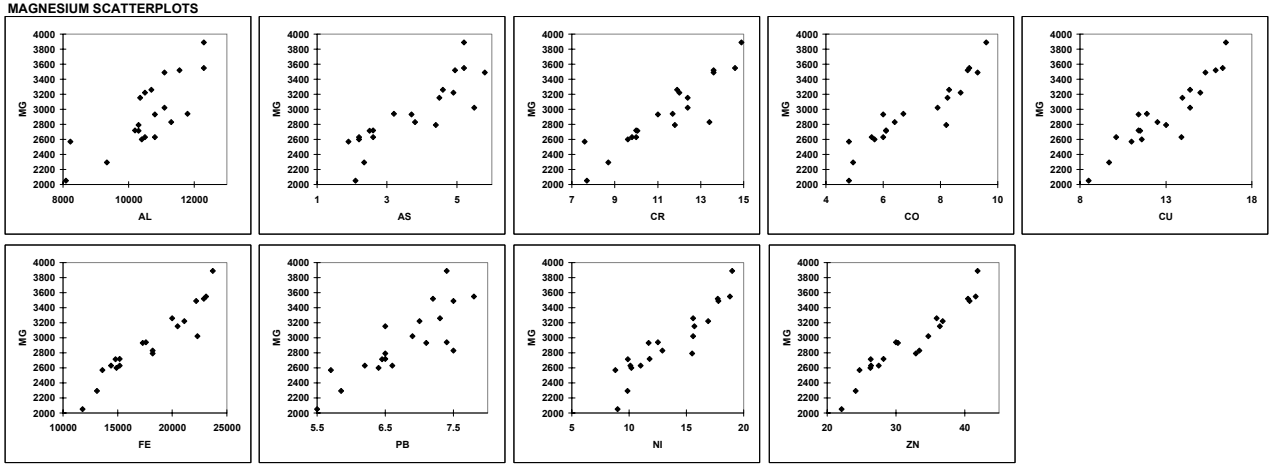


LEAD SCATTERPLOTS

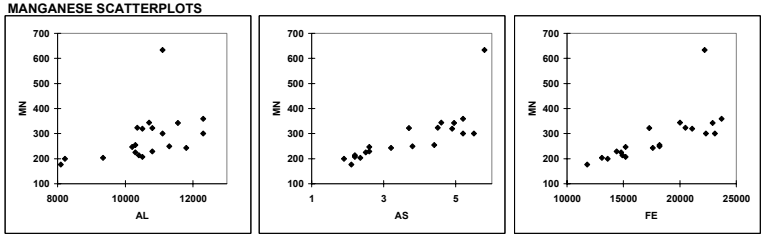


APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

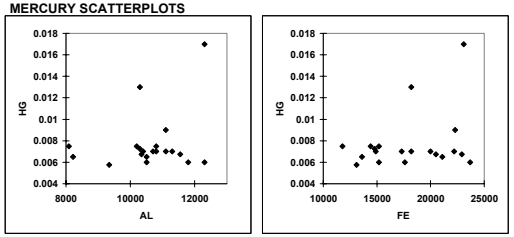
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

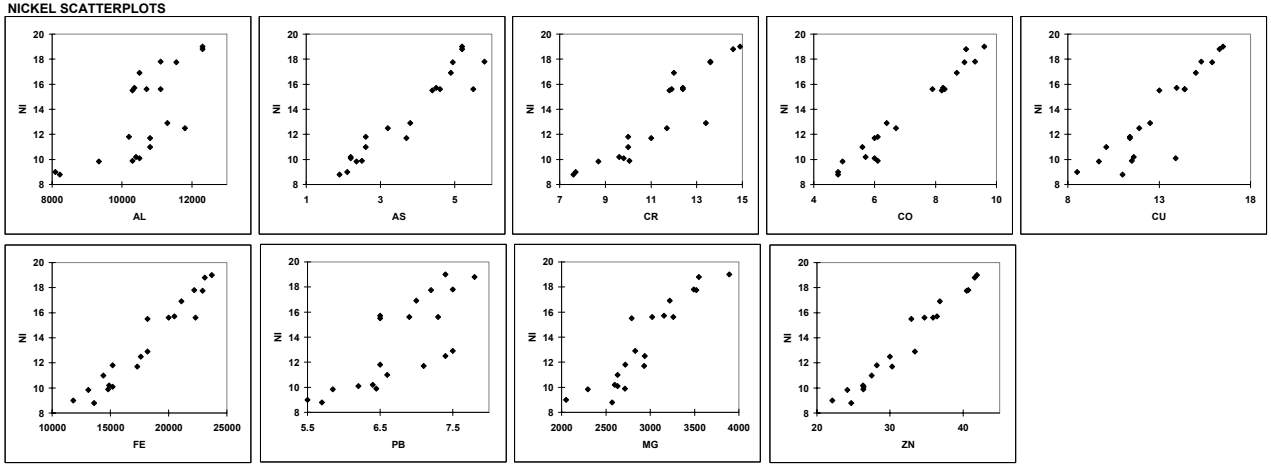


MERCURY SCATTERPLOTS

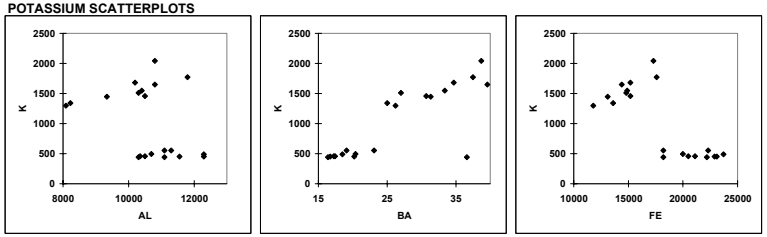


APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

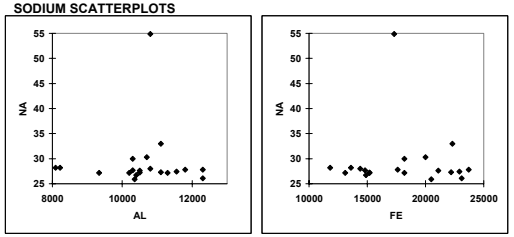
NICKEL SCATTERPLOTS



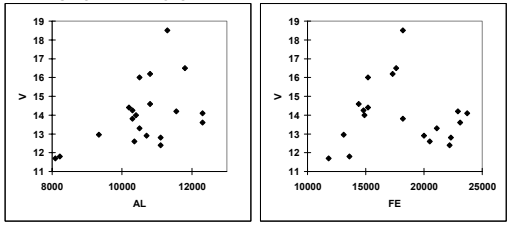
POTASSIUM SCATTERPLOTS



SODIUM SCATTERPLOTS

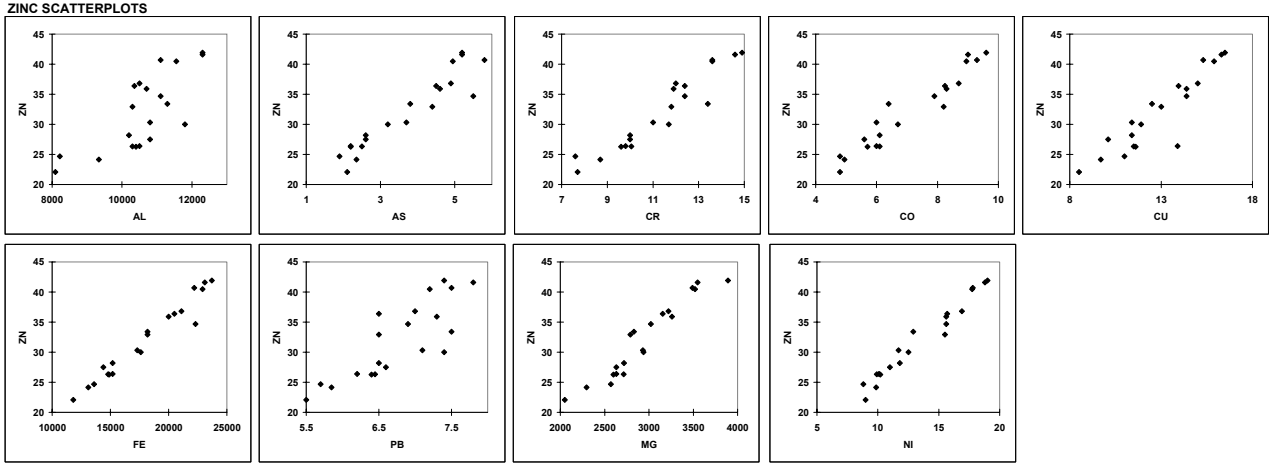


VANADIUM SCATTERPLOTS



APPENDIX F, FIGURE F1-7
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: NEWPORT SILT LOAM (NESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-8
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

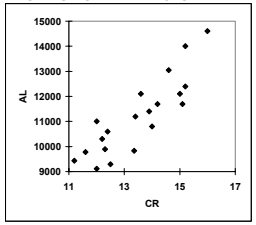
Correlation matrix (Pearson)

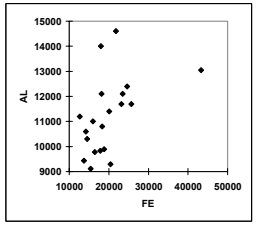
Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

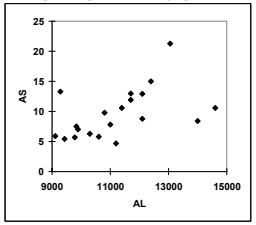
Variables	AL	AS	BA	BE	CR	CO	FE	PB	MG	MN	HG	NI	V	ZN
AL	1.00	0.49	0.71	0.55	0.87	0.26	0.49	0.31	0.51	-0.24	0.18	0.58	0.69	0.50
AS	0.49	1.00	0.34	0.29	0.63	0.37	0.94	0.47	0.21	0.21	0.18	0.58	0.75	0.58
BA	0.71	0.34	1.00	0.64	**0.80**	0.54	0.26	0.49	0.42	-0.19	0.46	0.64	0.52	0.66
BE	0.55	0.29	0.64	1.00	0.54	0.19	0.27	0.37	0.32	-0.39	0.14	0.32	0.57	0.41
CR	0.87	0.63	**0.80**	0.54	1.00	0.54	0.55	0.49	0.48	-0.11	0.38	0.68	**0.79**	0.73
CO	0.26	0.37	0.54	0.19	0.54	1.00	0.30	0.46	0.05	0.50	0.89	0.33	0.47	0.54
FE	0.49	0.94	0.26	0.27	0.55	0.30	1.00	0.27	0.15	0.32	0.10	0.39	0.67	0.37
PB	0.31	0.47	0.49	0.37	0.49	0.46	0.27	1.00	0.49	-0.25	0.47	0.74	0.66	0.72
MG	0.51	0.21	0.42	0.32	0.48	0.05	0.15	0.49	1.00	-0.38	0.09	0.65	0.51	0.22
MN	-0.24	0.21	-0.19	-0.39	-0.11	0.50	0.32	-0.25	-0.38	1.00	0.36	-0.28	0.01	-0.10
HG	0.18	0.18	0.46	0.14	0.38	0.89	0.10	0.47	0.09	0.36	1.00	0.21	0.30	0.35
NI	0.58	0.58	0.64	0.32	0.68	0.33	0.39	0.74	0.65	-0.28	0.21	1.00	0.65	**0.78**
V	0.69	0.75	0.52	0.57	**0.79**	0.47	0.67	0.66	0.51	0.01	0.30	0.65	1.00	0.68
ZN	0.50	0.58	0.66	0.41	0.73	0.54	0.37	0.72	0.22	-0.10	0.35	**0.78**	0.68	1.00

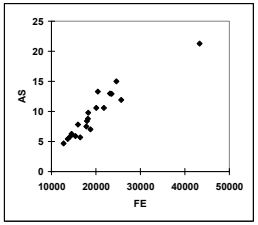
ALUMINUM SCATTERPLOTS



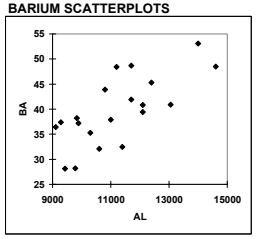


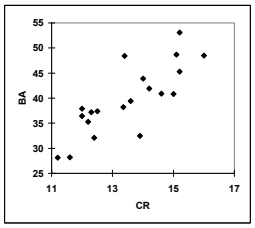
ARSENIC SCATTERPLOTS

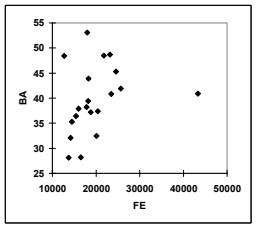




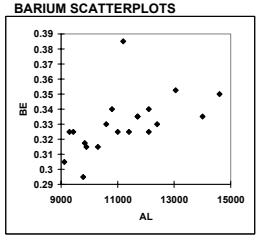
BARIUM SCATTERPLOTS

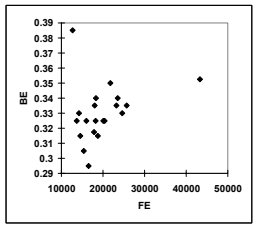




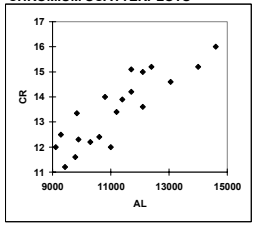


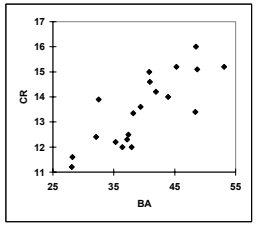
BARIUM SCATTERPLOTS

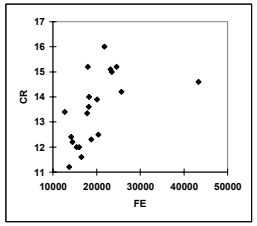


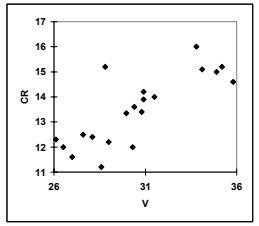


CHROMIUM SCATTERPLOTS



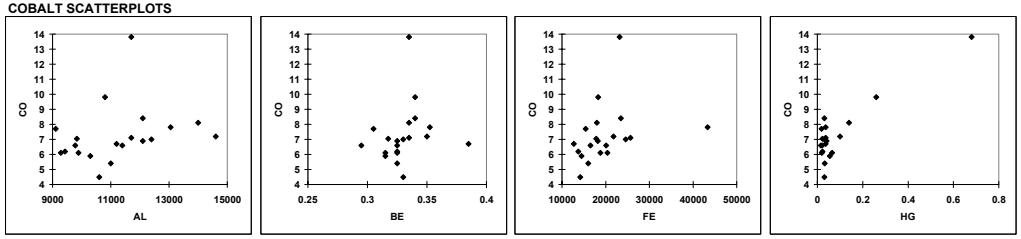




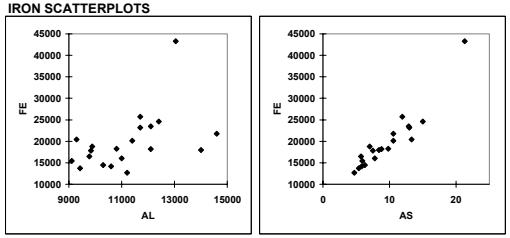


APPENDIX F, FIGURE F1-8
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

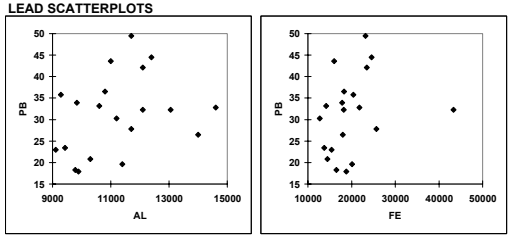
COBALT SCATTERPLOTS



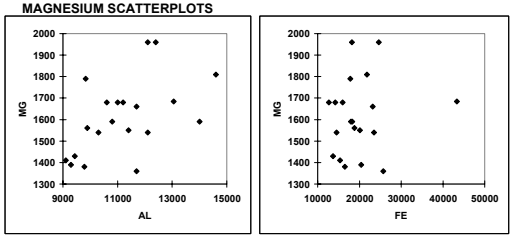
IRON SCATTERPLOTS



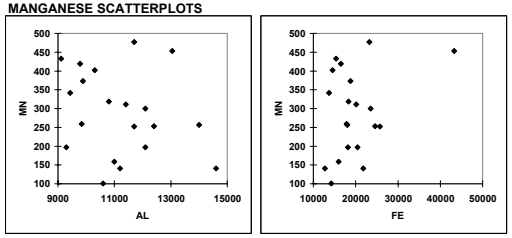
LEAD SCATTERPLOTS



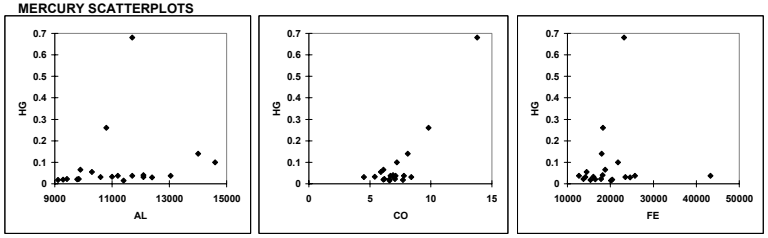
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

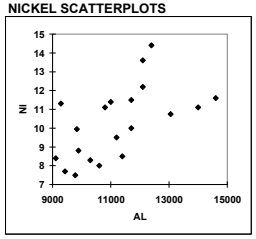


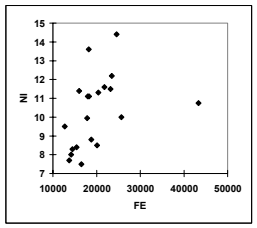
MERCURY SCATTERPLOTS

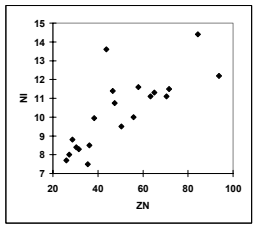


APPENDIX F, FIGURE F1-8
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

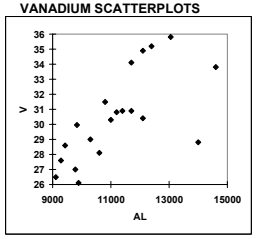
NICKEL SCATTERPLOTS

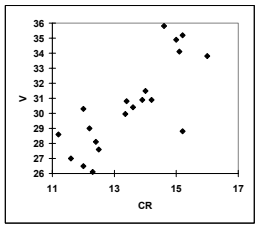


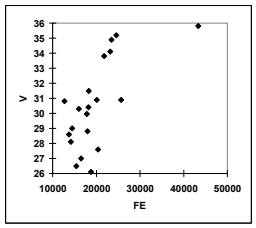




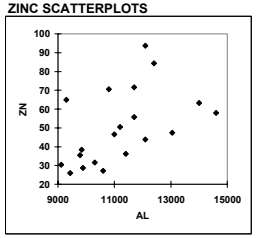
VANADIUM SCATTERPLOTS

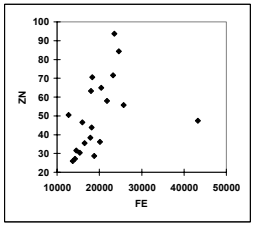


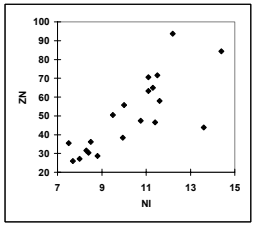




ZINC SCATTERPLOTS







APPENDIX F, FIGURE F1-9
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

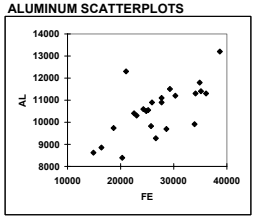
Correlation matrix (Pearson)

Correlation matrix (Pearson):

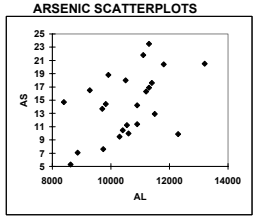
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

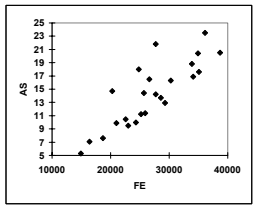
Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	NA	V	ZN
AL	1.00	0.47	0.23	0.25	0.12	-0.44	0.61	0.35	0.36	0.68	0.62	0.68	-0.03	0.08	0.54	0.03	0.36	-0.31	0.31	0.64
AS	0.47	1.00	-0.11	0.06	-0.11	-0.36	0.43	0.65	0.59	**0.84**	0.59	0.63	0.02	0.21	0.71	0.16	0.43	-0.48	0.18	0.71
BA	0.23	-0.11	1.00	0.52	0.06	-0.31	0.21	0.01	-0.20	0.03	-0.03	-0.25	0.49	-0.27	-0.11	0.13	-0.37	0.45	0.33	-0.22
BE	0.25	0.06	0.52	1.00	0.11	-0.23	0.60	0.14	-0.11	0.18	0.12	-0.23	0.16	-0.27	-0.27	0.11	-0.22	0.36	**0.83**	-0.19
CD	0.12	-0.11	0.06	0.11	1.00	-0.32	-0.02	-0.21	0.21	0.01	0.33	-0.04	-0.29	-0.08	0.08	0.21	-0.07	-0.36	0.02	0.24
CA	-0.44	-0.36	-0.31	-0.23	-0.32	1.00	-0.31	-0.26	-0.41	-0.58	-0.52	-0.01	0.17	-0.29	-0.42	0.29	-0.37	0.45	-0.22	-0.50
CR	0.61	0.43	0.21	0.60	-0.02	-0.31	1.00	0.29	0.22	0.58	0.38	0.33	0.00	-0.07	0.17	-0.07	0.14	0.06	**0.75**	0.29
CO	0.35	0.65	0.01	0.14	-0.21	-0.26	0.29	1.00	0.59	0.64	0.40	0.49	0.09	-0.15	0.71	0.30	0.06	-0.21	0.29	0.56
CU	0.36	0.59	-0.20	-0.11	0.21	-0.41	0.22	0.59	1.00	0.70	**0.77**	0.64	-0.34	-0.01	**0.83**	0.41	0.23	-0.70	0.01	0.85
FE	0.68	**0.84**	0.03	0.18	0.01	-0.58	0.58	0.64	0.70	1.00	0.68	0.68	0.02	0.17	0.75	0.04	0.46	-0.57	0.29	**0.83**
PB	0.62	0.59	-0.03	0.12	0.33	-0.52	0.38	0.40	**0.77**	0.68	1.00	0.56	-0.41	0.30	0.67	0.36	0.52	-0.65	0.17	**0.81**
MG	0.68	0.63	-0.25	-0.23	-0.04	-0.01	0.33	0.49	0.64	0.68	0.56	1.00	-0.05	0.00	0.73	0.31	0.32	-0.52	-0.06	**0.78**
MN	-0.03	0.02	0.49	0.16	-0.29	0.17	0.00	0.09	-0.34	0.02	-0.41	-0.05	1.00	-0.13	-0.13	-0.06	-0.19	0.50	0.14	-0.28
HG	0.08	0.21	-0.27	-0.27	-0.08	-0.29	-0.07	-0.15	-0.01	0.17	0.30	0.00	-0.13	1.00	0.05	-0.45	0.88	-0.38	-0.06	0.23
NI	0.54	0.71	-0.11	-0.27	0.08	-0.42	0.17	0.71	**0.83**	0.75	0.67	0.73	-0.13	0.05	1.00	0.30	0.31	-0.64	-0.14	0.91
K	0.03	0.16	0.13	0.11	0.21	0.29	-0.07	0.30	0.41	0.04	0.36	0.31	-0.06	-0.45	0.30	1.00	-0.39	-0.06	-0.03	0.19
SE	0.36	0.43	-0.37	-0.22	-0.07	-0.37	0.14	0.06	0.23	0.46	0.52	0.32	-0.19	0.88	0.31	-0.39	1.00	-0.54	-0.03	0.51
NA	-0.31	-0.48	0.45	0.36	-0.36	0.45	0.06	-0.21	-0.70	-0.57	-0.65	-0.52	0.50	-0.38	-0.64	-0.06	-0.54	1.00	0.35	-0.81
V	0.31	0.18	0.33	**0.83**	0.02	-0.22	**0.75**	0.29	0.01	0.29	0.17	-0.06	0.14	-0.06	-0.14	-0.03	-0.03	0.35	1.00	-0.04
ZN	0.64	0.71	-0.22	-0.19	0.24	-0.50	0.29	0.56	0.85	**0.83**	**0.81**	**0.78**	-0.28	0.23	0.91	0.19	0.51	-0.81	-0.04	1.00

ALUMINUM SCATTERPLOTS

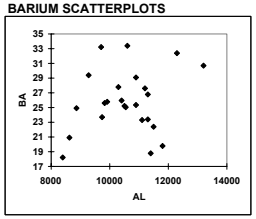


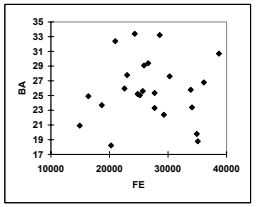
ARSENIC SCATTERPLOTS





BARIUM SCATTERPLOTS





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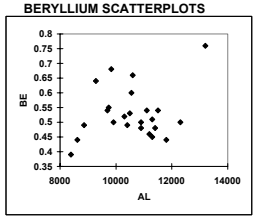
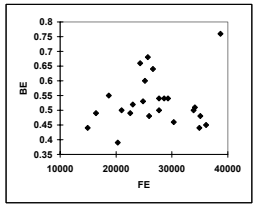
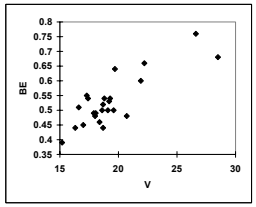
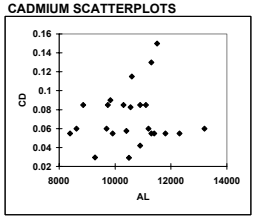
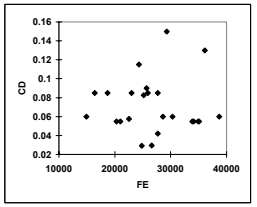




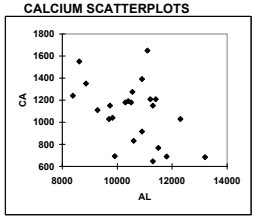


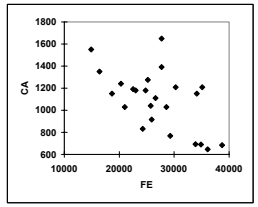
CADMIUM SCATTERPLOTS





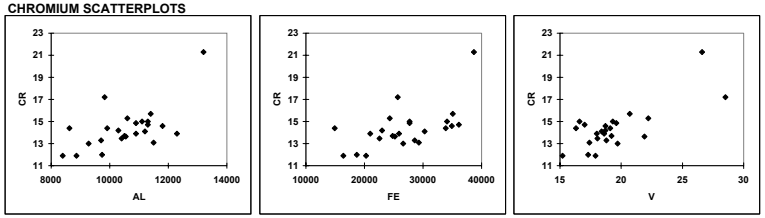
CALCIUM SCATTERPLOTS



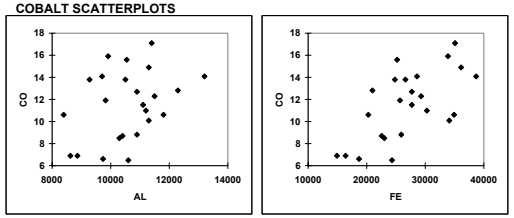


APPENDIX F, FIGURE F1-9
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

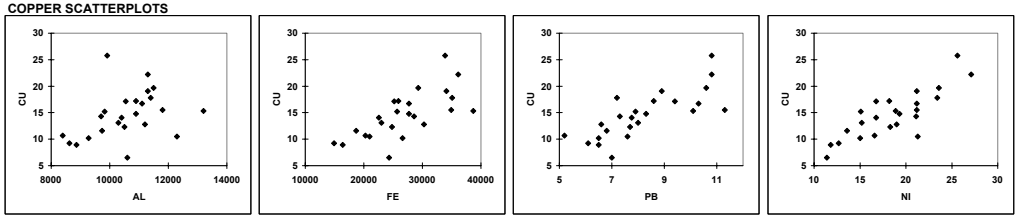
CHROMIUM SCATTERPLOTS

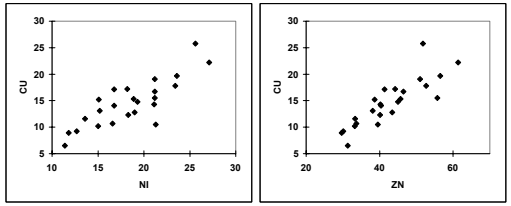


COBALT SCATTERPLOTS

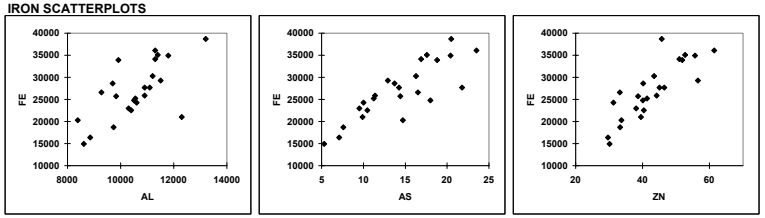


COPPER SCATTERPLOTS

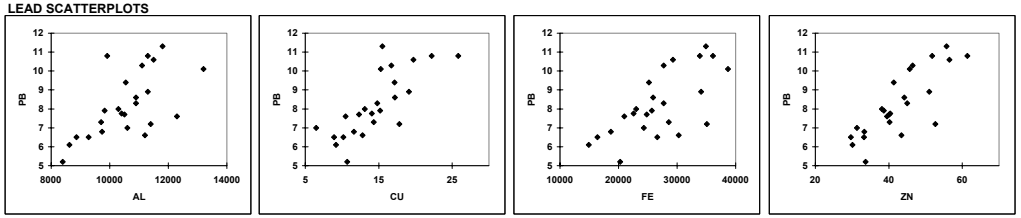




IRON SCATTERPLOTS

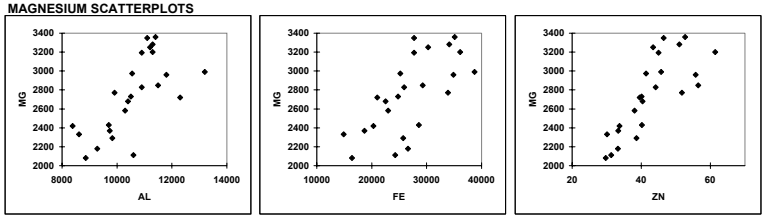


LEAD SCATTERPLOTS

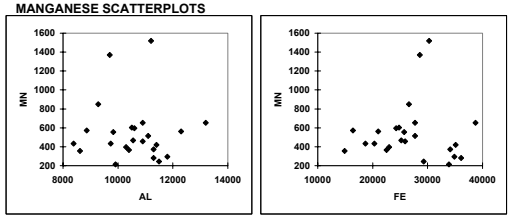


APPENDIX F, FIGURE F1-9
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

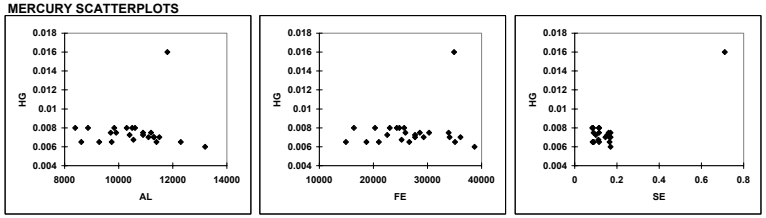
MAGNESIUM SCATTERPLOTS



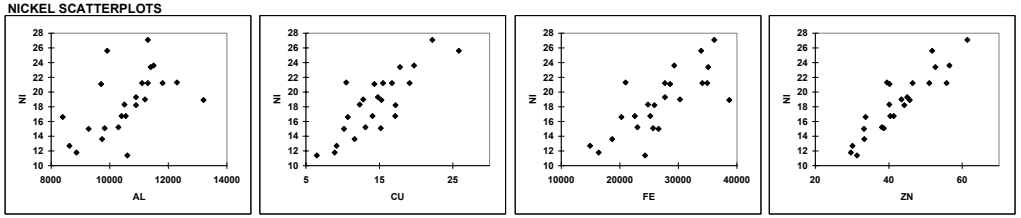
MANGANESE SCATTERPLOTS



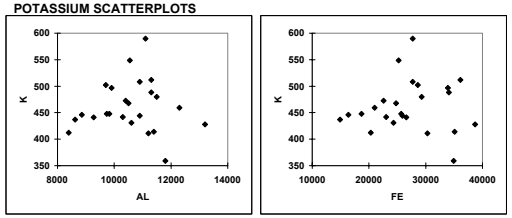
MERCURY SCATTERPLOTS



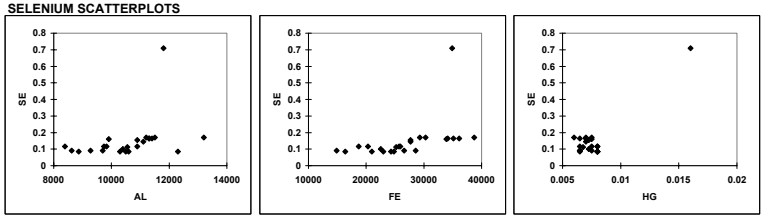
NICKEL SCATTERPLOTS



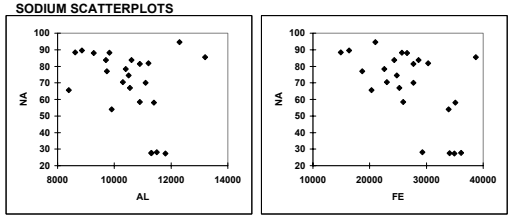
POTASSIUM SCATTERPLOTS



SELENIUM SCATTERPLOTS

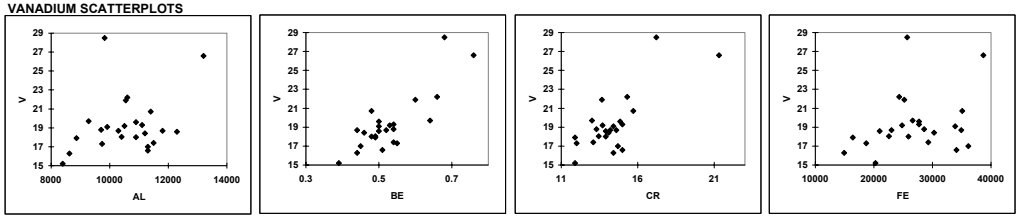


SODIUM SCATTERPLOTS

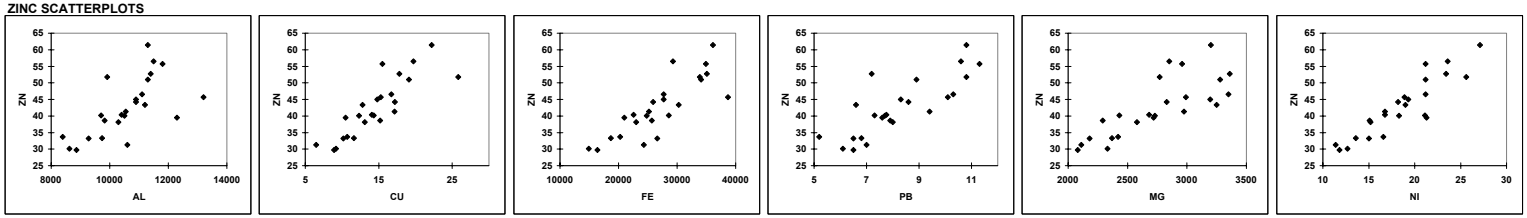


APPENDIX F, FIGURE F1-9
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: PITTSTOWN SILT LOAM (PMSB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-10
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

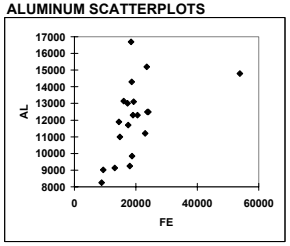
Correlation matrix (Pearson)

Correlation matrix (Pearson):

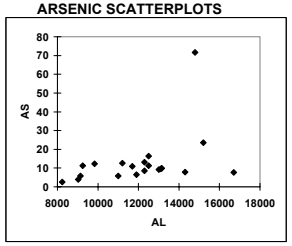
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

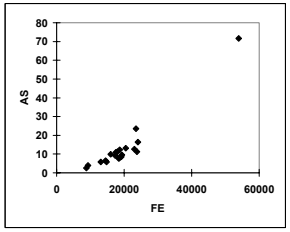
Variables	AL	AS	BA	BE	CR	CO	FE	PB	MG	MN	HG	NI	V	ZN
AL	1.00	0.41	0.30	0.34	0.50	0.43	0.51	0.48	0.50	0.44	0.45	0.52	0.62	0.61
AS	0.41	1.00	0.34	0.11	0.34	0.74	0.96	0.26	0.42	**0.75**	0.48	0.46	0.48	0.46
BA	0.30	0.34	1.00	-0.14	0.62	0.74	0.28	0.53	0.49	0.64	0.36	0.50	-0.10	0.55
BE	0.34	0.11	-0.14	1.00	-0.27	-0.24	0.17	0.08	-0.07	-0.23	0.30	-0.16	0.59	-0.14
CR	0.50	0.34	0.62	-0.27	1.00	**0.80**	0.42	0.63	0.67	0.68	0.08	**0.84**	0.12	0.90
CO	0.43	0.74	0.74	-0.24	**0.80**	1.00	0.72	0.58	0.67	0.92	0.32	**0.78**	0.17	**0.81**
FE	0.51	0.96	0.28	0.17	0.42	0.72	1.00	0.32	0.43	**0.76**	0.46	0.51	0.57	0.53
PB	0.48	0.26	0.53	0.08	0.63	0.58	0.32	1.00	0.66	0.67	0.43	0.61	0.44	0.60
MG	0.50	0.42	0.49	-0.07	0.67	0.67	0.43	0.66	1.00	0.61	0.25	0.86	0.32	**0.81**
MN	0.44	**0.75**	0.64	-0.23	0.68	0.92	**0.76**	0.67	0.61	1.00	0.44	0.69	0.27	0.71
HG	0.45	0.48	0.36	0.30	0.08	0.32	0.46	0.43	0.25	0.44	1.00	0.19	0.30	0.16
NI	0.52	0.46	0.50	-0.16	**0.84**	**0.78**	0.51	0.61	0.86	0.69	0.19	1.00	0.23	0.95
V	0.62	0.48	-0.10	0.59	0.12	0.17	0.57	0.44	0.32	0.27	0.30	0.23	1.00	0.25
ZN	0.61	0.46	0.55	-0.14	0.90	**0.81**	0.53	0.60	**0.81**	0.71	0.16	0.95	0.25	1.00

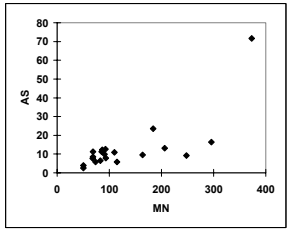
ALUMINUM SCATTERPLOTS



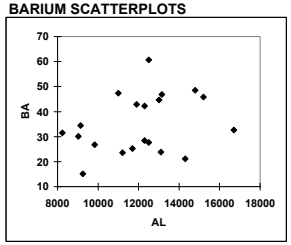
ARSENIC SCATTERPLOTS

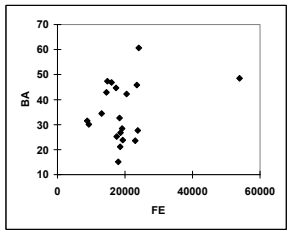




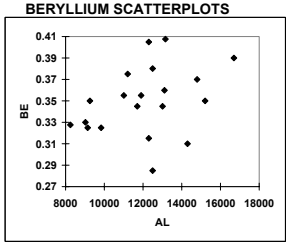


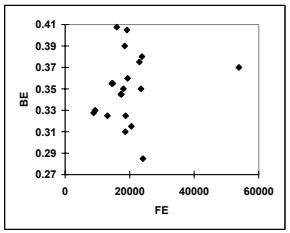
BARIUM SCATTERPLOTS



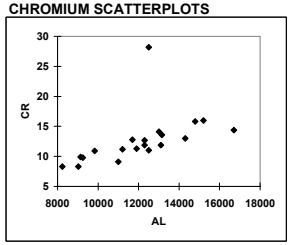


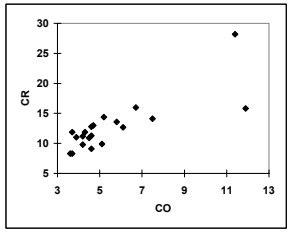
BERYLLIUM SCATTERPLOTS

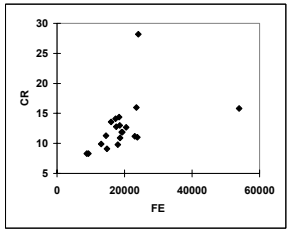


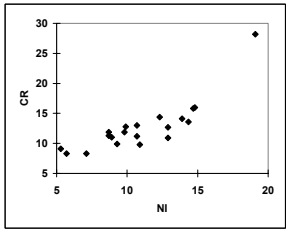


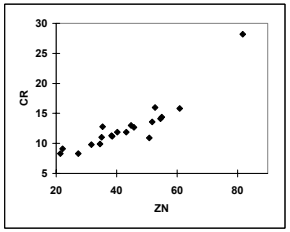
CHROMIUM SCATTERPLOTS





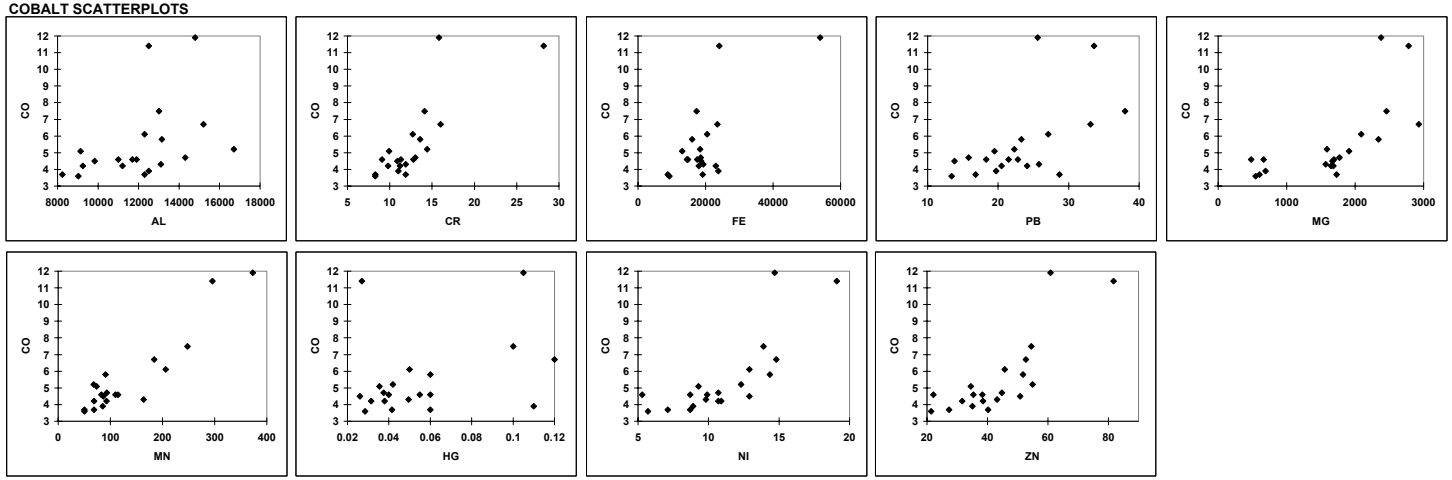




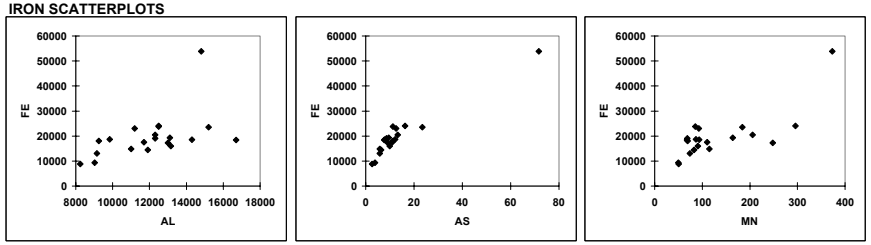


APPENDIX F, FIGURE F1-10
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

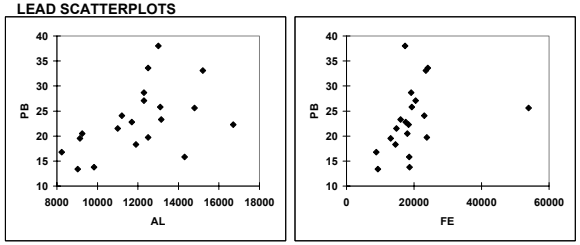
COBALT SCATTERPLOTS



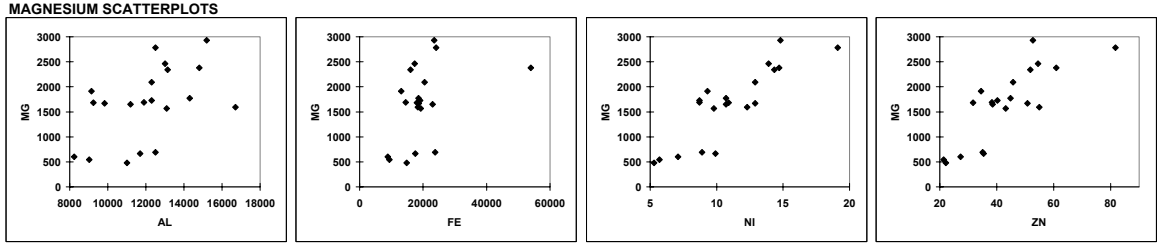
IRON SCATTERPLOTS



LEAD SCATTERPLOTS

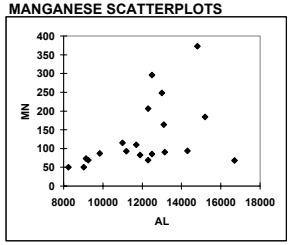


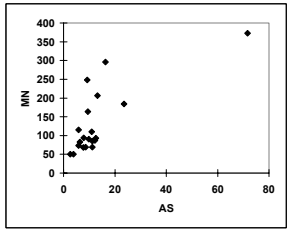
MAGNESIUM SCATTERPLOTS

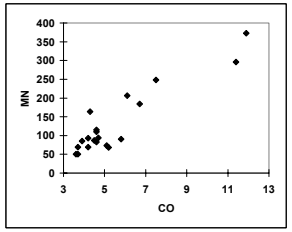


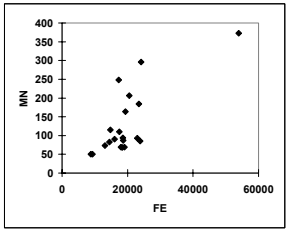
APPENDIX F, FIGURE F1-10
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESS)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MANGANESE SCATTERPLOTS

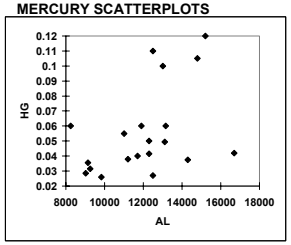


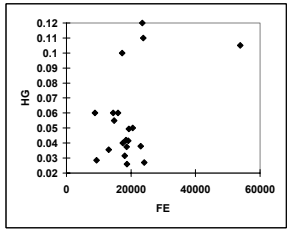




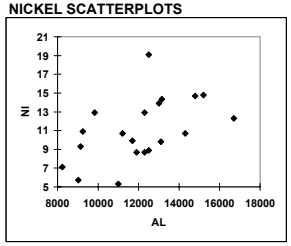


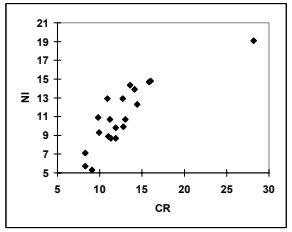
MERCURY SCATTERPLOTS

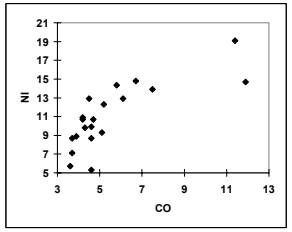


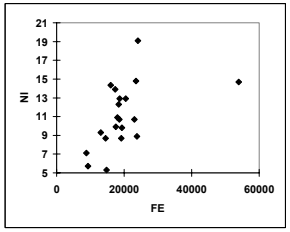


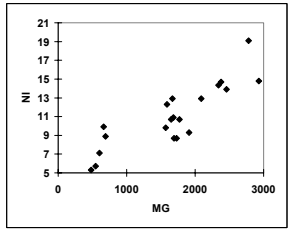
NICKEL SCATTERPLOTS

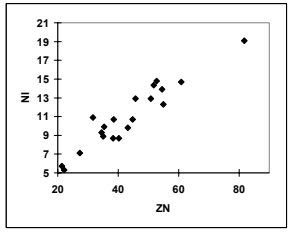




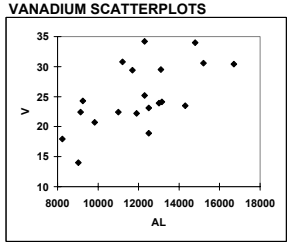


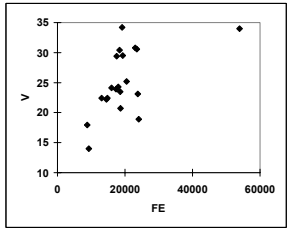




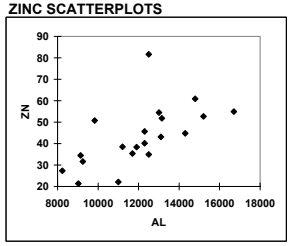


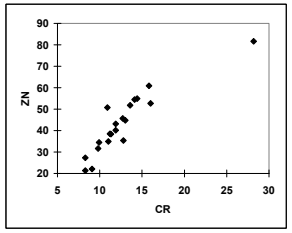
VANADIUM SCATTERPLOTS

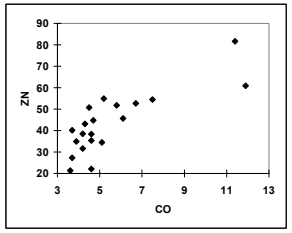


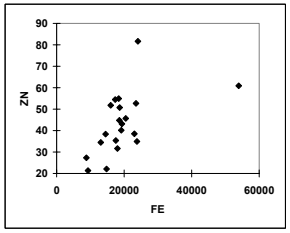


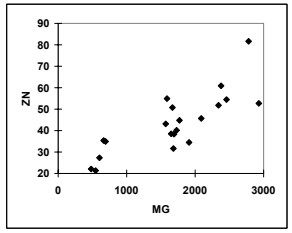
ZINC SCATTERPLOTS

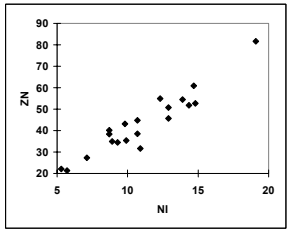












APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

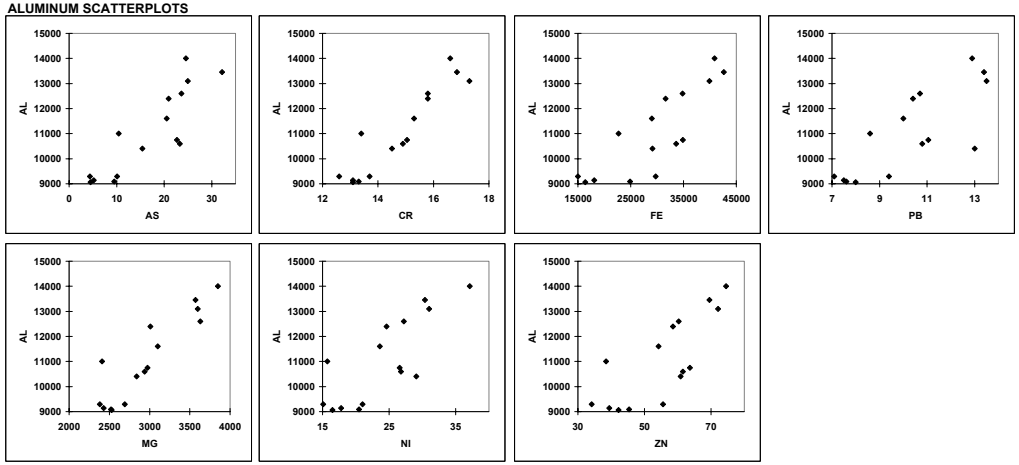
Correlation matrix (Pearson)

Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

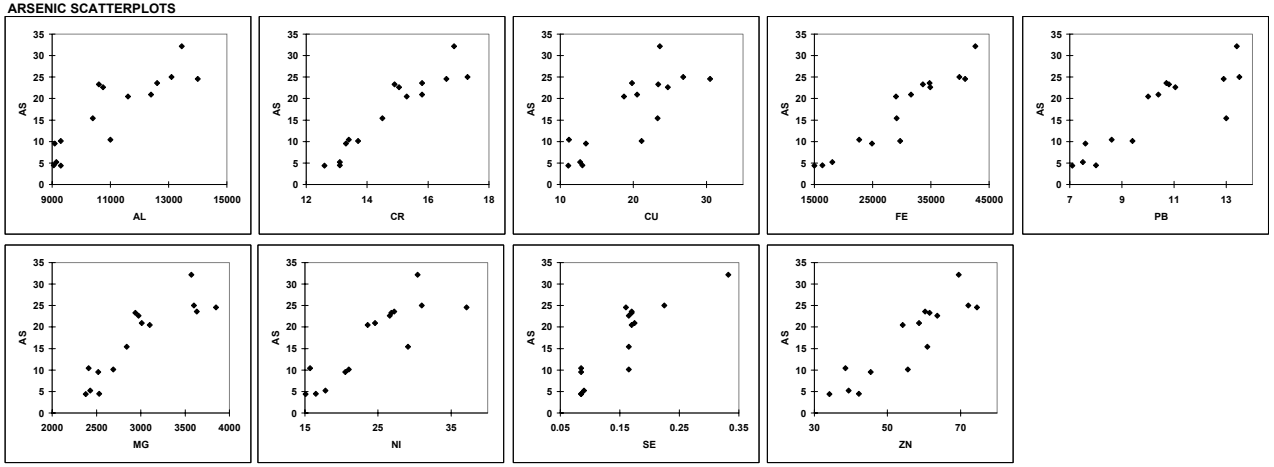
Variables	AL	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	NA	V	ZN
AL	1.00	0.87	0.52	0.67	0.28	-0.02	0.93	0.45	0.70	**0.84**	**0.79**	0.91	0.21	**0.80**	-0.17	0.71	-0.52	0.67	**0.78**
AS	0.87	1.00	0.28	0.44	0.47	-0.04	0.94	0.51	**0.81**	0.95	0.86	0.88	0.19	0.85	-0.16	0.86	-0.67	0.60	0.89
BA	0.52	0.28	1.00	0.67	-0.35	-0.37	0.43	0.06	0.21	0.20	0.16	0.41	-0.29	0.23	0.23	0.09	0.02	0.11	0.22
BE	0.67	0.44	0.67	1.00	-0.01	-0.03	0.64	0.44	0.45	0.45	0.54	0.55	-0.10	0.49	0.01	0.44	-0.12	0.56	0.51
CD	0.28	0.47	-0.35	-0.01	1.00	0.56	0.41	0.44	0.33	0.38	0.51	0.38	0.51	0.42	0.15	0.55	-0.11	0.32	0.41
CA	-0.02	-0.04	-0.37	-0.03	0.56	1.00	0.10	0.35	0.09	0.05	0.14	0.19	0.34	0.14	0.46	0.17	0.41	-0.01	0.13
CR	0.93	0.94	0.43	0.64	0.41	0.10	1.00	0.57	**0.84**	0.93	0.89	0.95	0.21	0.88	-0.02	**0.83**	-0.55	0.64	0.92
CO	0.45	0.51	0.06	0.44	0.44	0.35	0.57	1.00	0.69	0.56	0.73	0.64	0.36	0.71	0.16	0.52	-0.15	0.43	0.71
CU	0.70	**0.81**	0.21	0.45	0.33	0.09	**0.84**	0.69	1.00	0.90	0.90	**0.82**	0.26	0.95	0.02	0.70	-0.59	0.38	0.97
FE	**0.84**	0.95	0.20	0.45	0.38	0.05	0.93	0.56	0.90	1.00	0.89	0.90	0.26	0.91	-0.14	**0.84**	-0.73	0.58	0.96
PB	**0.79**	0.86	0.16	0.54	0.51	0.14	0.89	0.73	0.90	0.89	1.00	**0.83**	0.35	0.92	-0.14	**0.82**	-0.58	0.67	0.94
MG	0.91	0.88	0.41	0.55	0.38	0.19	0.95	0.64	**0.82**	0.90	**0.83**	1.00	0.34	0.90	0.03	0.74	-0.49	0.53	0.89
MN	0.21	0.19	-0.29	-0.10	0.51	0.34	0.21	0.36	0.26	0.26	0.35	0.34	1.00	0.32	0.07	0.11	-0.32	0.33	0.29
NI	**0.80**	0.85	0.23	0.49	0.42	0.14	0.88	0.71	0.95	0.91	0.92	0.90	0.32	1.00	-0.02	0.71	-0.59	0.47	0.96
K	-0.17	-0.16	0.23	0.01	0.15	0.46	-0.02	0.16	0.02	-0.14	-0.14	0.03	0.07	-0.02	1.00	-0.24	0.50	-0.34	-0.01
SE	0.71	0.86	0.09	0.44	0.55	0.17	**0.83**	0.52	0.70	**0.84**	**0.82**	0.74	0.11	0.71	-0.24	1.00	-0.49	0.56	**0.80**
NA	-0.52	-0.67	0.02	-0.12	-0.11	0.41	-0.55	-0.15	-0.59	-0.73	-0.58	-0.49	-0.32	-0.59	0.50	-0.49	1.00	-0.49	-0.63
V	0.67	0.60	0.11	0.56	0.32	-0.01	0.64	0.43	0.38	0.58	0.67	0.53	0.33	0.47	-0.34	0.56	-0.49	1.00	0.52
ZN	**0.78**	0.89	0.22	0.51	0.41	0.13	0.92	0.71	0.97	0.96	0.94	0.89	0.29	0.96	-0.01	**0.80**	-0.63	0.52	1.00

ALUMINUM SCATTERPLOTS

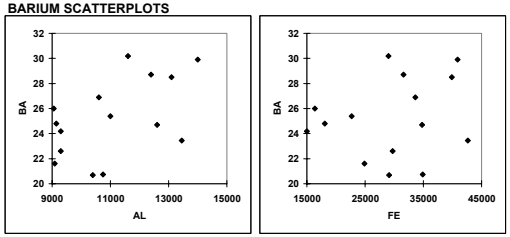


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

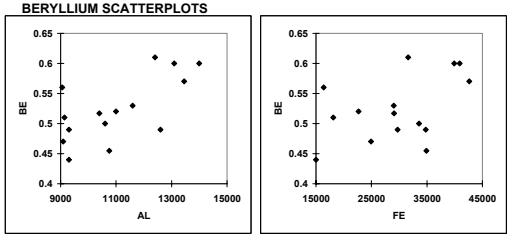
ARSENIC SCATTERPLOTS



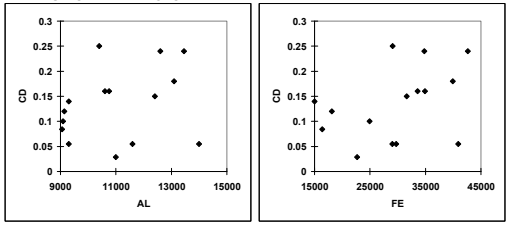
BARIUM SCATTERPLOTS



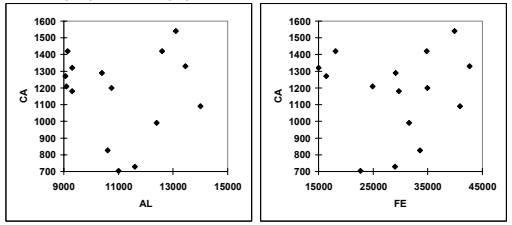
BERYLLIUM SCATTERPLOTS



CADMIUM SCATTERPLOTS

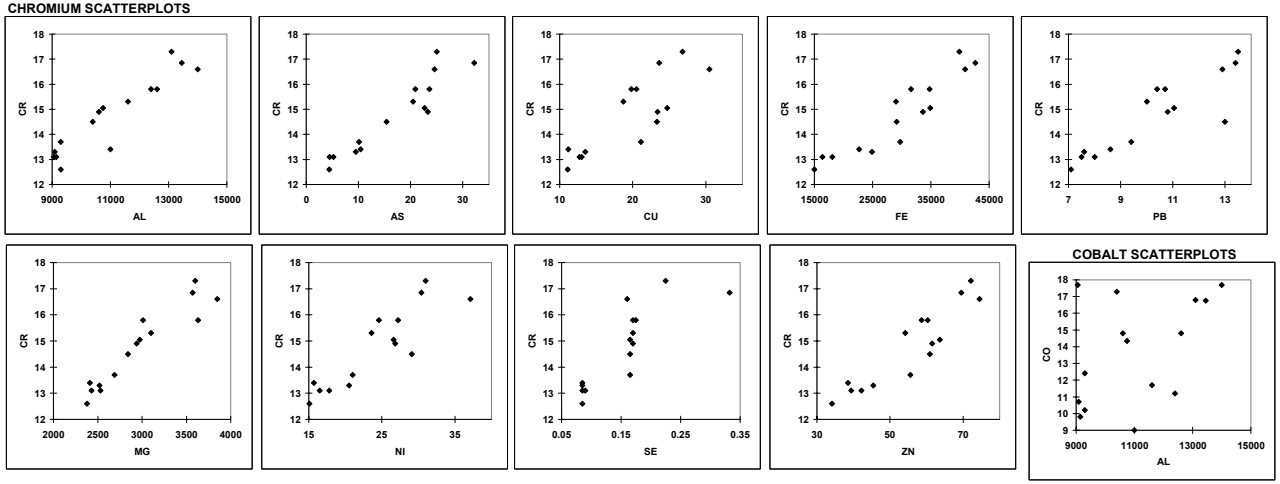


CALCIUM SCATTERPLOTS

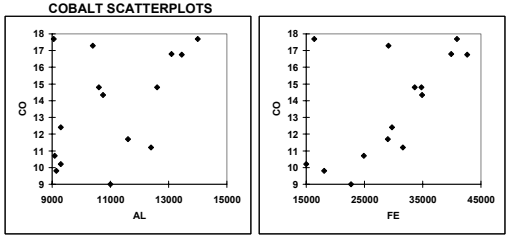


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

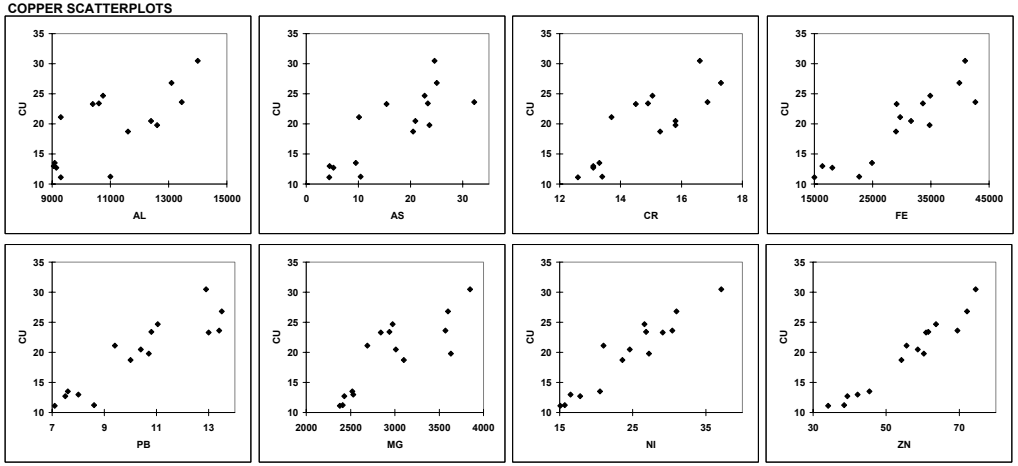
CHROMIUM SCATTERPLOTS



COBALT SCATTERPLOTS

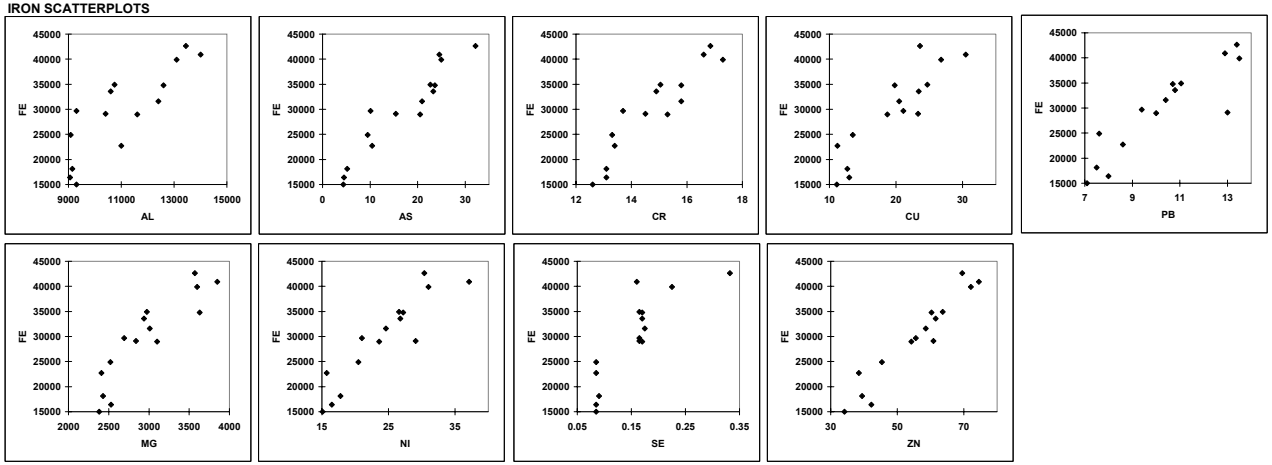


COPPER SCATTERPLOTS

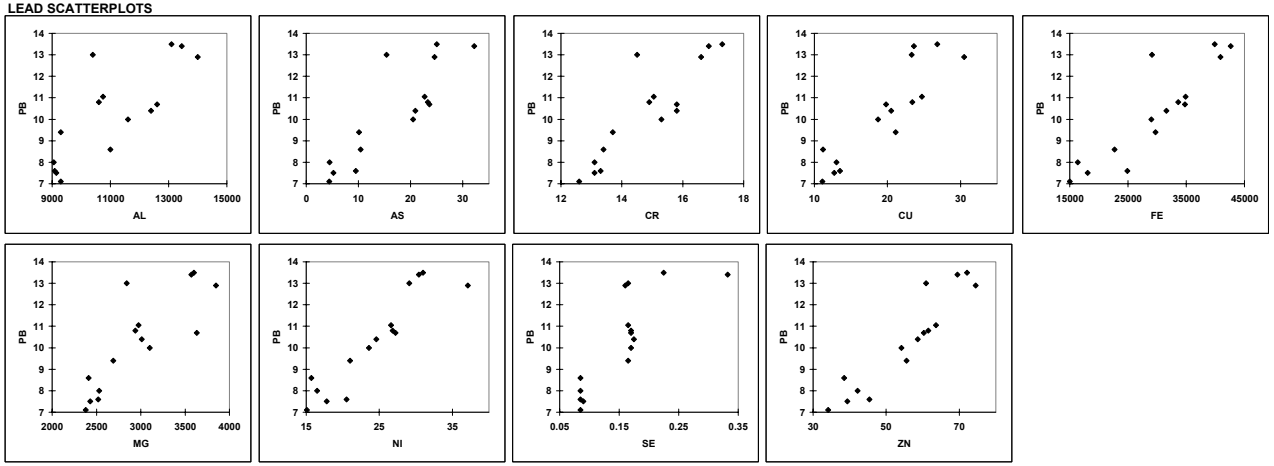


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

IRON SCATTERPLOTS

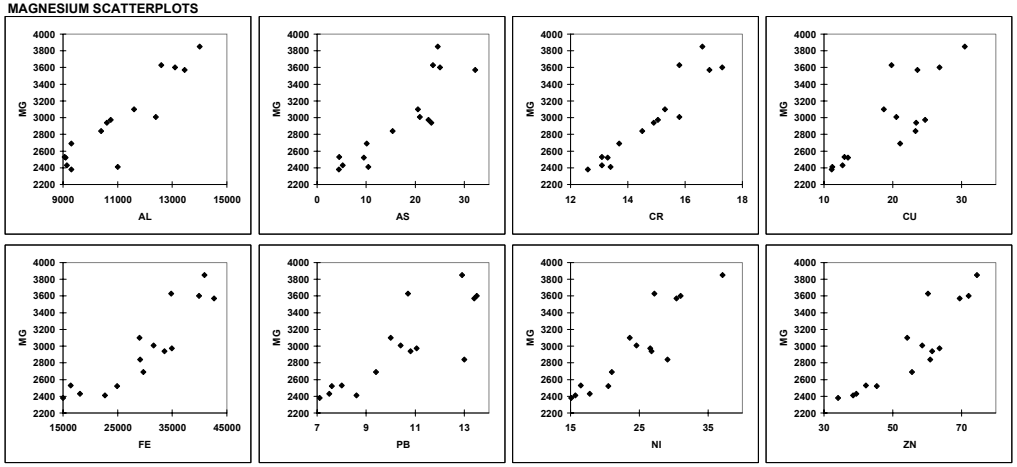


LEAD SCATTERPLOTS

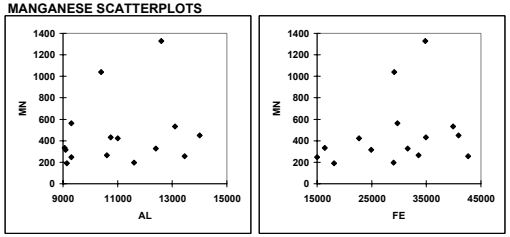


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MAGNESIUM SCATTERPLOTS

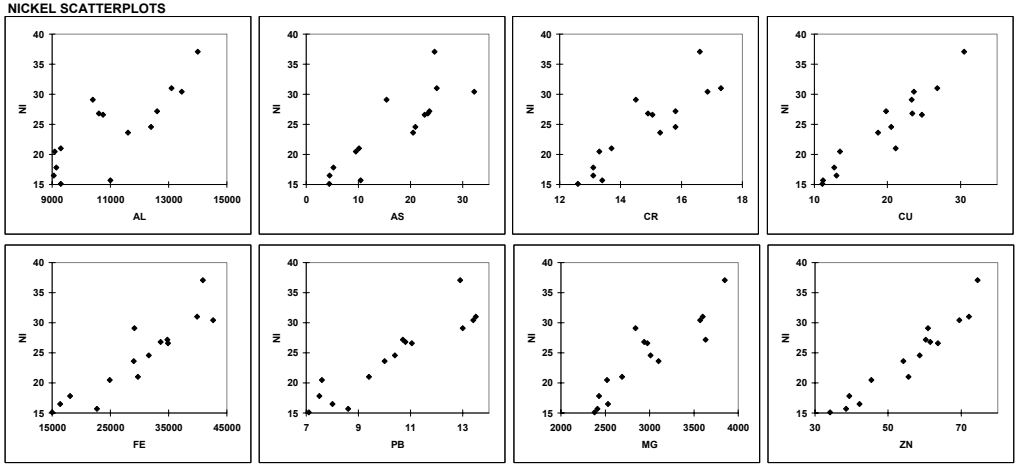


MANGANESE SCATTERPLOTS

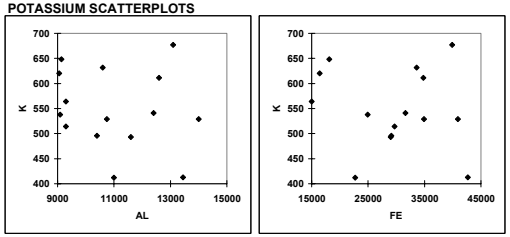


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

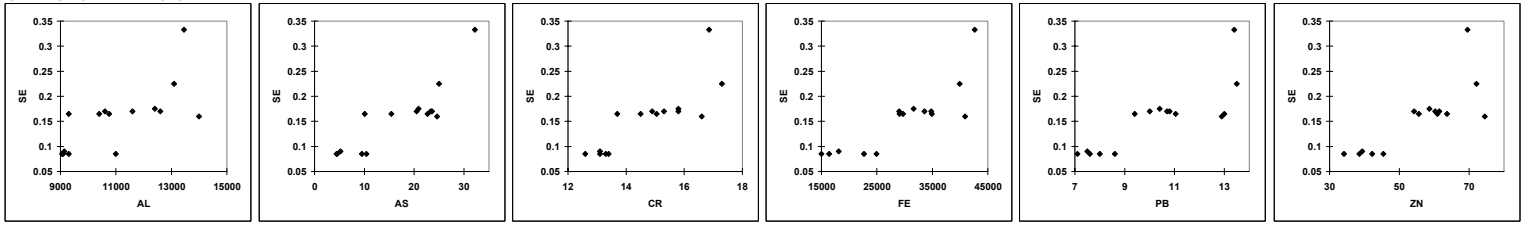
NICKEL SCATTERPLOTS



POTASSIUM SCATTERPLOTS

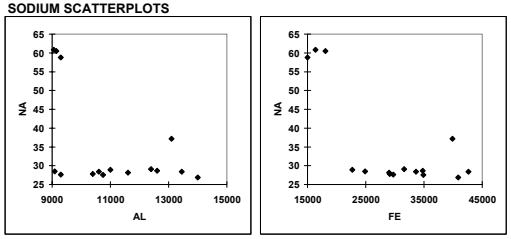


SELENIUM SCATTERPLOTS

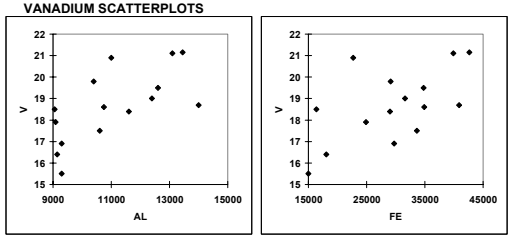


APPENDIX F, FIGURE F1-11
PEARSON CORRELATIONS AND SCATTERPLOTS FOR SUBSURFACE SOIL CLASSIFICATION: STISSING SILT LOAM (SESB)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

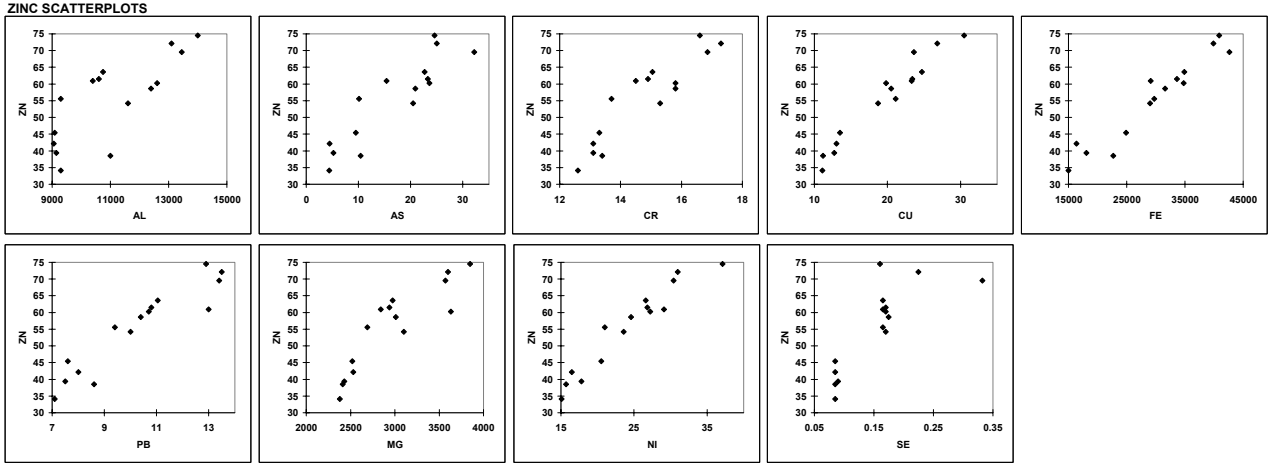
SODIUM SCATTERPLOTS



VANADIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

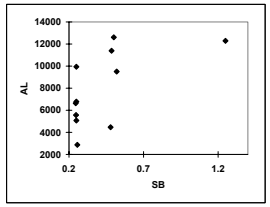
Correlation matrix (Pearson)

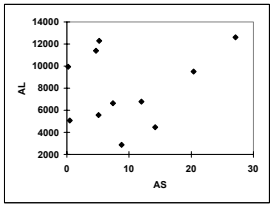
Correlation matrix (Pearson):

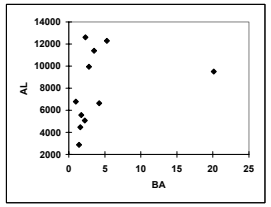
r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

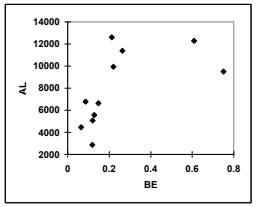
Variables	AL	SB	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	SE	AG	NA	V	ZN
AL	1.00	0.60	0.25	0.30	0.59	0.33	0.92	0.53	0.34	0.64	-0.14	0.61	0.42	**0.77**	0.37	0.56	0.63	0.44	**0.79**	0.74
SB	0.60	1.00	0.11	0.26	0.68	**0.75**	0.43	0.33	0.18	0.88	-0.30	0.86	**0.85**	0.66	0.31	0.28	0.86	0.23	0.39	0.71
AS	0.25	0.11	1.00	0.36	0.23	-0.05	0.44	0.93	0.45	0.32	0.48	0.35	0.06	0.56	0.41	0.61	0.22	0.69	0.44	0.37
BA	0.30	0.26	0.36	1.00	0.85	-0.13	0.20	0.51	0.89	0.01	-0.16	0.00	-0.10	0.74	0.98	-0.14	0.00	0.88	-0.10	0.12
BE	0.59	0.68	0.23	0.85	1.00	0.34	0.42	0.49	**0.76**	0.43	-0.24	0.41	0.38	0.87	0.85	0.03	0.45	0.73	0.18	0.43
CA	0.33	**0.75**	-0.05	-0.13	0.34	1.00	0.26	0.09	-0.15	0.73	0.19	**0.78**	0.97	0.27	-0.15	0.32	0.85	-0.20	0.38	0.42
CR	0.92	0.43	0.44	0.20	0.42	0.26	1.00	0.67	0.30	0.57	0.09	0.60	0.34	0.73	0.28	0.75	0.57	0.44	0.89	0.65
CO	0.53	0.33	0.93	0.51	0.49	0.09	0.67	1.00	0.60	0.48	0.34	0.49	0.21	**0.80**	0.58	0.67	0.40	**0.81**	0.61	0.51
CU	0.34	0.18	0.45	0.89	**0.76**	-0.15	0.30	0.60	1.00	-0.02	0.02	-0.02	-0.16	0.73	0.91	-0.11	-0.05	0.91	-0.03	0.17
FE	0.64	0.88	0.32	0.01	0.43	0.73	0.57	0.48	-0.02	1.00	-0.06	0.97	0.87	0.59	0.09	0.61	0.90	0.14	0.68	0.73
PB	-0.14	-0.30	0.48	-0.16	-0.24	0.19	0.09	0.34	0.02	-0.06	1.00	0.05	0.09	-0.07	-0.23	0.35	0.03	0.01	0.21	-0.12
MG	0.61	0.86	0.35	0.00	0.41	**0.78**	0.60	0.49	-0.02	0.97	0.05	1.00	0.88	0.59	0.07	0.63	0.89	0.13	0.68	0.68
MN	0.42	**0.85**	0.06	-0.10	0.38	0.97	0.34	0.21	-0.16	0.87	0.09	0.88	1.00	0.37	-0.09	0.44	0.93	-0.12	0.49	0.55
NI	**0.77**	0.66	0.56	0.74	0.87	0.27	0.73	**0.80**	0.73	0.59	-0.07	0.59	0.37	1.00	**0.80**	0.41	0.53	**0.83**	0.51	0.60
K	0.37	0.31	0.41	0.98	0.85	-0.15	0.28	0.58	0.91	0.09	-0.23	0.07	-0.09	**0.80**	1.00	-0.08	0.03	0.92	-0.03	0.19
SE	0.56	0.28	0.61	-0.14	0.03	0.32	0.75	0.67	-0.11	0.61	0.35	0.63	0.44	0.41	-0.08	1.00	0.62	0.18	0.93	0.48
AG	0.63	0.86	0.22	0.00	0.45	0.85	0.57	0.40	-0.05	0.90	0.03	0.89	0.93	0.53	0.03	0.62	1.00	0.08	0.68	0.74
NA	0.44	0.23	0.69	0.88	0.73	-0.20	0.44	**0.81**	0.91	0.14	0.01	0.13	-0.12	**0.83**	0.92	0.18	0.08	1.00	0.18	0.33
V	**0.79**	0.39	0.44	-0.10	0.18	0.38	0.89	0.61	-0.03	0.68	0.21	0.68	0.49	0.51	-0.03	0.93	0.68	0.18	1.00	0.59
ZN	0.74	0.71	0.37	0.12	0.43	0.42	0.65	0.51	0.17	0.73	-0.12	0.68	0.55	0.60	0.19	0.48	0.74	0.33	0.59	1.00

ALUMINUM SCATTERPLOTS

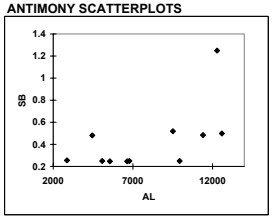


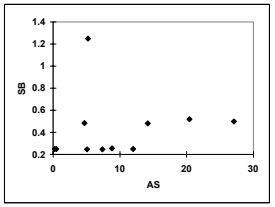


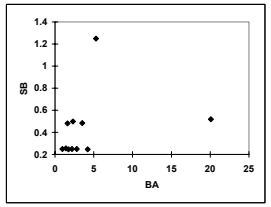


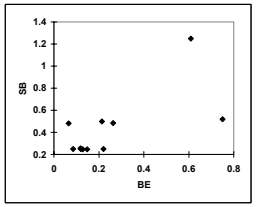


ANTIMONY SCATTERPLOTS



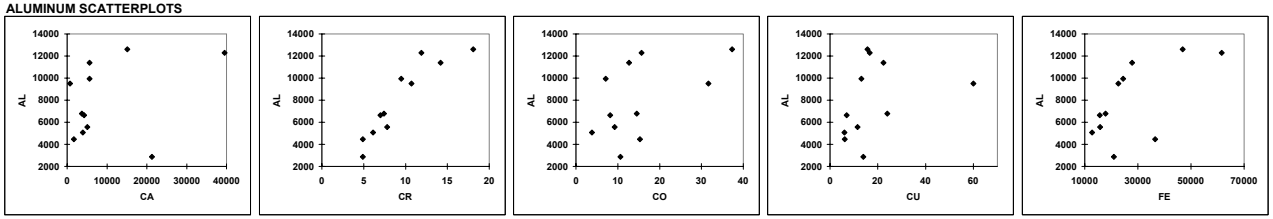




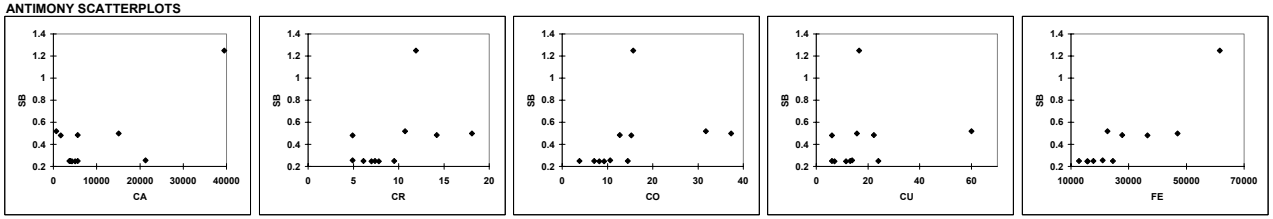


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM SCATTERPLOTS

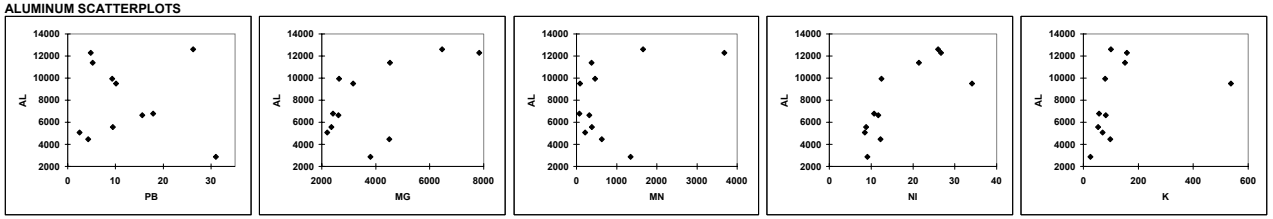


ANTIMONY SCATTERPLOTS

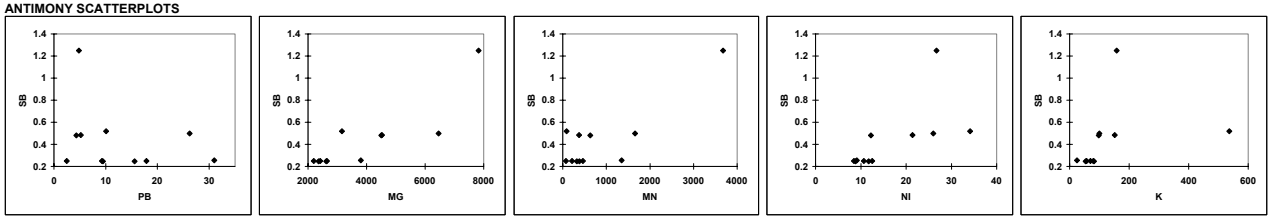


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM SCATTERPLOTS

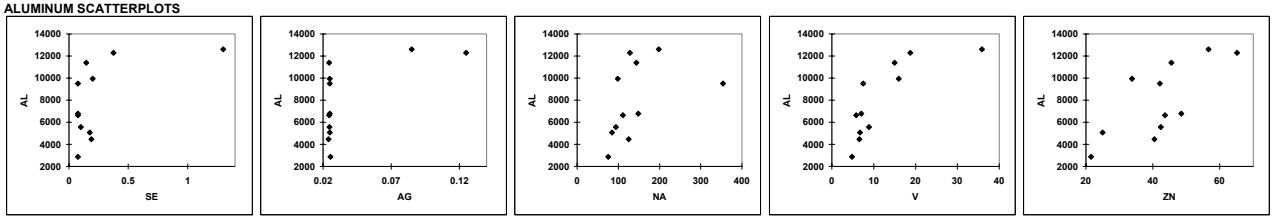


ANTIMONY SCATTERPLOTS

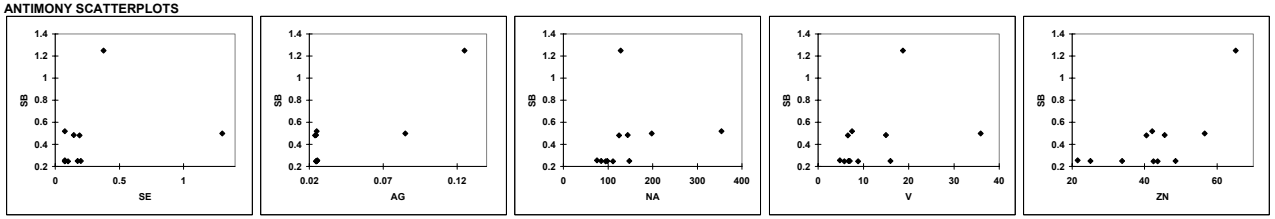


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM SCATTERPLOTS



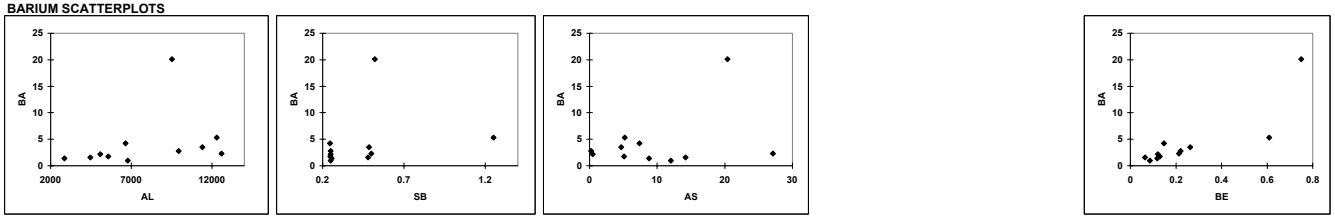
ANTIMONY SCATTERPLOTS



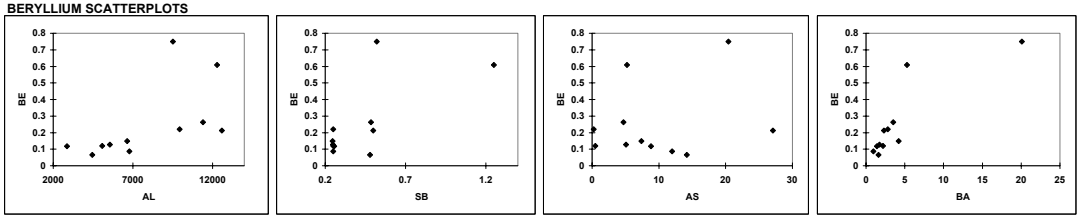
APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ARSENIC SCATTERPLOTS

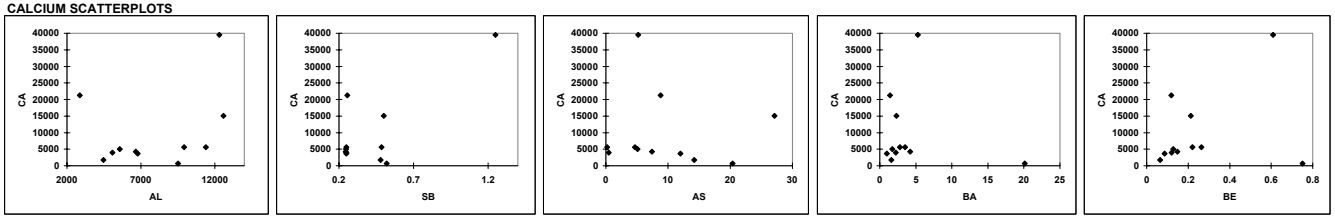
BARIUM SCATTERPLOTS



BERYLLIUM SCATTERPLOTS

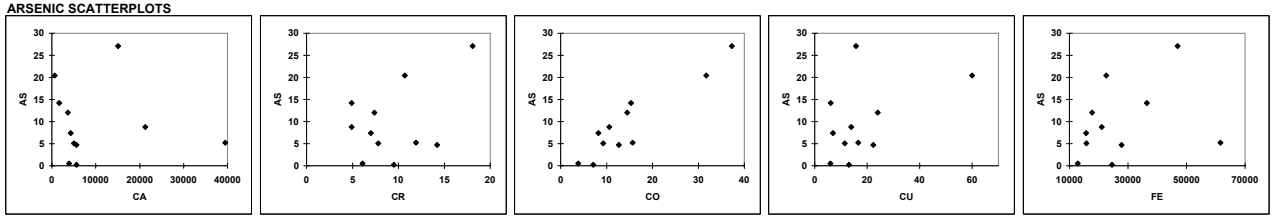


CALCIUM SCATTERPLOTS

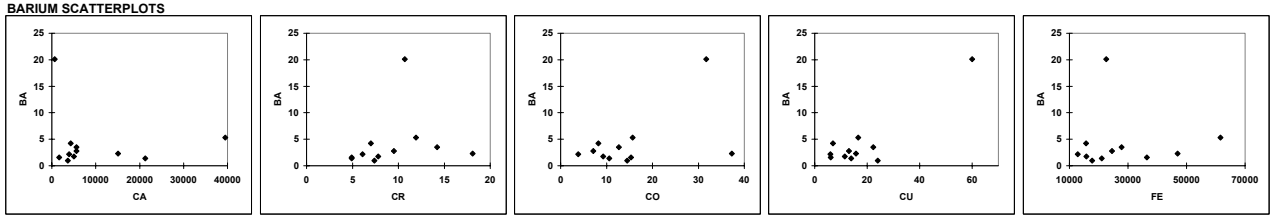


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

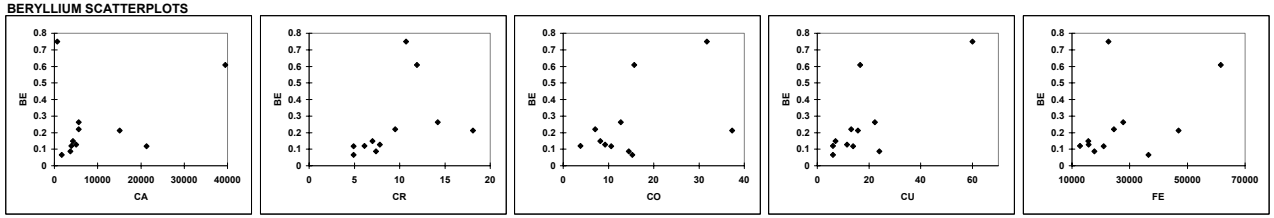
ARSENIC SCATTERPLOTS



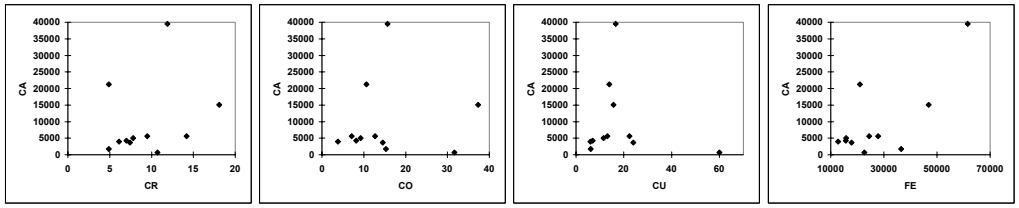
BARIUM SCATTERPLOTS



BERYLLIUM SCATTERPLOTS

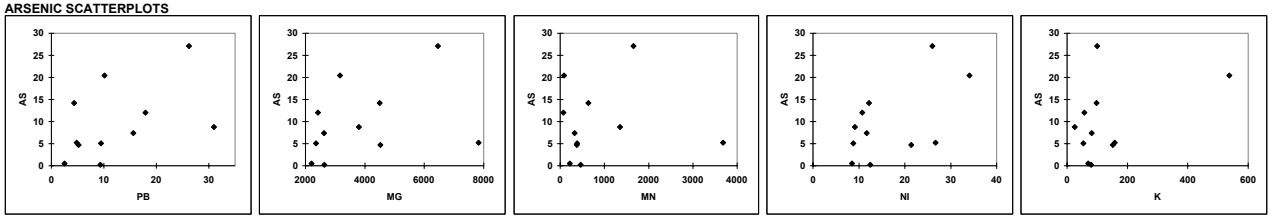


CALCIUM SCATTERPLOTS



APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ARSENIC SCATTERPLOTS



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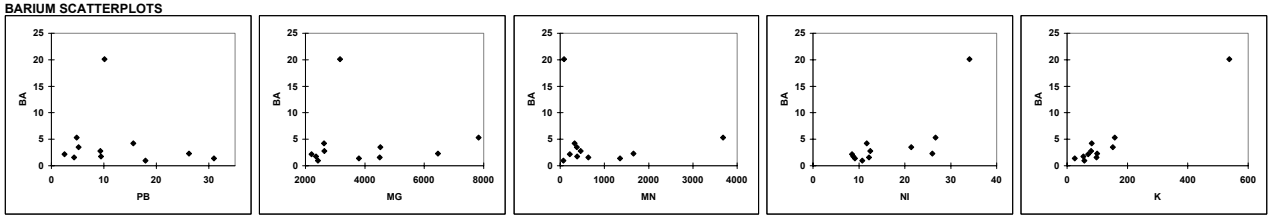

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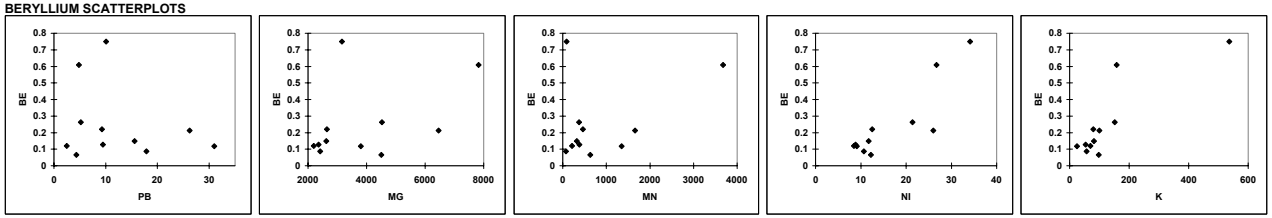

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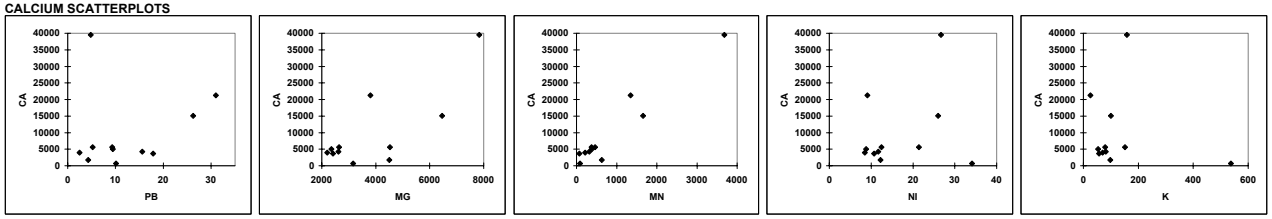
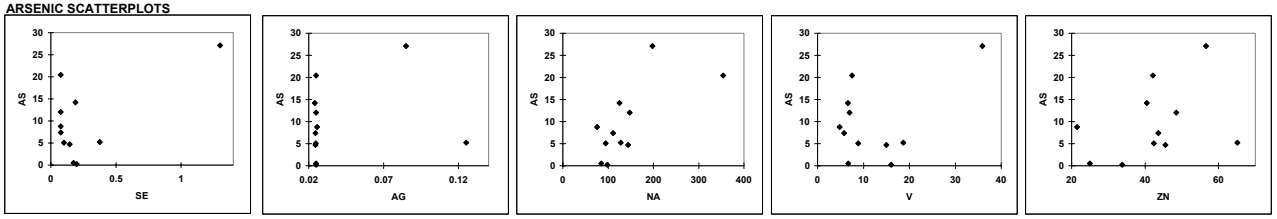


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ARSENIC SCATTERPLOTS



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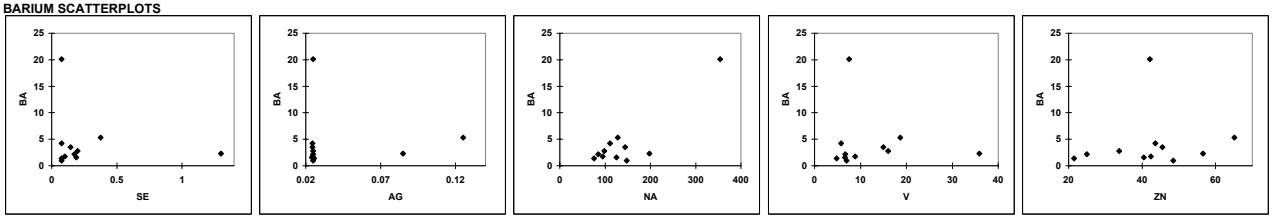

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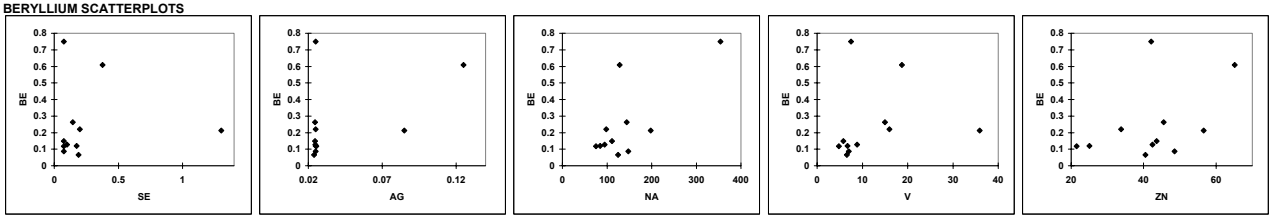

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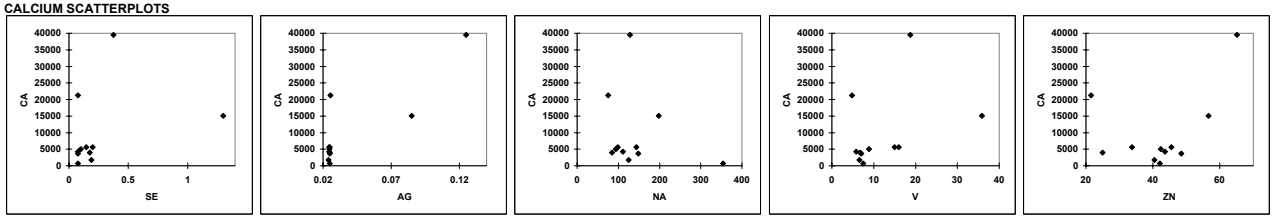
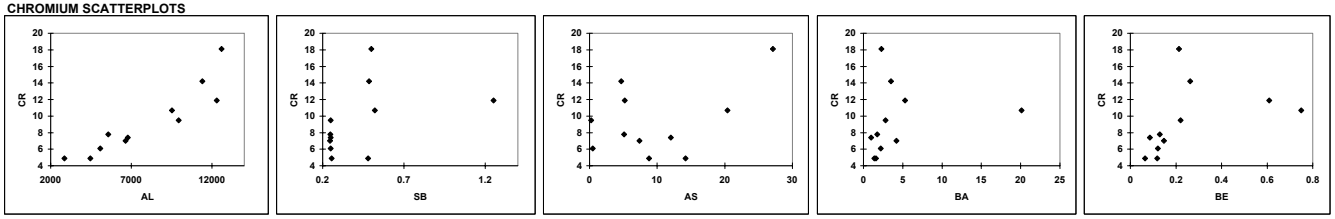
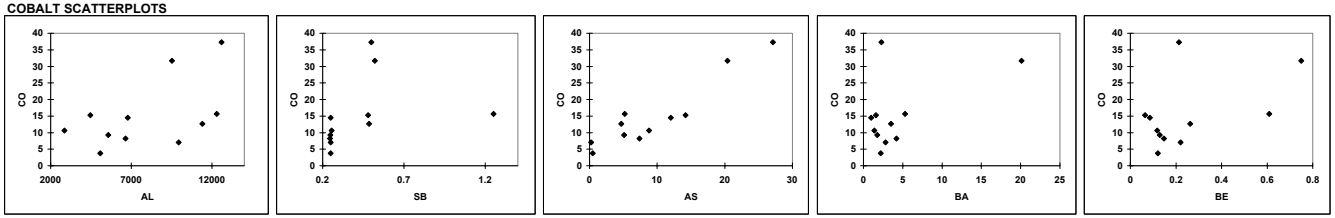


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

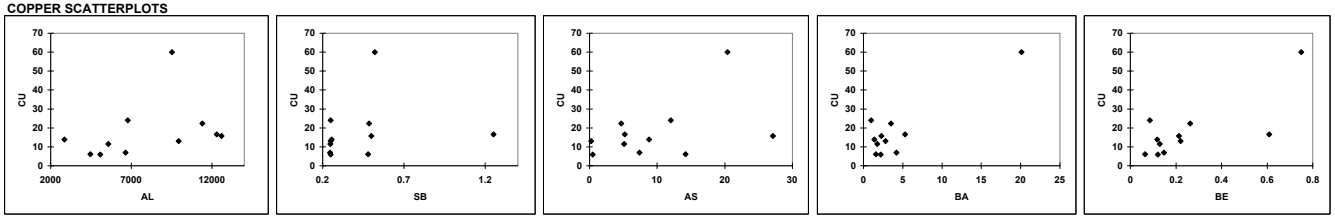
CHROMIUM SCATTERPLOTS



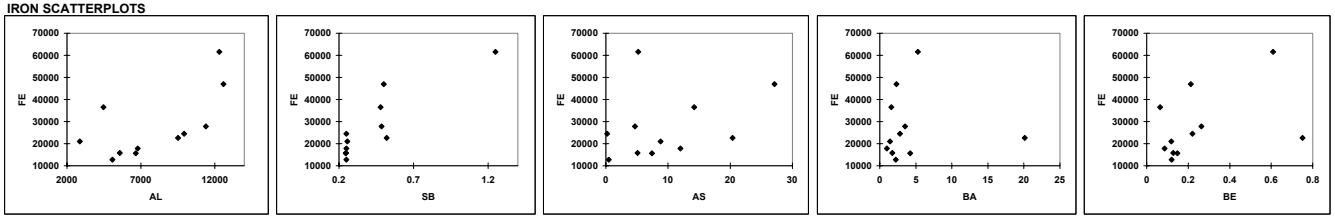
COBALT SCATTERPLOTS



COPPER SCATTERPLOTS

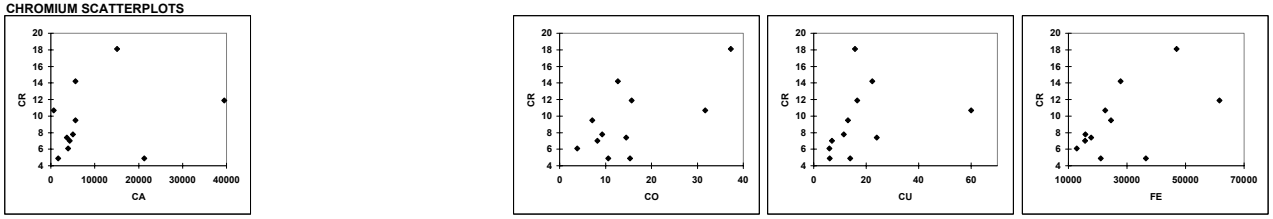


IRON SCATTERPLOTS



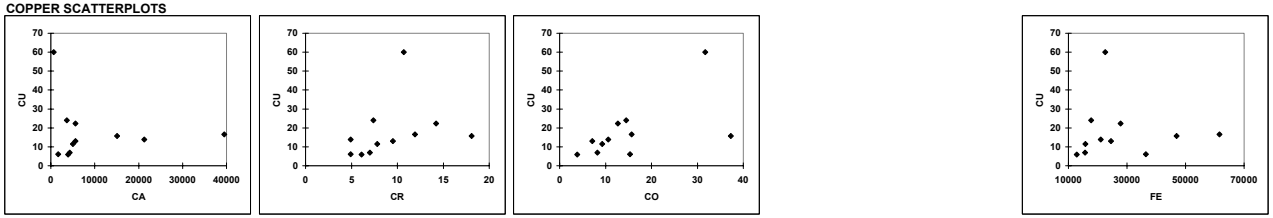
APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

CHROMIUM SCATTERPLOTS

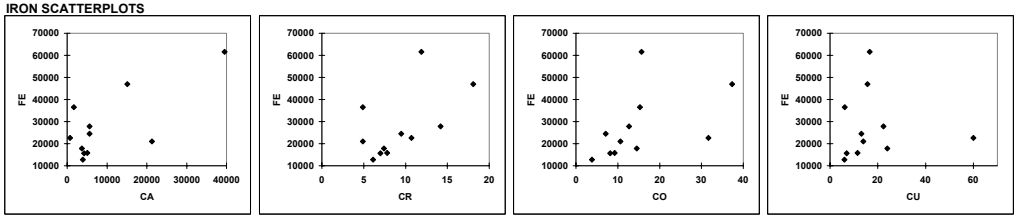


COBALT SCATTERPLOTS

COPPER SCATTERPLOTS

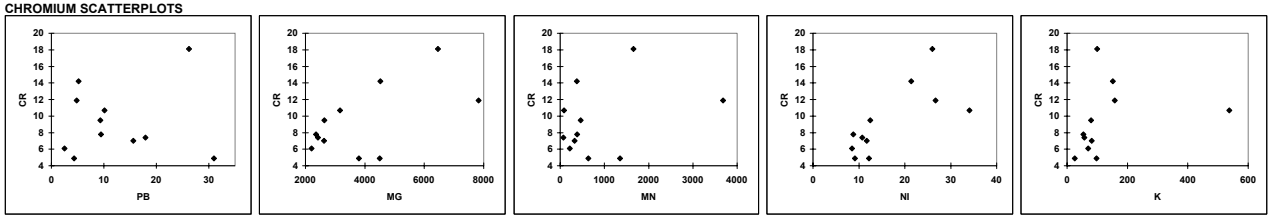


IRON SCATTERPLOTS

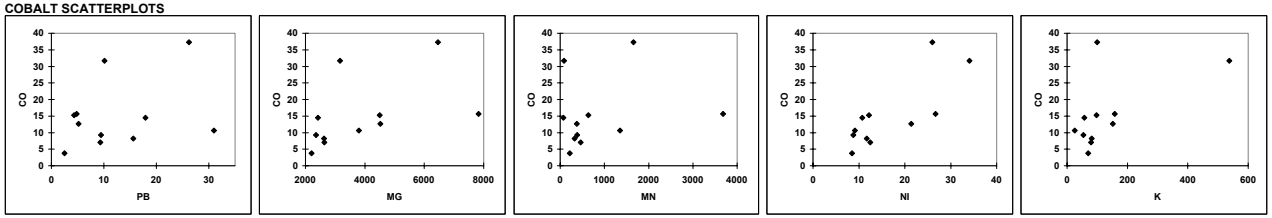


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

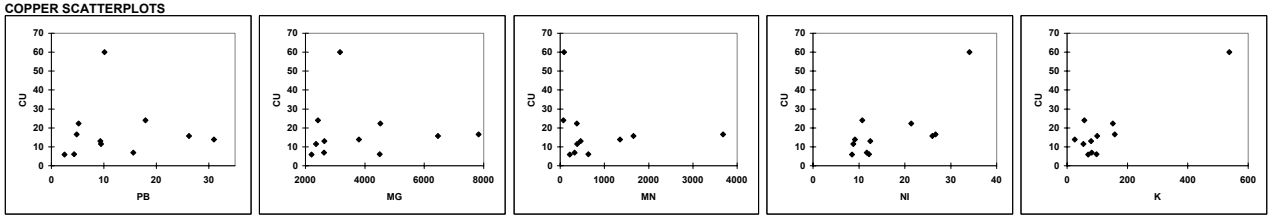
CHROMIUM SCATTERPLOTS



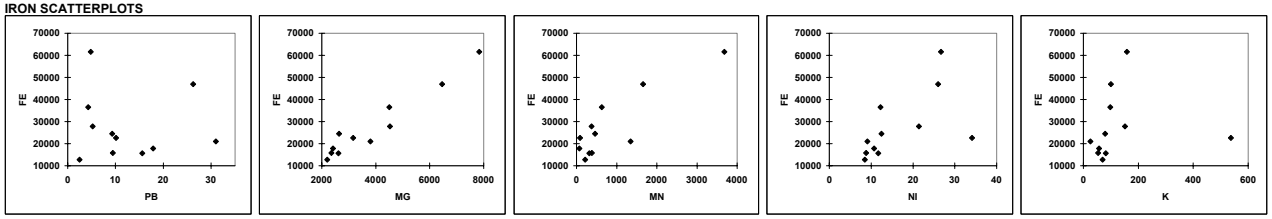
COBALT SCATTERPLOTS



COPPER SCATTERPLOTS

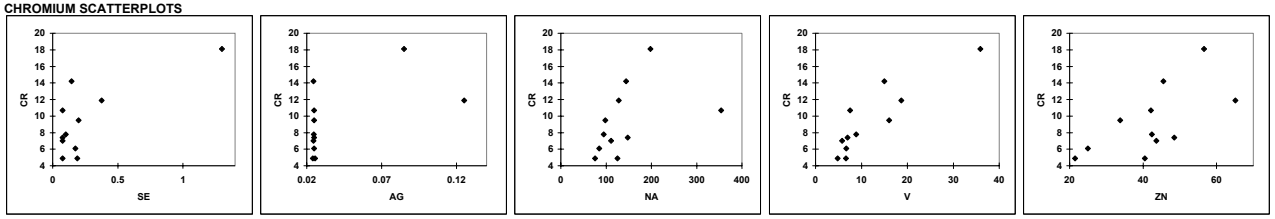


IRON SCATTERPLOTS

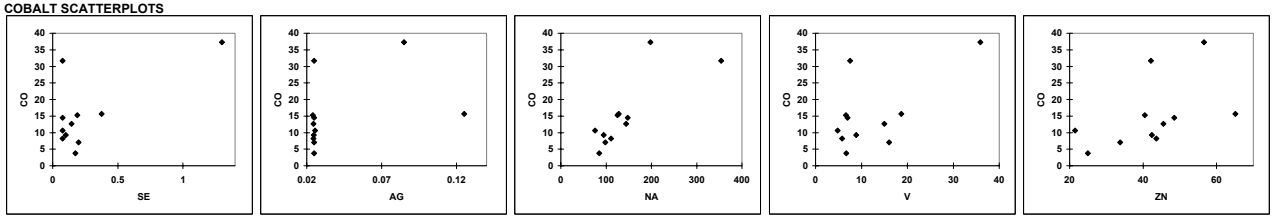


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

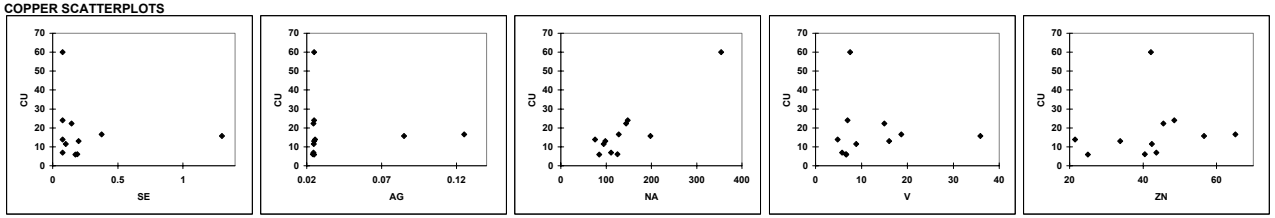
CHROMIUM SCATTERPLOTS



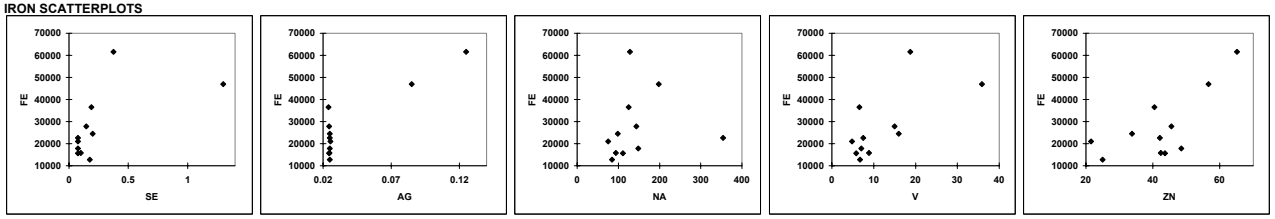
COBALT SCATTERPLOTS



COPPER SCATTERPLOTS

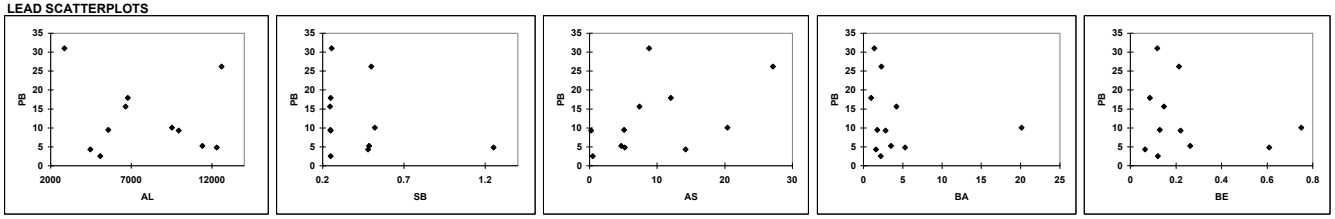


IRON SCATTERPLOTS

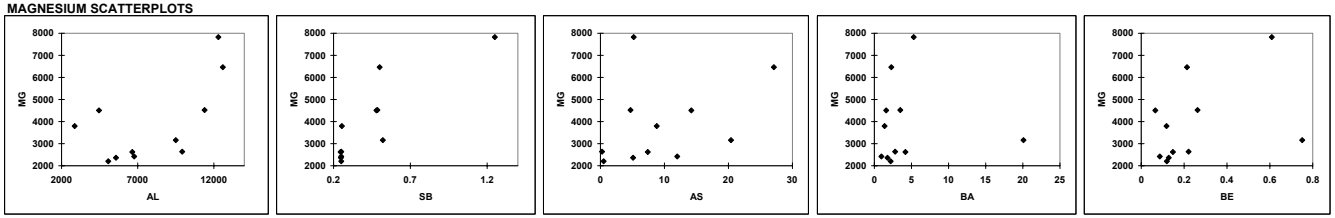


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

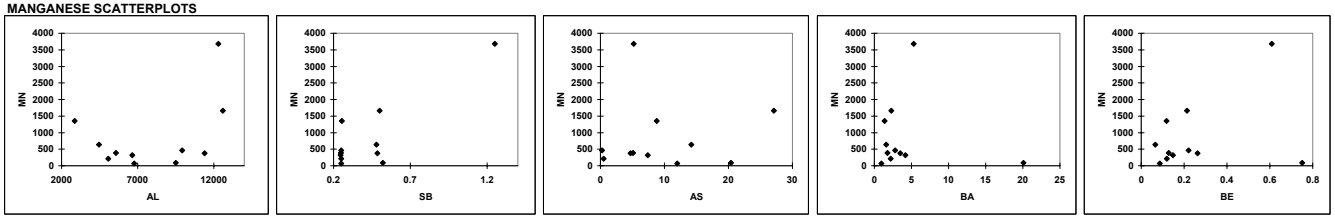
LEAD SCATTERPLOTS



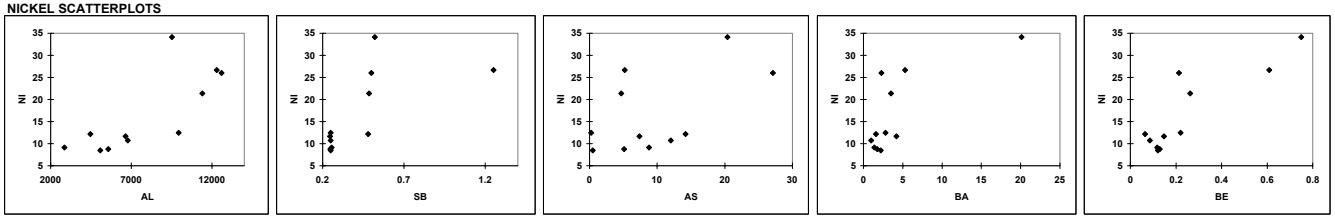
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

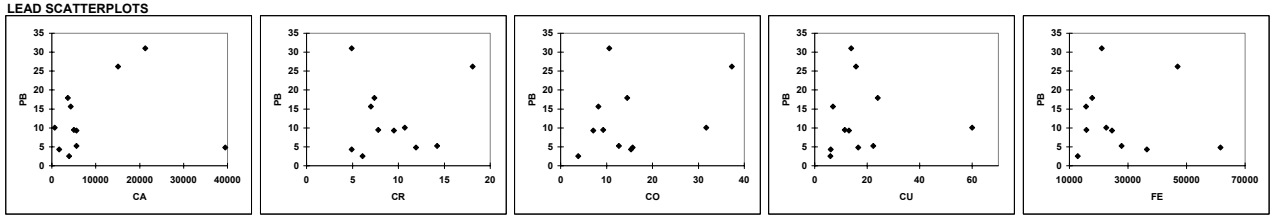


NICKEL SCATTERPLOTS

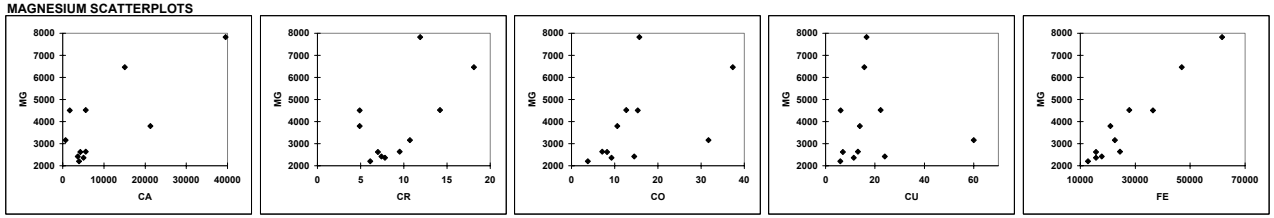


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

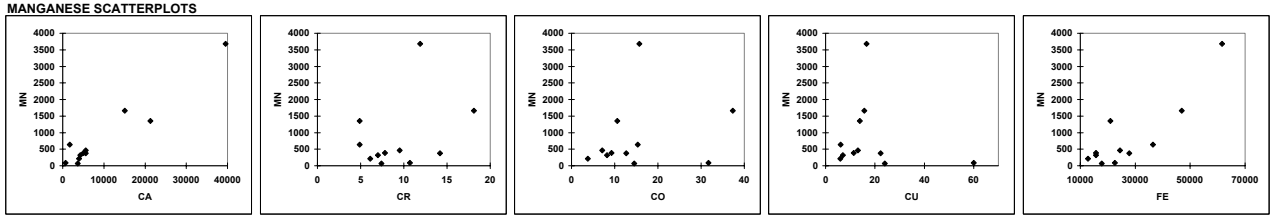
LEAD SCATTERPLOTS



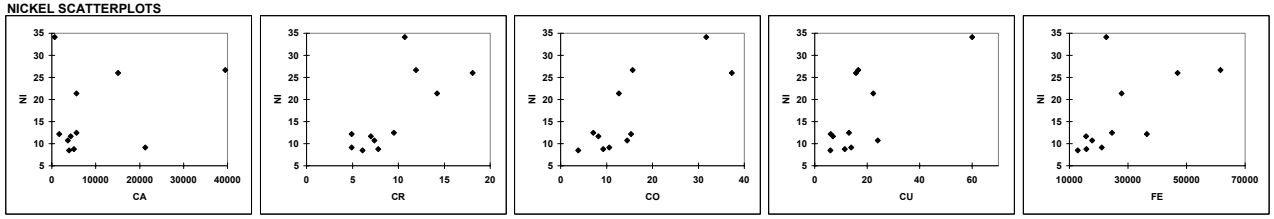
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

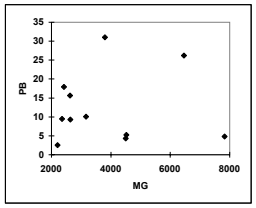


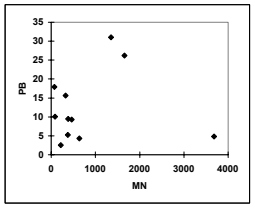
NICKEL SCATTERPLOTS

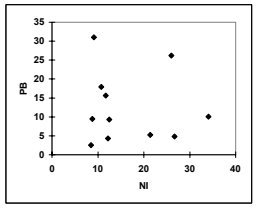


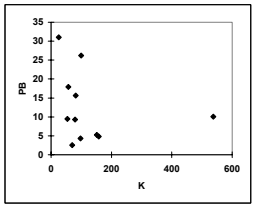
APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LEAD SCATTERPLOTS

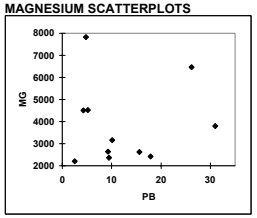


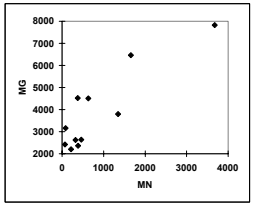


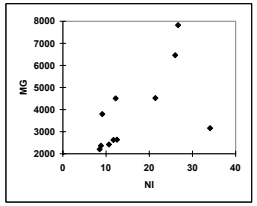


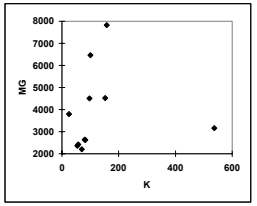


MAGNESIUM SCATTERPLOTS

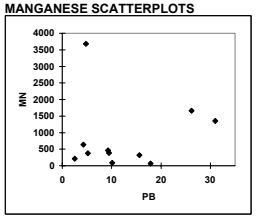


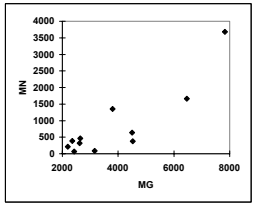


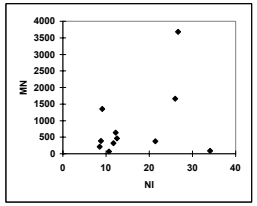


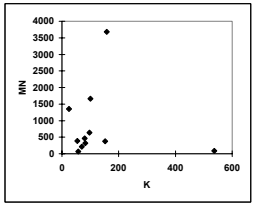


MANGANESE SCATTERPLOTS

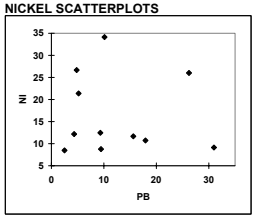


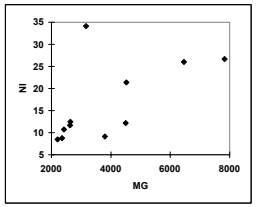


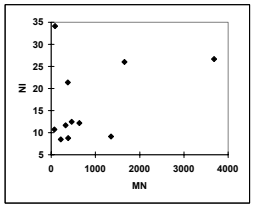


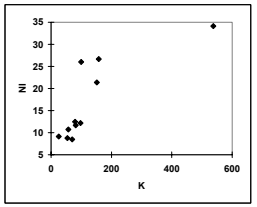


NICKEL SCATTERPLOTS



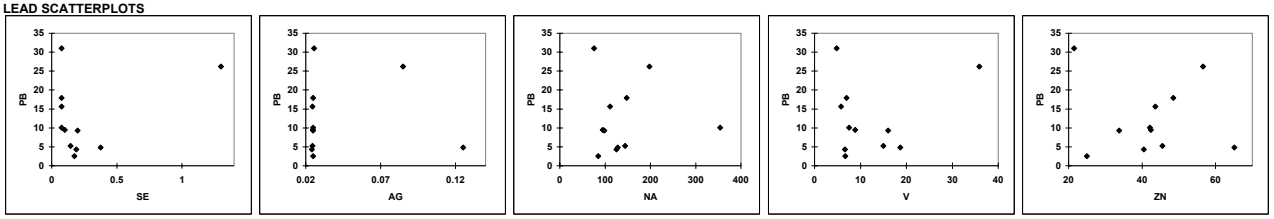




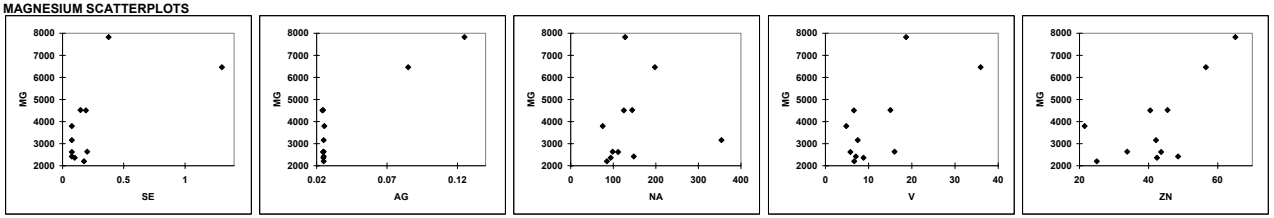


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

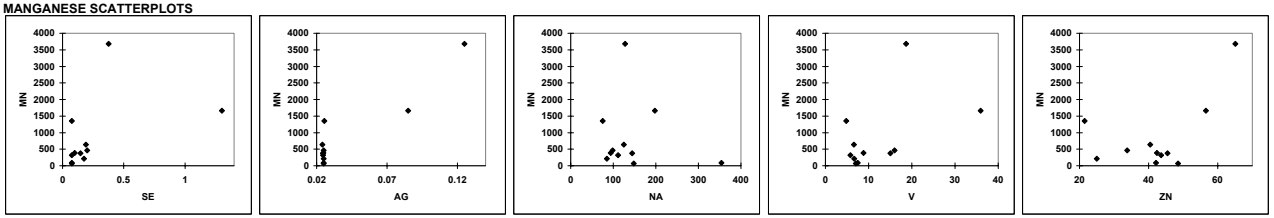
LEAD SCATTERPLOTS



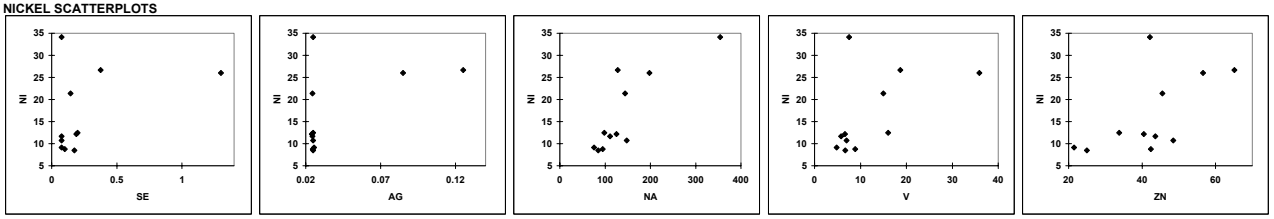
MAGNESIUM SCATTERPLOTS



MANGANESE SCATTERPLOTS

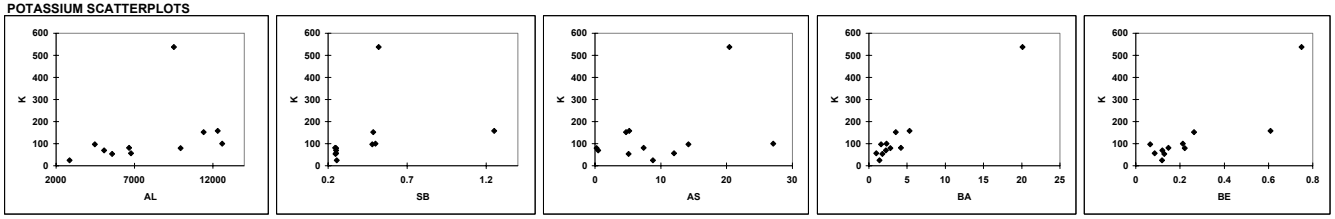


NICKEL SCATTERPLOTS

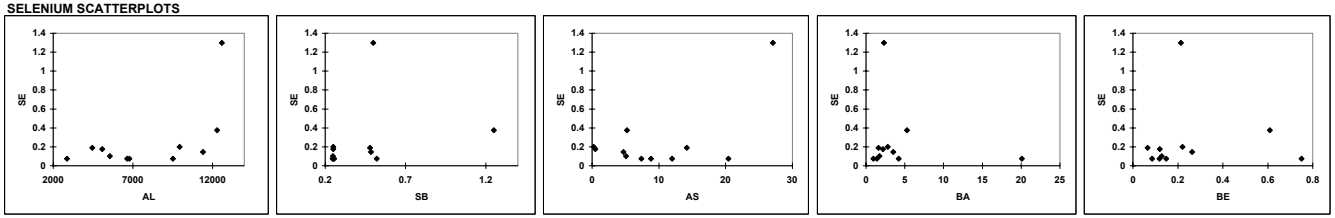


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

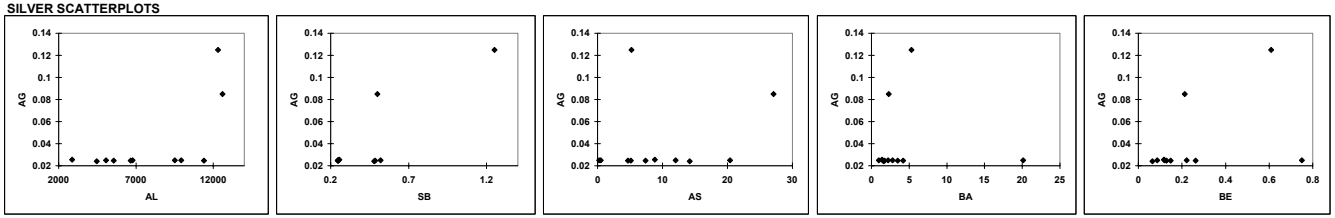
POTASSIUM SCATTERPLOTS



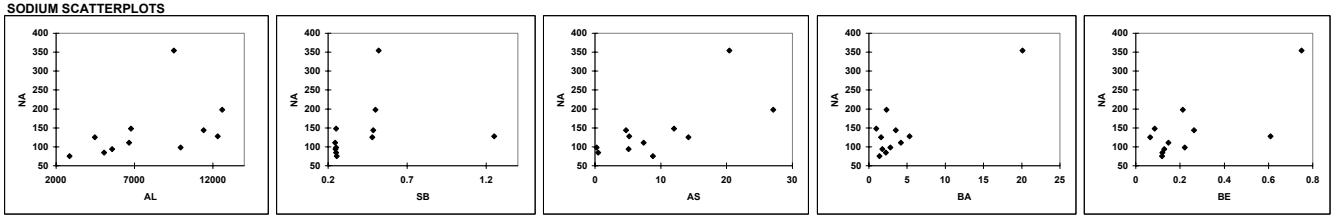
SELENIUM SCATTERPLOTS



SILVER SCATTERPLOTS

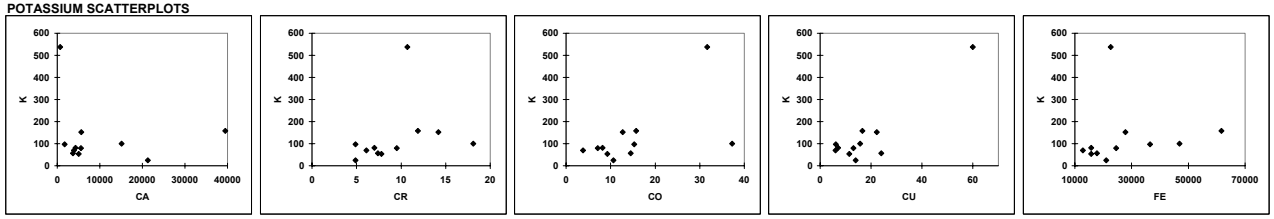


SODIUM SCATTERPLOTS



APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

POTASSIUM SCATTERPLOTS



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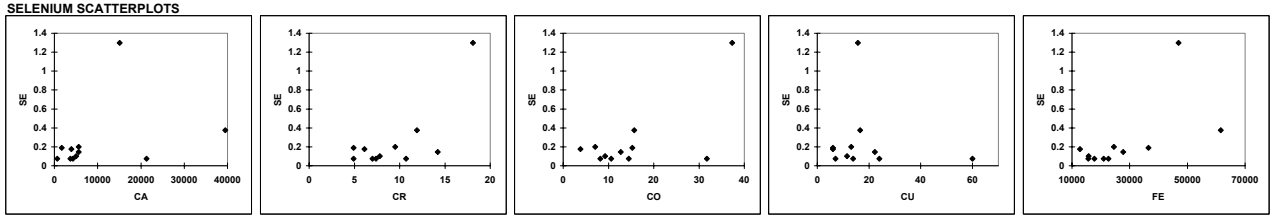
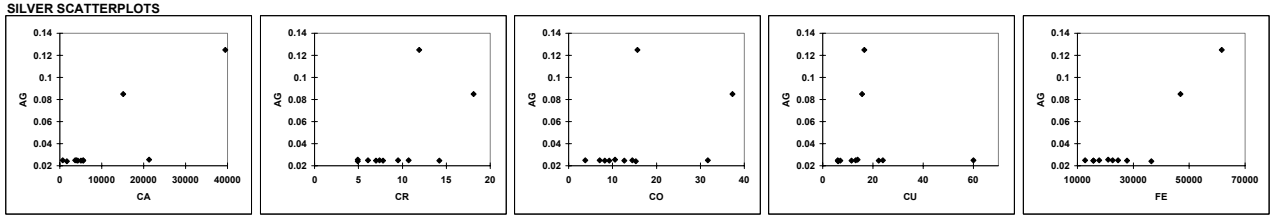
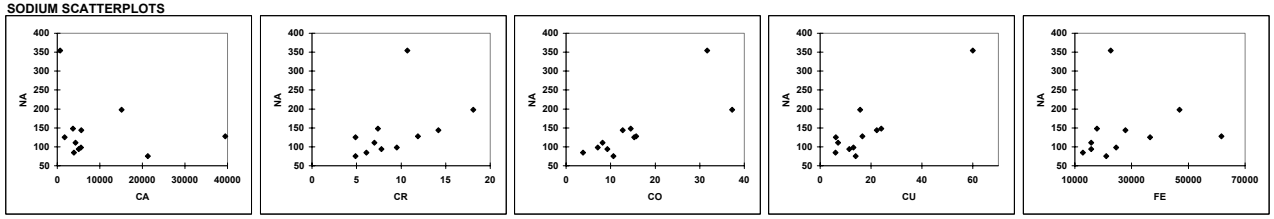


SILVER SCATTERPLOTS

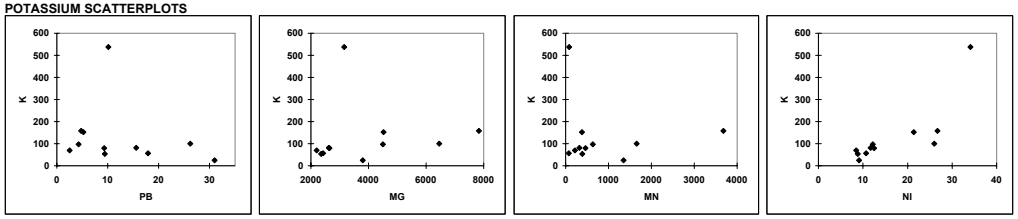


SODIUM SCATTERPLOTS

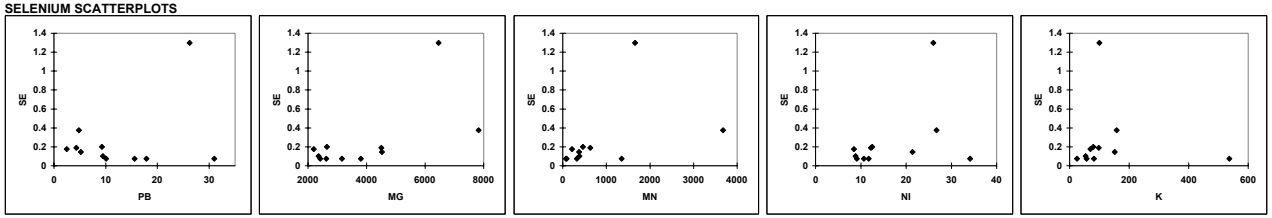


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

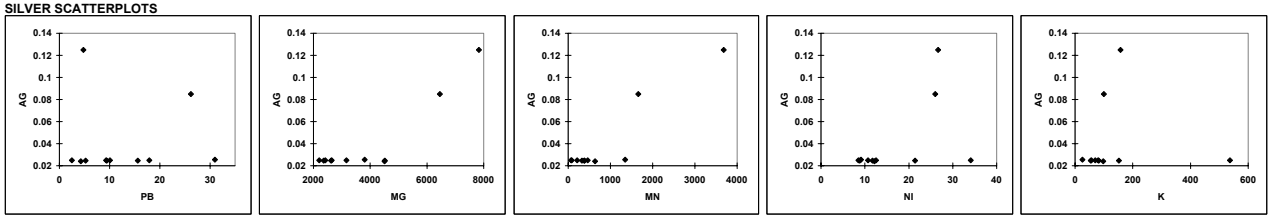
POTASSIUM SCATTERPLOTS



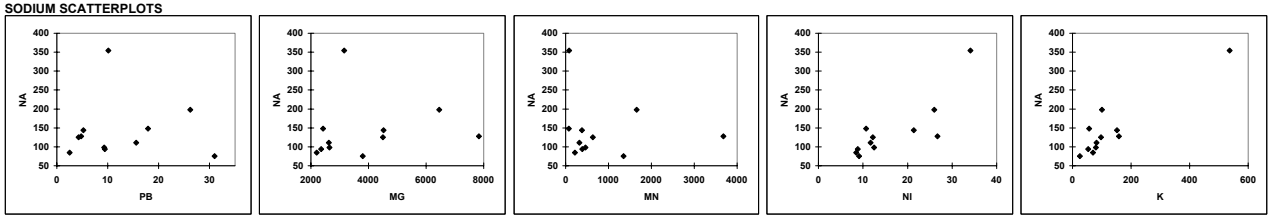
SELENIUM SCATTERPLOTS



SILVER SCATTERPLOTS

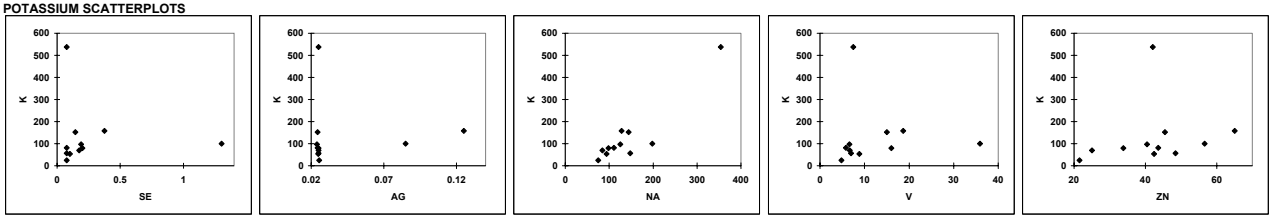


SODIUM SCATTERPLOTS

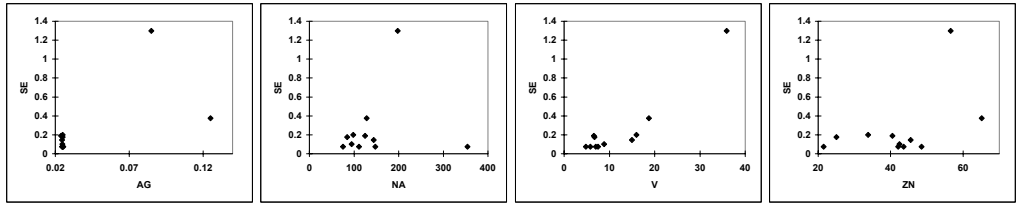


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

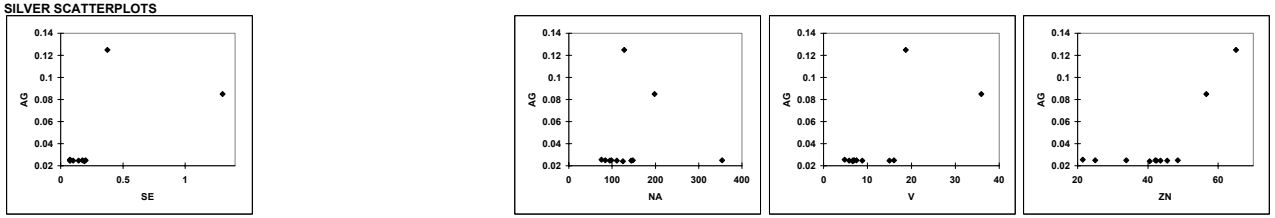
POTASSIUM SCATTERPLOTS



SELENIUM SCATTERPLOTS



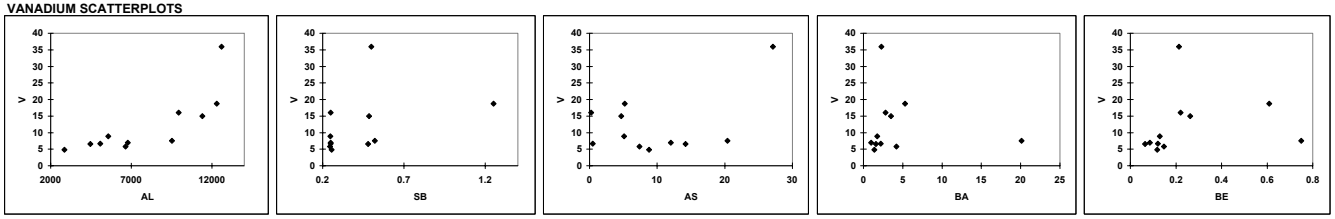
SILVER SCATTERPLOTS



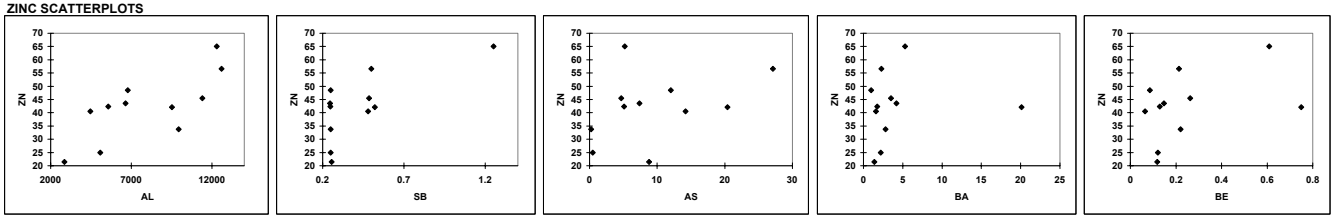
SODIUM SCATTERPLOTS

APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS

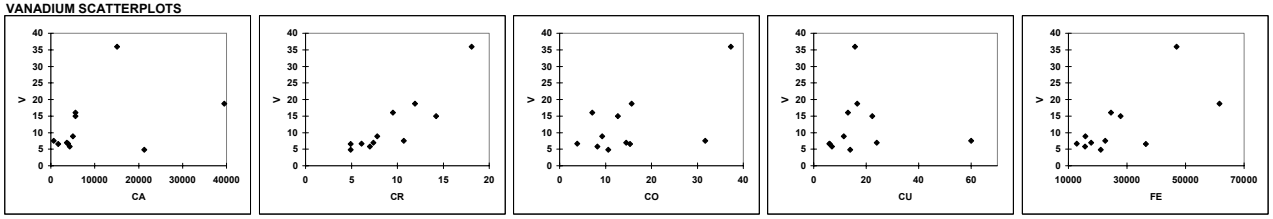


ZINC SCATTERPLOTS

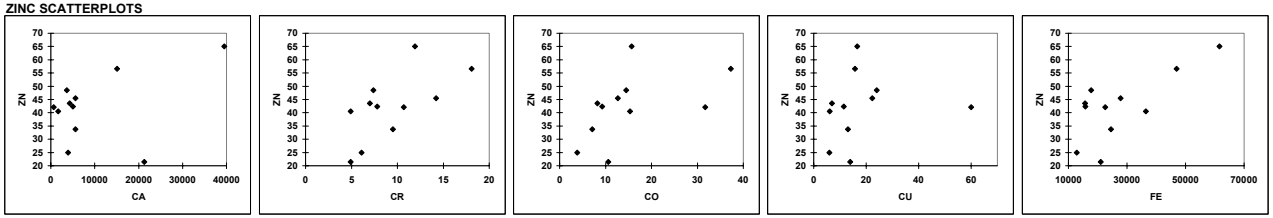


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS

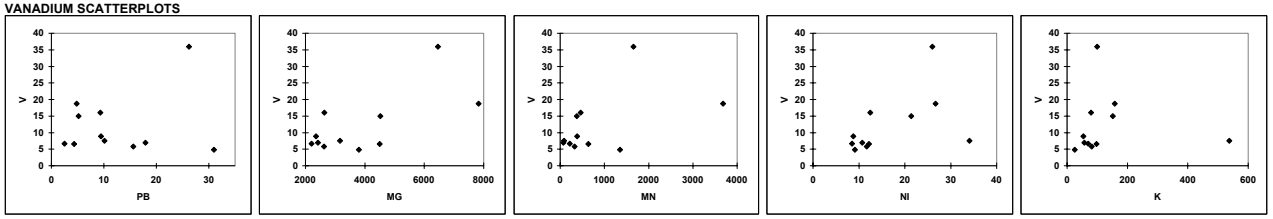


ZINC SCATTERPLOTS

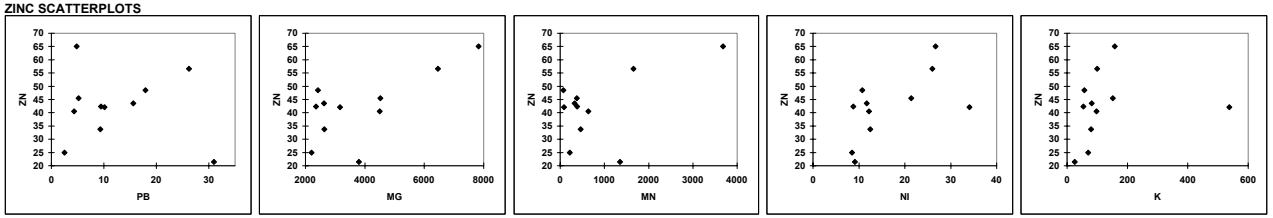


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS

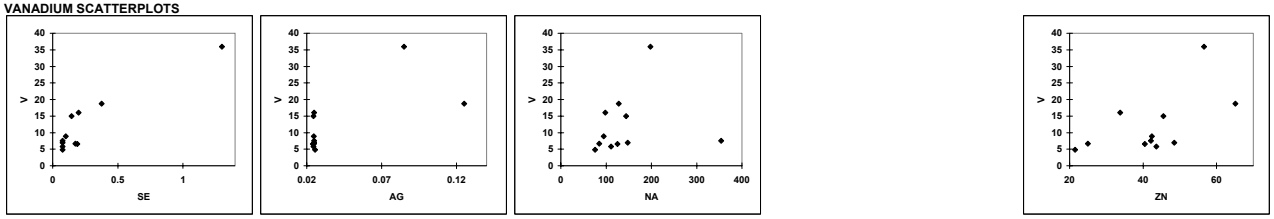


ZINC SCATTERPLOTS

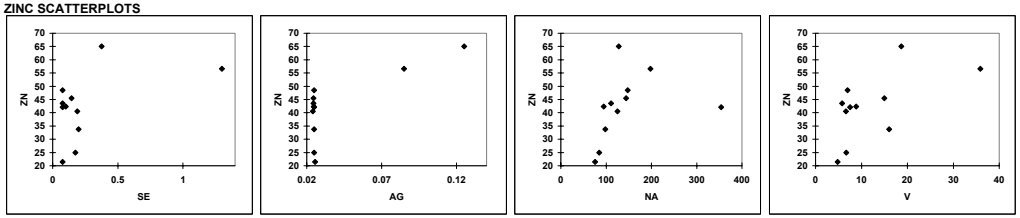


APPENDIX F, FIGURE F1-12
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PURGATORY CONGLOMERATE (PCBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, FIGURE F1-13
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

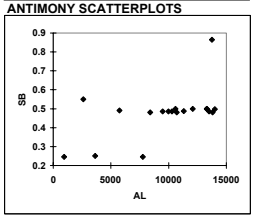
Correlation matrix (Pearson)

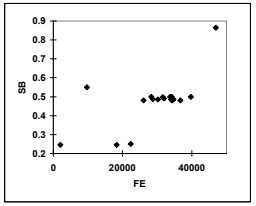
Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background
0.85 > r >= 0.75: Bold Font, Underlined

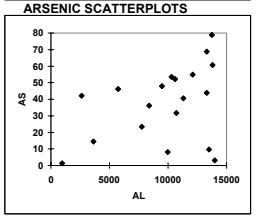
Variables	AL	SB	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	AG	NA	V	ZN
AL	1.00	0.55	0.38	0.12	0.62	0.02	**0.81**	0.47	-0.01	**0.80**	0.10	**0.76**	0.03	0.60	0.20	-0.15	0.17	**0.84**	0.44
SB	0.55	1.00	0.63	0.42	0.52	0.12	0.51	0.69	0.56	0.66	0.57	0.47	0.08	0.72	0.46	0.24	-0.05	0.29	0.31
AS	0.38	0.63	1.00	0.34	0.48	0.11	0.20	0.60	0.34	0.51	0.27	0.63	0.05	0.75	0.07	0.14	-0.57	0.22	0.32
BA	0.12	0.42	0.34	1.00	0.63	-0.08	0.37	0.25	0.62	0.34	0.45	0.13	-0.19	0.56	0.68	-0.13	-0.14	-0.21	0.32
BE	0.62	0.52	0.48	0.63	1.00	0.26	0.56	0.42	0.18	0.72	0.38	0.73	0.07	0.70	0.32	-0.20	-0.11	0.39	0.51
CA	0.02	0.12	0.11	-0.08	0.26	1.00	0.06	0.34	-0.09	0.42	-0.06	0.42	0.88	0.21	-0.20	0.51	-0.19	-0.10	0.56
CR	**0.81**	0.51	0.20	0.37	0.56	0.06	1.00	0.47	0.32	0.72	0.23	0.52	0.01	0.67	0.45	-0.15	0.29	0.54	0.57
CO	0.47	0.69	0.60	0.25	0.42	0.34	0.47	1.00	0.38	**0.77**	0.44	0.65	0.29	**0.85**	0.03	0.33	-0.28	0.17	0.61
CU	-0.01	0.56	0.34	0.62	0.18	-0.09	0.32	0.38	1.00	0.21	0.50	-0.13	-0.17	0.47	0.72	0.11	0.03	-0.30	0.32
FE	**0.80**	0.66	0.51	0.34	0.72	0.42	0.72	**0.77**	0.21	1.00	0.28	0.85	0.36	**0.82**	0.20	0.15	-0.06	0.48	**0.76**
PB	0.10	0.57	0.27	0.45	0.38	-0.06	0.23	0.44	0.50	0.28	1.00	0.13	-0.21	0.49	0.24	-0.02	-0.09	-0.10	0.21
MG	**0.76**	0.47	0.63	0.13	0.73	0.42	0.52	0.65	-0.13	0.85	0.13	1.00	0.35	0.75	-0.17	0.03	-0.32	0.58	0.60
MN	0.03	0.08	0.05	-0.19	0.07	0.88	0.01	0.29	-0.17	0.36	-0.21	0.35	1.00	0.11	-0.22	**0.79**	-0.19	-0.10	0.46
NI	0.60	0.72	0.75	0.56	0.70	0.21	0.67	**0.85**	0.47	**0.82**	0.49	0.75	0.11	1.00	0.25	0.07	-0.36	0.23	0.67
K	0.20	0.46	0.07	0.68	0.32	-0.20	0.45	0.03	0.72	0.20	0.24	-0.17	-0.22	0.25	1.00	-0.03	0.47	0.00	0.12
AG	-0.15	0.24	0.14	-0.13	-0.20	0.51	-0.15	0.33	0.11	0.15	-0.02	0.03	**0.79**	0.07	-0.03	1.00	-0.17	-0.25	0.18
NA	0.17	-0.05	-0.57	-0.14	-0.11	-0.19	0.29	-0.28	0.03	-0.06	-0.09	-0.32	-0.19	-0.36	0.47	-0.17	1.00	0.37	-0.24
V	**0.84**	0.29	0.22	-0.21	0.39	-0.10	0.54	0.17	-0.30	0.48	-0.10	0.58	-0.10	0.23	0.00	-0.25	0.37	1.00	0.01
ZN	0.44	0.31	0.32	0.32	0.51	0.56	0.57	0.61	0.32	**0.76**	0.21	0.60	0.46	0.67	0.12	0.18	-0.24	0.01	1.00

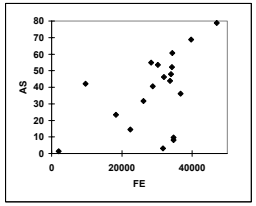
ANTIMONY SCATTERPLOTS



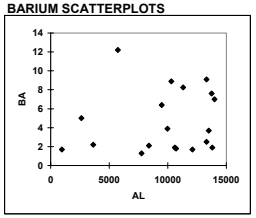


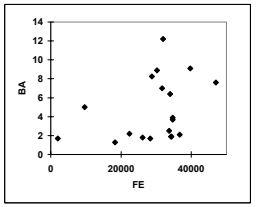
ARSENIC SCATTERPLOTS



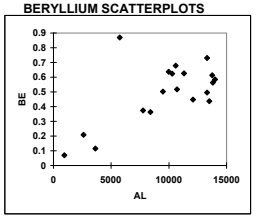


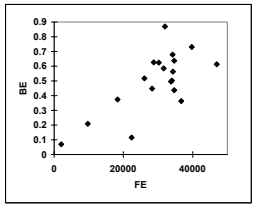
BARIUM SCATTERPLOTS





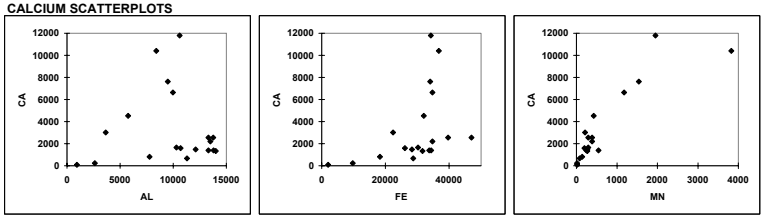
BERYLLIUM SCATTERPLOTS



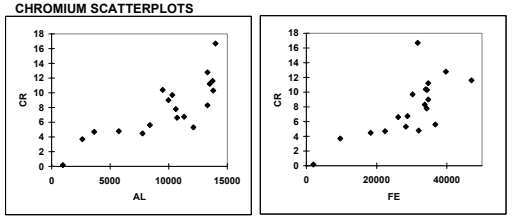


APPENDIX F, FIGURE F1-13
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

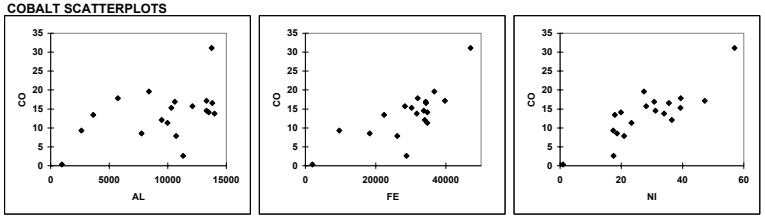
CALCIUM SCATTERPLOTS



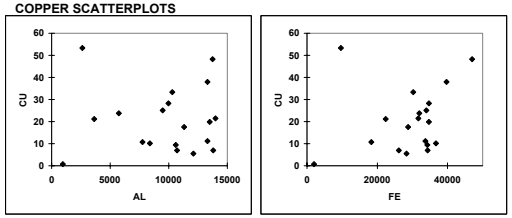
CHROMIUM SCATTERPLOTS



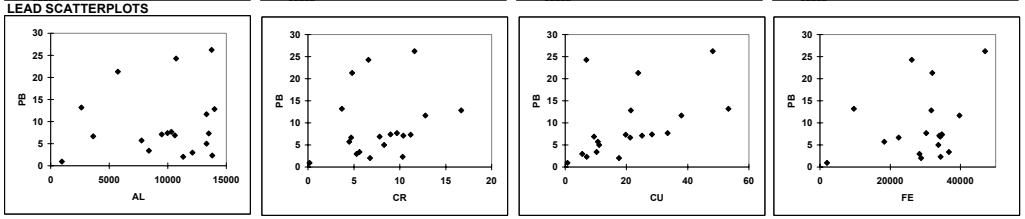
COBALT SCATTERPLOTS



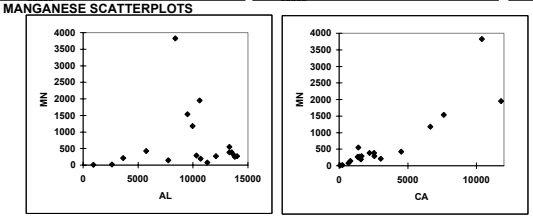
COPPER SCATTERPLOTS

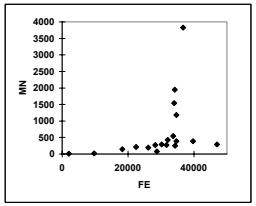


LEAD SCATTERPLOTS

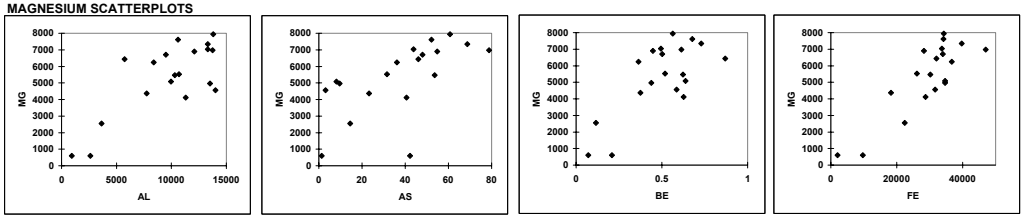


MANGANESE SCATTERPLOTS



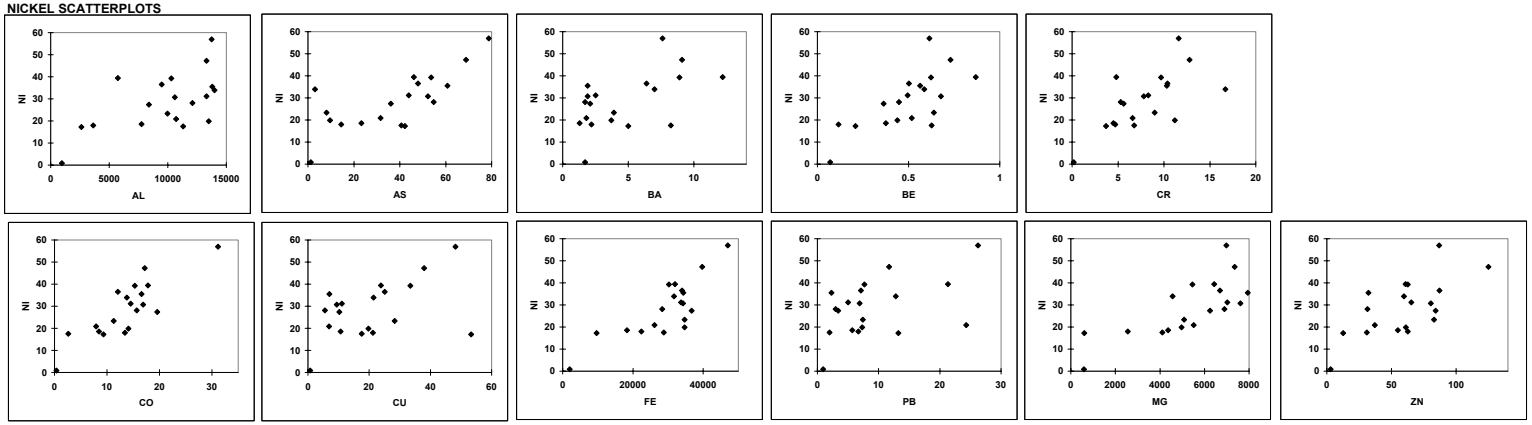


MAGNESIUM SCATTERPLOTS

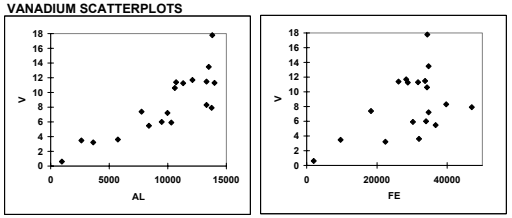


APPENDIX F, FIGURE F1-13
PEARSON CORRELATIONS AND SCATTERPLOTS FOR BEDROCK TYPE: PHYLITE (RIBR)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

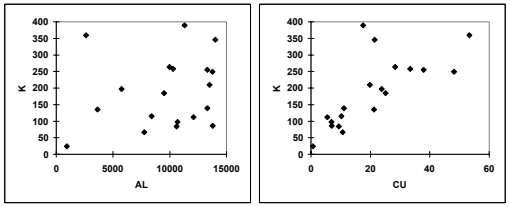
NICKEL SCATTERPLOTS



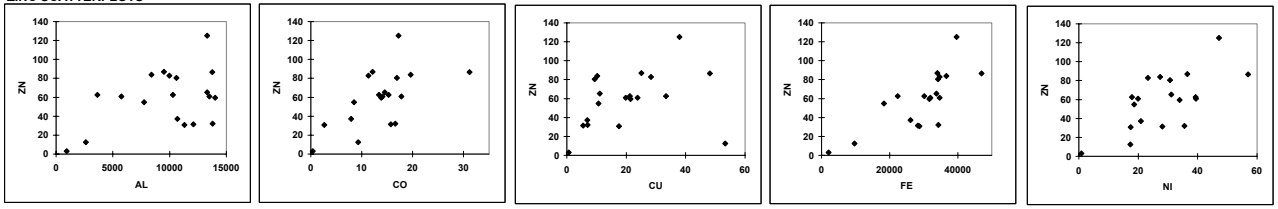
VANADIUM SCATTERPLOTS



POTASSIUM SCATTERPLOTS



ZINC SCATTERPLOTS



APPENDIX F, PART 2

PLOTS TO ILLUSTRATE BEST CORRELATION COEFFICIENTS FOR EACH METAL

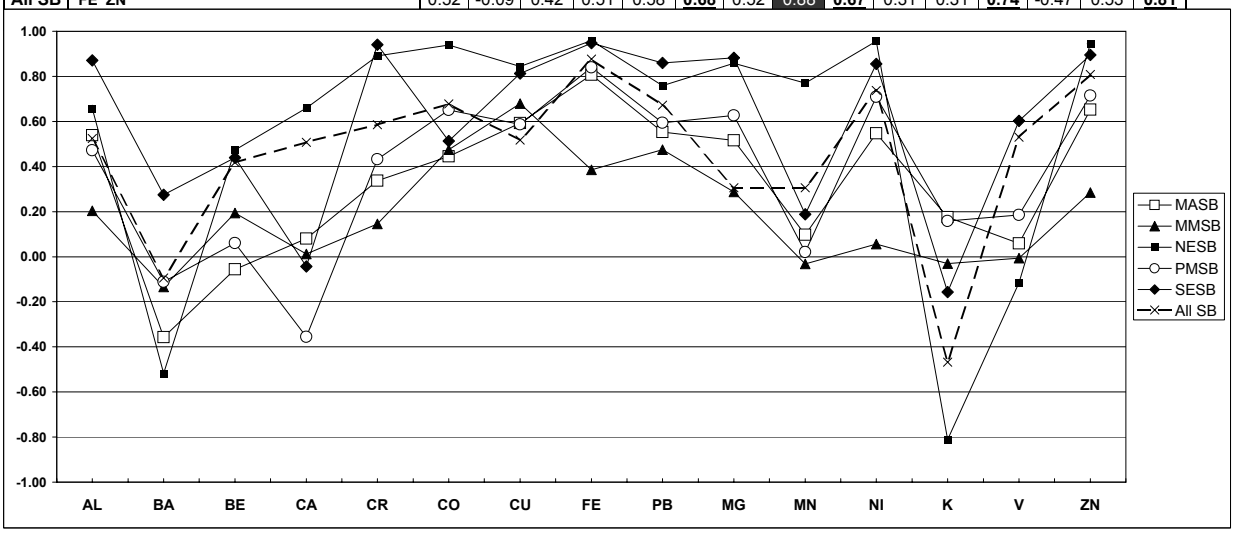
APPENDIX F, FIGURE F2-1
CORRELATIONS FOR ARSENIC BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Arsenic Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Arsenic Correlation r> 0.75	AL	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASB	FE	0.54	-0.36	-0.06	0.08	0.34	0.45	0.59	**0.81**	0.55	0.52	0.10	0.55	0.18	0.06	0.65
MMSB		0.20	-0.13	0.19	0.01	0.15	0.48	0.68	0.39	0.48	0.29	-0.03	0.06	-0.03	-0.01	0.28
NESB	CR CO CU FE PB MG MN NI ZN	0.66	-0.52	0.47	0.66	0.89	0.94	**0.84**	0.96	**0.76**	0.86	**0.77**	0.96	-0.81	-0.12	0.94
PMSB	FE	0.47	-0.11	0.06	-0.36	0.43	0.65	0.59	**0.84**	0.59	0.63	0.02	0.71	0.16	0.18	0.71
SESB	AL CR CU FE PB MG NI ZN	0.87	0.28	0.44	-0.04	0.94	0.51	**0.81**	0.95	0.86	0.88	0.19	0.85	-0.16	0.60	0.89
All SB	FE ZN	0.52	-0.09	0.42	0.51	0.58	**0.68**	0.52	0.88	**0.67**	0.31	0.31	**0.74**	-0.47	0.53	**0.81**

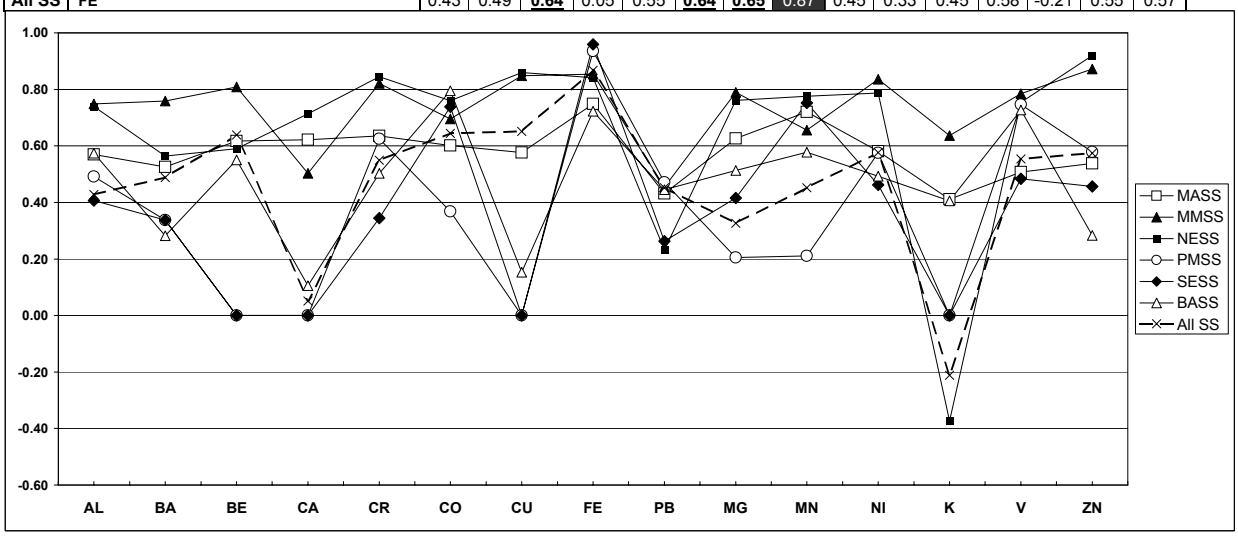


Arsenic Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Arsenic Correlation r> 0.75	AL	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASS		0.57	0.53	0.62	0.62	0.64	0.60	0.58	0.75	0.43	0.63	0.72	0.58	0.41	0.51	0.54
MMSS	BA BE CR CU FE MG NI V ZN	0.75	**0.76**	**0.81**	0.50	**0.82**	0.70	**0.85**	0.85	0.45	**0.79**	0.66	**0.84**	0.64	**0.78**	0.87
NESS	CR CO CU FE MG MN NI V ZN	0.74	0.56	0.59	0.71	**0.84**	**0.76**	0.86	**0.84**	0.23	**0.76**	**0.78**	**0.79**	-0.37	**0.75**	0.92
PMSS	FE	0.49	0.34			0.63	0.37		0.94	0.47	0.21	0.21	0.58		0.75	0.58
SESS	FE MN	0.41	0.34			0.34	0.74		0.96	0.26	0.42	**0.75**	0.46		0.48	0.46
BASS	CO	0.57	0.28	0.55	0.11	0.50	**0.80**	0.15	0.72	0.45	0.51	0.58	0.49	0.41	0.73	0.28
All SS	FE	0.43	0.49	**0.64**	0.05	0.55	**0.64**	**0.65**	0.87	0.45	0.33	0.45	0.58	-0.21	0.55	0.57



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

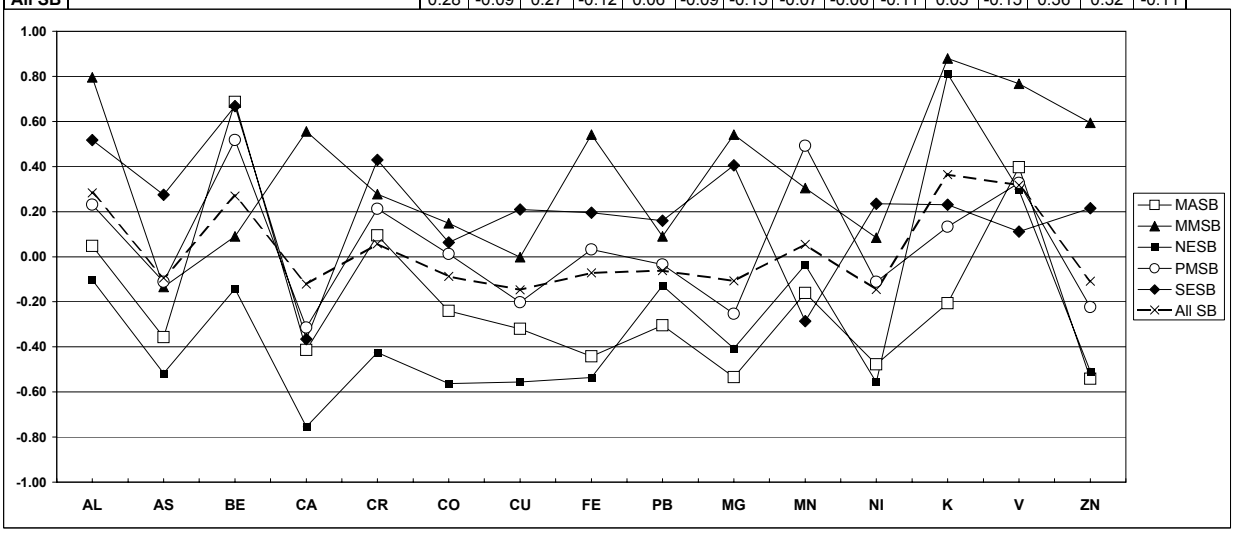
APPENDIX F, FIGURE F2-2
CORRELATIONS FOR BARIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Barium Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Barium Correlation r> 0.75	AL	AS	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASB		0.05	-0.36	0.69	-0.41	0.09	-0.24	-0.32	-0.44	-0.30	-0.53	-0.16	-0.48	-0.21	0.40	-0.54
MMSB	AL K V	**0.80**	-0.13	0.09	0.56	0.28	0.15	0.00	0.54	0.09	0.54	0.30	0.08	0.88	**0.77**	0.59
NESB	K	-0.10	-0.52	-0.14	-0.75	-0.43	-0.56	-0.56	-0.54	-0.13	-0.41	-0.04	-0.56	**0.81**	0.29	-0.51
PMSB		0.23	-0.11	0.52	-0.31	0.21	0.01	-0.20	0.03	-0.03	-0.25	0.49	-0.11	0.13	0.33	-0.22
SESB		0.52	0.28	0.67	-0.37	0.43	0.06	0.21	0.20	0.16	0.41	-0.29	0.23	0.23	0.11	0.22
All SB		0.28	-0.09	0.27	-0.12	0.06	-0.09	-0.15	-0.07	-0.06	-0.11	0.05	-0.15	0.36	0.32	-0.11

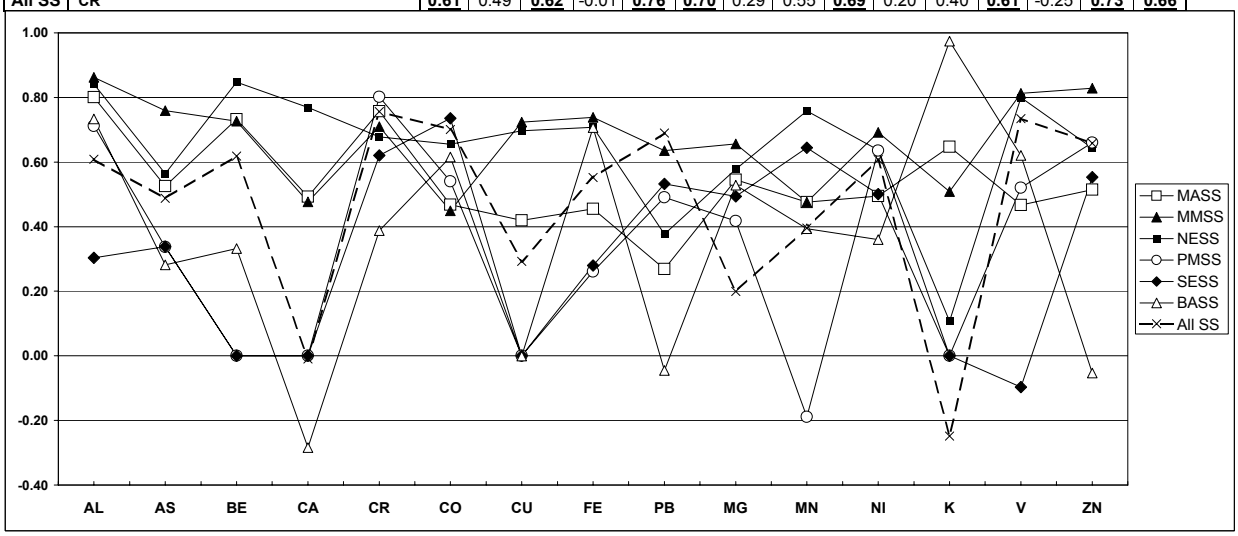


Barium Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Barium Correlation r> 0.75	AL	AS	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASS	AL CR	**0.80**	0.53	0.73	0.49	**0.76**	0.47	0.42	0.46	0.27	0.54	0.48	0.49	0.65	0.47	0.51
MMSS	AL AS V ZN	0.86	**0.76**	0.73	0.48	0.71	0.45	0.72	0.74	0.64	0.66	0.48	0.69	0.51	**0.81**	**0.83**
NESS	AL BE CA MN V	**0.84**	0.56	**0.85**	**0.77**	0.68	0.65	0.70	0.71	0.38	0.58	**0.76**	0.64	0.11	**0.80**	0.64
PMSS	CR	0.71	0.34			**0.80**	0.54		0.26	0.49	0.42	-0.19	0.64		0.52	0.66
SESS		0.30	0.34			0.62	0.74		0.28	0.53	0.49	0.64	0.50		-0.10	0.55
BASS	K	0.73	0.28	0.33	-0.28	0.39	0.62	0.00	0.71	-0.04	0.53	0.39	0.36	0.97	0.62	-0.05
All SS	CR	**0.61**	0.49	**0.62**	-0.01	**0.76**	**0.70**	0.29	0.55	**0.69**	0.20	0.40	**0.61**	-0.25	**0.73**	**0.66**



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

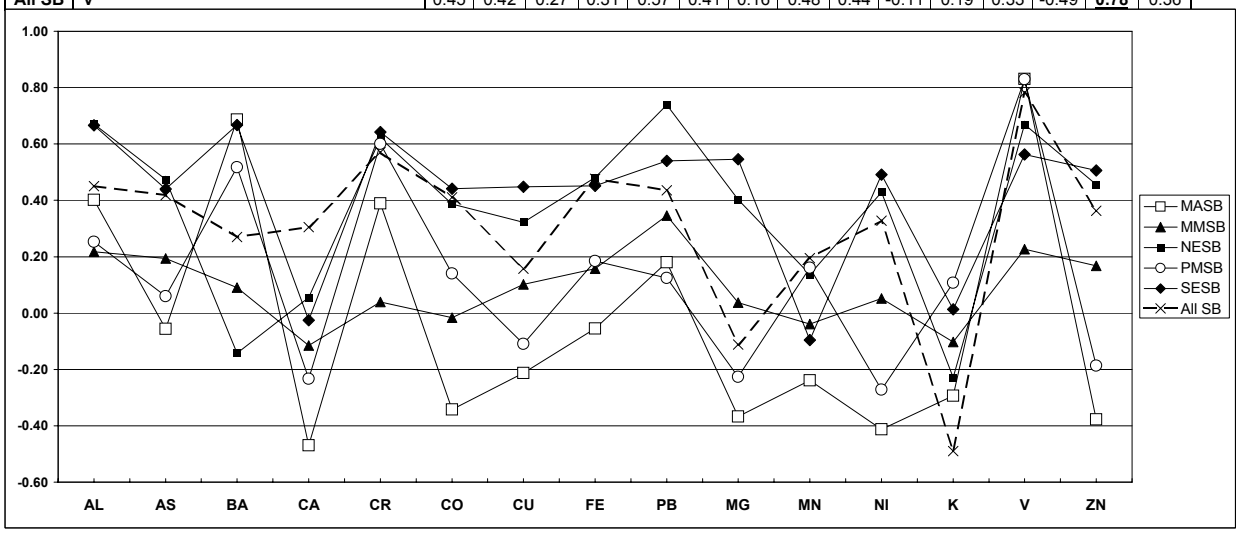
APPENDIX F, FIGURE F2-3
CORRELATIONS FOR BERYLLIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Beryllium Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Beryllium Correlation r >= 0.75	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASB	V	0.40	-0.06	0.69	-0.47	0.39	-0.34	-0.21	-0.06	0.18	-0.37	-0.24	-0.41	-0.29	**0.83**	-0.38
MMSB		0.22	0.19	0.09	-0.11	0.04	-0.02	0.10	0.16	0.35	0.04	-0.04	0.05	-0.10	0.23	0.17
NESB		0.67	0.47	-0.14	0.06	0.62	0.39	0.32	0.48	0.74	0.40	0.14	0.43	-0.23	0.67	0.46
PMSB	V	0.25	0.06	0.52	-0.23	0.60	0.14	-0.11	0.18	0.12	-0.23	0.16	-0.27	0.11	**0.83**	-0.19
SESB		0.67	0.44	0.67	-0.03	0.64	0.44	0.45	0.45	0.54	0.55	-0.10	0.49	0.01	0.56	0.51
All SB	V	0.45	0.42	0.27	0.31	0.57	0.41	0.16	0.48	0.44	-0.11	0.19	0.33	-0.49	**0.78**	0.36

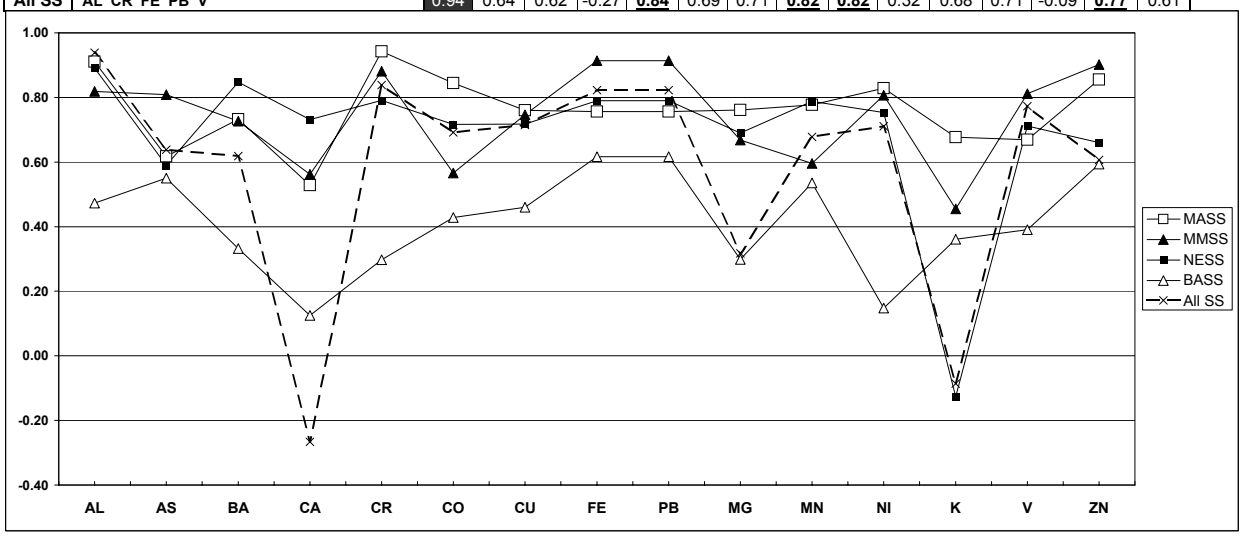


Beryllium Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Beryllium Correlation r >= 0.75	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASS	AL CR CO CU FE PB MG MN NI ZN	0.91	0.62	0.73	0.53	0.94	**0.84**	**0.76**	**0.76**	**0.76**	**0.76**	**0.78**	**0.83**	0.68	0.67	0.86
MMSS	AL AS CR FE PB NI V ZN	**0.82**	**0.81**	0.73	0.56	0.88	0.57	0.75	0.91	0.91	0.67	0.60	**0.81**	0.45	**0.81**	0.90
NESS	AL BA CR FE PB MN NI	0.89	0.59	**0.85**	0.73	**0.79**	0.72	0.72	**0.79**	**0.79**	0.69	**0.79**	**0.75**	-0.13	0.71	0.66
PMSS																
SESS																
BASS		0.47	0.55	0.33	0.13	0.30	0.43	0.46	0.62	0.62	0.30	0.54	0.15	0.36	0.39	0.59
All SS	AL CR FE PB V	0.94	0.64	0.62	-0.27	**0.84**	0.69	0.71	**0.82**	**0.82**	0.32	0.68	0.71	-0.09	**0.77**	0.61



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

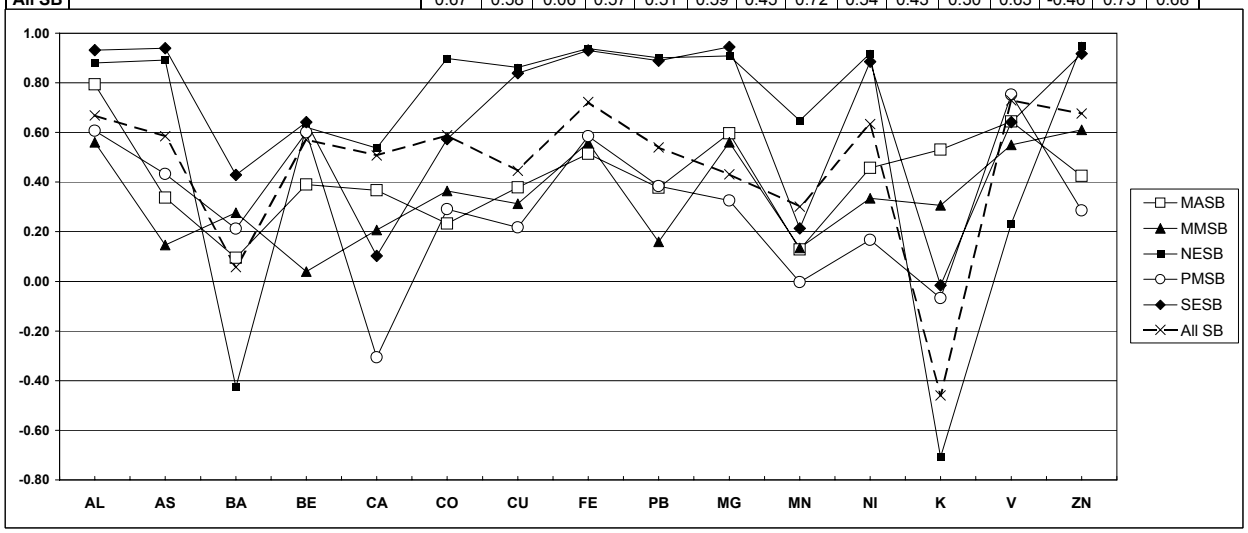
APPENDIX F, FIGURE F2-4
CORRELATIONS FOR CHROMIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Chromium Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Chromium Correl. r >= 0.75	AL	AS	BA	BE	CA	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASB	AL	**0.79**	0.34	0.09	0.39	0.37	0.23	0.38	0.51	0.38	0.60	0.13	0.46	0.53	0.64	0.42
MMSB		0.56	0.15	0.28	0.04	0.21	0.36	0.31	0.56	0.16	0.56	0.13	0.33	0.31	0.55	0.61
NESB	AL AS CO CU FE PB MG NI ZN	0.88	0.89	-0.43	0.62	0.54	0.90	0.86	0.94	0.90	0.91	0.65	0.92	-0.71	0.23	0.95
PMSB	V	0.61	0.43	0.21	0.60	-0.31	0.29	0.22	0.58	0.38	0.33	0.00	0.17	-0.07	**0.75**	0.29
SESB	AL AS CU FE PB MG NI ZN	0.93	0.94	0.43	0.64	0.10	0.57	**0.84**	0.93	0.89	0.95	0.21	0.88	-0.02	0.64	0.92
All SB		0.67	0.58	0.06	0.57	0.51	0.59	0.45	0.72	0.54	0.43	0.30	0.63	-0.46	0.73	0.68

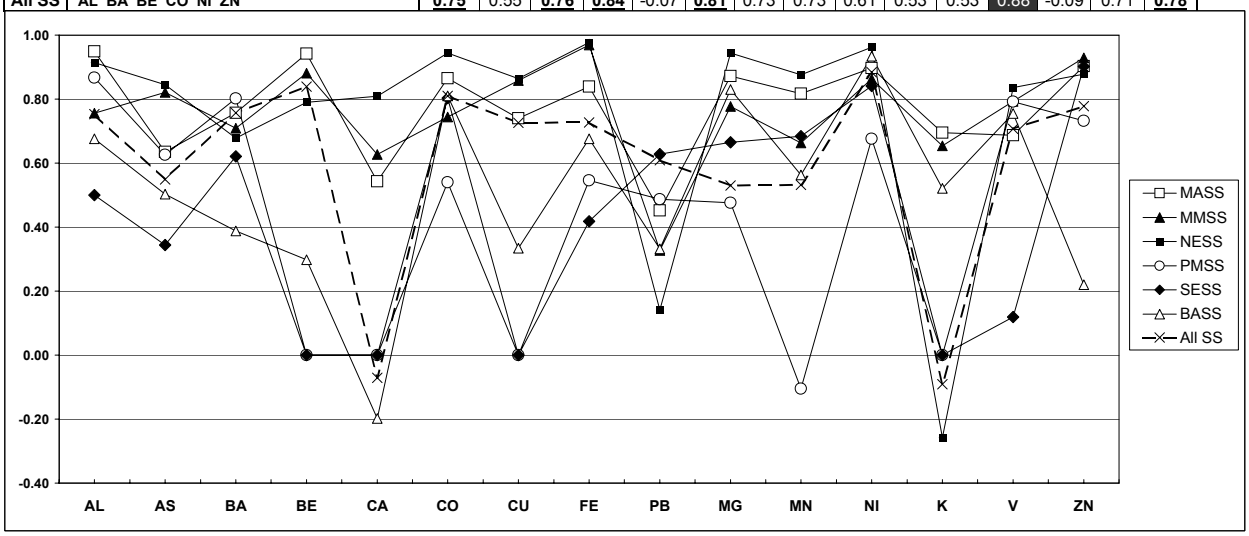


Chromium Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Chromium Correl. r >= 0.75	AL	AS	BA	BE	CA	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MASS	AL BA BE CO FE MG MN NI ZN	0.95	0.64	**0.76**	0.94	0.54	0.87	0.74	**0.84**	0.45	0.87	**0.82**	0.90	0.69	0.69	0.90
MMSS	AL AS BE CU FE MG NI V ZN	**0.76**	**0.82**	0.71	0.88	0.63	0.74	0.86	0.97	0.33	**0.78**	0.66	0.86	0.65	**0.79**	0.93
NESS	AL AS BE CA CO CU FE MG MN NI V ZN	0.91	**0.84**	0.68	**0.79**	**0.81**	0.94	0.86	0.98	0.14	0.94	0.88	0.96	-0.26	**0.84**	0.88
PMSS	AL BA V	0.87	0.63	**0.80**			0.54		0.55	0.49	0.48	-0.11	0.68		**0.79**	0.73
SESS	CO NI ZN	0.50	0.34	0.62			**0.80**		0.42	0.63	0.67	0.68	**0.84**		0.12	0.90
BASS	CO MG NI V	0.68	0.50	0.39	0.30	-0.20	**0.81**	0.33	0.68	0.33	**0.83**	0.56	0.93	0.52	**0.75**	0.22
All SS	AL BA BE CO NI ZN	**0.75**	0.55	**0.76**	**0.84**	-0.07	**0.81**	0.73	0.73	0.61	0.53	0.53	0.88	-0.09	0.71	**0.78**



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

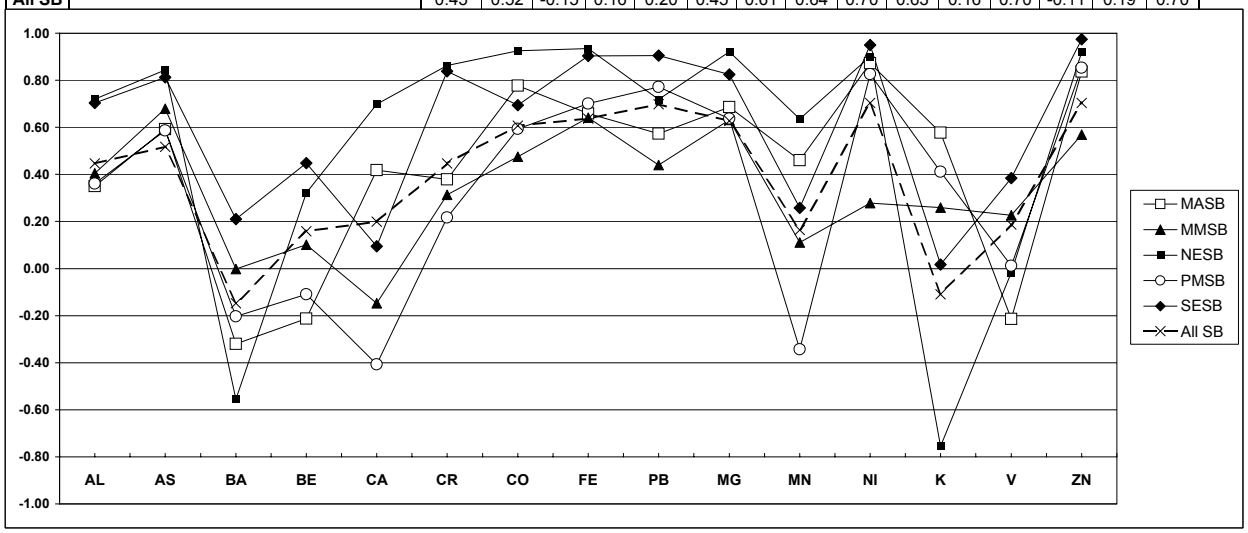
APPENDIX F, FIGURE F2-5
CORRELATIONS FOR COPPER BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Copper Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Copper Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	FE	PB	MG	MN	NI	K	V	ZN
MASB	CO NI ZN	0.35	0.59	-0.32	-0.21	0.42	0.38	**0.78**	0.66	0.57	0.69	0.46	0.87	0.58	-0.21	**0.84**
MMSB		0.40	0.68	0.00	0.10	-0.15	0.31	0.48	0.64	0.44	0.63	0.11	0.28	0.26	0.23	0.57
NESB	AS CR CO FE MG NI ZN	0.72	**0.84**	-0.56	0.32	0.70	0.86	0.93	0.93	0.72	0.92	0.64	0.90	-0.76	-0.02	0.92
PMSB	PB NI ZN	0.36	0.59	-0.20	-0.11	-0.41	0.22	0.59	0.70	**0.77**	0.64	-0.34	**0.83**	0.41	0.01	0.85
SESB	AS CR FE PB MG NI ZN	0.70	**0.81**	0.21	0.45	0.09	**0.84**	0.69	0.90	0.90	**0.82**	0.26	0.95	0.02	0.38	0.97
All SB		0.45	0.52	-0.15	0.16	0.20	0.45	0.61	0.64	0.70	0.63	0.16	0.70	-0.11	0.19	0.70

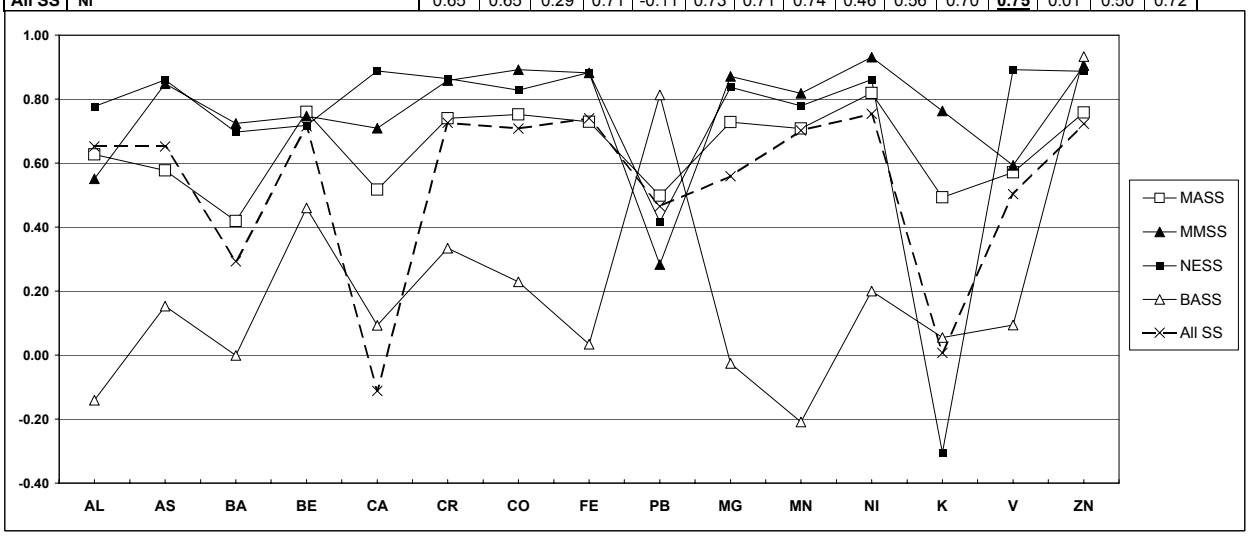


Copper Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Copper Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	FE	PB	MG	MN	NI	K	V	ZN
MASS	BE CO NI ZN	0.63	0.58	0.42	**0.76**	0.52	0.74	**0.75**	0.73	0.50	0.73	0.71	**0.82**	0.49	0.57	**0.76**
MMSS	AS CR CO FE MG MN NI K ZN	0.55	**0.85**	0.72	0.75	0.71	0.86	0.89	0.88	0.28	0.87	**0.82**	0.93	**0.76**	0.59	0.91
NESS	AL AS CA CR CO FE MG MN NI V ZN	**0.78**	0.86	0.70	0.72	0.89	0.86	**0.83**	0.88	0.42	**0.84**	**0.78**	0.86	-0.30	0.89	0.89
PMSS																
SESS																
BASS	PB ZN	-0.14	0.15	0.00	0.46	0.09	0.33	0.23	0.03	**0.81**	-0.03	-0.21	0.20	0.05	0.09	0.93
All SS	NI	0.65	0.65	0.29	0.71	-0.11	0.73	0.71	0.74	0.46	0.56	0.70	**0.75**	0.01	0.50	0.72



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

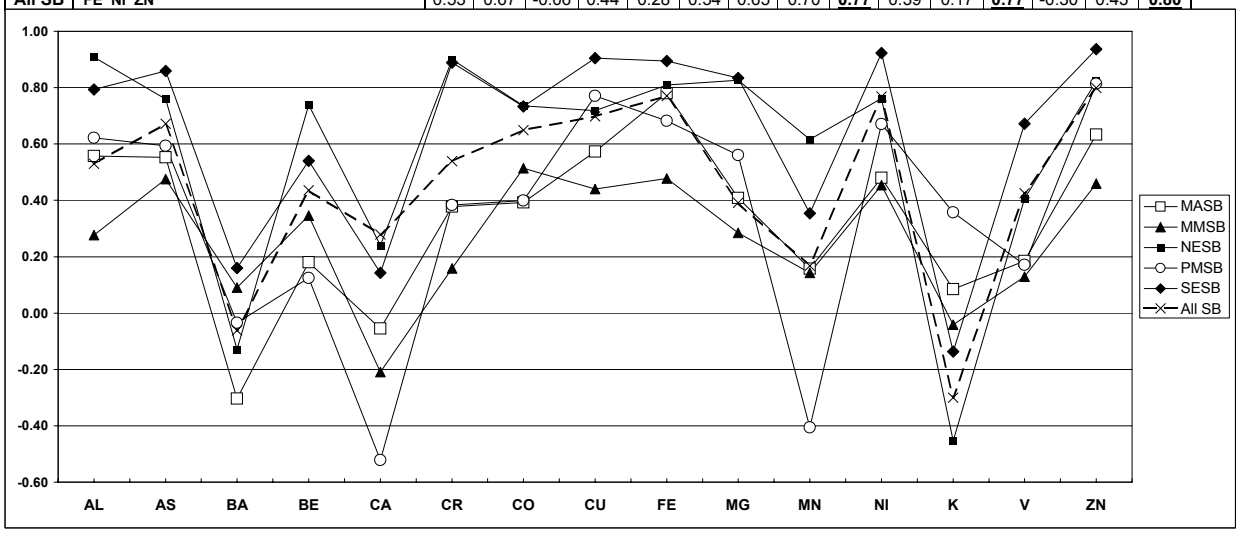
APPENDIX F, FIGURE F2-6
CORRELATIONS FOR LEAD BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Lead Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Lead Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	MG	MN	NI	K	V	ZN
MASB	FE	0.56	0.55	-0.30	0.18	-0.05	0.38	0.39	0.57	**0.78**	0.41	0.16	0.48	0.08	0.18	0.63
MMSB		0.28	0.48	0.09	0.35	-0.21	0.16	0.51	0.44	0.48	0.28	0.14	0.45	-0.04	0.13	0.46
NESB	AL AS CR FE MG NI ZN	0.91	**0.76**	-0.13	0.74	0.24	0.90	0.74	0.72	**0.81**	**0.83**	0.62	**0.76**	-0.45	0.41	**0.82**
PMSB	CU ZN	0.62	0.59	-0.03	0.12	-0.52	0.38	0.40	**0.77**	0.68	0.56	-0.41	0.67	0.36	0.17	**0.81**
SESB	AL AS CR CU FE MG NI ZN	**0.79**	0.86	0.16	0.54	0.14	0.89	0.73	0.90	0.89	**0.83**	0.35	0.92	-0.14	0.67	0.94
All SB	FE NI ZN	0.53	0.67	-0.06	0.44	0.28	0.54	0.65	0.70	**0.77**	0.39	0.17	**0.77**	-0.30	0.43	**0.80**

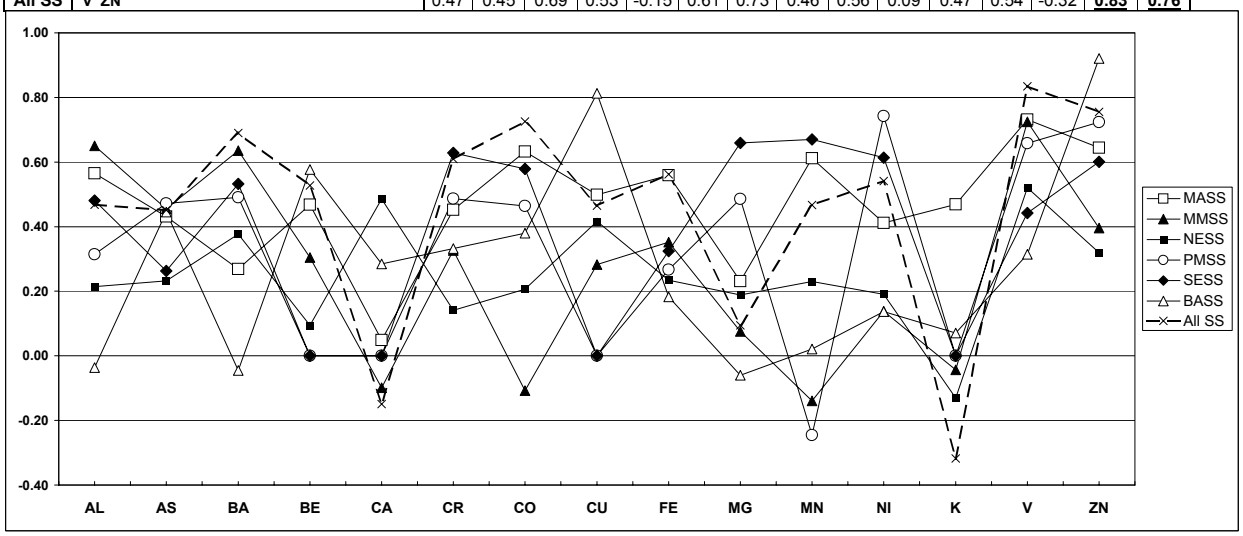


Lead Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Lead Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	MG	MN	NI	K	V	ZN
MASS		0.57	0.43	0.27	0.47	0.05	0.45	0.63	0.50	0.56	0.23	0.61	0.41	0.47	0.73	0.64
MMSS		0.65	0.45	0.64	0.30	-0.10	0.33	-0.11	0.28	0.35	0.08	-0.14	0.14	-0.04	0.72	0.40
NESS		0.21	0.23	0.38	0.09	0.49	0.14	0.21	0.42	0.23	0.19	0.23	0.19	-0.13	0.52	0.32
PMSS		0.31	0.47	0.49			0.49	0.46		0.27	0.49	-0.25	0.74		0.66	0.72
SESS		0.48	0.26	0.53			0.63	0.58		0.32	0.66	0.67	0.61		0.44	0.60
BASS	CU ZN	-0.04	0.45	-0.04	0.58	0.28	0.33	0.38	**0.81**	0.18	-0.06	0.02	0.14	0.07	0.31	0.92
All SS	V ZN	0.47	0.45	0.69	0.53	-0.15	0.61	0.73	0.46	0.56	0.09	0.47	0.54	-0.32	**0.83**	**0.76**



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

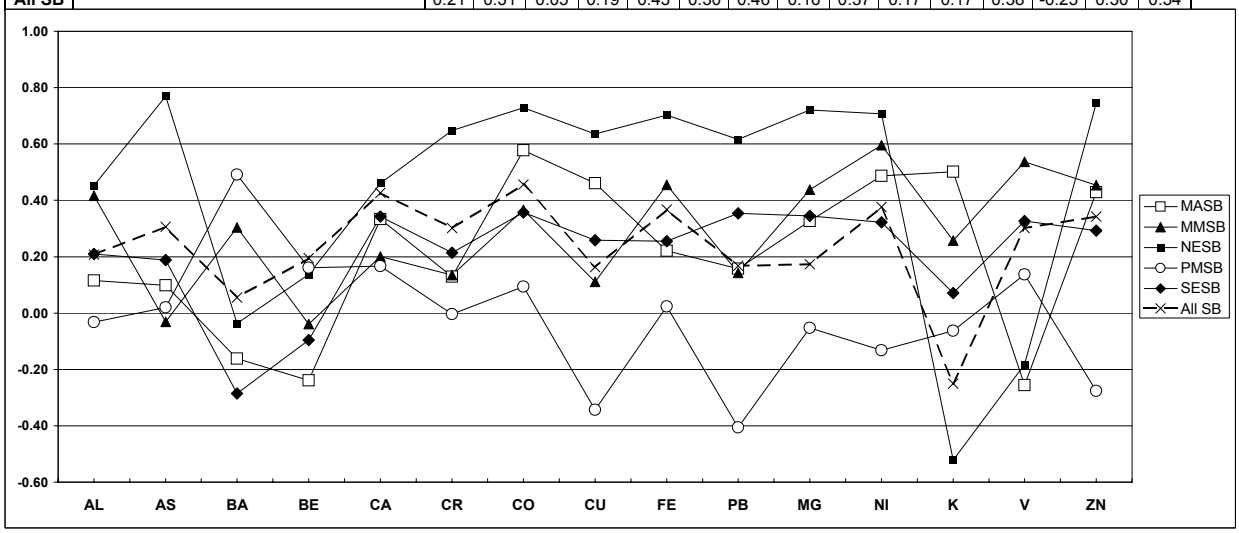
APPENDIX F, FIGURE F2-7
CORRELATIONS FOR MANGANESE BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Manganese Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Manganese Correl. r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	NI	K	V	ZN
MASB		0.12	0.10	-0.16	-0.24	0.33	0.13	0.58	0.46	0.22	0.16	0.33	0.49	0.50	-0.26	0.43
MMSB		0.42	-0.03	0.30	-0.04	0.20	0.13	0.37	0.11	0.45	0.14	0.44	0.60	0.26	0.54	0.45
NESB	AS	0.45	**0.77**	-0.04	0.14	0.46	0.65	0.73	0.64	0.70	0.62	0.72	0.71	-0.52	-0.18	0.74
PMSB		-0.03	0.02	0.49	0.16	0.17	0.00	0.09	-0.34	0.02	-0.41	-0.05	-0.13	-0.06	0.14	-0.28
SESB		0.21	0.19	-0.29	-0.10	0.34	0.21	0.36	0.26	0.26	0.35	0.34	0.32	0.07	0.33	0.29
All SB		0.21	0.31	0.05	0.19	0.43	0.30	0.46	0.16	0.37	0.17	0.17	0.38	-0.25	0.30	0.34

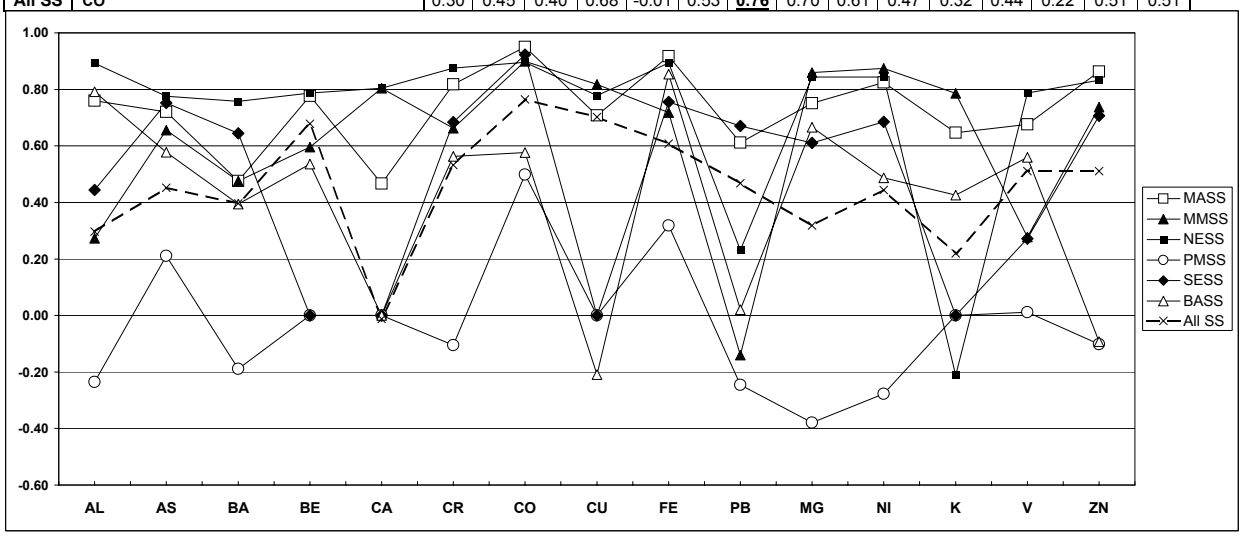


Manganese Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Manganese Correl. r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	NI	K	V	ZN
MASS	AL BE CR CO FE MG NI ZN	**0.76**	0.72	0.48	**0.78**	0.47	**0.82**	0.95	0.71	0.92	0.61	**0.75**	**0.82**	0.65	0.68	0.86
MMSS	CA CO CU MG NI K	0.27	0.66	0.48	0.60	**0.80**	0.66	0.90	**0.82**	0.72	-0.14	0.86	0.87	**0.79**	0.28	0.74
NESS	AL AS BA BE CA CR CO CU FE MG NI V	0.89	**0.78**	**0.76**	**0.79**	**0.80**	0.88	0.90	**0.78**	0.89	0.23	**0.84**	**0.84**	-0.21	**0.79**	**0.83**
PMSS		-0.24	0.21	-0.19			-0.11	0.50		0.32	-0.25	-0.38	-0.28		0.01	-0.10
SESS	AS CO FE	0.44	**0.75**	0.64			0.68	0.92		**0.76**	0.67	0.61	0.69		0.27	0.71
BASS	AL FE	**0.79**	0.58	0.39	0.54	0.00	0.56	0.58	-0.21	0.85	0.02	0.67	0.49	0.43	0.56	-0.09
All SS	CO	0.30	0.45	0.40	0.68	-0.01	0.53	**0.76**	0.70	0.61	0.47	0.32	0.44	0.22	0.51	0.51



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

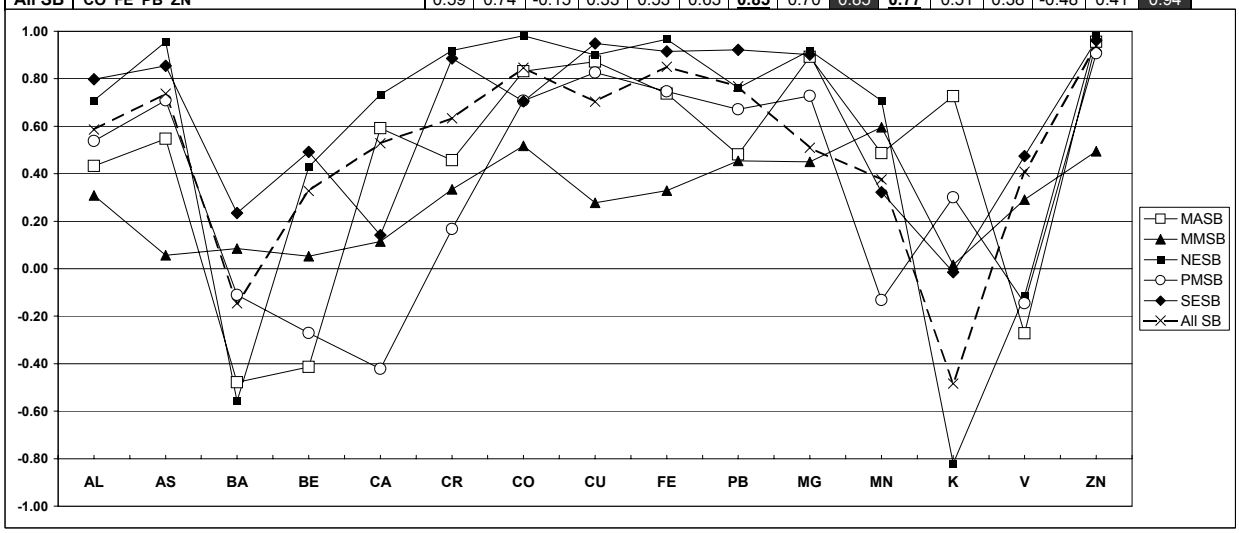
APPENDIX F, FIGURE F2-8
CORRELATIONS FOR NICKEL BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Nickel Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Nickel Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	K	V	ZN
MASB	CO CU MG ZN	0.43	0.55	-0.48	-0.41	0.59	0.46	**0.83**	0.87	0.74	0.48	0.89	0.49	0.73	-0.27	0.95
MMSB		0.31	0.06	0.08	0.05	0.11	0.33	0.52	0.28	0.33	0.45	0.45	0.60	0.02	0.29	0.49
NESB	AS CR CO CU FE PB MG ZN	0.71	0.96	-0.56	0.43	0.73	0.92	0.98	0.90	0.97	**0.76**	0.92	0.71	-0.82	-0.11	0.98
PMSB	CU ZN	0.54	0.71	-0.11	-0.27	-0.42	0.17	0.71	**0.83**	0.75	0.67	0.73	-0.13	0.30	-0.14	0.91
SESB	AL AS CR CU FE PB MG ZN	**0.80**	0.85	0.23	0.49	0.14	0.88	0.71	0.95	0.91	0.92	0.90	0.32	-0.02	0.47	0.96
All SB	CO FE PB ZN	0.59	0.74	-0.15	0.33	0.53	0.63	**0.85**	0.70	0.85	**0.77**	0.51	0.38	-0.48	0.41	0.94

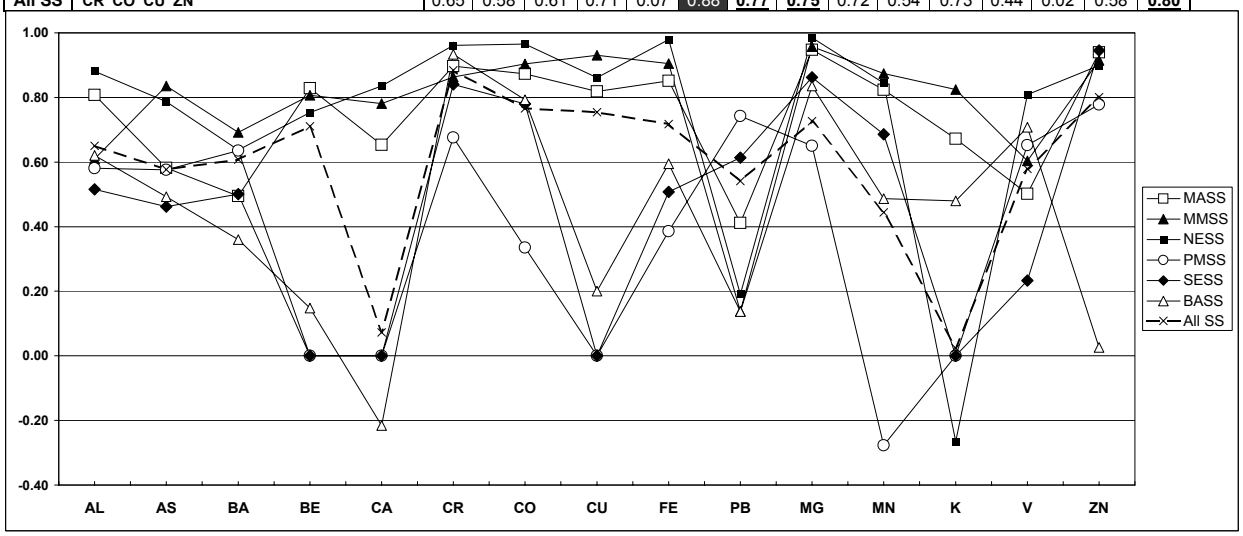


Nickel Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Nickel Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	K	V	ZN
MASS	AL BE CR CO CU FE MG MN ZN	**0.81**	0.58	0.49	**0.83**	0.65	0.90	0.87	**0.82**	0.85	0.41	0.95	**0.82**	0.67	0.50	0.94
MMSS	AS BE CA CR CO CU FE MG MN K ZN	0.61	**0.84**	0.69	**0.81**	**0.78**	0.86	0.90	0.93	0.90	0.14	0.96	0.87	**0.82**	0.60	0.91
NESS	AL AS BE CA CR CO CU FE MG MN V ZN	0.88	**0.79**	0.64	**0.75**	**0.84**	0.96	0.97	0.86	0.98	0.19	0.98	**0.84**	-0.27	**0.81**	0.90
PMSS	ZN	0.58	0.58	0.64			0.68	0.33		0.39	0.74	0.65	-0.28		0.65	**0.78**
SESS	CR CO MG ZN	0.52	0.46	0.50			**0.84**	**0.78**		0.51	0.61	0.86	0.69		0.23	0.95
BASS	CR CO MG	0.62	0.49	0.36	0.15	-0.22	0.93	**0.79**	0.20	0.59	0.14	**0.84**	0.49	0.48	0.71	0.03
All SS	CR CO CU ZN	0.65	0.58	0.61	0.71	0.07	0.88	**0.77**	**0.75**	0.72	0.54	0.73	0.44	0.02	0.58	**0.80**



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

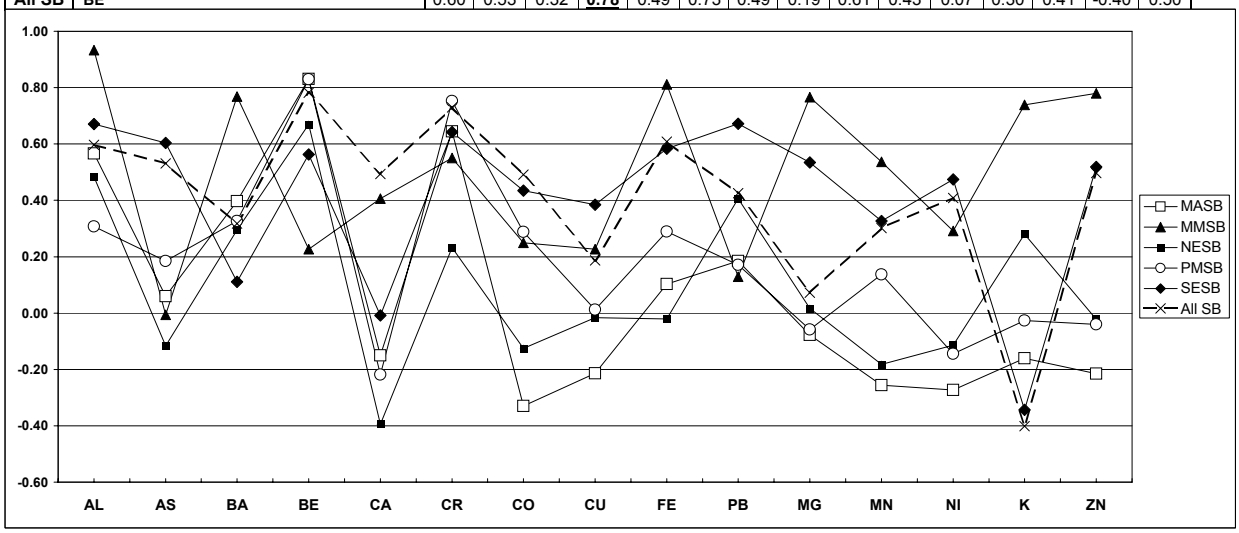
APPENDIX F, FIGURE F2-9
CORRELATIONS FOR VANADIUM BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Vanadium Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Vanadium Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	ZN
MASB	BE	0.57	0.06	0.40	**0.83**	-0.15	0.64	-0.33	-0.21	0.10	0.18	-0.08	-0.26	-0.27	-0.16	-0.22
MMSB	AL BA FE MG ZN	0.93	-0.01	**0.77**	0.23	0.41	0.55	0.25	0.23	**0.81**	0.13	**0.77**	0.54	0.29	0.74	**0.78**
NESB		0.48	-0.12	0.29	0.67	-0.39	0.23	-0.13	-0.02	-0.02	0.41	0.02	-0.18	-0.11	0.28	-0.02
PMSB	BE CR	0.31	0.18	0.33	**0.83**	-0.22	**0.75**	0.29	0.01	0.29	0.17	-0.06	0.14	-0.14	-0.03	-0.04
SESB		0.67	0.60	0.11	0.56	-0.01	0.64	0.43	0.38	0.58	0.67	0.53	0.33	0.47	-0.34	0.52
All SB	BE	0.60	0.53	0.32	**0.78**	0.49	0.73	0.49	0.19	0.61	0.43	0.07	0.30	0.41	-0.40	0.50

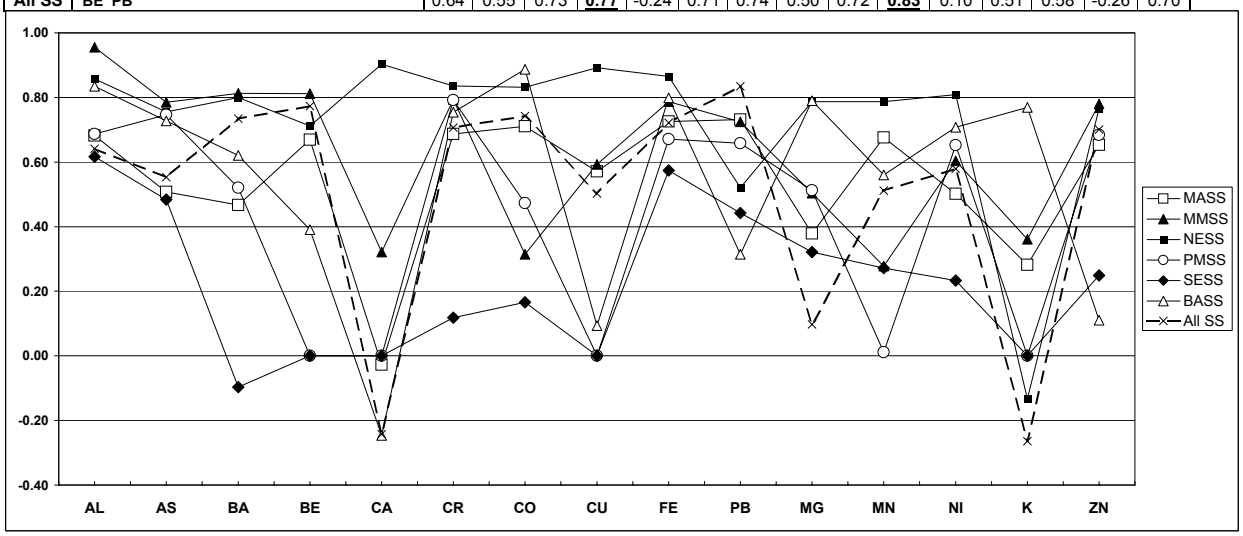


Vanadium Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Vanadium Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	ZN
MASS		0.68	0.51	0.47	0.67	-0.03	0.69	0.71	0.57	0.73	0.73	0.38	0.68	0.50	0.28	0.65
MMSS	AL AS BA BE CR FE ZN	0.96	**0.78**	**0.81**	**0.81**	0.32	**0.79**	0.31	0.59	**0.79**	0.72	0.50	0.28	0.60	0.36	**0.78**
NESS	AL AS BA CA CR CO CU FE MG MN NI ZN	0.86	**0.75**	**0.80**	0.71	0.90	**0.84**	**0.83**	0.89	0.87	0.52	**0.79**	**0.79**	**0.81**	-0.13	**0.77**
PMSS	CR	0.69	0.75	0.52			**0.79**	0.47		0.67	0.66	0.51	0.01	0.65		0.68
SESS		0.62	0.48	-0.10			0.12	0.17		0.57	0.44	0.32	0.27	0.23		0.25
BASS	AL CR CO FE MG K	**0.84**	0.73	0.62	0.39	-0.25	**0.75**	0.89	0.09	**0.80**	0.31	**0.79**	0.56	0.71	**0.77**	0.11
All SS	BE PB	0.64	0.55	0.73	**0.77**	-0.24	0.71	0.74	0.50	0.72	**0.83**	0.10	0.51	0.58	-0.26	0.70



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

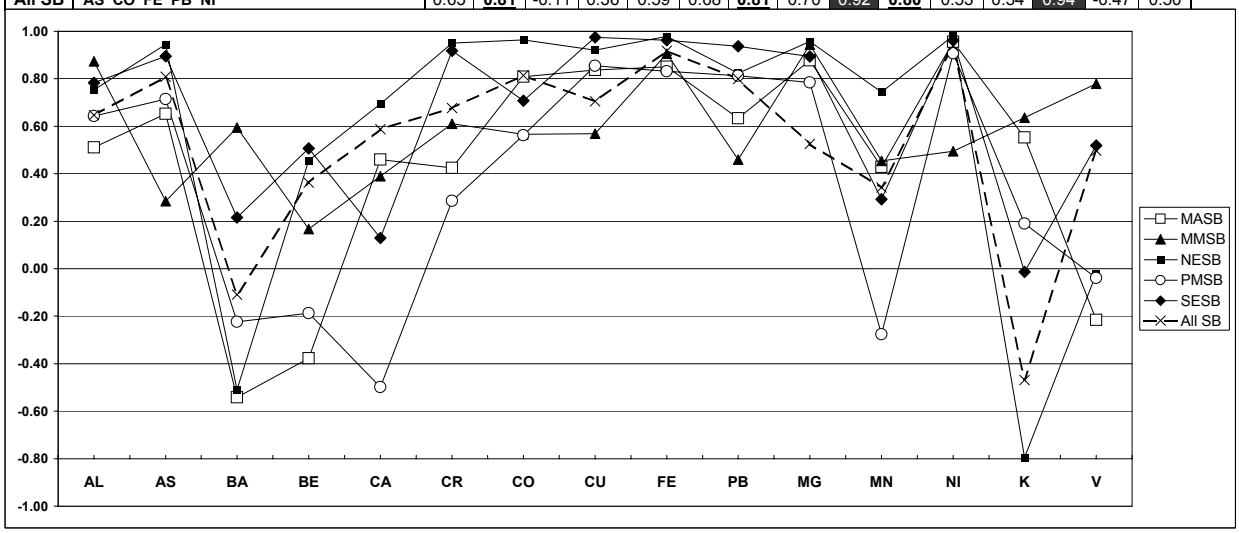
APPENDIX F, FIGURE F2-10
CORRELATIONS FOR ZINC BY SOIL TYPE
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Zinc Subsurface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Zinc Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V
MASB	CO CU FE MG NI	0.51	0.65	-0.54	-0.38	0.46	0.42	**0.81**	**0.84**	0.85	0.63	0.88	0.43	0.95	0.55	-0.22
MMSB	AL FE MG V	0.87	0.28	0.59	0.17	0.39	0.61	0.57	0.57	0.91	0.46	0.94	0.45	0.49	0.64	**0.78**
NESB	AL AS CR CO CU FE PB MG NI	**0.75**	0.94	-0.51	0.46	0.69	0.95	0.96	0.92	0.98	**0.82**	0.96	0.74	0.98	-0.79	-0.02
PMSB	CU FE PB MG NI	0.64	0.71	-0.22	-0.19	-0.50	0.29	0.56	0.85	**0.83**	**0.81**	**0.78**	-0.28	0.91	0.19	-0.04
SESB	AL AS CR CU FE PB MG NI	**0.78**	0.89	0.22	0.51	0.13	0.92	0.71	0.97	0.96	0.94	0.89	0.29	0.96	-0.01	0.52
All SB	AS CO FE PB NI	0.65	**0.81**	-0.11	0.36	0.59	0.68	**0.81**	0.70	0.92	**0.80**	0.53	0.34	0.94	-0.47	0.50

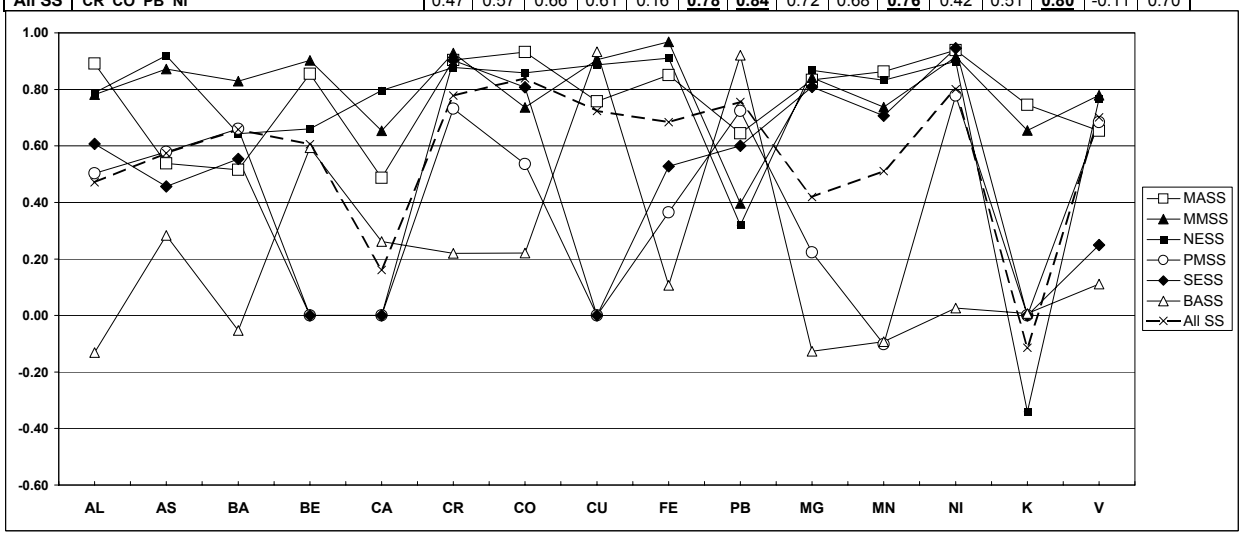


Zinc Surface Soil Correlation matrix (Pearson):

r >= 0.85: White Font, Black Background

0.85 > r >= 0.75: Bold Font, Underlined

Soil:	Metals with Zinc Correlation r >= 0.75	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V
MASS	AL BE CR CO CU FE MG MN NI	0.89	0.54	0.51	0.86	0.49	0.90	0.93	**0.76**	0.85	0.64	**0.83**	0.86	0.94	0.75	0.65
MMSS	AL AS BA BE CR CU FE MG NI V	**0.78**	0.87	**0.83**	0.90	0.65	0.93	0.74	0.91	0.97	0.40	**0.84**	0.74	0.91	0.66	**0.78**
NESS	AL AS CA CR CO CU FE MG MN NI V	**0.79**	0.92	0.64	0.66	**0.80**	0.88	0.86	0.89	0.91	0.32	0.87	**0.83**	0.90	-0.34	**0.77**
PMSS	NI	0.50	0.58	0.66			0.73	0.54		0.37	0.72	0.22	-0.10	**0.78**		0.68
SESS	CR CO MG NI	0.61	0.46	0.55			0.90	**0.81**		0.53	0.60	**0.81**	0.71	0.95		0.25
BASS	CU PB	-0.13	0.28	-0.05	0.59	0.26	0.22	0.22	0.93	0.11	0.92	-0.13	-0.09	0.03	0.01	0.11
All SS	CR CO PB NI	0.47	0.57	0.66	0.61	0.16	**0.78**	**0.84**	0.72	0.68	**0.76**	0.42	0.51	**0.80**	-0.11	0.70



**** NOTE: Elemental correlations are omitted from tables if nondetected results are found in the dataset.**

APPENDIX F, PART 3

GEOCHEMICAL FACTOR ANALYSIS TRIALS

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

XLSTAT 2007.4 - Factor analysis - on 7/9/2007 at 2:29:52 PM
Observations/variables file NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK_Add_SESD.xls / Sheet1!$D$1:$O$235 / 234 rows and 12 columns
Observation labels file NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK_Add_SESD.xls / Sheet1!$C$1:$C$235 / 234 rows and 1 column
Correlation: Pearson (n)
Extraction method: Principal factor analysis
Number of factors: 6
Initial communalities: Squared multiple correlations
Stop conditions: Convergence = 0.0001 / Iterations = 400
Rotation: Varimax / Number of factors = 6

Summary statistics

Summary statistics:

Variable	Observ.	w.missing	complete	Minimum	Maximum	Mean	Std. deviation
AL	234	0	234	3710.000	19400.000	10933.504	2851.868
AS	234	0	234	0.830	71.700	9.690	8.715
BA	234	0	234	6.300	231.000	32.472	24.158
CR	234	0	234	4.800	81.500	13.138	6.240
CO	234	0	234	0.850	36.350	7.776	5.329
FE	234	0	234	5940.000	53900.000	20122.735	8686.108
PB	234	0	234	2.600	297.000	20.148	30.256
MG	234	0	234	482.000	4580.000	2303.271	810.981
MN	234	0	234	27.900	9740.000	519.753	1036.001
NI	234	0	234	2.800	49.500	13.956	7.033
V	234	0	234	5.200	42.250	19.631	7.276
ZN	234	0	234	10.500	534.000	50.611	54.960

Correlation matrix (Pearson (n)):

Variables	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	**1**	0.437	0.465	0.519	0.351	0.507	0.401	0.230	0.246	0.402	0.708	0.401
AS	0.437	**1**	0.396	0.478	0.667	0.872	0.337	0.420	0.370	0.684	0.491	0.505
BA	0.465	0.396	**1**	0.568	0.652	0.392	0.729	0.162	0.789	0.470	0.599	0.860
CR	0.519	0.478	0.568	**1**	0.640	0.576	0.795	0.434	0.575	0.612	0.525	0.660
CO	0.351	0.667	0.652	0.640	**1**	0.802	0.541	0.634	0.705	0.909	0.431	0.788
FE	0.507	0.872	0.392	0.576	0.802	**1**	0.334	0.635	0.434	0.842	0.497	0.548
PB	0.401	0.337	0.729	0.795	0.541	0.334	**1**	0.127	0.662	0.421	0.576	0.822
MG	0.230	0.420	0.162	0.434	0.634	0.635	0.127	**1**	0.304	0.762	0.013	0.348
MN	0.246	0.370	0.789	0.575	0.705	0.434	0.662	0.304	**1**	0.524	0.342	0.791
NI	0.402	0.684	0.470	0.612	0.909	0.842	0.421	0.762	0.524	**1**	0.333	0.687
V	0.708	0.491	0.599	0.525	0.431	0.497	0.576	0.013	0.342	0.333	**1**	0.535
ZN	0.401	0.505	0.860	0.660	0.788	0.548	0.822	0.348	0.791	0.687	0.535	**1**

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor analysis:

Maximum change in communality at each iteration:

Iteration	Maximum change
86	0.0001
87	0.0001
88	0.0001
89	0.0001
90	0.0001
91	0.0001
92	0.0001
93	0.0001
94	0.0001
95	0.0001

Reproduced correlation matrix:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	0.835	0.434	0.467	0.523	0.367	0.504	0.399	0.227	0.241	0.396	0.708	0.396
AS	0.434	0.779	0.389	0.479	0.678	0.860	0.334	0.423	0.375	0.681	0.502	0.501
BA	0.467	0.389	0.913	0.566	0.653	0.397	0.731	0.156	0.792	0.476	0.598	0.854
CR	0.523	0.479	0.566	0.840	0.632	0.579	0.791	0.434	0.574	0.609	0.519	0.673
CO	0.367	0.678	0.653	0.632	0.918	0.802	0.548	0.634	0.698	0.898	0.405	0.802
FE	0.504	0.860	0.397	0.579	0.802	1.000	0.331	0.624	0.429	0.845	0.492	0.540
PB	0.399	0.334	0.731	0.791	0.548	0.331	1.000	0.126	0.660	0.423	0.577	0.808
MG	0.227	0.423	0.156	0.434	0.634	0.624	0.126	0.787	0.313	0.770	0.023	0.340
MN	0.241	0.375	0.792	0.574	0.698	0.429	0.660	0.313	0.850	0.522	0.349	0.792
NI	0.396	0.681	0.476	0.609	0.898	0.845	0.423	0.770	0.522	0.983	0.338	0.687
V	0.708	0.502	0.598	0.519	0.405	0.492	0.577	0.023	0.349	0.338	0.793	0.543
ZN	0.396	0.501	0.854	0.673	0.802	0.540	0.808	0.340	0.792	0.687	0.543	0.929

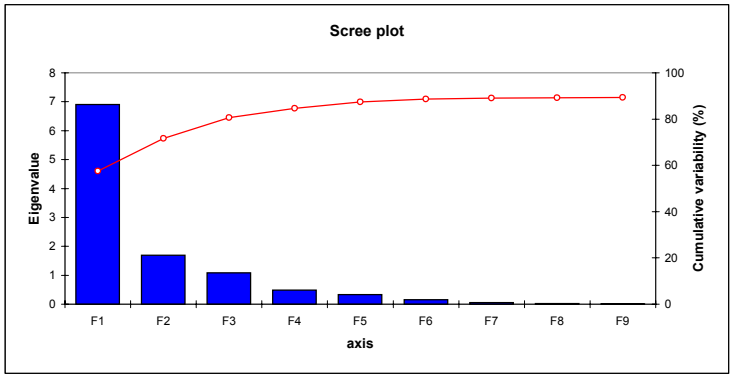
Residual correlation matrix:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	0.165	0.004	-0.001	-0.004	-0.016	0.003	0.002	0.003	0.005	0.006	0.000	0.004
AS	0.004	0.221	0.007	0.000	-0.010	0.011	0.003	-0.003	-0.004	0.003	-0.012	0.004
BA	-0.001	0.007	0.087	0.003	-0.001	-0.005	-0.002	0.005	-0.002	-0.006	0.001	0.006
CR	-0.004	0.000	0.003	0.160	0.008	-0.003	0.004	0.000	0.001	0.003	0.007	-0.013
CO	-0.016	-0.010	-0.001	0.008	0.082	0.000	-0.007	0.001	0.007	0.012	0.026	-0.013
FE	0.003	0.011	-0.005	-0.003	0.000	0.000	0.004	0.011	0.005	-0.003	0.006	0.008
PB	0.002	0.003	-0.002	0.004	-0.007	0.004	0.000	0.001	0.002	-0.001	-0.002	0.015
MG	0.003	-0.003	0.005	0.000	0.001	0.011	0.001	0.213	-0.009	-0.008	-0.010	0.007
MN	0.005	-0.004	-0.002	0.001	0.007	0.005	0.002	-0.009	0.150	0.002	-0.006	-0.001
NI	0.006	0.003	-0.006	0.003	0.012	-0.003	-0.001	-0.008	0.002	0.017	-0.005	-0.001
V	0.000	-0.012	0.001	0.007	0.026	0.006	-0.002	-0.010	-0.006	-0.005	0.207	-0.009
ZN	0.004	0.004	0.006	-0.013	-0.013	0.008	0.015	0.007	-0.001	-0.001	-0.009	0.071

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Eigenvalues:

	F1	F2	F3	F4	F5	F6	F7	F8	F9
Eigenvalue	6.901	1.690	1.080	0.485	0.331	0.152	0.053	0.018	0.010
Variability (%)	57.508	14.087	9.001	4.045	2.758	1.269	0.444	0.151	0.083
Cumulative %	57.508	71.595	80.596	84.641	87.399	88.668	89.112	89.263	89.347



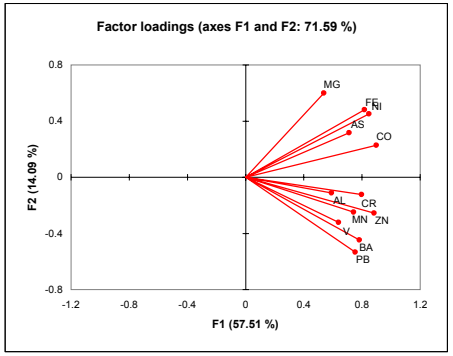
Eigenvectors:

	F1	F2	F3	F4	F5	F6	F7	F8	F9
AL	0.224	-0.085	-0.581	-0.183	0.532	-0.083	0.240	-0.302	0.085
AS	0.271	0.244	-0.240	0.315	-0.423	-0.100	0.283	-0.100	-0.445
BA	0.298	-0.343	0.117	0.327	0.329	-0.038	0.070	0.339	-0.517
CR	0.304	-0.095	-0.027	-0.576	-0.186	-0.314	-0.263	0.011	-0.378
CO	0.342	0.175	0.202	0.154	0.026	0.136	-0.553	0.098	0.104
FE	0.312	0.371	-0.218	0.180	-0.275	-0.267	0.136	0.161	0.367
PB	0.287	-0.411	0.103	-0.397	-0.413	0.178	0.208	-0.007	0.191
MG	0.204	0.460	0.186	-0.361	0.340	-0.093	0.187	0.488	0.074
MN	0.283	-0.192	0.378	0.210	0.134	-0.590	-0.058	-0.399	0.270
NI	0.323	0.348	0.121	-0.074	0.118	0.484	-0.121	-0.531	-0.165
V	0.243	-0.247	-0.499	0.135	-0.016	0.167	-0.441	0.243	0.224
ZN	0.336	-0.196	0.224	0.131	0.022	0.379	0.416	0.102	0.217

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor pattern:

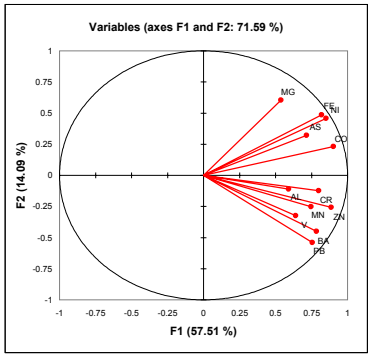
	F1	F2	F3	F4	F5	F6	al communal commun specific variance		
AL	0.590	-0.111	-0.604	-0.127	0.306	-0.032	0.674	0.835	0.165
AS	0.712	0.318	-0.249	0.220	-0.243	-0.039	0.805	0.779	0.221
BA	0.782	-0.446	0.122	0.228	0.189	-0.015	0.870	0.913	0.087
CR	0.798	-0.123	-0.028	-0.401	-0.107	-0.122	0.833	0.840	0.160
CO	0.899	0.228	0.210	0.107	0.015	0.053	0.929	0.918	0.082
FE	0.817	0.480	-0.226	0.125	-0.157	-0.104	0.921	1.000	0.000
PB	0.753	-0.533	0.107	-0.276	-0.237	0.069	0.904	1.000	0.000
MG	0.537	0.599	0.194	-0.252	0.196	-0.036	0.714	0.787	0.213
MN	0.743	-0.249	0.393	0.146	0.077	-0.230	0.769	0.850	0.150
NI	0.849	0.452	0.126	-0.052	0.068	0.189	0.932	0.983	0.017
V	0.639	-0.321	-0.519	0.094	-0.009	0.065	0.756	0.793	0.207
ZN	0.883	-0.255	0.233	0.091	0.013	0.148	0.930	0.929	0.071



Correlations between variables and factors:

	F1	F2	F3	F4	F5	F6
AL	0.592	-0.112	-0.638	-0.137	0.331	-0.038
AS	0.714	0.321	-0.263	0.237	-0.263	-0.046
BA	0.785	-0.451	0.129	0.246	0.204	-0.018
CR	0.801	-0.124	-0.029	-0.433	-0.116	-0.145
CO	0.902	0.230	0.222	0.116	0.016	0.063
FE	0.820	0.485	-0.239	0.134	-0.170	-0.123
PB	0.756	-0.539	0.113	-0.297	-0.256	0.082
MG	0.539	0.605	0.205	-0.272	0.211	-0.043
MN	0.746	-0.252	0.416	0.158	0.083	-0.273
NI	0.852	0.456	0.133	-0.056	0.073	0.223
V	0.641	-0.324	-0.549	0.101	-0.010	0.077
ZN	0.886	-0.258	0.246	0.099	0.014	0.175

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Factor pattern coefficients:

	F1	F2	F3	F4	F5	F6
AL	0.066	-0.153	-0.461	-0.227	0.584	-0.109
AS	-0.043	-0.080	0.027	0.120	-0.027	0.204
BA	0.220	-0.201	-0.050	0.397	0.288	-0.185
CR	0.008	0.071	0.001	-0.244	0.336	-0.466
CO	0.042	-0.168	0.278	0.267	-0.046	-0.193
FE	0.358	0.560	-0.681	0.539	-1.305	-1.183
PB	0.281	-0.521	0.004	-1.073	-1.406	0.267
MG	0.006	0.091	0.173	-0.408	0.309	-0.204
MN	0.063	-0.063	0.364	0.076	0.254	-0.593
NI	0.247	0.589	0.250	-0.614	0.473	1.614
V	0.019	-0.121	-0.296	0.092	0.210	0.392
ZN	-0.009	-0.095	0.235	0.772	0.485	0.359

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor scores:

Observation	F1	F2	F3	F4	F5	F6
BASS-BWBK-SS-BA101-0001	-1.339	-0.091	1.546	0.057	-0.774	-0.151
BASS-BWBK-SS-BA102-0001	-1.483	-0.219	1.719	0.292	-1.071	0.097
BASS-BWBK-SS-BA103-0001	-1.420	-0.192	1.652	0.215	-0.905	0.120
BASS-BWBK-SS-BA104-0001	-1.284	-0.055	1.568	-0.124	-0.508	0.166
BASS-BWBK-SS-BA105-0001	-1.378	-0.095	1.686	0.211	-1.010	0.179
BASS-BWBK-SS-BA106-0001	-1.262	0.047	1.610	-0.243	-0.461	0.231
BASS-BWBK-SS-BA107-0001	-1.468	-0.247	1.681	0.295	-1.030	0.123
BASS-BWBK-SS-BA108-0001	-1.466	-0.211	1.739	0.176	-0.937	0.177
BASS-BWBK-SS-BA109-0001	-1.333	0.102	1.848	-0.328	-0.457	0.424
BASS-BWBK-SS-BA110-0001	-1.161	0.006	1.445	-0.092	-0.417	-0.072
BASS-BWBK-SS-BA111-0001	-1.414	-0.153	1.643	0.106	-0.850	-0.007
BASS-BWBK-SS-BA112-0001	-1.432	-0.193	1.635	0.161	-0.902	-0.087
BASS-BWBK-SS-BA113-0001	-1.422	-0.242	1.757	0.454	-0.982	0.214
MASB-BWBK-SB-MA01-0105	0.445	1.310	0.764	-0.108	0.380	-0.328
MASB-BWBK-SB-MA02-0107	0.581	1.674	0.228	-0.485	0.425	0.095
MASB-BWBK-SB-MA03-0108	0.669	1.529	1.113	0.573	-0.231	0.512
MASB-BWBK-SB-MA04-0106	0.592	1.692	0.482	-0.802	1.165	0.373
MASB-BWBK-SB-MA05-0108	0.314	1.354	0.310	-0.148	0.249	0.734
MASB-BWBK-SB-MA06-0105	0.338	1.414	0.271	-0.490	0.489	0.468
MASB-BWBK-SB-MA07-0108	0.195	1.395	-0.026	-0.065	-0.528	0.060
MASB-BWBK-SB-MA08-0108	1.476	2.749	-1.945	0.713	-1.965	-1.594
MASB-BWBK-SB-MA09-0108	0.559	1.525	-0.287	0.816	-1.251	0.084
MASB-BWBK-SB-MA10-0104	-0.026	1.114	0.072	0.456	-1.365	-0.355
MASB-BWBK-SB-MA11-0108	0.682	1.669	-0.290	-0.139	-0.439	0.026
MASB-BWBK-SB-MA12-0108	0.655	1.759	0.164	0.309	-0.476	0.475
MASB-BWBK-SB-MA13-0105	-0.401	0.023	0.234	0.202	0.538	0.170
MASB-BWBK-SB-MA14-0104	0.571	0.908	-0.896	0.882	-0.580	-0.978
MASB-BWBK-SB-MA15-0105	0.189	0.383	-0.748	0.528	0.284	-0.371
MASB-BWBK-SB-MA16-0104	-0.110	0.444	0.216	0.461	-0.319	-0.153
MASB-BWBK-SB-MA17-0104	-0.155	0.069	-0.282	0.706	-0.033	-0.628
MASB-BWBK-SB-MA18-0104	-0.312	0.137	-0.215	-0.291	1.149	0.281
MASB-BWBK-SB-MA19-0103	-0.478	-0.039	0.365	0.242	0.413	0.322
MASB-BWBK-SB-MA20-0103	0.240	1.265	0.384	-0.128	0.032	0.691
MASS-BWBK-SS-MA01-0001	-1.049	-1.045	0.471	0.344	0.119	0.257
MASS-BWBK-SS-MA02-0001	-0.595	-1.026	-0.084	-0.023	1.619	0.267
MASS-BWBK-SS-MA03-0001	-0.708	-0.583	0.228	0.200	0.158	-0.007
MASS-BWBK-SS-MA04-0001	-0.563	-0.419	0.293	-0.194	0.712	0.219
MASS-BWBK-SS-MA05-0001	-0.137	0.066	-0.278	-0.474	0.955	0.232

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASS-BWBK-SS-MA06-0001	0.178	-0.271	-0.826	0.010	1.188	-0.280
MASS-BWBK-SS-MA07-0001	-1.434	-1.058	0.864	0.602	-1.318	0.403
MASS-BWBK-SS-MA08-0001	-0.134	-0.671	-0.682	0.080	-1.125	-0.036
MASS-BWBK-SS-MA09-0001	0.533	-0.717	-1.487	-0.625	1.282	0.340
MASS-BWBK-SS-MA10-0001	0.271	-0.433	-1.136	-0.319	0.372	0.118
MASS-BWBK-SS-MA11-0001	0.482	-0.133	-1.658	0.396	0.225	-0.833
MASS-BWBK-SS-MA12-0001	-0.441	-0.051	0.047	-0.290	0.462	0.296
MASS-BWBK-SS-MA13-0001	-0.218	-0.831	-0.879	0.373	0.960	-0.323
MASS-BWBK-SS-MA14-0001	-0.629	-1.322	-0.258	0.156	0.177	0.685
MASS-BWBK-SS-MA15-0001	-0.581	-1.182	-0.490	0.116	0.670	0.258
MASS-BWBK-SS-MA16-0001	-0.494	-0.568	-0.430	0.251	-0.064	0.171
MASS-BWBK-SS-MA17-0001	-0.443	-0.661	-0.499	0.253	0.283	0.047
MASS-BWBK-SS-MA18-0001	-0.586	-0.920	-0.571	0.262	-0.011	0.644
MASS-BWBK-SS-MA19-0001	-0.371	-0.737	-0.599	0.285	0.170	0.224
MASS-BWBK-SS-MA20-0001	-0.227	-0.141	-0.196	0.100	0.019	0.382
MMSB-BWBK-SB-MM101-0110	-0.472	0.301	0.917	-0.174	-0.489	-0.274
MMSB-BWBK-SB-MM102-0109	-0.298	0.781	1.056	-1.203	0.966	0.830
MMSB-BWBK-SB-MM103-0107	-0.514	0.188	1.301	-0.225	0.101	-0.136
MMSB-BWBK-SB-MM104-0110	-0.025	0.758	0.192	-0.827	0.470	-1.732
MMSB-BWBK-SB-MM105-0110	-0.869	0.001	1.155	-0.026	-0.478	0.382
MMSB-BWBK-SB-MM106-0110	0.094	0.734	0.237	-1.094	1.535	-0.809
MMSB-BWBK-SB-MM107-0110	-0.620	0.271	0.981	-0.416	0.296	-0.533
MMSB-BWBK-SB-MM108-0110	-0.579	0.177	0.712	-0.293	0.137	-0.304
MMSB-BWBK-SB-MM109-0110	-0.196	0.210	0.219	-0.346	0.733	-0.322
MMSB-BWBK-SB-MM110-0109	-0.435	0.290	0.447	-0.459	0.401	-0.516
MMSB-BWBK-SB-MM111-0110	-0.209	0.455	0.389	-0.496	0.303	-0.557
MMSB-BWBK-SB-MM112-0110	-0.165	0.525	0.295	-0.478	0.727	-0.490
MMSB-BWBK-SB-MM113-0110	-0.407	0.641	0.901	-1.037	0.995	-0.355
MMSB-BWBK-SB-MM114-0110	-0.719	0.033	1.008	-0.174	0.103	0.214
MMSB-BWBK-SB-MM115-0110	-0.346	-0.128	0.263	-0.108	1.025	-0.956
MMSB-BWBK-SB-MM116-0110	-0.459	0.361	0.999	-0.489	0.334	-0.200
MMSB-BWBK-SB-MM117-0110	-0.757	0.094	1.189	0.034	-0.446	0.063
MMSB-BWBK-SB-MM118-0110	-0.167	1.071	1.634	-1.290	0.833	2.181
MMSB-BWBK-SB-MM119-0110	-0.556	0.364	0.962	-0.447	0.147	-0.253
MMSB-BWBK-SB-MM120-0110	-1.091	-0.154	1.351	0.243	-0.797	0.008
MMSS-BWBK-SS-MM101-0001	-0.252	-0.477	-1.276	-0.279	0.849	-0.487
MMSS-BWBK-SS-MM102-0001	-0.725	-0.363	-0.372	0.038	0.166	-0.154
MMSS-BWBK-SS-MM103-0001	-0.352	-0.474	-1.174	-0.271	0.462	-0.359
MMSS-BWBK-SS-MM104-0001	-0.211	-0.329	-0.938	-0.399	0.674	-0.419
MMSS-BWBK-SS-MM105-0001	-0.870	-0.682	-0.187	0.207	-0.211	0.049
MMSS-BWBK-SS-MM106-0001	-0.282	-0.272	-0.939	-0.303	0.944	-0.732

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSS-BWBK-SS-MM107-0001	-0.262	-0.284	-1.098	-0.444	1.120	-0.567
MMSS-BWBK-SS-MM108-0001	-0.433	-0.714	-1.395	-0.211	1.012	-0.225
MMSS-BWBK-SS-MM109-0001	-0.569	-0.486	-1.051	-0.242	0.792	-0.422
MMSS-BWBK-SS-MM110-0001	-1.048	-0.927	-0.082	0.347	-0.508	0.028
MMSS-BWBK-SS-MM111-0001	-0.996	-0.833	-0.171	0.130	-0.113	-0.163
MMSS-BWBK-SS-MM112-0001	-1.114	-0.892	0.128	0.244	-0.504	0.106
MMSS-BWBK-SS-MM113-0001	-0.541	-0.862	-0.987	-0.249	0.280	-0.122
MMSS-BWBK-SS-MM114-0001	-1.229	-0.830	0.398	0.478	-0.509	0.084
MMSS-BWBK-SS-MM115-0001	-0.968	-0.751	-0.111	0.419	-0.281	-0.143
MMSS-BWBK-SS-MM116-0001	-1.046	-0.825	0.027	0.338	-0.436	-0.049
MMSS-BWBK-SS-MM117-0001	-0.514	-0.535	-0.667	-0.129	0.332	-0.323
MMSS-BWBK-SS-MM118-0001	-0.793	-0.140	0.517	-0.176	0.155	-0.227
MMSS-BWBK-SS-MM119-0001	-0.901	-0.178	0.750	-0.024	-0.032	0.190
MMSS-BWBK-SS-MM120-0001	-0.641	0.124	-0.004	0.306	-0.685	-0.778
NESB-BWBK-SB-NE01-0108	0.139	1.217	0.256	-1.149	0.930	-0.353
NESB-BWBK-SB-NE02-0109	0.175	0.890	0.549	-0.520	0.826	-0.550
NESB-BWBK-SB-NE03-0105	-0.097	0.872	0.165	-0.482	0.127	-0.515
NESB-BWBK-SB-NE04-0110	-0.174	0.738	0.494	-0.658	0.476	-0.263
NESB-BWBK-SB-NE05-0108	0.017	1.088	0.269	-0.870	0.581	-0.276
NESB-BWBK-SB-NE06-0109	-0.117	0.933	0.484	-0.670	0.334	-0.049
NESB-BWBK-SB-NE07-0107	0.113	1.130	0.187	-1.017	0.836	-0.191
NESB-BWBK-SB-NE08-0104	-0.311	0.628	0.518	-0.571	0.442	0.204
NESB-BWBK-SB-NE09-0110	-0.196	0.839	0.503	-0.600	0.313	-0.290
NESB-BWBK-SB-NE10-0107	-0.306	0.289	-0.029	-0.464	0.764	-0.293
NESB-BWBK-SB-NE101-0110	-0.203	0.101	-0.005	-0.321	0.967	-0.486
NESB-BWBK-SB-NE102-0110	-0.416	-0.159	0.286	-0.147	0.926	-0.258
NESB-BWBK-SB-NE103-0110	-0.640	-0.174	0.539	-0.006	0.405	-0.130
NESB-BWBK-SB-NE104-0110	-0.811	-0.220	0.795	0.120	0.035	0.008
NESB-BWBK-SB-NE105-0110	-0.264	0.071	0.153	-0.149	0.758	-0.570
NESB-BWBK-SB-NE106-0110	-0.409	0.030	0.422	-0.208	0.717	-0.181
NESB-BWBK-SB-NE107-0510	-0.743	-0.069	0.753	-0.009	-0.021	-0.397
NESB-BWBK-SB-NE108-0110	-0.499	-0.117	0.208	-0.104	0.607	-0.426
NESB-BWBK-SB-NE109-0110	-0.491	-0.112	0.308	-0.104	0.585	-0.457
NESB-BWBK-SB-NE110-0110	-0.562	-0.088	0.374	-0.230	0.555	-0.521
NESS-BKG-SS03-NEB-0016	0.125	-0.971	-1.097	-1.224	-0.227	0.275
NESS-BKG-SS09-NEB-0018	-0.665	-0.794	-0.596	-0.147	0.350	-0.182
NESS-BWBK-SS-NE01-0001	0.262	-0.129	-1.393	-0.426	1.274	-0.431
NESS-BWBK-SS-NE02-0001	0.140	0.311	-0.802	-0.563	1.272	0.185
NESS-BWBK-SS-NE03-0001	-0.136	-0.160	-1.284	-0.386	1.047	-0.513
NESS-BWBK-SS-NE04-0001	0.029	0.117	-1.003	-0.749	1.407	-0.532
NESS-BWBK-SS-NE05-0001	-0.153	-0.204	-0.860	-0.608	0.906	-0.372
NESS-BWBK-SS-NE06-0001	-0.112	0.214	-0.738	-0.847	1.392	-0.114
NESS-BWBK-SS-NE07-0001	-0.063	-0.471	-1.185	-0.550	0.492	-0.067

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NESS-BWBK-SS-NE08-0001	-0.133	-0.012	-1.001	-0.553	1.144	-0.243
NESS-BWBK-SS-NE09-0001	-0.076	-0.682	-1.598	-0.468	1.433	-0.408
NESS-BWBK-SS-NE10-0001	-0.139	-0.469	-0.751	-0.743	0.273	0.218
NESS-BWBK-SS-NE101-0001	-0.617	-0.660	-0.729	-0.112	0.957	-0.276
NESS-BWBK-SS-NE102-0001	-0.872	-0.816	-0.123	0.042	-0.013	0.070
NESS-BWBK-SS-NE103-0001	-0.981	-0.744	0.152	0.072	-0.201	0.182
NESS-BWBK-SS-NE104-0001	-0.720	-0.739	-0.172	-0.499	-0.504	0.069
NESS-BWBK-SS-NE105-0001	-1.085	-0.821	0.172	0.321	-0.219	0.020
NESS-BWBK-SS-NE106-0001	-0.862	-1.069	-0.012	-0.366	-0.733	0.048
NESS-BWBK-SS-NE107-0001	-1.013	-1.038	-0.134	0.241	-0.121	-0.012
NESS-BWBK-SS-NE108-0001	-0.891	-0.950	-0.069	0.115	-0.070	-0.002
NESS-BWBK-SS-NE109-0001	-1.097	-0.890	0.130	0.355	-0.191	-0.101
NESS-BWBK-SS-NE110-0001	-1.000	-1.067	-0.037	0.141	-0.700	0.239
PMSB-BWBK-SB-PM01-0105	0.253	0.746	0.331	-0.404	1.264	0.915
PMSB-BWBK-SB-PM02-0104	0.925	1.437	-1.396	0.699	-0.747	-2.054
PMSB-BWBK-SB-PM03-0106	0.759	1.838	-0.222	0.282	-0.623	-0.383
PMSB-BWBK-SB-PM04-0105	0.376	1.258	0.103	-0.286	0.113	0.311
PMSB-BWBK-SB-PM05-0105	0.359	1.128	0.100	0.034	0.037	-0.395
PMSB-BWBK-SB-PM06-0105	0.493	1.268	0.107	0.266	-0.055	-1.282
PMSB-BWBK-SB-PM07-0105	0.146	0.596	0.148	1.122	-0.844	-0.996
PMSB-BWBK-SB-PM08-0106	0.170	0.773	0.304	0.301	0.022	0.010
PMSB-BWBK-SB-PM09-0106	-0.246	0.719	0.785	0.179	-0.207	0.436
PMSB-BWBK-SB-PM10-0105	0.110	0.527	-0.379	0.723	-0.178	-0.472
PMSB-BWBK-SB-PM11-0104	0.542	1.189	0.443	0.677	-0.359	-0.367
PMSB-BWBK-SB-PM12-0105	-0.549	0.207	0.699	-0.232	0.524	0.085
PMSB-BWBK-SB-PM13-0106	-0.034	0.319	-0.636	0.712	-0.271	-1.360
PMSB-BWBK-SB-PM14-0106	-0.470	0.063	0.463	0.252	0.175	-0.110
PMSB-BWBK-SB-PM15-0105	-0.006	0.640	-0.034	0.131	0.019	-0.395
PMSB-BWBK-SB-PM16-0106	-0.312	0.371	0.245	0.011	0.200	-0.020
PMSB-BWBK-SB-PM17-0105	0.195	0.632	0.183	0.312	-0.061	-0.438
PMSB-BWBK-SB-PM18-0105	0.629	1.812	-0.457	0.063	-0.816	-0.664
PMSB-BWBK-SB-PM19-0105	0.246	1.021	-0.104	0.009	0.015	-0.168
PMSB-BWBK-SB-PM20-0106	0.006	0.752	0.105	-0.038	0.189	0.073
PMSB-BWBK-SB-SO01-0107-PM	0.551	1.553	-0.069	-0.114	-0.215	0.789
PMSB-BWBK-SB-SO02-0109-PM	0.647	1.698	-0.718	0.265	-1.065	-0.380
PMSB-BWBK-SB-SO13-0104-PM	0.811	1.891	-0.019	0.378	-1.077	0.665
PMSB-BWBK-SB-SO14-0105-PM	0.966	2.131	-0.160	0.188	-0.795	0.575
PMSS-DABK-S-SO21-0001	0.031	-0.656	-0.506	0.637	-1.328	0.647
PMSS-DABK-S-SO22-0001	0.391	-0.870	-1.166	0.800	-0.746	0.558
PMSS-DABK-S-SO23-0001	0.117	-0.629	-0.766	-0.383	0.099	0.975
PMSS-DABK-S-SO24-0001	0.258	-0.497	-1.482	1.142	-1.189	-0.675
PMSS-DABK-S-SO25-0001	1.064	0.415	-3.084	1.832	-3.503	-2.734
PMSS-DABK-S-SO26-0001	0.566	-0.621	-1.277	0.249	-0.668	0.850
PMSS-DABK-S-SO27-0001	0.001	-1.074	-0.628	-0.516	-0.652	1.179

APPENDIX F, TABLE F3-1
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PMSS-DABK-S-SO28-0001	0.105	-1.083	-0.473	0.600	-0.343	0.584
PMSS-DABK-S-SO29-0001	0.341	-0.877	-1.652	0.209	0.296	0.060
PMSS-DABK-S-SO30-0001	0.143	-1.037	-1.024	0.540	0.862	0.125
PMSS-DABK-S-SO31-0001	-0.443	-0.785	-0.421	0.713	-0.449	-0.276
PMSS-DABK-S-SO32-0001	0.541	-1.237	-0.809	0.642	-1.251	-0.063
PMSS-DABK-S-SO33-0001	-0.199	-1.325	-0.444	0.101	0.620	0.824
PMSS-DABK-S-SO34-0001	-0.345	-0.906	-0.143	0.537	-0.514	-0.056
PMSS-DABK-S-SO35-0001	-0.064	-0.857	-0.515	0.025	-0.771	0.224
PMSS-DABK-S-SO36-0001	-0.355	-1.101	-0.599	-0.418	-0.492	0.354
PMSS-DABK-S-SO37-0001	-0.186	-0.673	-1.082	0.687	-0.333	-0.444
PMSS-DABK-S-SO38-0001	-0.514	-1.006	-0.281	0.212	-0.380	0.304
PMSS-DABK-S-SO39-0001	-0.233	-0.539	-0.585	0.659	-0.549	-0.484
PMSS-DABK-S-SO40-0001	-0.399	-0.961	-0.439	0.342	0.098	0.174
SESB-BWBK-SB-SO03-0108	1.664	3.008	-0.290	-0.656	0.179	1.809
SESB-BWBK-SB-SO04-0108	0.836	1.951	0.051	0.239	-0.657	0.960
SESB-BWBK-SB-SO05-0106	0.724	1.663	-0.397	-0.095	0.053	0.656
SESB-BWBK-SB-SO06-0108	1.382	2.544	-0.839	0.094	-0.879	0.580
SESB-BWBK-SB-SO07-0106	0.800	1.771	0.794	-0.246	0.153	1.633
SESB-BWBK-SB-SO08-0107	1.381	2.445	-0.458	-0.095	-0.293	0.712
SESB-BWBK-SB-SO09-0106	0.570	1.466	-0.099	-0.151	0.165	0.799
SESB-BWBK-SB-SO11-0106	1.000	1.964	0.089	-0.206	0.198	0.083
SESB-BWBK-SB-SO12-0106	0.845	2.051	-0.064	0.216	-0.802	0.739
SESB-BWBK-SB-SO15-0103	0.004	0.543	-0.187	0.142	0.144	-0.030
SESB-BWBK-SB-SO16-0105	0.178	1.250	0.352	0.057	-0.282	0.707
SESB-BWBK-SB-SO17-0106	-0.166	0.655	0.687	-0.241	0.461	0.909
SESB-BWBK-SB-SO18-0105	-0.387	0.236	0.851	-0.234	0.685	0.607
SESB-BWBK-SB-SO19-0104	-0.188	0.141	1.193	0.189	0.697	0.562
SESB-BWBK-SB-SO20-0104	0.448	1.500	0.255	0.388	-0.808	-0.082
SESS-DABK-S-SO01-0001	-0.277	-0.359	-1.131	-0.082	0.545	0.007
SESS-DABK-S-SO02-0001	0.764	0.160	-0.041	-0.488	0.921	-0.449
SESS-DABK-S-SO03-0001	-0.173	-0.831	-1.454	0.040	-0.394	0.322
SESS-DABK-S-SO04-0001	0.013	-0.725	-1.729	-0.178	1.298	0.651
SESS-DABK-S-SO05-0001	-0.184	-0.659	-1.313	0.032	-0.261	0.277
SESS-DABK-S-SO06-0001	1.470	0.898	-3.454	3.031	-3.888	-2.653
SESS-DABK-S-SO07-0001	0.027	-0.508	-0.475	-0.432	1.220	1.016
SESS-DABK-S-SO08-0001	0.128	-0.412	-0.788	-0.013	-0.115	0.318
SESS-DABK-S-SO09-0001	-0.078	-0.244	-1.341	0.362	-1.108	0.227
SESS-DABK-S-SO10-0001	-0.105	-0.326	-1.616	0.998	-1.455	-0.615
SESS-DABK-S-SO11-0001	-0.856	-1.050	0.285	0.578	-0.394	0.844
SESS-DABK-S-SO12-0001	-0.350	-0.865	-0.542	0.274	0.465	0.065
SESS-DABK-S-SO13-0001	-0.302	0.027	-0.232	0.485	-0.269	0.793
SESS-DABK-S-SO14-0001	-0.446	-0.191	-0.379	0.017	-0.991	0.747
SESS-DABK-S-SO15-0001	-0.316	-0.748	-1.166	0.494	-0.503	0.722

APPENDIX F, TABLE F3-1
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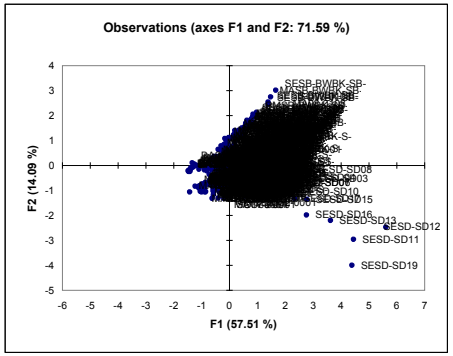
SESS-DABK-S-SO16-0001	-0.928	-1.046	0.195	0.674	-0.453	0.202
SESS-DABK-S-SO17-0001	-0.412	-1.308	-0.876	1.084	-0.798	-0.388
SESS-DABK-S-SO18-0001	-0.511	-0.704	0.097	0.082	-0.033	0.584
SESS-DABK-S-SO19-0001	0.205	-0.728	-0.373	-0.817	0.368	0.656
SESS-DABK-S-SO20-0001	0.452	-0.431	-1.387	-0.593	0.594	0.370
SESD-SD01	1.144	-0.327	0.093	-0.074	1.430	0.446
SESD-SD02	0.312	-0.041	1.287	0.600	-0.469	0.462
SESD-SD03	2.614	-0.536	1.215	0.711	2.020	-0.807
SESD-SD04	2.167	-0.478	1.534	1.645	2.074	-1.160
SESD-SD05	1.116	-0.281	-0.060	-1.406	-1.442	1.126
SESD-SD06	1.967	-0.701	0.630	1.032	1.504	-0.729
SESD-SD07	1.969	-0.693	-1.315	-1.295	1.621	2.015
SESD-SD08	2.755	-0.171	0.047	2.197	0.356	-1.665
SESD-SD09	-0.223	-0.717	1.158	0.506	-1.307	0.262
SESD-SD10	2.275	-1.044	-0.061	-1.540	-0.692	1.107
SESD-SD11	4.448	-2.968	4.102	4.928	2.030	-4.747
SESD-SD12	5.611	-2.473	2.189	2.965	1.126	6.543
SESD-SD13	3.629	-2.201	1.527	-0.876	-0.793	0.709
SESD-SD14	0.733	-0.745	-0.735	-0.223	0.116	-0.260
SESD-SD15	2.772	-1.357	0.241	-0.685	-0.568	1.055
SESD-SD16	2.757	-1.992	0.335	-2.986	-2.826	0.944
SESD-SD17	2.341	-1.335	2.532	1.739	1.232	-1.263
SESD-SD18	0.271	0.032	1.037	0.760	-1.178	0.042
SESD-SD19	4.396	-4.000	1.710	-8.980	-5.396	-2.507
SESD-SD20	-0.276	0.422	0.927	0.618	-1.662	-0.356



APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Results after the Varimax rotation:

Rotation matrix:

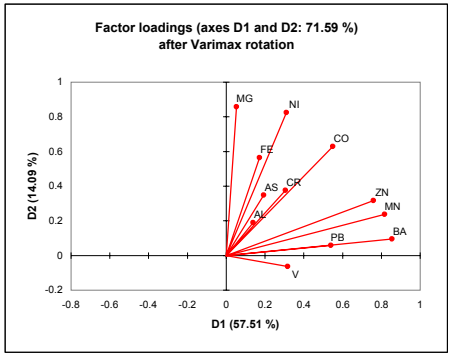
	D1	D2	D3	D4	D5	D6
D1	0.572	0.491	0.334	0.389	0.411	0.016
D2	-0.461	0.682	-0.206	-0.383	0.359	-0.059
D3	0.444	0.259	-0.788	0.048	-0.330	-0.050
D4	0.447	-0.321	-0.099	-0.659	0.458	0.208
D5	0.238	0.314	0.463	-0.513	-0.593	-0.126
D6	-0.080	0.157	0.023	0.047	-0.178	0.967

Percentage of variance after Varimax rotation:

	D1	D2	D3	D4	D5	D6
Variability (%)	24.553	21.712	13.232	13.243	14.340	1.490
Cumulative %	24.553	46.265	59.497	72.740	87.080	88.570

Factor pattern after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	0.139	0.190	0.849	0.168	0.168	-0.050
AS	0.193	0.349	0.233	0.121	0.741	0.044
BA	0.855	0.095	0.322	0.233	0.115	0.042
CR	0.306	0.377	0.301	0.670	0.195	-0.167
CO	0.549	0.630	0.085	0.196	0.413	0.062
FE	0.172	0.564	0.265	0.116	0.752	-0.058
PB	0.539	0.058	0.196	0.809	0.085	0.078
MG	0.054	0.859	0.018	0.053	0.147	-0.148
MN	0.817	0.238	0.006	0.256	0.148	-0.195
NI	0.311	0.825	0.132	0.171	0.372	0.144
V	0.317	-0.063	0.676	0.292	0.356	0.139
ZN	0.758	0.317	0.164	0.392	0.202	0.178



APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
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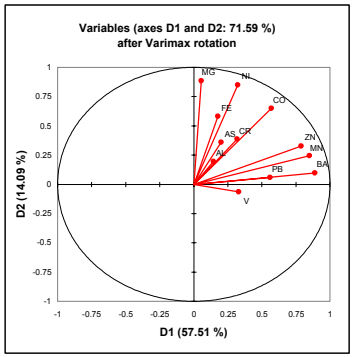
Correlations between variables and factors after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	0.144	0.195	0.923	0.169	0.173	-0.062
AS	0.201	0.359	0.254	0.122	0.763	0.054
BA	0.888	0.098	0.350	0.235	0.119	0.052
CR	0.318	0.388	0.327	0.676	0.200	-0.205
CO	0.571	0.649	0.093	0.198	0.425	0.077
FE	0.179	0.581	0.288	0.117	0.774	-0.072
PB	0.560	0.060	0.213	0.816	0.087	0.096
MG	0.056	0.885	0.020	0.053	0.151	-0.182
MN	0.848	0.245	0.006	0.259	0.153	-0.240
NI	0.323	0.850	0.143	0.173	0.383	0.178
V	0.330	-0.065	0.735	0.295	0.366	0.171
ZN	0.788	0.327	0.179	0.396	0.208	0.219



APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
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Factor pattern coefficients after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.050	0.048	0.707	-0.093	-0.307	-0.193
AS	0.056	-0.084	-0.039	-0.040	-0.021	0.228
BA	0.457	-0.107	0.244	-0.258	0.079	-0.115
CR	-0.019	0.164	0.157	-0.057	-0.199	-0.548
CO	0.349	-0.153	-0.223	-0.068	0.049	-0.129
FE	-0.332	-0.387	-0.143	0.150	1.804	-0.861
PB	-0.432	-0.272	-0.340	1.750	0.222	0.248
MG	-0.054	0.306	0.026	0.077	-0.355	-0.335
MN	0.368	0.045	-0.157	-0.142	-0.128	-0.603
NI	-0.310	1.187	0.080	0.121	-0.618	1.330
V	-0.004	-0.052	0.362	-0.111	-0.090	0.394
ZN	0.575	-0.048	-0.013	-0.697	-0.114	0.440

Factor scores after Varimax rotation:

	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-0.184	-0.603	-2.010	-0.059	-0.581	-0.130
BASS-BWBK-SS-BA102-0001	-0.116	-0.845	-2.323	-0.049	-0.503	0.191
BASS-BWBK-SS-BA103-0001	-0.119	-0.733	-2.170	-0.070	-0.583	0.180
BASS-BWBK-SS-BA104-0001	-0.202	-0.354	-1.868	-0.052	-0.849	0.103
BASS-BWBK-SS-BA105-0001	-0.156	-0.660	-2.249	-0.031	-0.493	0.243
BASS-BWBK-SS-BA106-0001	-0.265	-0.200	-1.881	-0.024	-0.910	0.127
BASS-BWBK-SS-BA107-0001	-0.103	-0.851	-2.263	-0.056	-0.523	0.217
BASS-BWBK-SS-BA108-0001	-0.128	-0.735	-2.260	-0.033	-0.647	0.227
BASS-BWBK-SS-BA109-0001	-0.277	-0.077	-2.089	0.002	-1.074	0.279
BASS-BWBK-SS-BA110-0001	-0.159	-0.304	-1.710	-0.113	-0.733	-0.127
BASS-BWBK-SS-BA111-0001	-0.163	-0.673	-2.135	-0.046	-0.624	0.026
BASS-BWBK-SS-BA112-0001	-0.140	-0.758	-2.159	-0.052	-0.573	-0.030
BASS-BWBK-SS-BA113-0001	0.030	-0.827	-2.300	-0.161	-0.499	0.327
MASB-BWBK-SB-MA01-0105	0.058	1.409	-0.543	-0.430	0.184	-0.495
MASB-BWBK-SB-MA02-0107	-0.460	1.787	-0.083	-0.297	0.274	-0.162
MASB-BWBK-SB-MA03-0108	0.331	1.481	-1.119	-0.506	0.763	0.507
MASB-BWBK-SB-MA04-0106	-0.337	2.247	0.096	-0.445	-0.431	-0.067
MASB-BWBK-SB-MA05-0108	-0.372	1.396	-0.271	-0.376	0.167	0.557
MASB-BWBK-SB-MA06-0105	-0.477	1.582	-0.106	-0.302	-0.040	0.198
MASB-BWBK-SB-MA07-0108	-0.701	0.903	-0.437	-0.143	0.861	0.034
MASB-BWBK-SB-MA08-0108	-1.308	0.997	0.443	-0.111	4.003	-1.183
MASB-BWBK-SB-MA09-0108	-0.450	0.597	-0.558	-0.272	1.969	0.341

APPENDIX F, TABLE F3-1
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NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASB-BWBK-SB-MA10-0104	-0.589	0.135	-0.977	-0.050	1.444	-0.146
MASB-BWBK-SB-MA11-0108	-0.676	1.306	-0.076	-0.070	1.166	-0.021
MASB-BWBK-SB-MA12-0108	-0.376	1.387	-0.511	-0.348	1.184	0.482
MASB-BWBK-SB-MA13-0105	0.069	0.010	-0.090	-0.553	-0.490	0.119
MASB-BWBK-SB-MA14-0104	-0.156	0.049	0.331	-0.498	1.775	-0.687
MASB-BWBK-SB-MA15-0105	-0.067	0.021	0.644	-0.619	0.601	-0.266
MASB-BWBK-SB-MA16-0104	-0.030	0.032	-0.494	-0.349	0.469	-0.051
MASB-BWBK-SB-MA17-0104	0.112	-0.437	0.056	-0.578	0.507	-0.448
MASB-BWBK-SB-MA18-0104	-0.215	0.383	0.603	-0.567	-0.870	0.064
MASB-BWBK-SB-MA19-0103	0.087	-0.064	-0.264	-0.508	-0.521	0.285
MASB-BWBK-SB-MA20-0103	-0.379	1.237	-0.439	-0.271	0.225	0.547
MASS-BWBK-SS-MA01-0001	0.252	-1.136	-0.479	-0.260	-0.919	0.325
MASS-BWBK-SS-MA02-0001	0.449	-0.455	0.835	-0.642	-1.600	0.104
MASS-BWBK-SS-MA03-0001	0.093	-0.700	-0.242	-0.253	-0.576	0.026
MASS-BWBK-SS-MA04-0001	0.067	-0.165	0.021	-0.270	-1.027	0.083
MASS-BWBK-SS-MA05-0001	-0.234	0.393	0.653	-0.258	-0.764	0.013
MASS-BWBK-SS-MA06-0001	0.169	0.015	1.306	-0.495	-0.401	-0.358
MASS-BWBK-SS-MA07-0001	-0.025	-1.743	-1.599	0.187	-0.269	0.675
MASS-BWBK-SS-MA08-0001	-0.299	-1.083	0.102	0.693	0.638	0.195
MASS-BWBK-SS-MA09-0001	-0.026	0.044	2.156	0.180	-0.653	0.162
MASS-BWBK-SS-MA10-0001	-0.213	-0.218	1.279	0.241	-0.057	0.088
MASS-BWBK-SS-MA11-0001	-0.102	-0.469	1.538	-0.257	0.892	-0.652
MASS-BWBK-SS-MA12-0001	-0.250	0.046	0.075	-0.181	-0.673	0.161
MASS-BWBK-SS-MA13-0001	0.288	-0.769	1.189	-0.561	-0.438	-0.267
MASS-BWBK-SS-MA14-0001	0.192	-1.162	0.347	0.089	-0.802	0.751
MASS-BWBK-SS-MA15-0001	0.186	-1.002	0.739	-0.204	-0.890	0.273
MASS-BWBK-SS-MA16-0001	-0.128	-0.814	0.239	-0.119	-0.143	0.271
MASS-BWBK-SS-MA17-0001	0.007	-0.781	0.487	-0.252	-0.315	0.118
MASS-BWBK-SS-MA18-0001	-0.101	-1.048	0.427	-0.039	-0.370	0.750
MASS-BWBK-SS-MA19-0001	0.011	-0.841	0.554	-0.155	-0.229	0.321
MASS-BWBK-SS-MA20-0001	-0.133	-0.224	0.115	-0.101	-0.112	0.401
MMSB-BWBK-SB-MM101-0110	-0.174	0.071	-1.156	0.098	-0.130	-0.310
MMSB-BWBK-SB-MM102-0109	-0.435	1.477	-0.507	-0.027	-1.458	0.326
MMSB-BWBK-SB-MM103-0107	0.131	0.295	-1.168	-0.119	-0.711	-0.275
MMSB-BWBK-SB-MM104-0110	-0.397	0.696	-0.056	-0.069	-0.150	-1.956
MMSB-BWBK-SB-MM105-0110	-0.141	-0.208	-1.408	-0.002	-0.533	0.352
MMSB-BWBK-SB-MM106-0110	-0.238	1.313	0.492	-0.336	-1.041	-1.254
MMSB-BWBK-SB-MM107-0110	-0.117	0.277	-0.869	-0.200	-0.751	-0.712
MMSB-BWBK-SB-MM108-0110	-0.171	0.110	-0.704	-0.150	-0.569	-0.426
MMSB-BWBK-SB-MM109-0110	-0.066	0.394	0.084	-0.308	-0.612	-0.501
MMSB-BWBK-SB-MM110-0109	-0.253	0.292	-0.337	-0.186	-0.577	-0.690
MMSB-BWBK-SB-MM111-0110	-0.261	0.475	-0.293	-0.091	-0.358	-0.728
MMSB-BWBK-SB-MM112-0110	-0.206	0.658	-0.023	-0.331	-0.538	-0.711

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSB-BWBK-SB-MM113-0110	-0.326	1.059	-0.423	-0.203	-1.233	-0.772
MMSB-BWBK-SB-MM114-0110	-0.049	0.052	-0.970	-0.171	-0.794	0.093
MMSB-BWBK-SB-MM115-0110	0.250	0.018	0.167	-0.571	-0.760	-1.085
MMSB-BWBK-SB-MM116-0110	-0.108	0.510	-0.816	-0.127	-0.773	-0.415
MMSB-BWBK-SB-MM117-0110	-0.044	-0.140	-1.415	-0.063	-0.401	0.047
MMSB-BWBK-SB-MM118-0110	-0.414	2.085	-1.000	0.130	-1.693	1.585
MMSB-BWBK-SB-MM119-0110	-0.203	0.374	-0.910	-0.101	-0.661	-0.434
MMSB-BWBK-SB-MM120-0110	-0.035	-0.616	-1.787	-0.051	-0.367	0.082
MMSS-BWBK-SS-MM101-0001	-0.373	-0.499	1.426	-0.251	-0.397	-0.547
MMSS-BWBK-SS-MM102-0001	-0.343	-0.683	0.195	-0.277	-0.359	-0.134
MMSS-BWBK-SS-MM103-0001	-0.486	-0.623	1.136	-0.087	-0.261	-0.380
MMSS-BWBK-SS-MM104-0001	-0.369	-0.296	1.077	-0.103	-0.402	-0.509
MMSS-BWBK-SS-MM105-0001	-0.227	-1.064	-0.119	-0.112	-0.329	0.152
MMSS-BWBK-SS-MM106-0001	-0.305	-0.287	1.150	-0.368	-0.471	-0.829
MMSS-BWBK-SS-MM107-0001	-0.392	-0.200	1.383	-0.353	-0.612	-0.713
MMSS-BWBK-SS-MM108-0001	-0.372	-0.708	1.583	-0.351	-0.629	-0.284
MMSS-BWBK-SS-MM109-0001	-0.453	-0.621	1.117	-0.351	-0.565	-0.485
MMSS-BWBK-SS-MM110-0001	-0.176	-1.431	-0.362	-0.023	-0.281	0.205
MMSS-BWBK-SS-MM111-0001	-0.217	-1.201	-0.095	-0.112	-0.495	-0.075
MMSS-BWBK-SS-MM112-0001	-0.188	-1.339	-0.543	0.017	-0.428	0.245
MMSS-BWBK-SS-MM113-0001	-0.384	-0.958	0.924	0.087	-0.463	-0.114
MMSS-BWBK-SS-MM114-0001	-0.058	-1.364	-0.832	-0.191	-0.428	0.253
MMSS-BWBK-SS-MM115-0001	-0.125	-1.259	-0.255	-0.233	-0.247	0.018
MMSS-BWBK-SS-MM116-0001	-0.154	-1.320	-0.436	-0.091	-0.312	0.107
MMSS-BWBK-SS-MM117-0001	-0.295	-0.693	0.622	-0.127	-0.381	-0.324
MMSS-BWBK-SS-MM118-0001	-0.183	-0.280	-0.558	-0.204	-0.678	-0.305
MMSS-BWBK-SS-MM119-0001	-0.133	-0.342	-0.862	-0.204	-0.706	0.141
MMSS-BWBK-SS-MM120-0001	-0.390	-0.665	-0.600	-0.184	0.466	-0.619
NESB-BWBK-SB-NE01-0108	-0.631	1.568	0.130	-0.135	-0.603	-0.777
NESB-BWBK-SB-NE02-0109	-0.058	1.173	-0.136	-0.352	-0.419	-0.819
NESB-BWBK-SB-NE03-0105	-0.527	0.703	-0.247	-0.135	0.014	-0.674
NESB-BWBK-SB-NE04-0110	-0.380	0.864	-0.319	-0.148	-0.505	-0.520
NESB-BWBK-SB-NE05-0108	-0.600	1.237	-0.082	-0.134	-0.384	-0.596
NESB-BWBK-SB-NE06-0109	-0.497	1.015	-0.392	-0.111	-0.368	-0.309
NESB-BWBK-SB-NE07-0107	-0.612	1.432	0.141	-0.147	-0.535	-0.574
NESB-BWBK-SB-NE08-0104	-0.403	0.763	-0.375	-0.177	-0.632	-0.045
NESB-BWBK-SB-NE09-0110	-0.446	0.850	-0.436	-0.152	-0.354	-0.521
NESB-BWBK-SB-NE10-0107	-0.322	0.382	0.254	-0.330	-0.624	-0.495
NESB-BWBK-SB-NE101-0110	-0.040	0.298	0.383	-0.424	-0.678	-0.666
NESB-BWBK-SB-NE102-0110	0.138	0.059	0.105	-0.476	-0.891	-0.408
NESB-BWBK-SB-NE103-0110	0.058	-0.184	-0.416	-0.365	-0.722	-0.205
NESB-BWBK-SB-NE104-0110	0.052	-0.367	-0.846	-0.289	-0.641	-0.012
NESB-BWBK-SB-NE105-0110	0.043	0.155	0.128	-0.439	-0.548	-0.692
NESB-BWBK-SB-NE106-0110	0.032	0.192	-0.127	-0.388	-0.783	-0.338
NESB-BWBK-SB-NE107-0510	-0.037	-0.282	-0.844	-0.228	-0.499	-0.428

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

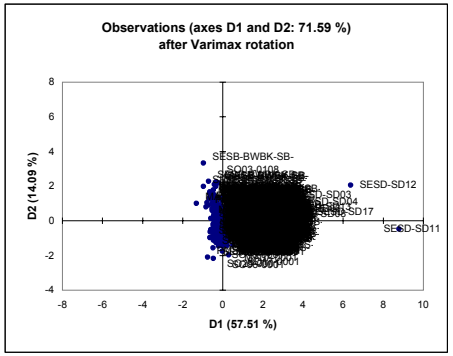
NESB-BWBK-SB-NE108-0110	-0.007	-0.113	-0.025	-0.401	-0.647	-0.521
NESB-BWBK-SB-NE109-0110	0.036	-0.092	-0.113	-0.385	-0.656	-0.553
NESB-BWBK-SB-NE110-0110	-0.044	-0.072	-0.197	-0.323	-0.726	-0.643
NESS-BKG-SS03-NEB-0016	-0.589	-0.519	1.127	1.302	-0.409	0.154
NESS-BKG-SS09-NEB-0018	-0.246	-0.892	0.583	-0.074	-0.603	-0.185
NESS-BWBK-SS-NE01-0001	-0.261	0.149	1.831	-0.308	-0.352	-0.583
NESS-BWBK-SS-NE02-0001	-0.382	0.681	1.260	-0.375	-0.610	-0.074
NESS-BWBK-SS-NE03-0001	-0.456	-0.136	1.507	-0.359	-0.395	-0.636
NESS-BWBK-SS-NE04-0001	-0.439	0.433	1.486	-0.334	-0.696	-0.802
NESS-BWBK-SS-NE05-0001	-0.401	-0.015	1.138	-0.103	-0.600	-0.547
NESS-BWBK-SS-NE06-0001	-0.527	0.591	1.223	-0.322	-0.916	-0.438
NESS-BWBK-SS-NE07-0001	-0.467	-0.337	1.288	0.206	-0.334	-0.155
NESS-BWBK-SS-NE08-0001	-0.469	0.166	1.323	-0.328	-0.616	-0.445
NESS-BWBK-SS-NE09-0001	-0.274	-0.378	2.071	-0.290	-0.738	-0.552
NESS-BWBK-SS-NE10-0001	-0.480	-0.223	0.845	0.448	-0.517	0.085
NESS-BWBK-SS-NE101-0001	-0.172	-0.647	0.950	-0.452	-0.818	-0.345
NESS-BWBK-SS-NE102-0001	-0.167	-1.021	-0.034	-0.050	-0.595	0.117
NESS-BWBK-SS-NE103-0001	-0.180	-1.005	-0.389	-0.024	-0.600	0.236
NESS-BWBK-SS-NE104-0001	-0.495	-0.887	-0.134	0.584	-0.445	0.067
NESS-BWBK-SS-NE105-0001	-0.075	-1.215	-0.461	-0.197	-0.523	0.135
NESS-BWBK-SS-NE106-0001	-0.347	-1.258	-0.359	0.691	-0.475	0.112
NESS-BWBK-SS-NE107-0001	-0.081	-1.354	-0.099	-0.100	-0.560	0.105
NESS-BWBK-SS-NE108-0001	-0.068	-1.160	-0.091	-0.026	-0.589	0.075
NESS-BWBK-SS-NE109-0001	-0.038	-1.299	-0.411	-0.220	-0.519	0.028
NESS-BWBK-SS-NE110-0001	-0.219	-1.453	-0.417	0.295	-0.344	0.396
PMSB-BWBK-SB-PM01-0105	-0.004	1.386	0.315	-0.509	-0.833	0.584
PMSB-BWBK-SB-PM02-0104	-0.455	0.291	0.650	-0.432	2.480	-1.743
PMSB-BWBK-SB-PM03-0106	-0.503	1.220	-0.274	-0.304	1.609	-0.317
PMSB-BWBK-SB-PM04-0105	-0.444	1.243	-0.127	-0.185	0.319	0.154
PMSB-BWBK-SB-PM05-0105	-0.215	0.909	-0.186	-0.347	0.583	-0.444
PMSB-BWBK-SB-PM06-0105	-0.047	0.830	-0.261	-0.495	1.003	-1.247
PMSB-BWBK-SB-PM07-0105	0.253	-0.264	-0.714	-0.517	1.414	-0.662
PMSB-BWBK-SB-PM08-0106	0.014	0.600	-0.361	-0.424	0.370	0.011
PMSB-BWBK-SB-PM09-0106	-0.128	0.518	-0.951	-0.324	0.025	0.398
PMSB-BWBK-SB-PM10-0105	-0.030	-0.047	0.063	-0.583	0.878	-0.293
PMSB-BWBK-SB-PM11-0104	0.204	0.802	-0.653	-0.502	1.089	-0.252
PMSB-BWBK-SB-PM12-0105	-0.085	0.305	-0.509	-0.370	-0.812	-0.088
PMSB-BWBK-SB-PM13-0106	-0.088	-0.490	0.197	-0.560	1.037	-1.118
PMSB-BWBK-SB-PM14-0106	0.070	-0.111	-0.480	-0.445	-0.292	-0.111
PMSB-BWBK-SB-PM15-0105	-0.219	0.326	-0.119	-0.363	0.357	-0.393
PMSB-BWBK-SB-PM16-0106	-0.186	0.219	-0.282	-0.362	-0.186	-0.081
PMSB-BWBK-SB-PM17-0105	0.061	0.385	-0.278	-0.352	0.503	-0.393
PMSB-BWBK-SB-PM18-0105	-0.791	1.043	-0.201	-0.125	1.688	-0.598
PMSB-BWBK-SB-PM19-0105	-0.355	0.764	-0.043	-0.321	0.527	-0.213
PMSB-BWBK-SB-PM20-0106	-0.274	0.625	-0.142	-0.348	0.095	-0.010
PMSB-BWBK-SB-SO01-0107-PM	-0.595	1.402	-0.152	-0.161	0.741	0.686

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSB-BWBK-SB-SO02-0109-PM	-0.835	0.809	-0.095	-0.080	1.929	-0.230
PMSB-BWBK-SB-SO13-0104-PM	-0.556	1.325	-0.623	-0.075	1.709	0.759
PMSB-BWBK-SB-SO14-0105-PM	-0.651	1.662	-0.362	-0.137	1.668	0.592
PMSS-DABK-S-SO21-0001	0.012	-1.082	-0.118	0.530	0.906	0.988
PMSS-DABK-S-SO22-0001	0.242	-1.105	0.815	0.310	0.940	0.913
PMSS-DABK-S-SO23-0001	-0.207	-0.263	0.877	0.497	-0.331	0.925
PMSS-DABK-S-SO24-0001	-0.001	-1.440	0.677	0.044	1.761	-0.158
PMSS-DABK-S-SO25-0001	-0.750	-2.107	0.836	0.564	4.996	-1.671
PMSS-DABK-S-SO26-0001	-0.072	-0.632	1.007	0.614	0.789	1.065
PMSS-DABK-S-SO27-0001	-0.262	-0.748	0.491	1.109	-0.237	1.207
PMSS-DABK-S-SO28-0001	0.489	-1.017	0.426	0.240	0.184	0.820
PMSS-DABK-S-SO29-0001	0.025	-0.822	1.711	0.102	0.279	0.203
PMSS-DABK-S-SO30-0001	0.542	-0.784	1.414	-0.388	-0.261	0.238
PMSS-DABK-S-SO31-0001	0.154	-1.272	0.061	-0.145	0.316	-0.002
PMSS-DABK-S-SO32-0001	0.513	-1.394	0.429	0.859	1.090	0.351
PMSS-DABK-S-SO33-0001	0.427	-0.824	0.850	0.063	-0.877	0.835
PMSS-DABK-S-SO34-0001	0.278	-1.164	-0.108	0.113	0.140	0.177
PMSS-DABK-S-SO35-0001	-0.061	-0.963	0.206	0.667	0.264	0.393
PMSS-DABK-S-SO36-0001	-0.293	-1.043	0.402	0.797	-0.306	0.405
PMSS-DABK-S-SO37-0001	-0.013	-1.223	0.695	-0.170	0.629	-0.154
PMSS-DABK-S-SO38-0001	0.025	-1.149	0.067	0.241	-0.211	0.450
PMSS-DABK-S-SO39-0001	0.058	-1.091	0.163	-0.088	0.616	-0.204
PMSS-DABK-S-SO40-0001	0.182	-1.014	0.425	-0.075	-0.296	0.299
SESB-BWBK-SB-SO03-0108	-0.957	3.336	0.353	-0.093	1.130	1.452
SESB-BWBK-SB-SO04-0108	-0.525	1.618	-0.468	-0.195	1.353	0.955
SESB-BWBK-SB-SO05-0106	-0.610	1.533	0.260	-0.307	0.833	0.541
SESB-BWBK-SB-SO06-0108	-0.967	1.977	0.196	-0.061	2.216	0.605
SESB-BWBK-SB-SO07-0106	-0.210	2.185	-0.590	-0.168	0.209	1.375
SESB-BWBK-SB-SO08-0107	-0.708	2.272	0.208	-0.175	1.598	0.606
SESB-BWBK-SB-SO09-0106	-0.485	1.477	0.075	-0.291	0.484	0.647
SESB-BWBK-SB-SO11-0106	-0.345	1.991	-0.027	-0.320	0.859	-0.091
SESB-BWBK-SB-SO12-0106	-0.643	1.588	-0.464	-0.157	1.545	0.755
SESB-BWBK-SB-SO15-0103	-0.231	0.318	0.089	-0.383	0.243	-0.040
SESB-BWBK-SB-SO16-0105	-0.416	1.033	-0.594	-0.251	0.473	0.642
SESB-BWBK-SB-SO17-0106	-0.162	0.907	-0.473	-0.316	-0.604	0.694
SESB-BWBK-SB-SO18-0105	0.058	0.576	-0.494	-0.367	-0.974	0.389
SESB-BWBK-SB-SO19-0104	0.562	0.558	-0.715	-0.524	-0.846	0.422
SESB-BWBK-SB-SO20-0104	-0.335	0.915	-0.773	-0.233	1.308	0.010
SESS-DABK-S-SO01-0001	-0.402	-0.474	1.131	-0.250	-0.230	-0.006
SESS-DABK-S-SO02-0001	0.381	0.848	0.718	0.062	-0.304	-0.645
SESS-DABK-S-SO03-0001	-0.462	-1.112	1.079	0.372	0.305	0.486
SESS-DABK-S-SO04-0001	-0.247	-0.368	2.146	-0.317	-0.649	0.557
SESS-DABK-S-SO05-0001	-0.454	-0.927	0.990	0.243	0.241	0.408
SESS-DABK-S-SO06-0001	-0.468	-2.168	0.868	-0.070	6.219	-1.299
SESS-DABK-S-SO07-0001	0.055	0.224	1.116	-0.110	-1.114	0.791
SESS-DABK-S-SO08-0001	-0.145	-0.404	0.703	0.252	0.171	0.384

APPENDIX F, TABLE F3-1
SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SESS-DABK-S-SO09-0001	-0.647	-0.979	0.537	0.338	1.103	0.513
SESS-DABK-S-SO10-0001	-0.478	-1.563	0.519	0.065	1.799	-0.106
SESS-DABK-S-SO11-0001	0.218	-1.237	-0.514	-0.056	-0.474	1.017
SESS-DABK-S-SO12-0001	0.186	-0.833	0.677	-0.246	-0.436	0.133
SESS-DABK-S-SO13-0001	-0.198	-0.305	-0.078	-0.282	0.202	0.904
SESS-DABK-S-SO14-0001	-0.622	-0.646	-0.254	0.412	0.335	0.872
SESS-DABK-S-SO15-0001	-0.309	-1.169	0.701	0.074	0.382	0.959
SESS-DABK-S-SO16-0001	0.215	-1.443	-0.519	-0.153	-0.281	0.428
SESS-DABK-S-SO17-0001	0.303	-1.978	0.336	-0.026	0.687	0.064
SESS-DABK-S-SO18-0001	0.058	-0.650	-0.112	0.066	-0.541	0.612
SESS-DABK-S-SO19-0001	-0.042	-0.012	0.776	0.720	-0.761	0.482
SESS-DABK-S-SO20-0001	-0.311	0.004	1.672	0.377	-0.200	0.261
SESD-SD01	1.116	0.903	1.053	-0.088	-0.637	0.268
SESD-SD02	0.887	0.191	-1.166	0.065	0.159	0.572
SESD-SD03	3.138	1.509	0.869	-0.262	-0.247	-0.872
SESD-SD04	3.456	1.074	0.382	-1.101	-0.058	-1.053
SESD-SD05	-0.319	0.514	-0.025	2.253	0.388	1.014
SESD-SD06	2.600	0.676	0.880	-0.421	0.058	-0.637
SESD-SD07	0.508	1.391	2.756	1.083	-0.916	1.610
SESD-SD08	2.868	0.392	0.825	-0.570	2.141	-1.144
SESD-SD09	0.610	-0.829	-1.485	0.591	0.228	0.502
SESD-SD10	0.813	0.837	0.879	2.698	0.089	0.938
SESD-SD11	8.780	-0.466	-0.793	-1.448	1.300	-3.773
SESD-SD12	6.382	2.054	1.031	1.009	0.221	6.912
SESD-SD13	3.126	0.816	0.197	3.338	0.140	0.715
SESD-SD14	0.384	-0.271	1.045	0.609	0.151	-0.219
SESD-SD15	1.789	0.702	0.842	2.396	0.407	1.060
SESD-SD16	0.561	0.299	0.077	5.302	0.447	0.793
SESD-SD17	4.242	0.524	-0.570	-0.293	-0.064	-1.024
SESD-SD18	0.655	-0.184	-1.350	0.247	0.818	0.297
SESD-SD19	0.021	0.666	-0.718	11.867	-0.659	-3.379
SESD-SD20	-0.032	-0.383	-1.744	0.203	1.061	-0.082



APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

XLSTAT 2007.4 - Factor analysis - on 7/9/2007 at 3:18:51 PM
Observations/variables table: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK.xls / Sheet1!$D$1:$O$215 / 214 rows and 12 columns
Observation labels: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK.xls / Sheet1!$C$1:$C$215 / 214 rows and 1 column
Correlation: Pearson (n)
Extraction method: Principal factor analysis
Number of factors: 6
Initial communalities: Squared multiple correlations
Stop conditions: Convergence = 0.0001 / Iterations = 400
Rotation: Varimax / Number of factors = 6

Summary statistics

Summary statistics:

Variable	Observ.	w.missing	complete	Minimum	Maximum	Mean	Std. deviation
AL	214	0	214	3710.000	17900.000	########	2684.688
AS	214	0	214	0.830	71.700	8.928	8.501
BA	214	0	214	6.300	61.000	27.709	10.480
CR	214	0	214	4.800	28.200	12.147	3.425
CO	214	0	214	0.850	19.900	6.881	4.038
FE	214	0	214	5940.000	53900.000	########	8334.798
PB	214	0	214	2.600	49.500	13.440	9.259
MG	214	0	214	482.000	4580.000	2246.451	809.651
MN	214	0	214	27.900	1750.000	285.837	239.043
NI	214	0	214	2.800	37.100	13.016	6.131
V	214	0	214	5.200	35.800	18.794	6.601
ZN	214	0	214	10.500	93.700	37.257	15.323

Correlation matrix (Pearson (n)):

Variables	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	**1**	0.374	0.567	0.640	0.205	0.446	0.460	0.129	0.065	0.279	0.643	0.448
AS	0.374	**1**	0.225	0.576	0.627	0.857	0.201	0.371	0.379	0.633	0.405	0.685
BA	0.567	0.225	**1**	0.501	0.136	0.192	0.613	-0.066	0.022	0.052	0.682	0.396
CR	0.640	0.576	0.501	**1**	0.668	0.732	0.290	0.531	0.408	0.680	0.559	0.760
CO	0.205	0.627	0.136	0.668	**1**	0.815	-0.030	0.678	0.675	0.899	0.212	0.727
FE	0.446	0.857	0.192	0.732	0.815	**1**	0.106	0.605	0.546	0.831	0.399	0.775
PB	0.460	0.201	0.613	0.290	-0.030	0.106	**1**	-0.327	-0.155	-0.107	0.787	0.436
MG	0.129	0.371	-0.066	0.531	0.678	0.605	-0.327	**1**	0.512	0.778	-0.153	0.474
MN	0.065	0.379	0.022	0.408	0.675	0.546	-0.155	0.512	**1**	0.600	0.068	0.398
NI	0.279	0.633	0.052	0.680	0.899	0.831	-0.107	0.778	0.600	**1**	0.109	0.743
V	0.643	0.405	0.682	0.559	0.212	0.399	0.787	-0.153	0.068	0.109	**1**	0.526
ZN	0.448	0.685	0.396	0.760	0.727	0.775	0.436	0.474	0.398	0.743	0.526	**1**

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor analysis:

Maximum change in communality at each iteration:

Iteration	Maximum change
246	0.0001
247	0.0001
248	0.0001
249	0.0001
250	0.0001
251	0.0001
252	0.0001
253	0.0001
254	0.0001
255	0.0001

Reproduced correlation matrix:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	0.714	0.377	0.565	0.640	0.205	0.441	0.455	0.139	0.067	0.264	0.649	0.455
AS	0.377	0.917	0.225	0.571	0.627	0.856	0.202	0.374	0.381	0.632	0.405	0.685
BA	0.565	0.225	0.810	0.504	0.135	0.192	0.611	-0.067	0.021	0.053	0.683	0.396
CR	0.640	0.571	0.504	0.852	0.664	0.741	0.299	0.522	0.410	0.694	0.550	0.752
CO	0.205	0.627	0.135	0.664	0.946	0.817	-0.033	0.691	0.677	0.882	0.217	0.734
FE	0.441	0.856	0.192	0.741	0.817	0.957	0.105	0.597	0.541	0.837	0.398	0.772
PB	0.455	0.202	0.611	0.299	-0.033	0.105	0.827	-0.329	-0.154	-0.109	0.786	0.436
MG	0.139	0.374	-0.067	0.522	0.691	0.597	-0.329	0.761	0.506	0.778	-0.153	0.474
MN	0.067	0.381	0.021	0.410	0.677	0.541	-0.154	0.506	0.526	0.606	0.066	0.396
NI	0.264	0.632	0.053	0.694	0.882	0.837	-0.109	0.778	0.606	0.927	0.113	0.745
V	0.649	0.405	0.683	0.550	0.217	0.398	0.786	-0.153	0.066	0.113	0.961	0.526
ZN	0.455	0.685	0.396	0.752	0.734	0.772	0.436	0.474	0.396	0.745	0.526	0.976

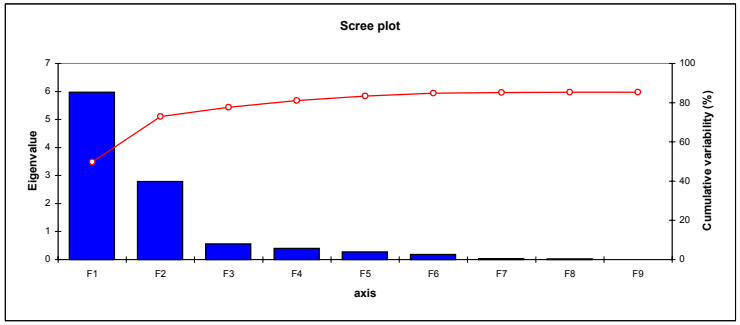
Residual correlation matrix:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
AL	0.286	-0.003	0.002	0.001	0.000	0.005	0.005	-0.010	-0.003	0.015	-0.006	-0.007
AS	-0.003	0.083	0.000	0.005	0.000	0.000	-0.001	-0.003	-0.002	0.001	0.000	-0.001
BA	0.002	0.000	0.190	-0.003	0.001	0.000	0.002	0.001	0.001	-0.001	-0.001	0.000
CR	0.001	0.005	-0.003	0.148	0.004	-0.009	-0.010	0.009	-0.002	-0.014	0.009	0.008
CO	0.000	0.000	0.001	0.004	0.054	-0.002	0.003	-0.013	-0.002	0.017	-0.005	-0.006
FE	0.005	0.000	0.000	-0.009	-0.002	0.043	0.000	0.008	0.005	-0.006	0.002	0.004
PB	0.005	-0.001	0.002	-0.010	0.003	0.000	0.173	0.002	-0.001	0.003	0.000	0.000
MG	-0.010	-0.003	0.001	0.009	-0.013	0.008	0.002	0.239	0.005	0.000	0.000	0.000
MN	-0.003	-0.002	0.001	-0.002	-0.002	0.005	-0.001	0.005	0.474	-0.006	0.002	0.002
NI	0.015	0.001	-0.001	-0.014	0.017	-0.006	0.003	0.000	-0.006	0.073	-0.004	-0.002
V	-0.006	0.000	-0.001	0.009	-0.005	0.002	0.000	0.000	0.002	-0.004	0.039	0.000
ZN	-0.007	-0.001	0.000	0.008	-0.006	0.004	0.000	0.000	0.002	-0.002	0.000	0.024

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Eigenvalues:

	F1	F2	F3	F4	F5	F6	F7	F8	F9
Eigenvalue	5.973	2.785	0.565	0.398	0.277	0.178	0.040	0.018	0.000
Variability (%)	49.777	23.207	4.706	3.318	2.305	1.487	0.331	0.153	0.002
Cumulative %	49.777	72.985	77.690	81.008	83.313	84.800	85.131	85.284	85.286



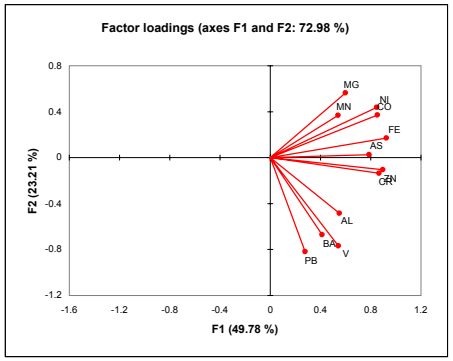
Eigenvectors:

	F1	F2	F3	F4	F5	F6	F7	F8	F9
AL	0.225	-0.291	-0.312	0.521	-0.100	0.223	0.387	-0.109	0.255
AS	0.322	0.015	0.602	0.387	0.068	-0.424	-0.038	0.244	-0.224
BA	0.169	-0.403	-0.374	-0.093	0.247	-0.708	0.041	-0.162	0.034
CR	0.355	-0.081	-0.358	0.137	-0.059	0.084	-0.338	0.519	0.027
CO	0.349	0.222	0.001	-0.373	0.305	0.018	0.397	0.306	0.036
FE	0.378	0.102	0.262	0.282	0.091	0.121	-0.092	-0.510	0.245
PB	0.114	-0.490	0.192	-0.341	-0.217	0.079	0.180	-0.299	-0.373
MG	0.245	0.337	-0.357	0.069	-0.208	-0.040	-0.328	-0.284	-0.566
MN	0.221	0.221	-0.057	-0.242	0.509	0.079	-0.195	-0.300	0.204
NI	0.347	0.262	-0.080	-0.065	-0.171	0.087	0.520	0.014	-0.234
V	0.222	-0.460	0.107	-0.065	0.331	0.469	-0.247	0.134	-0.246
ZN	0.367	-0.063	0.135	-0.380	-0.576	-0.074	-0.242	0.030	0.453

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor pattern:

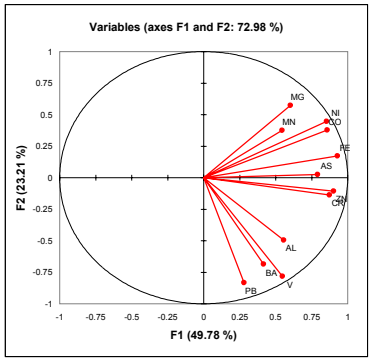
	F1	F2	F3	F4	F5	F6	al commun	l commun	cific variance
AL	0.551	-0.485	-0.235	0.329	-0.053	0.094	0.656	0.714	0.286
AS	0.787	0.025	0.452	0.244	0.036	-0.179	0.788	0.917	0.083
BA	0.412	-0.672	-0.281	-0.059	0.130	-0.299	0.597	0.810	0.190
CR	0.867	-0.135	-0.269	0.087	-0.031	0.035	0.804	0.852	0.148
CO	0.853	0.371	0.000	-0.235	0.160	0.008	0.878	0.946	0.054
FE	0.924	0.169	0.197	0.178	0.048	0.051	0.918	0.957	0.043
PB	0.279	-0.817	0.144	-0.215	-0.114	0.034	0.796	0.827	0.173
MG	0.599	0.562	-0.268	0.044	-0.110	-0.017	0.734	0.761	0.239
MN	0.540	0.369	-0.043	-0.153	0.268	0.033	0.490	0.526	0.474
NI	0.849	0.437	-0.060	-0.041	-0.090	0.037	0.915	0.927	0.073
V	0.542	-0.768	0.081	-0.041	0.174	0.198	0.837	0.961	0.039
ZN	0.897	-0.105	0.101	-0.240	-0.303	-0.031	0.852	0.976	0.024



Correlations between variables and factors:

	F1	F2	F3	F4	F5	F6
AL	0.555	-0.494	-0.260	0.360	-0.059	0.120
AS	0.792	0.025	0.501	0.267	0.040	-0.227
BA	0.415	-0.685	-0.312	-0.064	0.145	-0.379
CR	0.873	-0.137	-0.298	0.095	-0.035	0.045
CO	0.858	0.378	0.000	-0.257	0.179	0.010
FE	0.930	0.173	0.219	0.195	0.053	0.065
PB	0.281	-0.833	0.160	-0.236	-0.127	0.043
MG	0.603	0.573	-0.298	0.048	-0.122	-0.021
MN	0.544	0.376	-0.047	-0.167	0.298	0.042
NI	0.854	0.446	-0.066	-0.045	-0.100	0.046
V	0.546	-0.783	0.089	-0.045	0.194	0.251
ZN	0.903	-0.107	0.112	-0.263	-0.337	-0.040

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Factor pattern coefficients:

	F1	F2	F3	F4	F5	F6
AL	0.050	-0.101	-0.204	0.221	-0.138	0.035
AS	0.070	-0.051	0.716	0.366	0.126	-0.794
BA	0.079	-0.184	-0.387	0.029	0.229	-0.795
CR	0.116	-0.016	-0.530	0.404	-0.078	0.013
CO	0.165	0.265	0.048	-1.047	1.021	-0.181
FE	0.243	0.210	0.258	0.855	0.166	0.463
PB	-0.015	-0.154	0.108	-0.071	-0.105	-0.023
MG	0.051	0.071	-0.231	0.001	-0.018	-0.012
MN	0.014	0.041	-0.024	-0.084	0.140	-0.008
NI	0.145	0.163	-0.360	0.362	-0.305	0.420
V	0.129	-0.507	0.135	-0.193	0.621	0.980
ZN	0.200	-0.133	0.292	-0.913	-1.331	-0.235

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor scores:

Observation	F1	F2	F3	F4	F5	F6
BASS-BWBK-SS-BA101-0001	-1.664	1.122	0.969	-0.385	-0.993	-0.258
BASS-BWBK-SS-BA102-0001	-1.901	1.175	1.224	-0.468	-0.827	-0.393
BASS-BWBK-SS-BA103-0001	-1.811	1.112	1.083	-0.449	-0.760	-0.361
BASS-BWBK-SS-BA104-0001	-1.554	1.005	0.714	-0.361	-0.656	-0.016
BASS-BWBK-SS-BA105-0001	-1.719	1.166	1.124	-0.528	-0.918	-0.211
BASS-BWBK-SS-BA106-0001	-1.500	1.067	0.598	-0.267	-1.021	0.093
BASS-BWBK-SS-BA107-0001	-1.878	1.098	1.200	-0.490	-0.756	-0.358
BASS-BWBK-SS-BA108-0001	-1.864	1.153	1.107	-0.451	-0.823	-0.356
BASS-BWBK-SS-BA109-0001	-1.639	1.238	0.561	-0.167	-0.992	-0.077
BASS-BWBK-SS-BA110-0001	-1.448	0.991	0.325	-0.088	-0.538	-0.397
BASS-BWBK-SS-BA111-0001	-1.770	1.139	0.965	-0.326	-0.827	-0.249
BASS-BWBK-SS-BA112-0001	-1.816	1.138	1.049	-0.389	-0.788	-0.333
BASS-BWBK-SS-BA113-0001	-1.586	0.954	1.420	-1.422	-2.195	-0.554
MASB-BWBK-SB-MA01-0105	1.039	1.255	-0.204	-1.005	0.265	0.404
MASB-BWBK-SB-MA02-0107	1.187	1.094	-0.843	-0.230	-0.743	0.439
MASB-BWBK-SB-MA03-0108	1.556	1.748	0.403	-2.916	0.890	-0.757
MASB-BWBK-SB-MA04-0106	1.379	0.896	-1.006	-0.545	-1.084	0.323
MASB-BWBK-SB-MA05-0108	1.118	0.769	0.929	0.740	-0.619	-1.187
MASB-BWBK-SB-MA06-0105	0.878	0.812	-0.696	-0.274	-0.997	0.739
MASB-BWBK-SB-MA07-0108	0.596	0.905	0.792	0.683	-1.190	0.180
MASB-BWBK-SB-MA08-0108	2.688	0.800	2.598	2.732	-0.743	0.345
MASB-BWBK-SB-MA09-0108	1.461	0.914	3.082	1.055	-0.539	-2.041
MASB-BWBK-SB-MA10-0104	0.268	0.980	1.146	0.134	-0.605	0.603
MASB-BWBK-SB-MA11-0108	1.366	0.697	0.192	0.041	-1.193	0.709
MASB-BWBK-SB-MA12-0108	1.667	1.187	1.967	0.643	-0.259	-1.885
MASB-BWBK-SB-MA13-0105	-0.146	-0.121	-0.903	0.154	0.711	-0.151
MASB-BWBK-SB-MA14-0104	1.121	0.116	-0.119	1.095	1.014	-0.825
MASB-BWBK-SB-MA15-0105	0.603	-0.288	-0.542	0.911	1.214	-0.202
MASB-BWBK-SB-MA16-0104	0.173	0.310	-0.120	-0.316	0.687	0.079
MASB-BWBK-SB-MA17-0104	0.117	0.043	-0.181	-0.212	0.464	-0.474
MASB-BWBK-SB-MA18-0104	0.165	-0.469	-0.989	0.607	0.585	1.177
MASB-BWBK-SB-MA19-0103	-0.304	0.003	-0.297	-0.049	0.493	-0.222
MASB-BWBK-SB-MA20-0103	0.659	0.856	-0.451	-0.625	-0.486	0.634
MASS-BWBK-SS-MA01-0001	-1.332	-0.324	-0.030	-0.125	0.035	-1.270
MASS-BWBK-SS-MA02-0001	-0.685	-0.743	-1.623	0.223	-0.580	-2.385
MASS-BWBK-SS-MA03-0001	-0.824	-0.286	-0.345	0.450	-0.114	-1.294
MASS-BWBK-SS-MA04-0001	-0.628	-0.171	-0.880	0.167	-0.630	-1.265
MASS-BWBK-SS-MA05-0001	0.113	-0.366	-1.018	0.114	-0.869	0.105

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASS-BWBK-SS-MA06-0001	0.562	-1.079	-0.945	2.007	0.237	-3.265
MASS-BWBK-SS-MA07-0001	-1.976	0.097	1.510	-0.063	0.349	-0.425
MASS-BWBK-SS-MA08-0001	-0.210	-0.979	0.687	0.103	0.041	-0.293
MASS-BWBK-SS-MA09-0001	1.067	-1.940	-1.299	-0.294	-0.790	-0.629
MASS-BWBK-SS-MA10-0001	0.709	-1.353	-0.281	-0.146	-0.460	0.049
MASS-BWBK-SS-MA11-0001	0.965	-1.426	-0.697	0.745	0.885	-0.066
MASS-BWBK-SS-MA12-0001	-0.443	-0.175	-0.627	0.382	-1.391	-0.276
MASS-BWBK-SS-MA13-0001	-0.108	-1.418	-1.433	0.688	0.730	-1.171
MASS-BWBK-SS-MA14-0001	-0.763	-1.487	-0.294	-0.293	0.573	-0.455
MASS-BWBK-SS-MA15-0001	-0.668	-1.312	-0.771	0.298	0.490	-0.750
MASS-BWBK-SS-MA16-0001	-0.469	-0.926	-0.037	0.548	0.369	0.171
MASS-BWBK-SS-MA17-0001	-0.339	-0.822	-0.215	0.137	0.430	0.020
MASS-BWBK-SS-MA18-0001	-0.579	-1.291	0.420	0.196	0.506	0.494
MASS-BWBK-SS-MA19-0001	-0.260	-1.106	-0.169	0.122	0.637	0.059
MASS-BWBK-SS-MA20-0001	-0.114	-0.549	-0.264	0.193	-0.058	-0.143
MMSB-BWBK-SB-MM101-0110	-0.535	0.901	-0.060	-0.349	0.118	-0.483
MMSB-BWBK-SB-MM102-0109	-0.213	0.939	-1.136	0.138	-0.186	0.264
MMSB-BWBK-SB-MM103-0107	-0.321	1.233	-0.393	-1.243	1.097	-0.637
MMSB-BWBK-SB-MM104-0110	0.352	0.805	-0.926	0.125	-0.005	0.125
MMSB-BWBK-SB-MM105-0110	-1.067	0.886	0.514	-0.339	-0.045	-0.397
MMSB-BWBK-SB-MM106-0110	0.562	0.373	-1.843	-0.104	-0.146	0.293
MMSB-BWBK-SB-MM107-0110	-0.413	0.773	-1.113	0.321	0.073	-0.248
MMSB-BWBK-SB-MM108-0110	-0.556	0.691	-0.222	-0.300	0.083	-0.036
MMSB-BWBK-SB-MM109-0110	-0.040	0.265	-1.245	0.023	0.450	-0.276
MMSB-BWBK-SB-MM110-0109	-0.281	0.512	-0.956	0.493	0.057	0.083
MMSB-BWBK-SB-MM111-0110	-0.143	0.569	-0.901	0.198	0.071	-0.247
MMSB-BWBK-SB-MM112-0110	-0.027	0.425	-1.038	0.220	0.650	0.666
MMSB-BWBK-SB-MM113-0110	-0.075	0.811	-1.922	0.764	-0.365	0.212
MMSB-BWBK-SB-MM114-0110	-0.843	0.784	-0.058	-0.109	0.155	-0.770
MMSB-BWBK-SB-MM115-0110	-0.238	0.017	-1.195	-0.326	0.596	-1.187
MMSB-BWBK-SB-MM116-0110	-0.399	0.859	-0.788	-0.218	-0.264	-0.644
MMSB-BWBK-SB-MM117-0110	-0.918	1.062	0.407	-0.794	0.243	-0.555
MMSB-BWBK-SB-MM118-0110	-0.213	1.263	-0.824	-0.543	-0.091	0.369
MMSB-BWBK-SB-MM119-0110	-0.515	0.808	-0.335	-0.215	-0.053	-0.106
MMSB-BWBK-SB-MM120-0110	-1.383	1.013	0.738	-0.559	0.241	-0.446
MMSS-BWBK-SS-MM101-0001	-0.261	-0.771	-0.606	1.239	-0.024	0.510
MMSS-BWBK-SS-MM102-0001	-0.913	-0.065	0.113	0.887	-0.017	0.685
MMSS-BWBK-SS-MM103-0001	-0.393	-0.717	-0.268	1.300	0.143	1.013
MMSS-BWBK-SS-MM104-0001	-0.219	-0.566	-0.708	1.122	0.155	0.308
MMSS-BWBK-SS-MM105-0001	-1.116	-0.179	0.564	0.465	0.235	0.453
MMSS-BWBK-SS-MM106-0001	-0.137	-0.494	-1.090	1.286	0.284	0.564

APPENDIX F, TABLE F3-2
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MMSS-BWBK-SS-MM107-0001	-0.235	-0.531	-0.915	1.257	-0.184	0.563
MMSS-BWBK-SS-MM108-0001	-0.502	-0.908	-0.542	1.343	0.228	0.963
MMSS-BWBK-SS-MM109-0001	-0.641	-0.450	-0.293	1.343	0.154	1.155
MMSS-BWBK-SS-MM110-0001	-1.463	-0.223	0.722	0.473	0.272	0.207
MMSS-BWBK-SS-MM111-0001	-1.368	-0.059	0.438	0.614	0.041	0.160
MMSS-BWBK-SS-MM112-0001	-1.554	-0.021	0.882	0.339	-0.188	-0.052
MMSS-BWBK-SS-MM113-0001	-0.744	-0.881	-0.051	0.886	0.156	0.806
MMSS-BWBK-SS-MM114-0001	-1.677	0.242	0.918	0.161	-0.131	-0.319
MMSS-BWBK-SS-MM115-0001	-1.354	-0.062	0.533	0.552	-0.101	-0.159
MMSS-BWBK-SS-MM116-0001	-1.425	-0.068	0.728	0.382	0.161	0.101
MMSS-BWBK-SS-MM117-0001	-0.698	-0.402	-0.314	0.918	0.028	0.196
MMSS-BWBK-SS-MM118-0001	-0.912	0.543	-0.023	0.302	0.242	-0.135
MMSS-BWBK-SS-MM119-0001	-1.148	0.632	0.217	0.099	0.143	-0.272
MMSS-BWBK-SS-MM120-0001	-0.691	0.457	-0.002	0.911	-0.081	0.713
NESB-BWBK-SB-NE01-0108	0.494	1.141	-1.258	0.259	-0.694	0.835
NESB-BWBK-SB-NE02-0109	0.426	0.933	-1.534	-0.042	-0.130	-1.009
NESB-BWBK-SB-NE03-0105	0.025	1.033	-0.556	0.467	-0.351	0.435
NESB-BWBK-SB-NE04-0110	-0.013	1.004	-0.681	-0.093	-0.328	0.257
NESB-BWBK-SB-NE05-0108	0.300	1.085	-0.833	0.128	-0.655	0.923
NESB-BWBK-SB-NE06-0109	0.062	1.110	-0.547	-0.062	-0.374	0.635
NESB-BWBK-SB-NE07-0107	0.411	1.047	-1.197	0.360	-0.857	0.621
NESB-BWBK-SB-NE08-0104	-0.170	0.950	-0.460	-0.133	-0.139	0.664
NESB-BWBK-SB-NE09-0110	-0.018	1.102	-0.589	-0.013	-0.473	0.492
NESB-BWBK-SB-NE10-0107	-0.088	0.223	-0.845	0.272	-0.032	0.822
NESB-BWBK-SB-NE101-0110	-0.124	0.150	-1.332	0.227	0.474	-0.538
NESB-BWBK-SB-NE102-0110	-0.453	0.121	-1.151	0.007	0.380	-1.130
NESB-BWBK-SB-NE103-0110	-0.778	0.357	-0.543	-0.070	0.304	-0.812
NESB-BWBK-SB-NE104-0110	-1.009	0.529	-0.112	-0.290	0.307	-0.690
NESB-BWBK-SB-NE105-0110	-0.208	0.130	-1.130	0.156	0.427	-0.783
NESB-BWBK-SB-NE106-0110	-0.426	0.326	-0.960	-0.097	0.336	-0.731
NESB-BWBK-SB-NE107-0510	-0.902	0.603	-0.108	-0.297	0.103	-0.527
NESB-BWBK-SB-NE108-0110	-0.505	0.219	-0.714	-0.122	0.581	-0.229
NESB-BWBK-SB-NE109-0110	-0.554	0.302	-0.827	-0.033	0.385	-0.729
NESB-BWBK-SB-NE110-0110	-0.567	0.421	-0.635	-0.139	0.381	-0.280
NESS-BKG-SS03-NEB-0016	0.008	-1.322	-0.132	-0.122	-0.746	0.345
NESS-BKG-SS09-NEB-0018	-0.659	-0.487	0.462	0.864	0.144	0.022
NESS-BWBK-SS-NE01-0001	0.863	-0.846	-0.559	0.524	-1.460	-0.329
NESS-BWBK-SS-NE02-0001	0.904	-0.394	0.042	0.142	-3.127	-0.406
NESS-BWBK-SS-NE03-0001	0.028	-0.429	-0.668	1.438	-0.689	0.374
NESS-BWBK-SS-NE04-0001	0.324	-0.142	-1.278	0.955	0.065	0.787
NESS-BWBK-SS-NE05-0001	0.138	-0.490	-0.781	1.079	-0.975	0.151
NESS-BWBK-SS-NE06-0001	0.112	-0.024	-1.223	1.073	-0.238	0.989
NESS-BWBK-SS-NE07-0001	0.142	-0.969	-0.113	0.929	-0.711	0.255

APPENDIX F, TABLE F3-2
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NESS-BWBK-SS-NE08-0001	-0.011	-0.271	-0.960	1.285	-0.489	0.536
NESS-BWBK-SS-NE09-0001	-0.004	-0.950	-0.975	1.364	-0.370	-0.237
NESS-BWBK-SS-NE10-0001	-0.087	-0.806	-0.169	0.501	-0.677	0.354
NESS-BWBK-SS-NE101-0001	-0.777	-0.324	-0.553	0.895	0.282	0.175
NESS-BWBK-SS-NE102-0001	-1.197	-0.259	0.261	0.342	0.105	0.120
NESS-BWBK-SS-NE103-0001	-1.309	-0.125	0.347	0.445	0.150	0.121
NESS-BWBK-SS-NE104-0001	-1.149	-0.234	0.425	0.464	-0.233	0.502
NESS-BWBK-SS-NE105-0001	-1.486	0.050	0.572	0.273	-0.067	-0.242
NESS-BWBK-SS-NE106-0001	-1.372	-0.345	0.613	0.223	-0.100	0.027
NESS-BWBK-SS-NE107-0001	-1.417	-0.291	0.570	0.250	0.027	-0.080
NESS-BWBK-SS-NE108-0001	-1.256	-0.348	0.294	0.197	0.078	-0.317
NESS-BWBK-SS-NE109-0001	-1.520	-0.001	0.524	0.260	-0.025	-0.336
NESS-BWBK-SS-NE110-0001	-1.430	-0.465	0.892	0.180	0.451	0.381
PMSB-BWBK-SB-PM01-0105	0.703	0.680	-1.039	-0.654	1.121	-0.084
PMSB-BWBK-SB-PM02-0104	1.816	0.375	-0.366	1.433	2.062	0.936
PMSB-BWBK-SB-PM03-0106	1.593	1.356	0.391	-0.560	1.165	1.065
PMSB-BWBK-SB-PM04-0105	1.027	0.777	0.425	0.444	0.330	-0.113
PMSB-BWBK-SB-PM05-0105	0.963	0.857	-0.139	-0.287	0.941	0.321
PMSB-BWBK-SB-PM06-0105	0.988	1.033	-0.057	0.274	1.212	-0.021
PMSB-BWBK-SB-PM07-0105	0.626	0.842	0.569	-0.540	2.855	-0.422
PMSB-BWBK-SB-PM08-0106	0.779	0.863	0.403	-0.611	1.687	-0.282
PMSB-BWBK-SB-PM09-0106	0.108	1.074	0.618	-0.314	0.935	-0.179
PMSB-BWBK-SB-PM10-0105	0.862	-0.054	0.081	-0.178	2.279	1.361
PMSB-BWBK-SB-PM11-0104	0.984	1.114	-0.180	-0.672	2.277	-0.191
PMSB-BWBK-SB-PM12-0105	-0.298	0.489	-0.665	-0.019	0.299	0.328
PMSB-BWBK-SB-PM13-0106	0.259	-0.119	-0.465	1.145	1.258	0.271
PMSB-BWBK-SB-PM14-0106	-0.290	0.313	-0.113	-0.207	0.845	0.110
PMSB-BWBK-SB-PM15-0105	0.341	0.399	-0.391	0.285	0.398	0.206
PMSB-BWBK-SB-PM16-0106	-0.132	0.395	-0.156	0.166	0.198	0.286
PMSB-BWBK-SB-PM17-0105	0.844	0.744	0.011	-1.543	2.165	0.577
PMSB-BWBK-SB-PM18-0105	1.116	1.028	0.223	1.143	-0.692	0.299
PMSB-BWBK-SB-PM19-0105	0.620	0.540	-0.329	0.413	-0.160	0.085
PMSB-BWBK-SB-PM20-0106	0.365	0.507	-0.234	0.128	0.070	0.197
PMSB-BWBK-SB-SO01-0107-PM	1.071	0.961	0.215	-0.484	-0.887	0.585
PMSB-BWBK-SB-SO02-0109-PM	1.231	0.822	0.967	0.897	-0.870	0.514
PMSB-BWBK-SB-SO13-0104-PM	1.454	1.220	0.548	-0.303	0.783	0.316
PMSB-BWBK-SB-SO14-0105-PM	1.711	1.278	0.734	0.093	-0.491	-0.379
PMSS-DABK-S-SO21-0001	0.495	-1.596	1.417	-1.696	-1.621	-0.338
PMSS-DABK-S-SO22-0001	1.383	-2.402	1.445	-3.415	-2.980	0.243
PMSS-DABK-S-SO23-0001	0.405	-1.579	-0.167	-0.610	0.368	0.715
PMSS-DABK-S-SO24-0001	0.743	-1.633	0.740	-0.642	-0.046	0.302
PMSS-DABK-S-SO25-0001	1.424	-1.529	1.794	1.845	1.739	1.351
PMSS-DABK-S-SO26-0001	1.379	-2.466	1.031	-2.111	-2.539	0.161
PMSS-DABK-S-SO27-0001	0.129	-1.947	0.447	-1.142	-0.299	0.616

APPENDIX F, TABLE F3-2
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PMSS-DABK-S-SO28-0001	0.846	-1.888	0.648	-3.208	-0.789	-0.288
PMSS-DABK-S-SO29-0001	0.925	-2.214	-0.285	-0.775	-0.294	0.238
PMSS-DABK-S-SO30-0001	0.792	-1.861	-0.573	-1.818	-0.788	-1.014
PMSS-DABK-S-SO31-0001	-0.200	-0.937	0.527	-1.036	1.141	0.977
PMSS-DABK-S-SO32-0001	1.337	-2.026	0.869	-3.662	0.476	-0.485
PMSS-DABK-S-SO33-0001	0.225	-2.028	-0.481	-1.987	0.057	-0.207
PMSS-DABK-S-SO34-0001	-0.182	-0.981	0.092	-1.080	1.912	0.270
PMSS-DABK-S-SO35-0001	0.155	-1.510	0.134	-0.876	1.107	0.633
PMSS-DABK-S-SO36-0001	-0.378	-1.514	0.063	-0.059	1.028	0.946
PMSS-DABK-S-SO37-0001	0.199	-1.328	0.425	-0.105	1.419	1.058
PMSS-DABK-S-SO38-0001	-0.420	-1.144	0.393	-0.783	1.877	1.257
PMSS-DABK-S-SO39-0001	-0.114	-0.908	-0.025	0.032	1.671	0.385
PMSS-DABK-S-SO40-0001	-0.187	-1.313	0.014	-0.686	1.502	0.716
SESB-BWBK-SB-SO03-0108	2.603	1.485	-0.087	0.047	-1.203	0.184
SESB-BWBK-SB-SO04-0108	1.613	1.160	0.763	-0.213	-0.487	-0.454
SESB-BWBK-SB-SO05-0106	1.414	0.658	0.186	0.653	-1.004	-0.174
SESB-BWBK-SB-SO06-0108	2.421	1.164	1.294	0.663	-0.527	0.087
SESB-BWBK-SB-SO07-0106	1.581	1.355	0.169	-1.933	0.410	0.869
SESB-BWBK-SB-SO08-0107	2.395	1.109	0.349	-0.122	-0.658	0.203
SESB-BWBK-SB-SO09-0106	1.240	0.683	0.106	0.389	-0.549	-0.517
SESB-BWBK-SB-SO11-0106	1.841	1.262	0.303	-0.148	0.255	0.078
SESB-BWBK-SB-SO12-0106	1.645	1.188	0.987	-0.210	-0.709	0.279
SESB-BWBK-SB-SO15-0103	0.377	0.259	-0.082	0.046	0.622	0.627
SESB-BWBK-SB-SO16-0105	0.584	0.878	-0.013	-0.383	-0.076	0.802
SESB-BWBK-SB-SO17-0106	0.147	0.683	-0.638	-0.757	0.013	0.313
SESB-BWBK-SB-SO18-0105	-0.103	0.698	-0.666	-1.096	0.582	0.005
SESB-BWBK-SB-SO19-0104	0.482	0.951	-0.557	-3.379	2.096	0.010
SESB-BWBK-SB-SO20-0104	0.971	1.109	0.184	-0.889	-0.425	0.578
SESS-DABK-S-SO01-0001	0.020	-0.780	0.258	0.155	-1.158	1.155
SESS-DABK-S-SO02-0001	1.945	-0.863	-2.439	-0.675	-2.787	-3.346
SESS-DABK-S-SO03-0001	0.057	-1.946	0.796	-0.023	0.247	2.062
SESS-DABK-S-SO04-0001	0.495	-1.757	-0.210	-0.357	-1.332	1.255
SESS-DABK-S-SO05-0001	0.048	-1.440	0.892	-0.054	-0.392	1.658
SESS-DABK-S-SO06-0001	2.734	-1.216	5.546	3.914	2.259	-3.710
SESS-DABK-S-SO07-0001	0.414	-1.288	-0.735	-0.538	-1.121	-0.998
SESS-DABK-S-SO08-0001	0.394	-1.188	0.159	-0.023	-0.211	-0.587
SESS-DABK-S-SO09-0001	0.106	-1.306	1.377	0.581	0.274	1.899
SESS-DABK-S-SO10-0001	-0.139	-0.854	1.165	1.139	-0.043	0.603
SESS-DABK-S-SO11-0001	-1.045	-0.638	0.423	-0.839	0.134	-0.539
SESS-DABK-S-SO12-0001	-0.222	-1.114	-0.329	-0.348	-0.137	-0.869
SESS-DABK-S-SO13-0001	0.011	-0.495	1.018	-0.322	-1.614	-0.095
SESS-DABK-S-SO14-0001	-0.405	-0.571	1.460	0.301	0.096	1.527
SESS-DABK-S-SO15-0001	-0.122	-1.412	0.954	0.259	0.440	1.418
SESS-DABK-S-SO16-0001	-1.206	-0.274	0.404	-0.235	0.317	-1.090
SESS-DABK-S-SO17-0001	-0.645	-1.255	0.150	0.057	1.662	-1.097
SESS-DABK-S-SO18-0001	-0.431	-0.822	0.173	-0.814	0.237	-0.186
SESS-DABK-S-SO19-0001	0.526	-1.321	-0.523	-1.185	-1.040	-0.923
SESS-DABK-S-SO20-0001	1.070	-1.778	0.229	0.712	-0.287	-0.835

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
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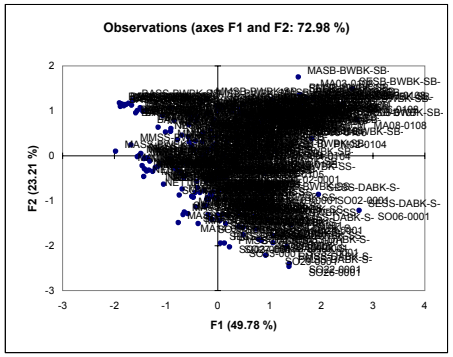

Results after the Varimax rotation:

Rotation matrix:

	D1	D2	D3	D4	D5	D6
D1	0.816	0.387	0.368	0.202	0.041	0.081
D2	0.456	-0.866	0.009	-0.125	-0.082	-0.140
D3	-0.175	0.048	0.710	-0.534	0.104	-0.409
D4	-0.295	-0.238	0.519	0.746	-0.173	-0.020
D5	0.006	0.094	0.075	-0.234	-0.943	0.203
D6	0.093	0.180	-0.293	0.217	-0.247	-0.875

Percentage of variance after Varimax rotation:

	D1	D2	D3	D4	D5	D6
Variability (%)	38.402	25.138	10.141	5.780	2.532	2.808
Cumulative %	38.402	63.540	73.680	79.460	81.993	84.800

Factor pattern after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	0.181	0.556	0.171	0.575	0.007	0.109
AS	0.486	0.218	0.792	0.049	0.046	0.035
BA	0.070	0.701	0.013	0.178	0.004	0.532
CR	0.671	0.422	0.159	0.415	0.024	0.160
CO	0.936	0.082	0.205	-0.085	-0.108	0.048
FE	0.749	0.192	0.562	0.193	-0.044	-0.068
PB	-0.105	0.869	0.068	-0.046	0.230	0.030
MG	0.777	-0.292	0.054	0.249	0.050	0.071
MN	0.667	-0.045	0.103	-0.083	-0.247	0.038
NI	0.917	-0.045	0.235	0.148	0.076	-0.017
V	0.110	0.941	0.183	0.134	-0.112	-0.018
ZN	0.732	0.466	0.263	0.025	0.391	0.017

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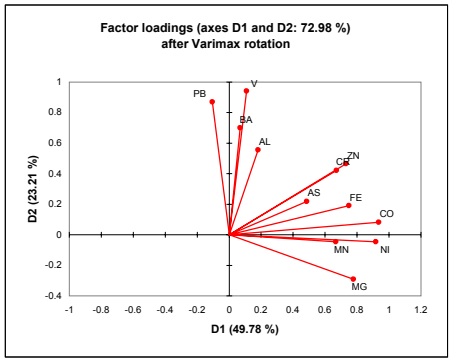
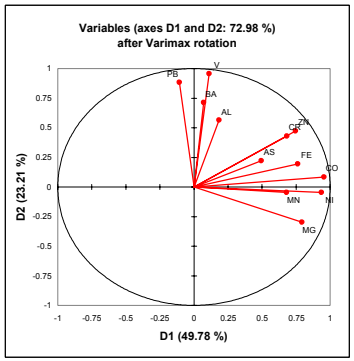


Correlations between variables and factors after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	0.184	0.566	0.184	0.656	0.008	0.139
AS	0.495	0.222	0.852	0.056	0.050	0.044
BA	0.071	0.713	0.014	0.203	0.005	0.676
CR	0.684	0.430	0.171	0.474	0.026	0.204
CO	0.955	0.083	0.221	-0.097	-0.117	0.061
FE	0.764	0.195	0.605	0.220	-0.048	-0.086
PB	-0.107	0.885	0.073	-0.052	0.250	0.038
MG	0.792	-0.297	0.058	0.284	0.055	0.090
MN	0.680	-0.046	0.110	-0.095	-0.268	0.048
NI	0.936	-0.046	0.253	0.169	0.082	-0.022
V	0.112	0.957	0.197	0.153	-0.122	-0.023
ZN	0.747	0.474	0.283	0.029	0.425	0.022



APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor pattern coefficients after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.032	0.038	-0.033	0.336	0.072	0.038
AS	-0.272	-0.112	0.966	-0.291	0.095	0.434
BA	-0.033	0.043	0.018	0.041	-0.046	0.932
CR	0.062	-0.068	-0.133	0.631	-0.049	0.193
CO	0.546	0.149	-0.316	-1.084	-0.746	0.343
FE	0.040	-0.180	0.595	0.585	-0.399	-0.503
PB	-0.083	0.136	0.032	-0.075	0.141	-0.024
MG	0.113	-0.057	-0.141	0.127	-0.008	0.096
MN	0.059	0.000	-0.042	-0.087	-0.121	0.043
NI	0.186	-0.141	-0.159	0.634	0.076	-0.300
V	0.002	0.776	-0.202	-0.059	-0.733	-0.701
ZN	0.291	0.256	-0.225	-0.520	1.521	-0.132

Factor scores after Varimax rotation:

	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-0.929	-1.614	-0.113	-1.102	1.005	-0.656
BASS-BWBK-SS-BA102-0001	-1.130	-1.728	-0.009	-1.422	0.910	-0.634
BASS-BWBK-SS-BA103-0001	-1.063	-1.638	-0.072	-1.316	0.830	-0.575
BASS-BWBK-SS-BA104-0001	-0.831	-1.414	-0.287	-0.938	0.612	-0.670
BASS-BWBK-SS-BA105-0001	-0.934	-1.616	-0.105	-1.315	0.959	-0.753
BASS-BWBK-SS-BA106-0001	-0.759	-1.489	-0.359	-0.694	0.897	-0.798
BASS-BWBK-SS-BA107-0001	-1.132	-1.636	-0.035	-1.421	0.842	-0.627
BASS-BWBK-SS-BA108-0001	-1.091	-1.698	-0.081	-1.330	0.885	-0.612
BASS-BWBK-SS-BA109-0001	-0.833	-1.743	-0.332	-0.693	0.872	-0.667
BASS-BWBK-SS-BA110-0001	-0.798	-1.501	-0.262	-0.614	0.513	-0.150
BASS-BWBK-SS-BA111-0001	-1.023	-1.666	-0.114	-1.116	0.831	-0.641
BASS-BWBK-SS-BA112-0001	-1.064	-1.675	-0.076	-1.245	0.832	-0.597
BASS-BWBK-SS-BA113-0001	-0.751	-1.337	-0.307	-1.863	2.453	-0.776
MASB-BWBK-SB-MA01-0105	1.787	-0.357	-0.370	-0.560	-0.257	-0.287
MASB-BWBK-SB-MA02-0107	1.714	-0.464	-0.454	0.650	0.501	-0.242
MASB-BWBK-SB-MA03-0108	2.786	-0.250	-0.350	-2.660	-0.184	0.615
MASB-BWBK-SB-MA04-0106	1.889	-0.204	-0.657	0.620	0.912	-0.094
MASB-BWBK-SB-MA05-0108	0.766	-0.635	1.759	0.073	0.827	0.499
MASB-BWBK-SB-MA06-0105	1.348	-0.292	-0.596	0.636	0.700	-0.601
MASB-BWBK-SB-MA07-0108	0.566	-0.754	1.000	0.411	0.989	-0.814
MASB-BWBK-SB-MA08-0108	1.320	-0.183	4.091	1.340	0.456	-1.459
MASB-BWBK-SB-MA09-0108	0.564	-0.743	3.830	-0.993	1.133	0.384
MASB-BWBK-SB-MA10-0104	0.477	-0.668	0.767	-0.307	0.447	-1.234
MASB-BWBK-SB-MA11-0108	1.441	-0.060	0.368	0.549	0.959	-0.927
MASB-BWBK-SB-MA12-0108	1.188	-0.802	2.881	-0.730	0.773	0.746
MASB-BWBK-SB-MA13-0105	-0.071	0.008	-0.516	0.383	-0.748	0.647
MASB-BWBK-SB-MA14-0104	0.594	0.015	1.212	0.675	-0.917	1.028
MASB-BWBK-SB-MA15-0105	0.174	0.317	0.456	0.797	-1.258	0.715
MASB-BWBK-SB-MA16-0104	0.407	-0.053	-0.154	-0.318	-0.642	0.096

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASB-BWBK-SB-MA17-0104	0.168	0.008	-0.021	-0.253	-0.301	0.589
MASB-BWBK-SB-MA18-0104	0.027	0.543	-0.630	1.189	-1.003	-0.437
MASB-BWBK-SB-MA19-0103	-0.197	-0.117	-0.246	-0.103	-0.445	0.391
MASB-BWBK-SB-MA20-0103	1.244	-0.290	-0.615	0.052	0.319	-0.522
MASS-BWBK-SS-MA01-0001	-1.307	-0.431	-0.203	-0.589	0.271	1.067
MASS-BWBK-SS-MA02-0001	-0.902	-0.237	-0.637	0.603	0.959	2.669
MASS-BWBK-SS-MA03-0001	-0.993	-0.438	0.054	0.134	0.302	1.211
MASS-BWBK-SS-MA04-0001	-0.605	-0.463	-0.446	0.360	0.773	1.304
MASS-BWBK-SS-MA05-0001	0.074	0.221	-0.719	0.920	0.700	0.205
MASS-BWBK-SS-MA06-0001	-0.761	0.065	1.540	1.482	0.248	3.439
MASS-BWBK-SS-MA07-0001	-1.846	-0.803	0.463	-1.435	-0.145	-0.347
MASS-BWBK-SS-MA08-0001	-0.794	0.725	0.543	-0.283	0.159	0.102
MASS-BWBK-SS-MA09-0001	0.236	1.909	-0.573	0.978	1.017	1.282
MASS-BWBK-SS-MA10-0001	0.055	1.430	-0.075	0.470	0.556	0.228
MASS-BWBK-SS-MA11-0001	0.038	1.466	0.319	1.078	-0.861	0.785
MASS-BWBK-SS-MA12-0001	-0.477	-0.321	-0.434	0.814	1.242	0.195
MASS-BWBK-SS-MA13-0001	-0.789	0.810	-0.314	1.006	-0.554	1.930
MASS-BWBK-SS-MA14-0001	-1.198	1.017	-0.478	-0.263	-0.316	0.785
MASS-BWBK-SS-MA15-0001	-1.161	0.679	-0.393	0.384	-0.328	1.192
MASS-BWBK-SS-MA16-0001	-0.940	0.552	0.055	0.399	-0.431	0.021
MASS-BWBK-SS-MA17-0001	-0.648	0.580	-0.186	0.155	-0.402	0.242
MASS-BWBK-SS-MA18-0001	-1.141	1.001	0.068	-0.045	-0.506	-0.370
MASS-BWBK-SS-MA19-0001	-0.711	0.888	-0.131	0.131	-0.572	0.278
MASS-BWBK-SS-MA20-0001	-0.367	0.340	-0.096	0.312	0.069	0.284
MMSB-BWBK-SB-MM101-0110	0.043	-0.981	-0.261	-0.580	-0.034	0.307
MMSB-BWBK-SB-MM102-0109	0.434	-0.952	-0.894	0.649	-0.118	0.043
MMSB-BWBK-SB-MM103-0107	0.682	-0.925	-0.760	-1.327	-0.815	0.765
MMSB-BWBK-SB-MM104-0110	0.789	-0.612	-0.492	0.586	-0.196	0.181
MMSB-BWBK-SB-MM105-0110	-0.493	-1.148	-0.082	-0.928	0.136	-0.077
MMSB-BWBK-SB-MM106-0110	1.006	-0.131	-1.246	1.069	-0.116	0.462
MMSB-BWBK-SB-MM107-0110	0.093	-0.995	-0.689	0.582	-0.259	0.537
MMSB-BWBK-SB-MM108-0110	-0.014	-0.750	-0.494	-0.330	-0.120	0.003
MMSB-BWBK-SB-MM109-0110	0.276	-0.317	-0.767	0.475	-0.512	0.799
MMSB-BWBK-SB-MM110-0109	0.034	-0.694	-0.541	0.761	-0.313	0.225
MMSB-BWBK-SB-MM111-0110	0.219	-0.675	-0.506	0.458	-0.186	0.502
MMSB-BWBK-SB-MM112-0110	0.353	-0.300	-0.774	0.652	-0.958	-0.092
MMSB-BWBK-SB-MM113-0110	0.436	-1.000	-1.075	1.608	-0.110	0.390
MMSB-BWBK-SB-MM114-0110	-0.357	-1.104	-0.163	-0.520	-0.042	0.551
MMSB-BWBK-SB-MM115-0110	0.012	-0.244	-0.710	-0.052	-0.347	1.629
MMSB-BWBK-SB-MM116-0110	0.206	-1.023	-0.641	-0.008	0.277	0.681
MMSB-BWBK-SB-MM117-0110	-0.151	-1.141	-0.269	-1.302	-0.036	0.160
MMSB-BWBK-SB-MM118-0110	0.739	-1.027	-1.046	-0.064	-0.109	-0.188
MMSB-BWBK-SB-MM119-0110	0.060	-0.886	-0.503	-0.196	-0.009	0.068
MMSB-BWBK-SB-MM120-0110	-0.669	-1.298	-0.116	-1.367	-0.083	-0.106
MMSS-BWBK-SS-MM101-0001	-0.775	0.332	-0.041	1.405	-0.328	-0.140
MMSS-BWBK-SS-MM102-0001	-0.990	-0.380	0.002	0.576	-0.326	-0.730
MMSS-BWBK-SS-MM103-0001	-0.888	0.341	0.047	1.307	-0.595	-0.703
MMSS-BWBK-SS-MM104-0001	-0.613	0.174	-0.085	1.269	-0.452	0.091
MMSS-BWBK-SS-MM105-0001	-1.182	-0.256	0.115	-0.114	-0.386	-0.652
MMSS-BWBK-SS-MM106-0001	-0.471	0.144	-0.305	1.628	-0.707	0.043

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSS-BWBK-SS-MM107-0001	-0.592	0.109	-0.266	1.607	-0.245	-0.125
MMSS-BWBK-SS-MM108-0001	-1.032	0.440	-0.145	1.456	-0.687	-0.513
MMSS-BWBK-SS-MM109-0001	-0.963	0.030	-0.078	1.297	-0.682	-0.873
MMSS-BWBK-SS-MM110-0001	-1.537	-0.387	0.177	-0.318	-0.355	-0.517
MMSS-BWBK-SS-MM111-0001	-1.383	-0.570	0.082	-0.020	-0.189	-0.425
MMSS-BWBK-SS-MM112-0001	-1.534	-0.647	0.231	-0.496	0.161	-0.482
MMSS-BWBK-SS-MM113-0001	-1.183	0.420	-0.083	0.785	-0.462	-0.605
MMSS-BWBK-SS-MM114-0001	-1.493	-0.920	0.204	-0.776	0.182	-0.296
MMSS-BWBK-SS-MM115-0001	-1.402	-0.613	0.205	-0.149	0.044	-0.211
MMSS-BWBK-SS-MM116-0001	-1.421	-0.514	0.172	-0.398	-0.219	-0.466
MMSS-BWBK-SS-MM117-0001	-0.948	-0.118	-0.062	0.796	-0.262	-0.056
MMSS-BWBK-SS-MM118-0001	-0.591	-0.895	-0.132	-0.100	-0.331	0.021
MMSS-BWBK-SS-MM119-0001	-0.738	-1.038	-0.120	-0.444	-0.160	-0.006
MMSS-BWBK-SS-MM120-0001	-0.557	-0.757	0.006	0.656	-0.323	-0.776
NESB-BWBK-SB-NE01-0108	1.138	-0.833	-0.862	1.164	0.198	-0.482
NESB-BWBK-SB-NE02-0109	0.957	-0.899	-0.658	0.568	0.160	1.384
NESB-BWBK-SB-NE03-0105	0.488	-0.975	-0.287	0.696	0.001	-0.376
NESB-BWBK-SB-NE04-0110	0.614	-0.868	-0.626	0.299	0.108	-0.153
NESB-BWBK-SB-NE05-0108	0.927	-0.788	-0.722	0.818	0.203	-0.729
NESB-BWBK-SB-NE06-0109	0.725	-0.868	-0.601	0.345	0.061	-0.556
NESB-BWBK-SB-NE07-0107	0.966	-0.859	-0.747	1.193	0.397	-0.348
NESB-BWBK-SB-NE08-0104	0.474	-0.771	-0.654	0.170	-0.143	-0.564
NESB-BWBK-SB-NE09-0110	0.636	-0.941	-0.600	0.380	0.173	-0.441
NESB-BWBK-SB-NE10-0107	0.173	-0.187	-0.730	0.793	-0.329	-0.423
NESB-BWBK-SB-NE101-0110	0.086	-0.348	-0.677	0.608	-0.508	1.073
NESB-BWBK-SB-NE102-0110	-0.217	-0.504	-0.617	0.179	-0.228	1.479
NESB-BWBK-SB-NE103-0110	-0.429	-0.736	-0.443	-0.211	-0.191	0.880
NESB-BWBK-SB-NE104-0110	-0.537	-0.878	-0.370	-0.647	-0.165	0.560
NESB-BWBK-SB-NE105-0110	-0.028	-0.384	-0.533	0.391	-0.372	1.193
NESB-BWBK-SB-NE106-0110	-0.068	-0.569	-0.645	0.076	-0.263	1.019
NESB-BWBK-SB-NE107-0510	-0.402	-0.889	-0.394	-0.559	-0.013	0.373
NESB-BWBK-SB-NE108-0110	-0.168	-0.376	-0.642	-0.024	-0.582	0.539
NESB-BWBK-SB-NE109-0110	-0.225	-0.601	-0.561	0.019	-0.310	0.965
NESB-BWBK-SB-NE110-0110	-0.142	-0.595	-0.615	-0.081	-0.389	0.478
NESS-BKG-SS03-NEB-0016	-0.509	1.159	-0.322	0.394	0.734	-0.210
NESS-BKG-SS09-NEB-0018	-1.091	0.001	0.532	0.295	-0.230	-0.180
NESS-BWBK-SS-NE01-0001	0.221	0.717	0.171	1.235	1.411	0.397
NESS-BWBK-SS-NE02-0001	0.450	0.292	0.316	0.955	3.091	-0.172
NESS-BWBK-SS-NE03-0001	-0.449	0.011	0.116	1.727	0.274	-0.160
NESS-BWBK-SS-NE04-0001	0.214	0.107	-0.518	1.631	-0.528	-0.124
NESS-BWBK-SS-NE05-0001	-0.284	0.118	-0.065	1.568	0.658	0.048
NESS-BWBK-SS-NE06-0001	0.068	-0.094	-0.576	1.746	-0.326	-0.421
NESS-BWBK-SS-NE07-0001	-0.560	0.645	0.317	1.121	0.519	-0.192
NESS-BWBK-SS-NE08-0001	-0.297	-0.071	-0.214	1.729	0.028	-0.164
NESS-BWBK-SS-NE09-0001	-0.692	0.371	0.047	1.687	0.147	0.635
NESS-BWBK-SS-NE10-0001	-0.527	0.535	-0.054	0.780	0.508	-0.281
NESS-BWBK-SS-NE101-0001	-0.929	-0.202	-0.247	0.817	-0.526	0.095
NESS-BWBK-SS-NE102-0001	-1.227	-0.275	-0.107	-0.092	-0.188	-0.257
NESS-BWBK-SS-NE103-0001	-1.303	-0.451	-0.030	-0.111	-0.255	-0.314
NESS-BWBK-SS-NE104-0001	-1.207	-0.263	-0.047	0.079	0.032	-0.729
NESS-BWBK-SS-NE105-0001	-1.390	-0.704	0.067	-0.444	0.071	-0.169

APPENDIX F, TABLE F3-2
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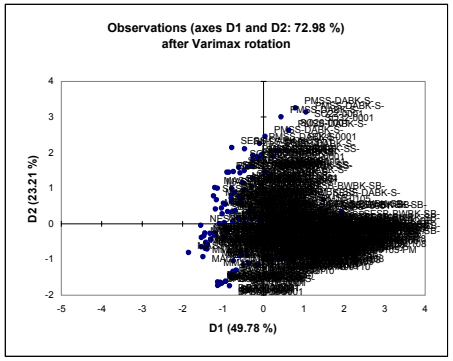
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NESS-BWBK-SS-NE106-0001	-1.444	-0.260	0.028	-0.366	0.085	-0.361
NESS-BWBK-SS-NE107-0001	-1.466	-0.339	0.035	-0.391	-0.024	-0.236
NESS-BWBK-SS-NE108-0001	-1.319	-0.266	-0.055	-0.307	-0.022	0.115
NESS-BWBK-SS-NE109-0001	-1.437	-0.685	0.044	-0.459	0.054	-0.054
NESS-BWBK-SS-NE110-0001	-1.546	-0.039	0.118	-0.595	-0.477	-0.659
PMSB-BWBK-SB-PM01-0105	1.255	-0.121	-0.702	-0.155	-1.056	0.700
PMSB-BWBK-SB-PM02-0104	1.390	0.382	1.033	1.304	-2.413	-0.182
PMSB-BWBK-SB-PM03-0106	2.116	-0.103	0.359	-0.513	-1.267	-0.901
PMSB-BWBK-SB-PM04-0105	0.976	-0.349	0.973	0.113	-0.337	-0.042
PMSB-BWBK-SB-PM05-0105	1.318	-0.161	0.090	-0.202	-0.961	-0.069
PMSB-BWBK-SB-PM06-0105	1.209	-0.468	0.570	0.018	-1.233	0.218
PMSB-BWBK-SB-PM07-0105	0.931	-0.137	0.698	-1.440	-2.474	0.660
PMSB-BWBK-SB-PM08-0106	1.121	-0.173	0.471	-1.074	-1.409	0.378
PMSB-BWBK-SB-PM09-0106	0.551	-0.726	0.447	-0.931	-0.801	-0.041
PMSB-BWBK-SB-PM10-0105	0.856	0.884	0.054	-0.231	-2.402	-0.677
PMSB-BWBK-SB-PM11-0104	1.534	-0.252	0.122	-0.916	-2.049	0.639
PMSB-BWBK-SB-PM12-0105	0.134	-0.479	-0.660	0.221	-0.480	-0.047
PMSB-BWBK-SB-PM13-0106	-0.066	0.075	0.372	0.933	-1.476	0.223
PMSB-BWBK-SB-PM14-0106	0.003	-0.240	-0.260	-0.364	-0.836	0.058
PMSB-BWBK-SB-PM15-0105	0.465	-0.225	-0.031	0.391	-0.534	0.026
PMSB-BWBK-SB-PM16-0106	0.079	-0.369	-0.138	0.147	-0.339	-0.215
PMSB-BWBK-SB-PM17-0105	1.545	0.357	-0.481	-1.456	-1.938	-0.073
PMSB-BWBK-SB-PM18-0105	1.024	-0.729	1.030	1.055	0.364	-0.568
PMSB-BWBK-SB-PM19-0105	0.693	-0.341	0.176	0.596	0.005	-0.005
PMSB-BWBK-SB-PM20-0106	0.550	-0.297	-0.013	0.257	-0.187	-0.106
PMSB-BWBK-SB-SO01-0107-PM	1.462	-0.269	0.066	-0.045	0.762	-0.816
PMSB-BWBK-SB-SO02-0109-PM	0.985	-0.391	1.393	0.613	0.620	-1.052
PMSB-BWBK-SB-SO13-0104-PM	1.766	-0.264	0.742	-0.490	-0.746	-0.388
PMSB-BWBK-SB-SO14-0105-PM	1.780	-0.544	1.282	-0.103	0.581	-0.110
PMSS-DABK-S-SO21-0001	-0.112	1.827	0.270	-1.415	2.200	-0.315
PMSS-DABK-S-SO22-0001	0.791	3.253	-0.553	-1.987	3.738	-0.890
PMSS-DABK-S-SO23-0001	-0.111	1.820	-0.481	-0.018	-0.288	-0.216
PMSS-DABK-S-SO24-0001	-0.051	1.936	0.358	-0.443	0.321	-0.272
PMSS-DABK-S-SO25-0001	-0.258	1.926	2.469	0.782	-1.918	-1.264
PMSS-DABK-S-SO26-0001	0.441	3.004	-0.116	-0.910	3.080	-0.577
PMSS-DABK-S-SO27-0001	-0.467	2.107	-0.447	-0.617	0.539	-0.474
PMSS-DABK-S-SO28-0001	0.630	2.625	-0.883	-2.206	1.625	0.223
PMSS-DABK-S-SO29-0001	0.044	2.456	-0.375	0.157	0.542	0.250
PMSS-DABK-S-SO30-0001	0.335	2.061	-0.836	-0.693	1.431	1.319
PMSS-DABK-S-SO31-0001	-0.278	1.286	-0.445	-1.029	-1.012	-0.700
PMSS-DABK-S-SO32-0001	1.052	3.135	-0.631	-2.883	0.616	0.630
PMSS-DABK-S-SO33-0001	-0.089	2.256	-1.240	-0.983	0.466	0.730
PMSS-DABK-S-SO34-0001	-0.256	1.266	-0.505	-1.155	-1.596	0.259
PMSS-DABK-S-SO35-0001	-0.261	1.796	-0.418	-0.625	-0.902	-0.141
PMSS-DABK-S-SO36-0001	-0.896	1.445	-0.338	0.000	-1.075	-0.460
PMSS-DABK-S-SO37-0001	-0.379	1.593	0.104	-0.201	-1.416	-0.604
PMSS-DABK-S-SO38-0001	-0.572	1.433	-0.519	-0.899	-1.823	-0.734
PMSS-DABK-S-SO39-0001	-0.465	0.957	-0.038	-0.179	-1.605	0.131
PMSS-DABK-S-SO40-0001	-0.475	1.495	-0.522	-0.587	-1.370	-0.143
SESB-BWBK-SB-SO03-0108	2.805	-0.372	0.787	0.742	1.054	-0.367
SESB-BWBK-SB-SO04-0108	1.725	-0.419	1.129	-0.369	0.657	-0.041

APPENDIX F, TABLE F3-2
SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SESB-BWBK-SB-SO05-0106	1.203	-0.294	0.970	0.787	0.898	-0.118
SESB-BWBK-SB-SO06-0108	2.083	-0.198	2.094	0.289	0.497	-0.690
SESB-BWBK-SB-SO07-0106	2.526	0.101	-0.512	-1.286	-0.295	-0.767
SESB-BWBK-SB-SO08-0107	2.444	-0.013	0.964	0.266	0.633	-0.412
SESB-BWBK-SB-SO09-0106	1.136	-0.343	0.848	0.414	0.582	0.293
SESB-BWBK-SB-SO11-0106	2.072	-0.291	0.821	-0.100	-0.231	-0.164
SESB-BWBK-SB-SO12-0106	1.791	-0.310	1.070	-0.273	0.707	-0.819
SESB-BWBK-SB-SO15-0103	0.488	0.078	-0.030	0.114	-0.762	-0.394
SESB-BWBK-SB-SO16-0105	1.064	-0.306	-0.226	-0.078	-0.110	-0.778
SESB-BWBK-SB-SO17-0106	0.794	-0.327	-0.874	-0.214	-0.075	-0.079
SESB-BWBK-SB-SO18-0105	0.677	-0.360	-1.029	-0.703	-0.490	0.300
SESB-BWBK-SB-SO19-0104	1.932	0.338	-1.804	-2.725	-1.506	0.617
SESB-BWBK-SB-SO20-0104	1.576	-0.300	-0.164	-0.477	0.379	-0.725
SESS-DABK-S-SO01-0001	-0.330	0.755	-0.162	0.599	0.870	-1.240
SESS-DABK-S-SO02-0001	1.488	0.677	-0.601	1.221	3.461	3.641
SESS-DABK-S-SO03-0001	-0.780	2.140	-0.030	0.202	-0.492	-1.796
SESS-DABK-S-SO04-0001	-0.148	1.884	-0.635	0.747	1.148	-0.986
SESS-DABK-S-SO05-0001	-0.605	1.579	0.094	0.124	0.182	-1.684
SESS-DABK-S-SO06-0001	-0.779	0.994	8.201	-0.670	-1.099	1.749
SESS-DABK-S-SO07-0001	-0.062	1.081	-0.451	0.279	1.440	1.168
SESS-DABK-S-SO08-0001	-0.296	1.067	0.391	0.047	0.478	0.603
SESS-DABK-S-SO09-0001	-0.742	1.465	0.768	0.230	-0.572	-1.982
SESS-DABK-S-SO10-0001	-0.985	0.574	1.176	0.446	-0.119	-0.924
SESS-DABK-S-SO11-0001	-1.016	0.283	-0.356	-1.129	0.206	0.346
SESS-DABK-S-SO12-0001	-0.609	0.775	-0.261	-0.147	0.452	1.010
SESS-DABK-S-SO13-0001	-0.318	0.388	0.460	-0.362	1.745	-0.584
SESS-DABK-S-SO14-0001	-0.791	0.619	0.597	-0.256	-0.337	-1.867
SESS-DABK-S-SO15-0001	-0.851	1.453	0.370	0.040	-0.598	-1.354
SESS-DABK-S-SO16-0001	-1.206	-0.319	0.062	-0.910	0.027	0.796
SESS-DABK-S-SO17-0001	-1.230	0.788	0.333	-0.637	-1.210	1.355
SESS-DABK-S-SO18-0001	-0.531	0.734	-0.392	-0.778	0.031	0.236
SESS-DABK-S-SO19-0001	0.176	1.337	-0.611	-0.291	1.486	1.059
SESS-DABK-S-SO20-0001	-0.267	1.615	1.130	0.731	0.566	0.899



APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

XLSTAT 2007.4 - Factor analysis - on 7/10/2007 at 3:30:42 PM
Observations/variables table: Workbook = NECORRDB1_FA_N6_No_BeCdNaSeHg_OMIT_SS.xls / Range = DA!$D$1:$R$100 / 99 rows and 15 columns
Observation labels: Workbook = NECORRDB1_FA_N6_No_BeCdNaSeHg_OMIT_SS.xls / Range = DA!$C$1:$C$100 / 99 rows and 1 column
Correlation: Pearson (n)
Extraction method: Principal factor analysis
Number of factors: 5
Initial communalities: Squared multiple correlations
Stop conditions: Convergence = 0.0001 / Iterations = 400
Rotation: Varimax / Number of factors = 5

Summary statistics

Summary statistics:

Variable	Observ.	w.missing	complete	Minimum	Maximum	Mean	Std. deviation
AL	99	0	99	5520.000	14150.000	10304.091	1556.013
AS	99	0	99	1.900	43.650	10.967	8.980
BA	99	0	99	13.600	42.900	25.705	6.076
CA	99	0	99	324.000	1870.000	953.864	417.768
CR	99	0	99	6.200	21.300	13.253	2.660
CO	99	0	99	4.600	19.900	9.784	3.589
CU	99	0	99	6.100	43.700	15.110	5.504
FE	99	0	99	10600.000	51700.000	23411.616	8112.040
PB	99	0	99	5.200	13.500	8.228	1.891
MG	99	0	99	1880.000	4580.000	2895.859	551.909
MN	99	0	99	157.000	1750.000	425.444	278.540
NI	99	0	99	7.600	37.100	17.389	5.840
K	99	0	99	288.000	2440.000	769.697	463.912
V	99	0	99	8.600	28.500	16.827	3.691
ZN	99	0	99	18.700	74.500	41.153	13.087

Correlation matrix (Pearson (n)):

Variables	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	**1**	0.524	0.283	0.213	0.668	0.454	0.447	0.709	0.530	0.603	0.208	0.587	-0.196	0.596	0.647
AS	0.524	**1**	-0.094	0.507	0.585	0.677	0.517	0.877	0.672	0.306	0.306	0.737	-0.467	0.531	0.809
BA	0.283	-0.094	**1**	-0.121	0.057	-0.087	-0.147	-0.072	-0.062	-0.107	0.055	-0.146	0.365	0.317	-0.109
CA	0.213	0.507	-0.121	**1**	0.507	0.512	0.199	0.461	0.279	0.172	0.427	0.528	-0.497	0.493	0.587
CR	0.668	0.585	0.057	0.507	**1**	0.589	0.446	0.723	0.539	0.432	0.302	0.634	-0.460	0.729	0.677
CO	0.454	0.677	-0.087	0.512	0.589	**1**	0.608	0.773	0.649	0.325	0.456	0.846	-0.489	0.491	0.814
CU	0.447	0.517	-0.147	0.199	0.446	0.608	**1**	0.638	0.698	0.627	0.163	0.703	-0.109	0.187	0.704
FE	0.709	0.877	-0.072	0.461	0.723	0.773	0.638	**1**	0.770	0.478	0.367	0.850	-0.493	0.609	0.917
PB	0.530	0.672	-0.062	0.279	0.539	0.649	0.698	0.770	**1**	0.391	0.168	0.768	-0.300	0.425	0.800
MG	0.603	0.306	-0.107	0.172	0.432	0.325	0.627	0.478	0.391	**1**	0.173	0.509	0.159	0.072	0.525
MN	0.208	0.306	0.055	0.427	0.302	0.456	0.163	0.367	0.168	0.173	**1**	0.376	-0.251	0.301	0.343
NI	0.587	0.737	-0.146	0.528	0.634	0.846	0.703	0.850	0.768	0.509	0.376	**1**	-0.483	0.409	0.937
K	-0.196	-0.467	0.365	-0.497	-0.460	-0.489	-0.109	-0.493	-0.300	0.159	-0.251	-0.483	**1**	-0.401	-0.469
V	0.596	0.531	0.317	0.493	0.729	0.491	0.187	0.609	0.425	0.072	0.301	0.409	-0.401	**1**	0.497
ZN	0.647	0.809	-0.109	0.587	0.677	0.814	0.704	0.917	0.800	0.525	0.343	0.937	-0.469	0.497	**1**

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor analysis:

Maximum change in communality at each iteration:

Iteration	ximum change
147	0.0001
148	0.0001
149	0.0001
150	0.0001
151	0.0001
152	0.0001
153	0.0001
154	0.0001
155	0.0001
156	0.0001

Reproduced correlation matrix:

	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	0.786	0.529	0.267	0.265	0.685	0.457	0.483	0.692	0.556	0.576	0.196	0.553	-0.155	0.606	0.627
AS	0.529	0.701	-0.091	0.474	0.624	0.705	0.538	0.795	0.674	0.302	0.310	0.762	-0.493	0.533	0.794
BA	0.267	-0.091	0.978	-0.125	0.054	-0.079	-0.139	-0.065	-0.056	-0.095	0.059	-0.161	0.361	0.330	-0.122
CA	0.265	0.474	-0.125	0.623	0.498	0.556	0.205	0.498	0.269	0.154	0.437	0.526	-0.510	0.462	0.534
CR	0.685	0.624	0.054	0.498	0.759	0.576	0.404	0.749	0.527	0.419	0.319	0.630	-0.441	0.694	0.696
CO	0.457	0.705	-0.079	0.556	0.576	0.790	0.573	0.780	0.659	0.329	0.415	0.828	-0.472	0.471	0.835
CU	0.483	0.538	-0.139	0.205	0.404	0.573	0.713	0.659	0.671	0.614	0.173	0.711	-0.128	0.166	0.716
FE	0.692	0.795	-0.065	0.498	0.749	0.780	0.659	0.927	0.790	0.465	0.327	0.870	-0.493	0.618	0.916
PB	0.556	0.674	-0.056	0.269	0.527	0.659	0.671	0.790	0.780	0.390	0.180	0.764	-0.319	0.393	0.793
MG	0.576	0.302	-0.095	0.154	0.419	0.329	0.614	0.465	0.390	1.000	0.165	0.505	0.135	0.086	0.520
MN	0.196	0.310	0.059	0.437	0.319	0.415	0.173	0.327	0.180	0.165	0.360	0.385	-0.250	0.304	0.381
NI	0.553	0.762	-0.161	0.526	0.630	0.828	0.711	0.870	0.764	0.505	0.385	0.916	-0.448	0.446	0.927
K	-0.155	-0.493	0.361	-0.510	-0.441	-0.472	-0.128	-0.493	-0.319	0.135	-0.250	-0.448	0.688	-0.436	-0.469
V	0.606	0.533	0.330	0.462	0.694	0.471	0.166	0.618	0.393	0.086	0.304	0.446	-0.436	0.809	0.523
ZN	0.627	0.794	-0.122	0.534	0.696	0.835	0.716	0.916	0.793	0.520	0.381	0.927	-0.469	0.523	0.951

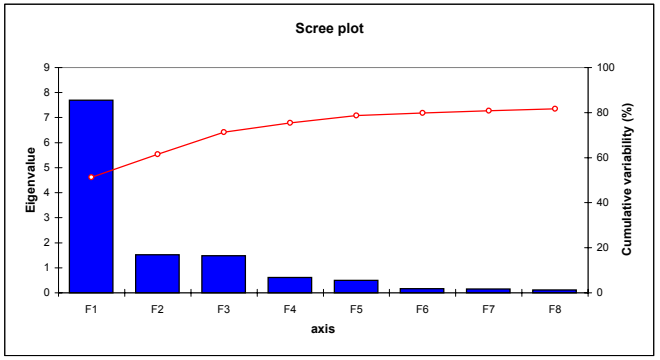
Residual correlation matrix:

	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	0.214	-0.006	0.016	-0.052	-0.017	-0.003	-0.037	0.017	-0.027	0.028	0.012	0.034	-0.041	-0.010	0.020
AS	-0.006	0.299	-0.003	0.033	-0.039	-0.028	-0.021	0.082	-0.002	0.004	-0.003	-0.024	0.026	-0.002	0.015
BA	0.016	-0.003	0.022	0.004	0.003	-0.008	-0.008	-0.007	-0.007	-0.011	-0.004	0.015	0.003	-0.013	0.014
CA	-0.052	0.033	0.004	0.377	0.009	-0.044	-0.006	-0.036	0.010	0.018	-0.010	0.002	0.013	0.031	0.053
CR	-0.017	-0.039	0.003	0.009	0.241	0.013	0.042	-0.026	0.012	0.013	-0.017	0.004	-0.018	0.035	-0.019
CO	-0.003	-0.028	-0.008	-0.044	0.013	0.210	0.034	-0.007	-0.010	-0.004	0.041	0.018	-0.017	0.020	-0.021
CU	-0.037	-0.021	-0.008	-0.006	0.042	0.034	0.287	-0.021	0.027	0.013	-0.010	-0.008	0.020	0.021	-0.011
FE	0.017	0.082	-0.007	-0.036	-0.026	-0.007	-0.021	0.073	-0.020	0.013	0.040	-0.020	0.000	-0.009	0.001
PB	-0.027	-0.002	-0.007	0.010	0.012	-0.010	0.027	-0.020	0.220	0.001	-0.012	0.004	0.019	0.032	0.006
MG	0.028	0.004	-0.011	0.018	0.013	-0.004	0.013	0.013	0.001	0.000	0.008	0.004	0.025	-0.014	0.005
MN	0.012	-0.003	-0.004	-0.010	-0.017	0.041	-0.010	0.040	-0.012	0.008	0.640	-0.009	-0.001	-0.003	-0.038
NI	0.034	-0.024	0.015	0.002	0.004	0.018	-0.008	-0.020	0.004	0.004	-0.009	0.084	-0.035	-0.037	0.010
K	-0.041	0.026	0.003	0.013	-0.018	-0.017	0.020	0.000	0.019	0.025	-0.001	-0.035	0.312	0.035	0.000
V	-0.010	-0.002	-0.013	0.031	0.035	0.020	0.021	-0.009	0.032	-0.014	-0.003	-0.037	0.035	0.191	-0.026
ZN	0.020	0.015	0.014	0.053	-0.019	-0.021	-0.011	0.001	0.006	0.005	-0.038	0.010	0.000	-0.026	0.049

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Eigenvalues:

	F1	F2	F3	F4	F5	F6	F7	F8
Eigenvalue	7.699	1.523	1.479	0.610	0.495	0.171	0.150	0.114
Variability (%)	51.325	10.152	9.863	4.064	3.303	1.142	1.000	0.763
Cumulative %	51.325	61.477	71.339	75.403	78.705	79.847	80.847	81.610



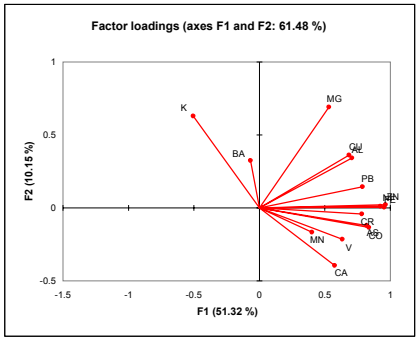
Eigenvectors:

	F1	F2	F3	F4	F5	F6	F7	F8
AL	0.255	0.278	-0.266	-0.126	-0.334	0.380	-0.242	-0.119
AS	0.295	-0.097	0.011	0.156	-0.051	0.250	0.469	0.195
BA	-0.024	0.263	-0.719	0.250	0.367	0.076	-0.019	-0.216
CA	0.208	-0.319	-0.040	-0.378	0.310	-0.197	0.413	-0.285
CR	0.282	-0.034	-0.200	-0.271	-0.283	-0.364	-0.195	-0.057
CO	0.302	-0.109	0.057	0.122	0.342	-0.094	-0.398	0.265
CU	0.247	0.293	0.241	0.198	0.085	-0.396	-0.105	0.126
FE	0.343	0.003	-0.006	0.118	-0.148	0.384	0.179	0.388
PB	0.284	0.117	0.090	0.445	-0.123	-0.296	0.111	-0.030
MG	0.193	0.566	0.193	-0.563	0.021	0.029	0.059	0.010
MN	0.144	-0.136	-0.084	-0.257	0.495	0.157	-0.144	0.407
NI	0.333	0.009	0.149	0.110	0.217	0.110	-0.278	-0.361
K	-0.182	0.511	-0.070	0.042	0.230	-0.191	0.351	0.218
V	0.228	-0.173	-0.471	-0.097	-0.241	-0.361	0.101	0.236
ZN	0.347	0.018	0.092	0.097	0.102	0.105	0.253	-0.424

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor pattern:

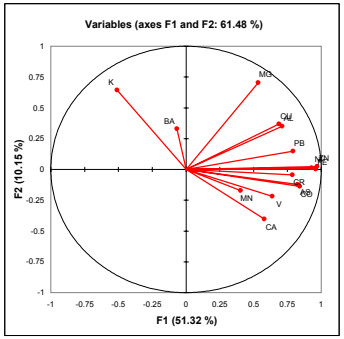
	F1	F2	F3	F4	F5	tial	communaal	communacific variance
AL	0.706	0.343	-0.324	-0.098	-0.235	0.842	0.786	0.214
AS	0.819	-0.120	0.014	0.122	-0.036	0.818	0.701	0.299
BA	-0.067	0.324	-0.874	0.195	0.258	0.631	0.978	0.022
CA	0.576	-0.394	-0.049	-0.295	0.218	0.770	0.623	0.377
CR	0.783	-0.042	-0.243	-0.212	-0.199	0.755	0.759	0.241
CO	0.837	-0.134	0.069	0.095	0.241	0.793	0.790	0.210
CU	0.684	0.362	0.293	0.154	0.060	0.714	0.713	0.287
FE	0.953	0.004	-0.008	0.092	-0.104	0.949	0.927	0.073
PB	0.787	0.145	0.109	0.348	-0.086	0.755	0.780	0.220
MG	0.531	0.690	0.232	-0.434	0.014	0.839	**1.000**	**0.000**
MN	0.401	-0.168	-0.102	-0.200	0.348	0.376	0.360	0.640
NI	0.923	0.012	0.181	0.086	0.153	0.919	0.916	0.084
K	-0.506	0.630	-0.086	0.033	0.162	0.765	0.688	0.312
V	0.633	-0.214	-0.573	-0.076	-0.169	0.823	0.809	0.191
ZN	0.963	0.022	0.112	0.075	0.072	0.960	0.951	0.049



Correlations between variables and factors:

	F1	F2	F3	F4	F5
AL	0.711	0.350	-0.331	-0.105	-0.274
AS	0.824	-0.122	0.014	0.130	-0.042
BA	-0.068	0.331	-0.893	0.208	0.301
CA	0.580	-0.402	-0.050	-0.315	0.254
CR	0.788	-0.043	-0.249	-0.226	-0.233
CO	0.842	-0.137	0.071	0.102	0.281
CU	0.689	0.370	0.300	0.165	0.070
FE	0.959	0.004	-0.008	0.099	-0.121
PB	0.792	0.148	0.111	0.371	-0.101
MG	0.534	0.705	0.237	-0.464	0.017
MN	0.403	-0.171	-0.104	-0.214	0.406
NI	0.929	0.012	0.185	0.091	0.178
K	-0.509	0.644	-0.087	0.035	0.189
V	0.637	-0.219	-0.586	-0.081	-0.198
ZN	0.969	0.022	0.114	0.081	0.084

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Factor pattern coefficients:

	F1	F2	F3	F4	F5
AL	-0.043	-0.174	-0.100	0.298	-0.717
AS	-0.022	0.040	0.039	-0.175	0.146
BA	-0.001	0.496	-0.758	0.112	0.650
CA	-0.011	-0.286	-0.124	-0.021	0.021
CR	0.067	-0.204	-0.113	-0.046	-0.327
CO	0.043	-0.061	0.010	-0.015	0.366
CU	0.012	0.065	0.081	0.364	-0.064
FE	0.264	-0.107	-0.254	0.696	-0.617
PB	0.012	0.236	0.030	0.376	-0.234
MG	0.101	1.030	0.067	-1.281	0.434
MN	0.017	-0.101	0.015	-0.111	0.206
NI	0.183	-0.133	0.180	0.189	0.408
K	-0.040	-0.086	0.109	0.434	-0.093
V	0.164	-0.023	-0.220	-0.521	-0.030
ZN	0.343	-0.036	0.308	-0.108	0.488

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor scores:

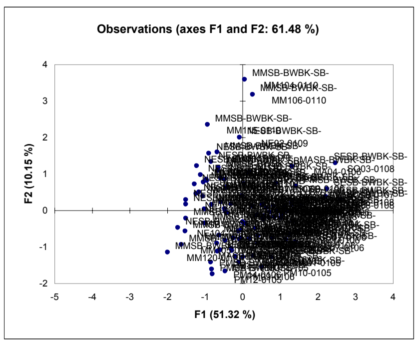
Observation	F1	F2	F3	F4	F5
MASB-BWBK-SB-MA01-0105	0.750	-1.272	0.715	-0.355	0.970
MASB-BWBK-SB-MA02-0107	0.927	-0.005	-0.006	-0.735	0.579
MASB-BWBK-SB-MA03-0108	1.148	-0.789	0.464	0.442	3.029
MASB-BWBK-SB-MA04-0106	1.306	1.219	-0.156	-2.891	1.890
MASB-BWBK-SB-MA05-0108	0.715	-0.040	0.188	-1.140	0.807
MASB-BWBK-SB-MA06-0105	0.694	-0.182	0.279	-0.698	0.302
MASB-BWBK-SB-MA07-0108	0.331	-0.483	0.938	-0.643	-0.503
MASB-BWBK-SB-MA08-0108	2.598	0.301	0.299	-1.007	-2.448
MASB-BWBK-SB-MA09-0108	1.036	-0.100	0.839	0.723	-0.035
MASB-BWBK-SB-MA10-0104	0.008	-1.272	1.516	0.447	-1.095
MASB-BWBK-SB-MA11-0108	1.303	0.240	0.325	0.604	-0.724
MASB-BWBK-SB-MA12-0108	1.184	-0.021	0.515	-0.556	1.040
MASB-BWBK-SB-MA13-0105	-0.691	-0.894	-1.850	-0.155	0.321
MASB-BWBK-SB-MA14-0104	0.518	0.163	-2.626	1.781	-0.415
MASB-BWBK-SB-MA15-0105	-0.001	-0.310	-2.690	0.947	-0.660
MASB-BWBK-SB-MA16-0104	-0.253	-0.754	-0.928	0.546	0.285
MASB-BWBK-SB-MA17-0104	-0.468	-0.814	-1.620	0.922	-0.431
MASB-BWBK-SB-MA18-0104	-0.199	-1.253	-1.501	-1.661	-1.159
MASB-BWBK-SB-MA19-0103	-0.851	-1.412	-1.215	-0.050	0.235
MASB-BWBK-SB-MA20-0103	0.403	-0.685	0.129	0.192	0.567
MMSB-BWBK-SB-MM101-0110	-1.046	0.784	0.878	0.986	0.036
MMSB-BWBK-SB-MM102-0109	-0.650	1.182	0.926	-1.176	0.442
MMSB-BWBK-SB-MM103-0107	-1.024	0.041	1.117	0.434	0.360
MMSB-BWBK-SB-MM104-0110	0.044	3.594	0.953	-0.471	-0.684
MMSB-BWBK-SB-MM105-0110	-1.637	-0.934	1.599	1.034	-0.264
MMSB-BWBK-SB-MM106-0110	0.263	3.184	-0.712	-2.766	0.642
MMSB-BWBK-SB-MM107-0110	-1.012	-0.341	0.683	0.031	-0.458
MMSB-BWBK-SB-MM108-0110	-1.067	0.392	0.853	-0.330	-0.210
MMSB-BWBK-SB-MM109-0110	-0.657	1.102	-0.917	0.891	-0.277
MMSB-BWBK-SB-MM110-0109	-0.831	0.168	0.254	0.187	-1.029
MMSB-BWBK-SB-MM111-0110	-0.685	1.603	-0.173	0.288	-0.091
MMSB-BWBK-SB-MM112-0110	-0.475	0.860	-0.364	-1.434	0.168
MMSB-BWBK-SB-MM113-0110	-0.578	0.240	0.647	-1.045	-0.649
MMSB-BWBK-SB-MM114-0110	-1.536	-0.558	0.641	0.680	0.203
MMSB-BWBK-SB-MM115-0110	-0.939	2.364	-1.975	-0.698	1.622
MMSB-BWBK-SB-MM116-0110	-0.952	0.822	0.538	0.101	0.510
MMSB-BWBK-SB-MM117-0110	-1.518	-0.214	1.522	0.758	0.420
MMSB-BWBK-SB-MM118-0110	-0.589	0.882	1.609	0.260	1.467

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSB-BWBK-SB-MM119-0110	-0.972	0.860	0.980	-1.037	0.509
MMSB-BWBK-SB-MM120-0110	-2.004	-1.140	1.969	0.806	0.131
NESB-BWBK-SB-NE01-0108	0.166	1.045	1.038	-1.824	-1.009
NESB-BWBK-SB-NE02-0109	-0.090	2.012	-1.065	-0.900	1.529
NESB-BWBK-SB-NE03-0105	-0.460	-0.024	0.905	-0.103	-1.305
NESB-BWBK-SB-NE04-0110	-0.440	0.637	0.888	-0.911	-0.485
NESB-BWBK-SB-NE05-0108	-0.021	0.407	1.240	-1.328	-1.110
NESB-BWBK-SB-NE06-0109	-0.319	0.184	1.234	-0.897	-0.651
NESB-BWBK-SB-NE07-0107	0.036	0.733	0.848	-0.917	-1.183
NESB-BWBK-SB-NE08-0104	-0.633	-0.678	1.190	-0.497	-1.023
NESB-BWBK-SB-NE09-0110	-0.428	-0.057	1.198	-0.939	-0.717
NESB-BWBK-SB-NE10-0107	-0.490	0.052	-0.022	-0.748	-1.487
NESB-BWBK-SB-NE101-0110	-0.840	1.345	-1.434	0.736	-0.178
NESB-BWBK-SB-NE102-0110	-1.226	1.232	-1.548	0.932	0.546
NESB-BWBK-SB-NE103-0110	-1.518	0.171	-0.468	1.059	0.191
NESB-BWBK-SB-NE104-0110	-1.728	-0.463	0.251	1.096	0.166
NESB-BWBK-SB-NE105-0110	-0.901	1.574	-1.395	0.717	0.452
NESB-BWBK-SB-NE106-0110	-1.126	0.985	-0.843	0.716	0.450
NESB-BWBK-SB-NE107-0510	-1.512	0.296	0.451	0.230	0.306
NESB-BWBK-SB-NE108-0110	-1.166	0.509	-0.596	0.566	-0.357
NESB-BWBK-SB-NE109-0110	-1.287	0.728	-0.791	0.904	-0.021
NESB-BWBK-SB-NE110-0110	-1.240	0.463	0.011	0.394	-0.588
PMSB-BWBK-SB-PM01-0105	0.065	-0.351	-1.130	-0.186	0.549
PMSB-BWBK-SB-PM02-0104	1.335	-0.298	-1.960	0.020	-2.110
PMSB-BWBK-SB-PM03-0106	1.261	-0.656	0.519	-1.016	-0.221
PMSB-BWBK-SB-PM04-0105	0.632	0.076	0.055	-0.821	-0.149
PMSB-BWBK-SB-PM05-0105	0.556	-0.151	-0.338	-1.052	0.244
PMSB-BWBK-SB-PM06-0105	0.544	-0.227	-0.634	-1.604	0.962
PMSB-BWBK-SB-PM07-0105	-0.101	-1.408	-1.176	0.117	0.769
PMSB-BWBK-SB-PM08-0106	0.180	-0.760	-0.309	-0.584	0.396
PMSB-BWBK-SB-PM09-0106	-0.469	-1.661	0.794	-0.706	0.453
PMSB-BWBK-SB-PM10-0105	0.506	-1.547	-1.180	-0.753	-0.806
PMSB-BWBK-SB-PM11-0104	0.396	-0.892	-1.188	0.461	1.896
PMSB-BWBK-SB-PM12-0105	-0.808	-1.737	0.071	-0.845	-0.422
PMSB-BWBK-SB-PM13-0106	-0.304	-1.035	-2.132	0.033	-0.995
PMSB-BWBK-SB-PM14-0106	-0.828	-1.608	-0.468	-0.264	-0.067
PMSB-BWBK-SB-PM15-0105	-0.111	-0.562	-0.771	-0.041	-0.440
PMSB-BWBK-SB-PM16-0106	-0.596	-1.082	-0.139	-0.184	-0.501
PMSB-BWBK-SB-PM17-0105	0.382	-0.127	-0.396	-0.645	0.137
PMSB-BWBK-SB-PM18-0105	0.825	0.120	0.194	0.249	-0.774
PMSB-BWBK-SB-PM19-0105	0.252	0.136	-0.580	0.262	-0.150

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSB-BWBK-SB-PM20-0106	-0.052	-0.532	-0.328	-0.158	-0.250
PMSB-BWBK-SB-SO01-0107-PM	0.843	-0.179	0.773	1.321	-0.517
PMSB-BWBK-SB-SO02-0109-PM	1.010	-0.203	0.655	0.866	-1.703
PMSB-BWBK-SB-SO13-0104-PM	1.113	0.044	0.242	1.848	0.301
PMSB-BWBK-SB-SO14-0105-PM	1.412	0.677	0.382	1.245	0.443
SESB-BWBK-SB-SO03-0108	2.459	1.311	0.233	1.529	0.708
SESB-BWBK-SB-SO04-0108	1.308	0.172	0.407	1.613	0.662
SESB-BWBK-SB-SO05-0106	1.111	0.102	-0.267	1.052	-0.407
SESB-BWBK-SB-SO06-0108	2.203	0.387	0.331	1.031	-0.858
SESB-BWBK-SB-SO07-0106	1.408	-0.856	1.139	1.181	1.005
SESB-BWBK-SB-SO08-0107	2.239	0.600	-0.093	1.248	0.167
SESB-BWBK-SB-SO09-0106	0.881	0.752	-0.361	0.416	0.239
SESB-BWBK-SB-SO11-0106	1.555	0.112	0.246	-0.565	0.694
SESB-BWBK-SB-SO12-0106	1.467	-0.568	0.996	1.344	-0.040
SESB-BWBK-SB-SO15-0103	-0.047	-0.744	-0.476	0.093	-0.987
SESB-BWBK-SB-SO16-0105	0.286	-1.232	0.456	0.213	0.219
SESB-BWBK-SB-SO17-0106	-0.296	-1.095	0.049	0.241	0.365
SESB-BWBK-SB-SO18-0105	-0.674	-1.111	0.052	-0.067	0.255
SESB-BWBK-SB-SO19-0104	-0.089	-0.785	-0.053	-0.471	1.573
SESB-BWBK-SB-SO20-0104	0.783	-0.758	0.651	1.083	0.430



APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Results after the Varimax rotation:

Rotation matrix:

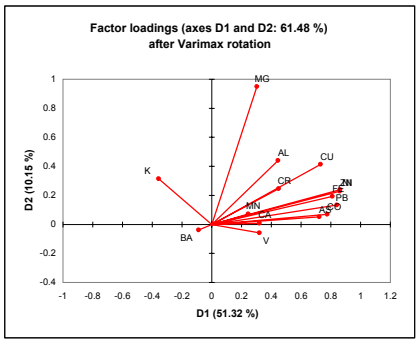
	D1	D2	D3	D4	D5
D1	0.819	0.257	-0.040	0.457	0.232
D2	0.057	0.760	0.393	-0.272	-0.437
D3	0.214	0.177	-0.804	-0.523	-0.062
D4	0.509	-0.571	0.254	-0.317	-0.500
D5	0.145	-0.002	0.365	-0.587	0.708

Percentage of variance after Varimax rotation:

	D1	D2	D3	D4	D5
Variability (%)	35.995	10.728	8.723	15.692	7.412
Cumulative %	35.995	46.723	55.445	71.137	78.549

Factor pattern after Varimax rotation:

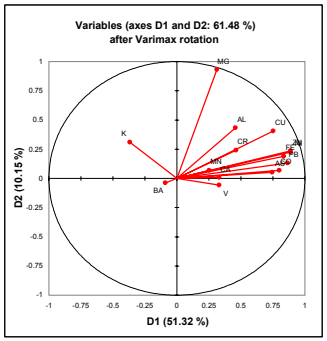
	D1	D2	D3	D4	D5
AL	0.444	0.441	0.256	0.567	-0.083
AS	0.723	0.052	-0.073	0.382	0.155
BA	-0.087	-0.038	0.976	0.125	-0.018
CA	0.320	0.008	-0.134	0.361	0.611
CR	0.450	0.247	0.021	0.680	0.180
CO	0.776	0.070	-0.029	0.211	0.371
CU	0.731	0.414	-0.059	-0.023	-0.053
FE	0.810	0.193	-0.045	0.470	0.100
PB	0.840	0.133	-0.005	0.204	-0.122
MG	0.304	0.949	-0.041	0.063	0.034
MN	0.245	0.071	0.077	0.141	0.519
NI	0.861	0.229	-0.100	0.207	0.263
K	-0.357	0.315	0.404	-0.463	-0.289
V	0.320	-0.058	0.270	0.770	0.194
ZN	0.863	0.240	-0.074	0.309	0.220



APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Correlations between variables and factors after Varimax rotation:

	D1	D2	D3	D4	D5
AL	0.458	0.432	0.259	0.623	-0.098
AS	0.745	0.051	-0.073	0.419	0.182
BA	-0.090	-0.037	0.986	0.137	-0.021
CA	0.330	0.008	-0.136	0.396	0.718
CR	0.463	0.242	0.021	0.747	0.212
CO	0.799	0.069	-0.030	0.232	0.437
CU	0.753	0.406	-0.060	-0.025	-0.062
FE	0.835	0.189	-0.045	0.516	0.118
PB	0.865	0.130	-0.005	0.224	-0.144
MG	0.313	0.931	-0.041	0.069	0.040
MN	0.252	0.069	0.077	0.155	0.611
NI	0.887	0.224	-0.101	0.227	0.309
K	-0.367	0.309	0.409	-0.509	-0.340
V	0.330	-0.057	0.273	0.846	0.228
ZN	0.888	0.236	-0.075	0.340	0.259



APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor pattern coefficients after Varimax rotation:

	D1	D2	D3	D4	D5
AL	-0.019	-0.329	-0.172	0.407	-0.584
AS	-0.075	0.131	-0.006	-0.071	0.166
BA	0.017	0.176	1.070	-0.156	0.234
CA	-0.059	-0.230	-0.010	0.132	0.156
CR	-0.052	-0.131	-0.123	0.351	-0.097
CO	0.079	-0.025	0.096	-0.179	0.302
CU	0.208	-0.141	0.029	-0.132	-0.258
FE	0.421	-0.455	0.103	0.424	-0.661
PB	0.188	-0.026	0.079	-0.056	-0.456
MG	-0.434	1.550	0.180	-0.118	0.516
MN	-0.015	-0.007	-0.005	-0.058	0.248
NI	0.337	-0.131	-0.007	-0.274	0.284
K	0.194	-0.303	-0.044	-0.135	-0.261
V	-0.184	0.283	0.018	0.378	0.301
ZN	0.361	0.176	-0.125	-0.247	0.475

Factor scores after Varimax rotation:

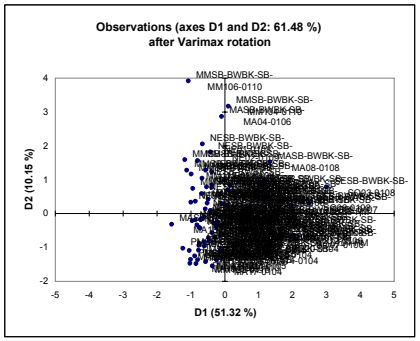
	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	0.652	-0.444	-0.837	-0.142	1.542
MASB-BWBK-SB-MA02-0107	0.465	0.647	-0.010	0.319	0.989
MASB-BWBK-SB-MA03-0108	1.651	-0.478	0.488	-1.414	2.493
MASB-BWBK-SB-MA04-0106	-0.093	2.865	0.505	0.152	2.549
MASB-BWBK-SB-MA05-0108	0.159	0.830	-0.190	0.125	1.306
MASB-BWBK-SB-MA06-0105	0.304	0.485	-0.388	0.263	0.782
MASB-BWBK-SB-MA07-0108	0.044	0.251	-1.297	0.290	0.195
MASB-BWBK-SB-MA08-0108	1.332	1.520	-1.368	2.690	-0.773
MASB-BWBK-SB-MA09-0108	1.378	-0.073	-0.581	-0.145	-0.154
MASB-BWBK-SB-MA10-0104	0.326	-0.943	-1.995	0.057	-0.532
MASB-BWBK-SB-MA11-0108	1.346	0.230	-0.328	0.591	-0.634
MASB-BWBK-SB-MA12-0108	0.942	0.691	-0.230	-0.157	1.260
MASB-BWBK-SB-MA13-0105	-1.040	-1.091	1.234	0.751	0.647
MASB-BWBK-SB-MA14-0104	0.714	-1.219	2.442	1.238	-0.968
MASB-BWBK-SB-MA15-0105	-0.208	-1.246	2.029	1.569	-0.636
MASB-BWBK-SB-MA16-0104	-0.128	-1.109	0.698	0.233	0.256
MASB-BWBK-SB-MA17-0104	-0.368	-1.543	1.071	0.811	-0.416
MASB-BWBK-SB-MA18-0104	-1.562	-0.318	-0.124	2.229	0.602
MASB-BWBK-SB-MA19-0103	-1.023	-1.471	0.526	0.505	0.683

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASB-BWBK-SB-MA20-0103	0.496	-0.503	-0.132	-0.090	0.687
MMSB-BWBK-SB-MM101-0110	-0.116	-0.079	-0.091	-1.475	-1.102
MMSB-BWBK-SB-MM102-0109	-0.797	1.558	-0.389	-0.984	0.174
MMSB-BWBK-SB-MM103-0107	-0.321	-0.280	-0.596	-1.404	-0.285
MMSB-BWBK-SB-MM104-0110	0.104	3.165	0.275	-0.899	-1.860
MMSB-BWBK-SB-MM105-0110	-0.559	-1.428	-1.413	-1.495	-0.770
MMSB-BWBK-SB-MM106-0110	-1.068	3.917	1.338	0.125	0.547
MMSB-BWBK-SB-MM107-0110	-0.748	-0.412	-0.798	-0.465	-0.465
MMSB-BWBK-SB-MM108-0110	-0.863	0.362	-0.646	-0.808	-0.453
MMSB-BWBK-SB-MM109-0110	-0.257	-0.002	1.315	-0.239	-1.213
MMSB-BWBK-SB-MM110-0109	-0.668	-0.145	-0.431	-0.013	-1.098
MMSB-BWBK-SB-MM111-0110	-0.372	0.843	0.832	-0.692	-1.053
MMSB-BWBK-SB-MM112-0110	-1.119	1.278	0.344	0.095	0.370
MMSB-BWBK-SB-MM113-0110	-0.942	0.743	-0.901	0.044	-0.216
MMSB-BWBK-SB-MM114-0110	-0.772	-1.087	-0.424	-1.213	-0.346
MMSB-BWBK-SB-MM115-0110	-1.172	1.591	2.953	-0.766	0.366
MMSB-BWBK-SB-MM116-0110	-0.490	0.415	0.140	-1.264	-0.302
MMSB-BWBK-SB-MM117-0110	-0.479	-0.712	-0.896	-1.908	-0.432
MMSB-BWBK-SB-MM118-0110	0.257	0.650	-0.319	-2.281	0.285
MMSB-BWBK-SB-MM119-0110	-0.986	1.163	-0.486	-1.154	0.215
MMSB-BWBK-SB-MM120-0110	-0.849	-1.483	-1.689	-1.957	-0.396
NESB-BWBK-SB-NE01-0108	-0.655	2.053	-1.256	0.417	-0.284
NESB-BWBK-SB-NE02-0109	-0.423	1.817	1.970	-0.641	0.693
NESB-BWBK-SB-NE03-0105	-0.424	0.086	-1.216	0.122	-1.019
NESB-BWBK-SB-NE04-0110	-0.665	1.044	-0.850	-0.264	-0.323
NESB-BWBK-SB-NE05-0108	-0.563	1.277	-1.571	0.302	-0.380
NESB-BWBK-SB-NE06-0109	-0.535	0.786	-1.366	-0.173	-0.242
NESB-BWBK-SB-NE07-0107	-0.384	1.236	-1.054	0.357	-0.740
NESB-BWBK-SB-NE08-0104	-0.700	-0.180	-1.689	0.031	-0.398
NESB-BWBK-SB-NE09-0110	-0.676	0.594	-1.461	-0.088	-0.186
NESB-BWBK-SB-NE10-0107	-0.995	0.338	-0.672	0.879	-0.810
NESB-BWBK-SB-NE101-0110	-0.567	0.131	1.827	-0.127	-1.182
NESB-BWBK-SB-NE102-0110	-0.708	-0.185	2.203	-0.697	-0.802
NESB-BWBK-SB-NE103-0110	-0.763	-0.942	0.839	-0.938	-0.788
NESB-BWBK-SB-NE104-0110	-0.801	-1.369	0.024	-1.233	-0.641
NESB-BWBK-SB-NE105-0110	-0.514	0.305	2.113	-0.599	-0.845
NESB-BWBK-SB-NE106-0110	-0.613	-0.099	1.449	-0.827	-0.676
NESB-BWBK-SB-NE107-0510	-0.957	-0.214	-0.016	-1.253	-0.404
NESB-BWBK-SB-NE108-0110	-0.813	-0.339	0.736	-0.328	-0.987
NESB-BWBK-SB-NE109-0110	-0.720	-0.431	1.190	-0.643	-1.029
NESB-BWBK-SB-NE110-0110	-0.867	-0.187	0.107	-0.475	-1.099
PMSB-BWBK-SB-PM01-0105	-0.222	-0.344	0.916	0.450	0.717
PMSB-BWBK-SB-PM02-0104	0.358	-0.238	0.636	2.932	-0.937
PMSB-BWBK-SB-PM03-0106	0.554	0.495	-1.059	0.930	0.894
PMSB-BWBK-SB-PM04-0105	0.093	0.695	-0.301	0.584	0.413

APPENDIX F, TABLE F3-3
FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSB-BWBK-SB-PM05-0105	-0.125	0.565	0.012	0.658	0.910
PMSB-BWBK-SB-PM06-0105	-0.379	0.764	0.340	0.581	1.739
PMSB-BWBK-SB-PM07-0105	-0.242	-1.365	0.702	0.460	1.145
PMSB-BWBK-SB-PM08-0106	-0.201	-0.252	-0.061	0.401	0.961
PMSB-BWBK-SB-PM09-0106	-0.599	-0.835	-1.281	-0.219	1.236
PMSB-BWBK-SB-PM10-0105	-0.425	-0.819	-0.166	1.969	0.670
PMSB-BWBK-SB-PM11-0104	0.526	-1.049	1.391	-0.214	1.659
PMSB-BWBK-SB-PM12-0105	-1.230	-1.026	-1.071	0.578	0.688
PMSB-BWBK-SB-PM13-0106	-0.887	-1.253	0.958	1.821	-0.205
PMSB-BWBK-SB-PM14-0106	-1.008	-1.359	-0.314	0.424	0.621
PMSB-BWBK-SB-PM15-0105	-0.371	-0.565	0.231	0.772	-0.023
PMSB-BWBK-SB-PM16-0106	-0.742	-0.889	-0.517	0.445	0.081
PMSB-BWBK-SB-PM17-0105	-0.088	0.298	0.138	0.537	0.586
PMSB-BWBK-SB-PM18-0105	0.735	0.196	-0.359	0.616	-0.543
PMSB-BWBK-SB-PM19-0105	0.201	-0.084	0.519	0.384	-0.201
PMSB-BWBK-SB-PM20-0106	-0.259	-0.383	-0.074	0.486	0.143
PMSB-BWBK-SB-SO01-0107-PM	1.437	-0.533	-0.575	-0.085	-0.796
PMSB-BWBK-SB-SO02-0109-PM	1.144	-0.269	-1.043	0.895	-1.349
PMSB-BWBK-SB-SO13-0104-PM	1.941	-0.690	0.357	-0.390	-0.484
PMSB-BWBK-SB-SO14-0105-PM	1.965	0.232	0.379	-0.391	-0.300
SESB-BWBK-SB-SO03-0108	3.004	0.790	0.873	-0.253	-0.279
SESB-BWBK-SB-SO04-0108	2.075	-0.381	0.339	-0.558	-0.134
SESB-BWBK-SB-SO05-0106	1.328	-0.283	0.327	0.523	-0.581
SESB-BWBK-SB-SO06-0108	2.285	0.330	-0.252	0.901	-0.798
SESB-BWBK-SB-SO07-0106	2.085	-0.759	-0.637	-0.680	0.748
SESB-BWBK-SB-SO08-0107	2.494	0.299	0.597	0.413	-0.242
SESB-BWBK-SB-SO09-0106	0.928	0.492	0.740	0.114	-0.140
SESB-BWBK-SB-SO11-0106	1.139	0.844	-0.105	0.321	1.065
SESB-BWBK-SB-SO12-0106	2.051	-0.642	-0.751	-0.097	-0.173
SESB-BWBK-SB-SO15-0103	-0.277	-0.709	-0.244	0.974	-0.399
SESB-BWBK-SB-SO16-0105	0.400	-0.899	-0.724	0.030	0.622
SESB-BWBK-SB-SO17-0106	-0.117	-1.032	-0.262	-0.153	0.543
SESB-BWBK-SB-SO18-0105	-0.598	-0.965	-0.374	-0.161	0.538
SESB-BWBK-SB-SO19-0104	-0.140	-0.361	0.191	-0.571	1.667
SESB-BWBK-SB-SO20-0104	1.346	-0.874	-0.418	-0.370	0.235



APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

XLSTAT 2007.4 - Factor analysis - on 7/25/2007 at 6:13:06 PM
Observations/variables table: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK_LOG_AsCoFePbMnNiZn.xls / Sheet1!$D$1:$O$215 / 214 rows and 12 columns
Observation labels: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_BeCaCuK_LOG_AsCoFePbMnNiZn.xls / Sheet1!$C$1:$C$215 / 214 rows and 1 column
Correlation: Pearson (n)
Extraction method: Principal factor analysis
Number of factors: 5
Initial communalities: Squared multiple correlations
Stop conditions: Convergence = 0.0001 / Iterations = 400
Rotation: Varimax / Number of factors = 5

Summary statistics

Summary statistics:

Variable	Observ.	w.missing	complete	Minimum	Maximum	Mean	Std. deviation
AL	214	0	214	3710.000	17900.000	10708.224	2684.688
AS_log	214	0	214	-0.186	4.272	1.842	0.852
BA	214	0	214	6.300	61.000	27.709	10.480
CR	214	0	214	4.800	28.200	12.147	3.425
CO_log	214	0	214	-0.163	2.991	1.739	0.653
FE_log	214	0	214	8.689	10.895	9.776	0.426
PB_log	214	0	214	0.956	3.902	2.400	0.623
MG	214	0	214	482.000	4580.000	2246.451	809.651
MN_log	214	0	214	3.329	7.467	5.407	0.695
NI_log	214	0	214	1.030	3.614	2.459	0.471
V	214	0	214	5.200	35.800	18.794	6.601
ZN_log	214	0	214	2.351	4.540	3.536	0.409

Correlation matrix (Pearson (n)):

Variables	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
AL	**1**	0.576	0.567	0.640	0.307	0.536	0.619	0.129	0.139	0.352	0.643	0.491
AS_log	0.576	**1**	0.402	0.779	0.741	0.889	0.478	0.368	0.522	0.730	0.620	0.809
BA	0.567	0.402	**1**	0.501	0.276	0.281	0.663	-0.066	0.065	0.155	0.682	0.432
CR	0.640	0.779	0.501	**1**	0.760	0.812	0.378	0.531	0.549	0.762	0.559	0.815
CO_log	0.307	0.741	0.276	0.760	**1**	0.867	0.107	0.713	0.798	0.920	0.325	0.816
FE_log	0.536	0.889	0.281	0.812	0.867	**1**	0.256	0.632	0.703	0.876	0.476	0.846
PB_log	0.619	0.478	0.663	0.378	0.107	0.256	**1**	-0.314	-0.130	0.020	0.834	0.419
MG	0.129	0.368	-0.066	0.531	0.713	0.632	-0.314	**1**	0.678	0.811	-0.153	0.538
MN_log	0.139	0.522	0.065	0.549	0.798	0.703	-0.130	0.678	**1**	0.733	0.105	0.547
NI_log	0.352	0.730	0.155	0.762	0.920	0.876	0.020	0.811	0.733	**1**	0.198	0.823
V	0.643	0.620	0.682	0.559	0.325	0.476	0.834	-0.153	0.105	0.198	**1**	0.556
ZN_log	0.491	0.809	0.432	0.815	0.816	0.846	0.419	0.538	0.547	0.823	0.556	**1**

Factor analysis:

Maximum change in communality at each iteration:

Iteration	imum change
75	0.0001
76	0.0001
77	0.0001
78	0.0001
79	0.0001
80	0.0001
81	0.0001
82	0.0001
83	0.0001
84	0.0001

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Reproduced correlation matrix:

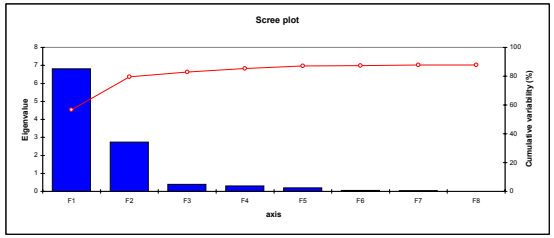
	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
AL	0.862	0.580	0.569	0.642	0.305	0.536	0.610	0.129	0.138	0.346	0.645	0.496
AS_log	0.580	0.883	0.399	0.763	0.738	0.887	0.477	0.384	0.525	0.722	0.633	0.816
BA	0.569	0.399	0.683	0.491	0.271	0.281	0.663	-0.061	0.070	0.157	0.688	0.436
CR	0.642	0.763	0.491	0.832	0.767	0.817	0.402	0.531	0.553	0.765	0.551	0.810
CO_log	0.305	0.738	0.271	0.767	0.955	0.871	0.103	0.719	0.795	0.904	0.331	0.823
FE_log	0.536	0.887	0.281	0.817	0.871	0.985	0.262	0.622	0.704	0.886	0.466	0.840
PB_log	0.610	0.477	0.663	0.402	0.103	0.262	0.859	-0.320	-0.133	0.017	0.828	0.414
MG	0.129	0.384	-0.061	0.531	0.719	0.622	-0.320	0.855	0.671	0.814	-0.154	0.530
MN_log	0.138	0.525	0.070	0.553	0.795	0.704	-0.133	0.671	0.762	0.738	0.100	0.546
NI_log	0.346	0.722	0.157	0.765	0.904	0.886	0.017	0.814	0.738	0.967	0.206	0.828
V	0.645	0.633	0.688	0.551	0.331	0.466	0.828	-0.154	0.100	0.206	0.876	0.550
ZN_log	0.496	0.816	0.436	0.810	0.823	0.840	0.414	0.530	0.546	0.828	0.550	0.922

Residual correlation matrix:

	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
AL	0.138	-0.003	-0.002	-0.001	0.002	0.000	0.009	0.000	0.002	0.006	-0.003	-0.005
AS_log	-0.003	0.117	0.003	0.015	0.003	0.002	0.001	-0.016	-0.003	0.008	-0.013	-0.007
BA	-0.002	0.003	0.317	0.010	0.005	0.000	0.000	-0.005	-0.005	-0.002	-0.006	-0.004
CR	-0.001	0.015	0.010	0.168	-0.008	-0.005	-0.023	0.000	-0.004	-0.003	0.008	0.005
CO_log	0.002	0.003	0.005	-0.008	0.045	-0.004	0.004	-0.007	0.002	0.016	-0.006	-0.007
FE_log	0.000	0.002	0.000	-0.005	-0.004	0.015	-0.006	0.011	0.000	-0.010	0.009	0.006
PB_log	0.009	0.001	0.000	-0.023	0.004	-0.006	0.141	0.006	0.003	0.003	0.006	0.005
MG	0.000	-0.016	-0.005	0.000	-0.007	0.011	0.006	0.145	0.007	-0.003	0.001	0.008
MN_log	0.002	-0.003	-0.005	-0.004	0.002	0.000	0.003	0.007	0.238	-0.004	0.005	0.001
NI_log	0.006	0.008	-0.002	-0.003	0.016	-0.010	0.003	-0.003	-0.004	0.033	-0.008	-0.005
V	-0.003	-0.013	-0.006	0.008	-0.006	0.009	0.006	0.001	0.005	-0.008	0.124	0.006
ZN_log	-0.005	-0.007	-0.004	0.005	-0.007	0.006	0.005	0.008	0.001	-0.005	0.006	0.078

Eigenvalues:

	F1	F2	F3	F4	F5	F6	F7	F8
Eigenvalue	6.807	2.745	0.395	0.296	0.198	0.047	0.037	0.002
Variability (%)	56.721	22.875	3.294	2.465	1.650	0.392	0.307	0.016
Cumulative %	56.721	79.596	82.891	85.356	87.006	87.399	87.706	87.722



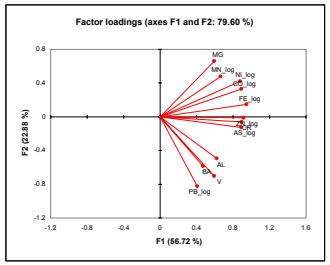
APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Eigenvectors:

	F1	F2	F3	F4	F5	F6	F7	F8
AL	0.238	-0.298	-0.729	0.219	0.200	0.052	0.264	0.127
AS_log	0.340	-0.075	0.220	0.455	0.025	0.414	-0.209	-0.063
BA	0.180	-0.353	-0.088	-0.625	0.095	0.202	-0.182	-0.474
CR	0.343	-0.037	-0.225	-0.143	-0.016	0.106	-0.593	0.326
CO_log	0.342	0.198	0.258	-0.269	0.125	0.318	0.303	-0.110
FE_log	0.364	0.090	0.052	0.432	0.179	-0.296	-0.125	-0.584
PB_log	0.156	-0.497	0.150	0.008	-0.174	-0.091	0.524	-0.059
MG	0.227	0.398	-0.367	-0.196	-0.151	-0.403	0.099	-0.168
MN_log	0.254	0.287	0.182	-0.169	0.613	-0.184	0.160	0.284
NI_log	0.336	0.254	-0.068	0.029	-0.309	0.370	0.265	0.226
V	0.227	-0.423	0.258	-0.025	0.178	-0.371	-0.083	0.350
ZN_log	0.351	-0.008	0.178	-0.080	-0.589	-0.326	-0.083	0.097

Factor pattern:

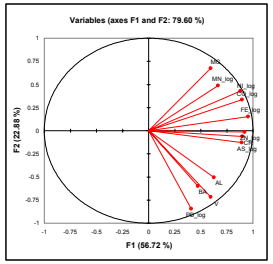
	F1	F2	F3	F4	F5	tial communal	al communal	cific variance
AL	0.621	-0.494	-0.458	0.119	0.089	0.724	0.862	0.138
AS_log	0.887	-0.125	0.138	0.247	0.011	0.885	0.883	0.117
BA	0.470	-0.584	-0.056	-0.340	0.042	0.624	0.683	0.317
CR	0.896	-0.061	-0.141	-0.078	-0.007	0.815	0.832	0.168
CO_log	0.892	0.329	0.163	-0.146	0.056	0.924	0.955	0.045
FE_log	0.949	0.149	0.033	0.235	0.080	0.938	0.985	0.015
PB_log	0.407	-0.824	0.094	0.004	-0.077	0.822	0.859	0.141
MG	0.592	0.660	-0.231	-0.106	-0.067	0.823	0.855	0.145
MN_log	0.663	0.476	0.114	-0.092	0.273	0.719	0.762	0.238
NI_log	0.877	0.421	-0.043	0.016	-0.137	0.948	0.967	0.033
V	0.592	-0.701	0.162	-0.014	0.079	0.844	0.876	0.124
ZN_log	0.916	-0.013	0.112	-0.044	-0.262	0.872	0.922	0.078



Correlations between variables and factors:

	F1	F2	F3	F4	F5
AL	0.625	-0.505	-0.523	0.132	0.106
AS_log	0.892	-0.127	0.157	0.275	0.013
BA	0.473	-0.598	-0.063	-0.378	0.050
CR	0.900	-0.063	-0.161	-0.086	-0.009
CO_log	0.897	0.336	0.185	-0.163	0.067
FE_log	0.954	0.152	0.038	0.261	0.095
PB_log	0.409	-0.843	0.107	0.005	-0.092
MG	0.595	0.675	-0.263	-0.118	-0.080
MN_log	0.666	0.487	0.130	-0.102	0.325
NI_log	0.881	0.431	-0.049	0.018	-0.164
V	0.595	-0.717	0.185	-0.015	0.094
ZN_log	0.921	-0.013	0.127	-0.048	-0.312

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Factor pattern coefficients:

	F1	F2	F3	F4	F5
AL	0.079	-0.226	-0.789	-0.123	0.237
AS_log	0.005	-0.148	0.294	0.128	-0.088
BA	0.059	-0.093	-0.119	-0.236	0.050
CR	0.100	-0.050	-0.260	-0.203	0.115
CO_log	0.182	0.090	0.770	-1.250	0.947
FE_log	0.317	0.223	0.116	1.822	0.887
PB_log	0.078	-0.270	0.109	0.112	-0.148
MG	0.016	0.148	-0.377	-0.432	-0.028
MN_log	0.022	0.086	0.040	-0.141	0.343
NI_log	0.186	0.361	-0.594	0.507	-1.291
V	0.075	-0.273	0.201	-0.247	0.065
ZN_log	0.103	-0.121	0.311	-0.359	-1.029

Factor scores:

Observation	F1	F2	F3	F4	F5
BASS-BWBK-SS-BA101-0001	-1.994	1.193	0.341	0.197	-0.647
BASS-BWBK-SS-BA102-0001	-2.404	1.156	0.543	0.062	-0.727
BASS-BWBK-SS-BA103-0001	-2.243	1.179	0.449	-0.045	-0.717
BASS-BWBK-SS-BA104-0001	-1.828	1.187	0.287	-0.317	-0.836
BASS-BWBK-SS-BA105-0001	-2.011	1.189	0.828	0.020	-0.900
BASS-BWBK-SS-BA106-0001	-1.734	1.253	0.072	-0.115	-1.316
BASS-BWBK-SS-BA107-0001	-2.372	1.072	0.547	0.004	-0.727
BASS-BWBK-SS-BA108-0001	-2.338	1.122	0.453	-0.172	-0.916
BASS-BWBK-SS-BA109-0001	-1.988	1.536	-0.224	-0.209	-1.608
BASS-BWBK-SS-BA110-0001	-1.664	1.339	-0.096	-0.081	-0.410
BASS-BWBK-SS-BA111-0001	-2.180	1.179	0.346	-0.003	-0.624
BASS-BWBK-SS-BA112-0001	-2.272	1.178	0.341	0.000	-0.425
BASS-BWBK-SS-BA113-0001	-1.988	0.729	1.314	-0.538	-2.320
MASB-BWBK-SB-MA01-0105	0.966	1.141	0.376	-0.045	0.162
MASB-BWBK-SB-MA02-0107	1.098	1.132	-0.452	0.048	-0.401
MASB-BWBK-SB-MA03-0108	1.177	1.346	1.365	-0.340	-0.225
MASB-BWBK-SB-MA04-0106	1.160	1.158	-0.726	-0.672	-0.756
MASB-BWBK-SB-MA05-0108	0.930	0.871	0.162	0.379	-0.786
MASB-BWBK-SB-MA06-0105	0.864	1.002	-0.259	0.063	-0.796
MASB-BWBK-SB-MA07-0108	0.621	0.961	0.203	1.461	-0.836
MASB-BWBK-SB-MA08-0108	1.916	0.557	-0.490	1.840	0.121
MASB-BWBK-SB-MA09-0108	1.124	0.781	0.901	1.550	-0.390
MASB-BWBK-SB-MA10-0104	0.399	0.908	1.246	1.659	-0.289
MASB-BWBK-SB-MA11-0108	1.238	0.669	0.102	0.829	-0.733
MASB-BWBK-SB-MA12-0108	1.253	1.035	0.474	0.744	-0.478
MASB-BWBK-SB-MA13-0105	-0.076	0.222	0.209	-0.745	0.058
MASB-BWBK-SB-MA14-0104	1.105	0.160	0.202	0.747	0.951
MASB-BWBK-SB-MA15-0105	0.696	-0.016	-0.067	0.216	0.970
MASB-BWBK-SB-MA16-0104	0.329	0.529	0.965	0.056	0.452

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASB-BWBK-SB-MA17-0104	0.263	0.130	0.571	-0.114	0.848
MASB-BWBK-SB-MA18-0104	0.203	-0.034	-0.414	-0.760	-0.043
MASB-BWBK-SB-MA19-0103	-0.209	0.304	0.491	-0.571	0.107
MASB-BWBK-SB-MA20-0103	0.703	1.009	0.344	0.256	-0.796
MASS-BWBK-SS-MA01-0001	-1.692	-0.874	0.003	-1.194	-0.827
MASS-BWBK-SS-MA02-0001	-0.828	-0.977	-1.709	-1.940	-1.634
MASS-BWBK-SS-MA03-0001	-0.840	-0.488	-0.129	0.066	-0.670
MASS-BWBK-SS-MA04-0001	-0.553	-0.220	-0.728	-0.645	-1.147
MASS-BWBK-SS-MA05-0001	0.268	-0.219	-0.930	-0.343	-1.089
MASS-BWBK-SS-MA06-0001	0.592	-0.874	-1.506	-0.094	-0.259
MASS-BWBK-SS-MA07-0001	-2.817	-1.124	0.880	0.975	0.109
MASS-BWBK-SS-MA08-0001	0.070	-1.049	0.797	0.883	-0.043
MASS-BWBK-SS-MA09-0001	1.179	-1.670	-1.346	-1.342	-0.591
MASS-BWBK-SS-MA10-0001	0.871	-1.201	-0.339	-0.448	-0.333
MASS-BWBK-SS-MA11-0001	1.063	-1.133	-0.454	-0.105	0.822
MASS-BWBK-SS-MA12-0001	-0.341	-0.119	-0.973	0.728	-1.908
MASS-BWBK-SS-MA13-0001	-0.061	-1.244	-0.867	-0.545	0.143
MASS-BWBK-SS-MA14-0001	-0.864	-1.555	0.120	-1.085	-0.848
MASS-BWBK-SS-MA15-0001	-0.752	-1.490	-0.638	-0.714	-0.598
MASS-BWBK-SS-MA16-0001	-0.406	-0.916	0.136	0.722	-0.520
MASS-BWBK-SS-MA17-0001	-0.198	-0.865	0.231	-0.322	0.223
MASS-BWBK-SS-MA18-0001	-0.575	-1.373	0.367	0.465	-0.809
MASS-BWBK-SS-MA19-0001	-0.120	-1.067	0.361	-0.245	0.053
MASS-BWBK-SS-MA20-0001	0.078	-0.382	0.238	0.303	-0.668
MMSB-BWBK-SB-MM101-0110	-0.276	0.911	0.660	-0.066	0.304
MMSB-BWBK-SB-MM102-0109	-0.050	1.237	-0.806	-0.744	-0.707
MMSB-BWBK-SB-MM103-0107	-0.172	1.042	0.850	-1.541	0.755
MMSB-BWBK-SB-MM104-0110	0.466	0.901	-0.859	-0.789	0.910
MMSB-BWBK-SB-MM105-0110	-0.930	0.826	0.933	-0.143	-0.152
MMSB-BWBK-SB-MM106-0110	0.624	0.832	-1.568	-1.579	0.229
MMSB-BWBK-SB-MM107-0110	-0.295	0.867	0.045	-0.995	0.429
MMSB-BWBK-SB-MM108-0110	-0.397	0.839	0.140	-0.576	0.350
MMSB-BWBK-SB-MM109-0110	0.151	0.508	-0.617	-0.879	0.495
MMSB-BWBK-SB-MM110-0109	-0.108	0.644	-0.389	-0.421	0.430
MMSB-BWBK-SB-MM111-0110	0.074	0.790	-0.545	-0.265	0.333
MMSB-BWBK-SB-MM112-0110	0.133	0.969	-0.753	-0.457	0.866
MMSB-BWBK-SB-MM113-0110	0.047	1.053	-0.999	-1.112	-0.057
MMSB-BWBK-SB-MM114-0110	-0.716	0.861	0.316	-0.531	0.142
MMSB-BWBK-SB-MM115-0110	-0.194	0.517	-0.742	-1.655	1.010
MMSB-BWBK-SB-MM116-0110	-0.219	1.016	-0.118	-0.796	-0.093
MMSB-BWBK-SB-MM117-0110	-0.746	1.094	0.983	-0.496	0.359
MMSB-BWBK-SB-MM118-0110	-0.035	1.542	-0.138	-0.700	-1.257
MMSB-BWBK-SB-MM119-0110	-0.368	1.069	0.112	-0.542	0.094
MMSB-BWBK-SB-MM120-0110	-1.385	1.014	1.225	-0.479	0.738
MMSS-BWBK-SS-MM101-0001	-0.060	-0.873	-1.630	0.827	0.486
MMSS-BWBK-SS-MM102-0001	-0.839	-0.147	-0.780	1.287	0.466
MMSS-BWBK-SS-MM103-0001	-0.187	-0.866	-1.243	1.193	0.581
MMSS-BWBK-SS-MM104-0001	0.028	-0.609	-1.329	0.527	0.557
MMSS-BWBK-SS-MM105-0001	-1.084	-0.519	0.065	0.830	0.664
MMSS-BWBK-SS-MM106-0001	0.057	-0.516	-1.373	0.104	1.005
MMSS-BWBK-SS-MM107-0001	-0.046	-0.535	-1.942	0.569	0.439
MMSS-BWBK-SS-MM108-0001	-0.371	-1.090	-1.832	1.004	0.565
MMSS-BWBK-SS-MM109-0001	-0.537	-0.615	-1.574	1.109	0.875
MMSS-BWBK-SS-MM110-0001	-1.695	-0.822	-0.167	1.367	0.716
MMSS-BWBK-SS-MM111-0001	-1.495	-0.613	-0.573	0.969	0.876
MMSS-BWBK-SS-MM112-0001	-1.829	-0.750	-0.254	1.398	-0.068
MMSS-BWBK-SS-MM113-0001	-0.634	-1.147	-1.147	1.129	0.360
MMSS-BWBK-SS-MM114-0001	-2.036	-0.392	0.066	0.746	0.376
MMSS-BWBK-SS-MM115-0001	-1.512	-0.485	-0.509	1.577	0.388
MMSS-BWBK-SS-MM116-0001	-1.598	-0.591	0.008	1.033	0.803
MMSS-BWBK-SS-MM117-0001	-0.533	-0.577	-1.071	0.918	0.474
MMSS-BWBK-SS-MM118-0001	-0.828	0.540	-0.065	-0.189	0.763
MMSS-BWBK-SS-MM119-0001	-1.113	0.699	0.082	-0.090	0.377
MMSS-BWBK-SS-MM120-0001	-0.508	0.415	0.256	1.308	0.947
NESB-BWBK-SB-NE01-0108	0.629	1.210	-1.356	-0.308	-0.022
NESB-BWBK-SB-NE02-0109	0.559	1.131	-0.897	-0.668	0.249
NESB-BWBK-SB-NE03-0105	0.253	1.082	-0.597	0.492	0.340

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NESB-BWBK-SB-NE04-0110	0.191	1.114	-0.554	-0.257	0.116
NESB-BWBK-SB-NE05-0108	0.466	1.181	-0.896	-0.021	-0.040
NESB-BWBK-SB-NE06-0109	0.258	1.219	-0.440	0.042	-0.043
NESB-BWBK-SB-NE07-0107	0.575	1.084	-1.285	-0.074	-0.219
NESB-BWBK-SB-NE08-0104	0.032	1.053	-0.288	-0.203	-0.009
NESB-BWBK-SB-NE09-0110	0.178	1.217	-0.443	-0.031	0.077
NESB-BWBK-SB-NE10-0107	0.078	0.478	-0.732	-0.420	0.286
NESB-BWBK-SB-NE101-0110	0.049	0.465	-1.087	-0.845	0.682
NESB-BWBK-SB-NE102-0110	-0.336	0.454	-0.867	-1.127	0.449
NESB-BWBK-SB-NE103-0110	-0.689	0.620	-0.332	-0.744	0.469
NESB-BWBK-SB-NE104-0110	-0.961	0.719	0.171	-0.741	0.458
NESB-BWBK-SB-NE105-0110	-0.061	0.509	-0.742	-0.753	0.667
NESB-BWBK-SB-NE106-0110	-0.283	0.676	-0.635	-0.926	0.389
NESB-BWBK-SB-NE107-0510	-0.822	0.853	0.046	-0.543	0.586
NESB-BWBK-SB-NE108-0110	-0.381	0.532	-0.521	-0.926	0.920
NESB-BWBK-SB-NE109-0110	-0.419	0.578	-0.628	-0.854	0.774
NESB-BWBK-SB-NE110-0110	-0.434	0.610	-0.440	-0.984	0.918
NESS-BKG-SS03-NEB-0016	0.396	-1.327	-0.836	-0.111	-0.323
NESS-BKG-SS09-NEB-0018	-0.547	-0.954	-0.241	0.225	0.797
NESS-BWBK-SS-NE01-0001	0.969	-0.986	-1.495	-0.324	-0.221
NESS-BWBK-SS-NE02-0001	0.873	-0.525	-1.257	0.053	-1.575
NESS-BWBK-SS-NE03-0001	0.265	-0.650	-1.740	0.754	0.231
NESS-BWBK-SS-NE04-0001	0.572	-0.240	-1.807	-0.358	0.795
NESS-BWBK-SS-NE05-0001	0.362	-0.719	-1.278	0.138	-0.211
NESS-BWBK-SS-NE06-0001	0.347	-0.043	-1.802	-0.080	0.217
NESS-BWBK-SS-NE07-0001	0.378	-1.135	-0.992	0.516	-0.336
NESS-BWBK-SS-NE08-0001	0.240	-0.363	-1.780	0.506	0.111
NESS-BWBK-SS-NE09-0001	0.264	-1.227	-2.159	0.231	0.483
NESS-BWBK-SS-NE10-0001	0.191	-0.894	-0.759	0.350	-0.590
NESS-BWBK-SS-NE101-0001	-0.674	-0.471	-1.453	0.127	1.069
NESS-BWBK-SS-NE102-0001	-1.220	-0.589	-0.461	0.470	0.381
NESS-BWBK-SS-NE103-0001	-1.425	-0.488	-0.293	0.683	0.136
NESS-BWBK-SS-NE104-0001	-0.999	-0.577	-0.648	1.208	0.088
NESS-BWBK-SS-NE105-0001	-1.713	-0.425	-0.310	0.671	0.391
NESS-BWBK-SS-NE106-0001	-1.386	-0.903	-0.286	0.750	0.423
NESS-BWBK-SS-NE107-0001	-1.642	-0.867	-0.455	0.668	0.599
NESS-BWBK-SS-NE108-0001	-1.355	-0.760	-0.392	0.329	0.336
NESS-BWBK-SS-NE109-0001	-1.818	-0.504	-0.467	0.647	0.618
NESS-BWBK-SS-NE110-0001	-1.617	-1.045	0.225	0.908	0.633
PMSB-BWBK-SB-PM01-0105	0.747	0.712	-0.385	-0.990	0.244
PMSB-BWBK-SB-PM02-0104	1.593	0.227	-0.222	0.435	1.943
PMSB-BWBK-SB-PM03-0106	1.294	1.096	0.420	0.462	0.476
PMSB-BWBK-SB-PM04-0105	0.969	0.763	0.117	0.278	-0.056
PMSB-BWBK-SB-PM05-0105	0.931	0.872	0.285	-0.093	0.638
PMSB-BWBK-SB-PM06-0105	0.928	1.103	0.068	0.385	1.208
PMSB-BWBK-SB-PM07-0105	0.628	0.809	1.530	0.125	2.158
PMSB-BWBK-SB-PM08-0106	0.751	0.783	0.807	-0.291	0.855
PMSB-BWBK-SB-PM09-0106	0.179	1.161	1.135	0.045	0.404
PMSB-BWBK-SB-PM10-0105	0.831	0.198	1.194	-0.339	1.482
PMSB-BWBK-SB-PM11-0104	0.937	1.106	0.940	0.268	1.196
PMSB-BWBK-SB-PM12-0105	-0.192	0.709	0.247	-0.946	0.258
PMSB-BWBK-SB-PM13-0106	0.378	0.179	0.237	0.604	1.877
PMSB-BWBK-SB-PM14-0106	-0.159	0.555	0.734	-0.521	0.862
PMSB-BWBK-SB-PM15-0105	0.476	0.573	0.217	0.175	0.495
PMSB-BWBK-SB-PM16-0106	0.030	0.640	0.234	0.103	0.297
PMSB-BWBK-SB-PM17-0105	0.819	0.627	0.909	-0.792	1.130
PMSB-BWBK-SB-PM18-0105	1.055	0.976	-0.151	1.466	-0.150
PMSB-BWBK-SB-PM19-0105	0.710	0.705	-0.047	0.548	-0.010
PMSB-BWBK-SB-PM20-0106	0.480	0.675	0.167	0.176	-0.003
PMSB-BWBK-SB-SO01-0107-PM	1.018	0.802	0.217	0.866	-0.986
PMSB-BWBK-SB-SO02-0109-PM	1.132	0.653	0.210	1.690	-0.403
PMSB-BWBK-SB-SO13-0104-PM	1.237	0.912	0.937	1.148	-0.480
PMSB-BWBK-SB-SO14-0105-PM	1.381	0.960	0.320	1.177	-0.814
PMSS-DABK-S-SO21-0001	0.531	-1.280	2.059	0.204	-1.482
PMSS-DABK-S-SO22-0001	1.141	-1.804	1.795	-0.809	-1.268
PMSS-DABK-S-SO23-0001	0.607	-1.230	0.362	-0.704	-0.683
PMSS-DABK-S-SO24-0001	0.817	-1.438	1.494	0.374	0.462

APPENDIX F, TABLE F3-4
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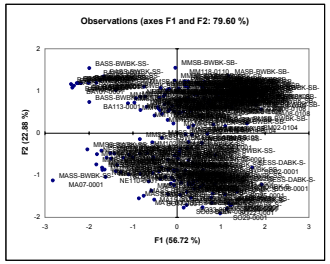
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSS-DABK-S-SO25-0001	1.368	-1.396	1.374	2.228	2.261
PMSS-DABK-S-SO26-0001	1.218	-1.722	1.013	-0.288	-1.699
PMSS-DABK-S-SO27-0001	0.325	-1.538	0.897	-0.619	-1.295
PMSS-DABK-S-SO28-0001	0.784	-1.538	1.992	-1.960	-0.664
PMSS-DABK-S-SO29-0001	0.984	-1.911	0.075	-0.840	-0.321
PMSS-DABK-S-SO30-0001	0.793	-1.659	0.336	-1.932	-0.377
PMSS-DABK-S-SO31-0001	-0.056	-0.906	1.799	-0.904	1.429
PMSS-DABK-S-SO32-0001	1.243	-1.706	2.245	-1.908	0.453
PMSS-DABK-S-SO33-0001	0.219	-1.713	0.863	-2.755	-0.961
PMSS-DABK-S-SO34-0001	0.004	-0.886	1.799	-1.372	1.534
PMSS-DABK-S-SO35-0001	0.367	-1.205	1.412	-0.868	0.427
PMSS-DABK-S-SO36-0001	-0.198	-1.453	0.596	-0.484	0.324
PMSS-DABK-S-SO37-0001	0.335	-1.227	1.257	-0.317	1.493
PMSS-DABK-S-SO38-0001	-0.260	-1.042	1.573	-1.243	1.489
PMSS-DABK-S-SO39-0001	0.092	-0.733	1.138	-0.095	1.672
PMSS-DABK-S-SO40-0001	-0.060	-1.124	1.173	-1.362	1.072
SESB-BWBK-SB-SO03-0108	1.917	0.971	-0.845	0.777	-1.158
SESB-BWBK-SB-SO04-0108	1.306	0.893	0.628	1.018	-1.018
SESB-BWBK-SB-SO05-0106	1.245	0.602	-0.285	0.903	-0.857
SESB-BWBK-SB-SO06-0108	1.802	0.667	-0.211	1.285	-0.781
SESB-BWBK-SB-SO07-0106	1.308	1.030	0.907	0.032	-0.652
SESB-BWBK-SB-SO08-0107	1.824	0.753	-0.270	0.657	-0.668
SESB-BWBK-SB-SO09-0106	1.101	0.614	-0.111	0.576	-0.995
SESB-BWBK-SB-SO11-0106	1.491	1.010	-0.194	0.335	0.056
SESB-BWBK-SB-SO12-0106	1.337	0.949	0.692	1.165	-0.812
SESB-BWBK-SB-SO15-0103	0.514	0.408	0.324	0.127	0.491
SESB-BWBK-SB-SO16-0105	0.641	1.011	0.744	0.590	-0.541
SESB-BWBK-SB-SO17-0106	0.261	0.830	0.344	-0.587	-0.772
SESB-BWBK-SB-SO18-0105	0.007	0.766	0.379	-1.512	-0.142
SESB-BWBK-SB-SO19-0104	0.395	0.774	1.184	-2.565	0.208
SESB-BWBK-SB-SO20-0104	0.935	1.090	0.969	0.733	-0.288
SESS-DABK-S-SO01-0001	0.176	-0.984	-0.492	0.559	-0.755
SESS-DABK-S-SO02-0001	1.712	-0.823	-0.883	-1.996	-1.261
SESS-DABK-S-SO03-0001	0.156	-1.776	0.467	0.802	-0.582
SESS-DABK-S-SO04-0001	0.586	-1.761	-1.010	-0.201	-1.376
SESS-DABK-S-SO05-0001	0.227	-1.404	0.366	0.771	-0.397
SESS-DABK-S-SO06-0001	1.930	-1.223	1.023	2.029	1.862
SESS-DABK-S-SO07-0001	0.471	-1.131	-0.643	-1.082	-2.041
SESS-DABK-S-SO08-0001	0.572	-1.015	0.218	0.076	-0.609
SESS-DABK-S-SO09-0001	0.271	-1.171	0.858	1.952	-0.492
SESS-DABK-S-SO10-0001	0.099	-1.178	0.657	2.750	0.322
SESS-DABK-S-SO11-0001	-1.093	-0.984	1.162	-1.057	-1.142
SESS-DABK-S-SO12-0001	-0.138	-1.202	0.093	-0.722	-0.591
SESS-DABK-S-SO13-0001	0.062	-0.455	0.815	1.173	-2.151
SESS-DABK-S-SO14-0001	-0.203	-0.637	1.099	1.696	-0.986
SESS-DABK-S-SO15-0001	0.073	-1.470	1.007	0.955	-0.268
SESS-DABK-S-SO16-0001	-1.267	-0.928	1.025	-0.599	0.183
SESS-DABK-S-SO17-0001	-0.515	-1.581	1.271	-0.027	2.249
SESS-DABK-S-SO18-0001	-0.344	-0.823	0.914	-0.895	-0.972
SESS-DABK-S-SO19-0001	0.691	-1.112	-0.152	-1.475	-1.169
SESS-DABK-S-SO20-0001	1.095	-1.465	-0.845	-0.410	-0.680



APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Results after the Varimax rotation:

Rotation matrix:

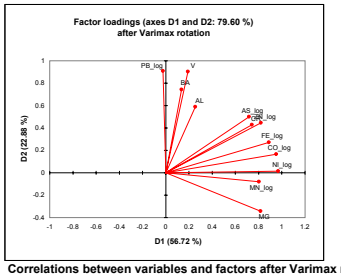
	D1	D2	D3	D4	D5
D1	0.871	0.444	0.206	0.032	0.014
D2	0.477	-0.861	-0.160	-0.042	0.062
D3	0.092	0.214	-0.910	0.320	0.123
D4	-0.033	-0.126	0.276	0.939	-0.159
D5	-0.060	0.001	0.167	0.115	0.977

Percentage of variance after Varimax rotation:

	D1	D2	D3	D4	D5
Variability (%)	48.312	28.328	5.947	2.631	1.788
Cumulative %	48.312	76.641	82.587	85.218	87.006

Factor pattern after Varimax rotation:

	D1	D2	D3	D4	D5
AL	0.255	0.588	0.672	0.016	-0.010
AS_log	0.718	0.499	0.147	0.311	-0.007
BA	0.135	0.743	0.154	-0.293	0.059
CR	0.741	0.430	0.300	-0.088	-0.003
CO_log	0.951	0.167	-0.048	-0.064	0.131
FE_log	0.888	0.271	0.219	0.265	0.067
PB_log	-0.025	0.910	0.118	0.073	-0.110
MG	0.817	-0.341	0.185	-0.190	-0.028
MN_log	0.802	-0.079	-0.024	-0.017	0.334
NI_log	0.969	0.016	0.133	-0.004	-0.104
V	0.192	0.903	0.096	0.096	0.064
ZN_log	0.819	0.447	0.033	-0.005	-0.223



Correlations between variables and factors after Varimax rotation:

	D1	D2	D3	D4	D5
AL	0.256	0.604	0.753	0.018	-0.012
AS_log	0.723	0.513	0.164	0.349	-0.008
BA	0.135	0.763	0.173	-0.328	0.070
CR	0.746	0.441	0.336	-0.098	-0.004
CO_log	0.957	0.171	-0.054	-0.072	0.156
FE_log	0.894	0.278	0.246	0.296	0.080
PB_log	-0.025	0.934	0.133	0.082	-0.131
MG	0.822	-0.351	0.208	-0.213	-0.033
MN_log	0.807	-0.081	-0.027	-0.019	0.399
NI_log	0.975	0.016	0.149	-0.004	-0.124
V	0.194	0.928	0.107	0.108	0.077
ZN_log	0.825	0.459	0.037	-0.006	-0.267

APPENDIX F, TABLE F3-4
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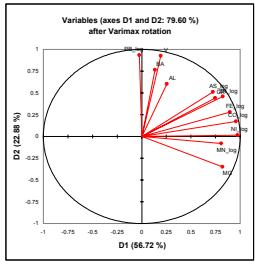
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Factor pattern coefficients after Varimax rotation:

	D1	D2	D3	D4	D5
AL	-0.122	0.076	0.776	-0.328	0.141
AS_log	-0.039	0.176	-0.222	0.210	-0.080
BA	0.000	0.111	0.079	-0.248	0.067
CR	0.039	0.058	0.229	-0.255	0.111
CO_log	0.256	0.327	-0.864	-0.817	1.228
FE_log	0.281	-0.256	0.574	1.850	0.610
PB_log	-0.046	0.276	-0.034	0.137	-0.165
MG	0.065	-0.146	0.199	-0.535	0.004
MN_log	0.048	-0.037	-0.027	-0.083	0.369
NI_log	0.340	-0.420	0.445	0.129	-1.391
V	-0.042	0.342	-0.181	-0.146	0.111
ZN_log	0.133	0.261	-0.513	-0.347	-0.917

Factor scores after Varimax rotation:

	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	-1.102	-1.860	-0.963	0.106	-0.574
BASS-BWBK-SS-BA102-0001	-1.448	-1.950	-1.275	0.023	-0.614
BASS-BWBK-SS-BA103-0001	-1.303	-1.906	-1.188	-0.102	-0.596
BASS-BWBK-SS-BA104-0001	-0.938	-1.729	-1.051	-0.409	-0.682
BASS-BWBK-SS-BA105-0001	-1.053	-1.739	-1.498	0.066	-0.734
BASS-BWBK-SS-BA106-0001	-0.823	-1.816	-0.872	-0.343	-1.203
BASS-BWBK-SS-BA107-0001	-1.459	-1.856	-1.275	-0.025	-0.609
BASS-BWBK-SS-BA108-0001	-1.396	-1.882	-1.270	-0.243	-0.773
BASS-BWBK-SS-BA109-0001	-0.916	-2.223	-0.775	-0.579	-1.495
BASS-BWBK-SS-BA110-0001	-0.792	-1.898	-0.559	-0.263	-0.339
BASS-BWBK-SS-BA111-0001	-1.265	-1.904	-1.054	-0.083	-0.523
BASS-BWBK-SS-BA112-0001	-1.358	-1.946	-1.035	-0.062	-0.331
BASS-BWBK-SS-BA113-0001	-1.105	-1.160	-2.252	-0.444	-1.998
MASB-BWBK-SB-MA01-0105	1.410	-0.466	-0.310	0.080	0.296
MASB-BWBK-SB-MA02-0107	1.474	-0.589	0.402	-0.157	-0.369
MASB-BWBK-SB-MA03-0108	1.813	-0.301	-1.344	0.073	0.102
MASB-BWBK-SB-MA04-0106	1.559	-0.551	0.402	-0.959	-0.633
MASB-BWBK-SB-MA05-0108	1.273	-0.350	-0.122	0.310	-0.740
MASB-BWBK-SB-MA06-0105	1.249	-0.542	0.137	-0.129	-0.744
MASB-BWBK-SB-MA07-0108	1.018	-0.692	0.052	1.318	-0.954
MASB-BWBK-SB-MA08-0108	1.819	0.034	1.274	1.619	-0.174
MASB-BWBK-SB-MA09-0108	1.404	-0.177	-0.351	1.699	-0.451
MASB-BWBK-SB-MA10-0104	0.857	-0.547	-0.787	1.893	-0.330
MASB-BWBK-SB-MA11-0108	1.421	-0.110	0.160	0.737	-0.775
MASB-BWBK-SB-MA12-0108	1.630	-0.327	-0.214	0.790	-0.444
MASB-BWBK-SB-MA13-0105	0.079	-0.086	-0.436	-0.636	0.214
MASB-BWBK-SB-MA14-0104	0.974	0.301	0.381	0.902	0.859
MASB-BWBK-SB-MA15-0105	0.527	0.281	0.427	0.314	0.912
MASB-BWBK-SB-MA16-0104	0.598	-0.109	-0.803	0.401	0.588
MASB-BWBK-SB-MA17-0104	0.297	0.141	-0.376	0.176	0.927
MASB-BWBK-SB-MA18-0104	0.149	0.126	0.207	-0.842	0.028
MASB-BWBK-SB-MA19-0103	0.021	-0.177	-0.676	-0.385	0.271

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MASB-BWBK-SB-MA20-0103	1.162	-0.515	-0.392	0.239	-0.702
MASS-BWBK-SS-MA01-0001	-1.799	0.152	-0.676	-1.229	-0.694
MASS-BWBK-SS-MA02-0001	-1.182	0.352	0.733	-2.536	-1.568
MASS-BWBK-SS-MA03-0001	-0.937	0.011	-0.071	-0.063	-0.721
MASS-BWBK-SS-MA04-0001	-0.563	-0.131	0.214	-0.976	-1.127
MASS-BWBK-SS-MA05-0001	0.119	0.151	0.659	-0.725	-1.131
MASS-BWBK-SS-MA06-0001	-0.021	0.703	1.560	-0.543	-0.469
MASS-BWBK-SS-MA07-0001	-2.941	-0.217	-0.911	1.163	-0.049
MASS-BWBK-SS-MA08-0001	-0.391	0.991	-0.307	1.122	-0.148
MASS-BWBK-SS-MA09-0001	0.186	1.839	1.263	-1.647	-0.616
MASS-BWBK-SS-MA10-0001	0.188	1.401	0.500	-0.488	-0.357
MASS-BWBK-SS-MA11-0001	0.298	1.361	0.920	-0.068	0.707
MASS-BWBK-SS-MA12-0001	-0.352	-0.349	0.715	0.147	-2.108
MASS-BWBK-SS-MA13-0001	-0.715	0.926	0.847	-0.721	0.041
MASS-BWBK-SS-MA14-0001	-1.394	1.115	-0.478	-1.038	-0.748
MASS-BWBK-SS-MA15-0001	-1.363	0.901	0.368	-0.903	-0.651
MASS-BWBK-SS-MA16-0001	-0.769	0.544	0.052	0.685	-0.667
MASS-BWBK-SS-MA17-0001	-0.565	0.745	-0.164	-0.173	0.240
MASS-BWBK-SS-MA18-0001	-1.086	0.944	-0.239	0.499	-0.910
MASS-BWBK-SS-MA19-0001	-0.574	0.971	-0.240	-0.067	0.068
MASS-BWBK-SS-MA20-0001	-0.062	0.374	-0.167	0.302	-0.692
MMSB-BWBK-SB-MM101-0110	0.238	-0.755	-0.769	0.136	0.440
MMSB-BWBK-SB-MM102-0109	0.537	-1.164	0.201	-1.088	-0.594
MMSB-BWBK-SB-MM103-0107	0.430	-0.595	-1.272	-1.135	1.148
MMSB-BWBK-SB-MM104-0110	0.726	-0.650	0.666	-0.932	0.969
MMSB-BWBK-SB-MM105-0110	-0.316	-0.905	-1.234	0.082	0.028
MMSB-BWBK-SB-MM106-0110	0.832	-0.573	1.023	-1.968	0.342
MMSB-BWBK-SB-MM107-0110	0.167	-0.740	-0.442	-0.915	0.631
MMSB-BWBK-SB-MM108-0110	0.065	-0.794	-0.443	-0.502	0.496
MMSB-BWBK-SB-MM109-0110	0.316	-0.390	0.351	-0.980	0.580
MMSB-BWBK-SB-MM110-0109	0.165	-0.631	0.184	-0.500	0.476
MMSB-BWBK-SB-MM111-0110	0.379	-0.728	0.366	-0.414	0.349
MMSB-BWBK-SB-MM112-0110	0.471	-0.876	0.575	-0.605	0.886
MMSB-BWBK-SB-MM113-0110	0.489	-0.956	0.433	-1.409	0.064
MMSB-BWBK-SB-MM114-0110	-0.175	-0.922	-0.694	-0.440	0.305
MMSB-BWBK-SB-MM115-0110	0.003	-0.479	0.264	-1.700	1.186
MMSB-BWBK-SB-MM116-0110	0.314	-0.895	-0.334	-0.843	0.081
MMSB-BWBK-SB-MM117-0110	-0.043	-0.998	-1.297	-0.179	0.607
MMSB-BWBK-SB-MM118-0110	0.788	-1.282	-0.530	-0.909	-1.037
MMSB-BWBK-SB-MM119-0110	0.211	-0.989	-0.481	-0.518	0.252
MMSB-BWBK-SB-MM120-0110	-0.637	-1.162	-1.568	-0.060	0.990
MMSS-BWBK-SS-MM101-0001	-0.673	0.272	1.916	0.345	0.088
MMSS-BWBK-SS-MM102-0001	-0.940	-0.574	0.991	0.989	0.133
MMSS-BWBK-SS-MM103-0001	-0.762	0.246	1.653	0.817	0.168
MMSS-BWBK-SS-MM104-0001	-0.438	0.187	1.548	0.160	0.259
MMSS-BWBK-SS-MM105-0001	-1.250	-0.124	0.140	0.861	0.477
MMSS-BWBK-SS-MM106-0001	-0.386	0.163	1.537	-0.203	0.764
MMSS-BWBK-SS-MM107-0001	-0.518	-0.046	2.069	-0.016	0.065
MMSS-BWBK-SS-MM108-0001	-1.076	0.255	2.132	0.454	0.094
MMSS-BWBK-SS-MM109-0001	-0.992	-0.184	1.868	0.646	0.438
MMSS-BWBK-SS-MM110-0001	-1.968	-0.252	0.430	1.289	0.386
MMSS-BWBK-SS-MM111-0001	-1.728	-0.379	0.723	0.803	0.571
MMSS-BWBK-SS-MM112-0001	-2.011	-0.397	0.349	1.194	-0.392
MMSS-BWBK-SS-MM113-0001	-1.261	0.318	1.465	0.760	-0.049
MMSS-BWBK-SS-MM114-0001	-1.997	-0.645	-0.147	0.714	0.204
MMSS-BWBK-SS-MM115-0001	-1.666	-0.560	0.728	1.332	0.015
MMSS-BWBK-SS-MM116-0001	-1.751	-0.328	0.177	1.036	0.562
MMSS-BWBK-SS-MM117-0001	-0.894	-0.084	1.287	0.579	0.142
MMSS-BWBK-SS-MM118-0001	-0.508	-0.820	-0.122	-0.160	0.788
MMSS-BWBK-SS-MM119-0001	-0.647	-1.064	-0.376	-0.080	0.420
MMSS-BWBK-SS-MM120-0001	-0.320	-0.691	0.114	1.382	0.766
NESB-BWBK-SB-NE01-0108	1.009	-1.011	1.078	-0.754	-0.056
NESB-BWBK-SB-NE02-0109	0.949	-0.831	0.606	-0.913	0.317
NESB-BWBK-SB-NE03-0105	0.643	-1.006	0.613	0.272	0.250
NESB-BWBK-SB-NE04-0110	0.646	-0.958	0.313	-0.444	0.157
NESB-BWBK-SB-NE05-0108	0.888	-0.996	0.709	-0.345	-0.066
NESB-BWBK-SB-NE06-0109	0.765	-1.031	0.262	-0.149	-0.024
NESB-BWBK-SB-NE07-0107	0.913	-0.942	1.055	-0.531	-0.284
NESB-BWBK-SB-NE08-0104	0.510	-0.926	0.043	-0.326	0.053

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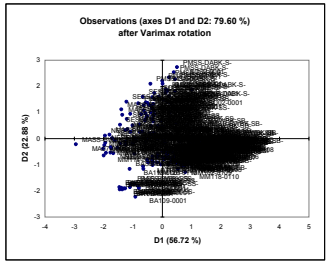
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NESB-BWBK-SB-NE09-0110	0.690	-1.057	0.249	-0.207	0.103
NESB-BWBK-SB-NE10-0107	0.225	-0.479	0.537	-0.612	0.286
NESB-BWBK-SB-NE101-0110	0.150	-0.503	0.804	-1.078	0.695
NESB-BWBK-SB-NE102-0110	-0.146	-0.581	0.411	-1.311	0.533
NESB-BWBK-SB-NE103-0110	-0.338	-0.814	-0.066	-0.797	0.563
NESB-BWBK-SB-NE104-0110	-0.480	-0.913	-0.594	-0.648	0.617
NESB-BWBK-SB-NE105-0110	0.106	-0.527	0.484	-0.889	0.710
NESB-BWBK-SB-NE106-0110	0.024	-0.724	0.220	-1.063	0.486
NESB-BWBK-SB-NE107-0510	-0.322	-1.019	-0.398	-0.489	0.705
NESB-BWBK-SB-NE108-0110	-0.151	-0.619	0.208	-0.963	1.008
NESB-BWBK-SB-NE109-0110	-0.165	-0.708	0.286	-0.949	0.843
NESB-BWBK-SB-NE110-0110	-0.150	-0.685	0.095	-0.997	1.029
NESS-BKG-SS03-NEB-0016	-0.342	1.150	0.968	-0.340	-0.477
NESS-BKG-SS09-NEB-0018	-1.007	0.498	0.454	0.247	0.645
NESS-BWBK-SS-NE01-0001	0.259	0.998	1.588	-0.734	-0.395
NESS-BWBK-SS-NE02-0001	0.486	0.562	1.157	-0.482	-1.720
NESS-BWBK-SS-NE03-0001	-0.278	0.210	1.984	0.213	-0.145
NESS-BWBK-SS-NE04-0001	0.181	0.120	1.831	-0.793	0.603
NESS-BWBK-SS-NE05-0001	-0.137	0.488	1.352	-0.261	-0.424
NESS-BWBK-SS-NE06-0001	0.106	-0.183	1.728	-0.612	0.005
NESS-BWBK-SS-NE07-0001	-0.299	0.866	1.245	0.188	-0.597
NESS-BWBK-SS-NE08-0001	-0.151	-0.025	1.881	-0.059	-0.210
NESS-BWBK-SS-NE09-0001	-0.590	0.682	2.354	-0.357	0.097
NESS-BWBK-SS-NE10-0001	-0.305	0.646	0.870	0.062	-0.777
NESS-BWBK-SS-NE101-0001	-1.012	-0.219	1.469	-0.224	0.805
NESS-BWBK-SS-NE102-0001	-1.422	-0.192	0.455	0.322	0.187
NESS-BWBK-SS-NE103-0001	-1.528	-0.360	0.262	0.537	-0.062
NESS-BWBK-SS-NE104-0001	-1.247	-0.237	0.822	0.927	-0.235
NESS-BWBK-SS-NE105-0001	-1.765	-0.544	0.248	0.537	0.187
NESS-BWBK-SS-NE106-0001	-1.711	0.007	0.396	0.654	0.183
NESS-BWBK-SS-NE107-0001	-1.939	-0.164	0.498	0.533	0.346
NESS-BWBK-SS-NE108-0001	-1.606	-0.072	0.346	0.210	0.161
NESS-BWBK-SS-NE109-0001	-1.921	-0.553	0.412	0.490	0.386
NESS-BWBK-SS-NE110-0001	-1.950	0.116	-0.014	0.986	0.413
PMSB-BWBK-SB-PM01-0105	0.971	-0.238	0.157	-1.028	0.403
PMSB-BWBK-SB-PM02-0104	1.343	0.410	0.935	0.600	1.834
PMSB-BWBK-SB-PM03-0106	1.642	-0.337	-0.085	0.617	0.528
PMSB-BWBK-SB-PM04-0105	1.210	-0.236	0.037	0.290	-0.023
PMSB-BWBK-SB-PM05-0105	1.215	-0.263	-0.127	0.070	0.739
PMSB-BWBK-SB-PM06-0105	1.254	-0.570	0.259	0.504	1.206
PMSB-BWBK-SB-PM07-0105	0.940	-0.105	-0.997	0.838	2.332
PMSB-BWBK-SB-PM08-0106	1.058	-0.131	-0.642	0.074	1.038
PMSB-BWBK-SB-PM09-0106	0.787	-0.681	-1.099	0.408	0.601
PMSB-BWBK-SB-PM10-0105	0.850	0.496	-0.792	0.251	1.670
PMSB-BWBK-SB-PM11-0104	1.348	-0.367	-0.565	0.672	1.320
PMSB-BWBK-SB-PM12-0105	0.209	-0.522	-0.594	-0.814	0.473
PMSB-BWBK-SB-PM13-0106	0.304	-0.010	0.312	0.860	1.780
PMSB-BWBK-SB-PM14-0106	0.160	-0.324	-0.788	-0.183	1.045
PMSB-BWBK-SB-PM15-0105	0.671	-0.257	-0.061	0.282	0.523
PMSB-BWBK-SB-PM16-0106	0.332	-0.500	-0.231	0.179	0.342
PMSB-BWBK-SB-PM17-0105	1.052	0.119	-0.787	-0.323	1.389
PMSB-BWBK-SB-PM18-0105	1.329	-0.588	0.576	1.301	-0.323
PMSB-BWBK-SB-PM19-0105	0.932	-0.370	0.224	0.490	-0.049
PMSB-BWBK-SB-PM20-0106	0.748	-0.354	-0.113	0.205	0.038
PMSB-BWBK-SB-SO01-0107-PM	1.317	-0.302	-0.043	0.767	-1.009
PMSB-BWBK-SB-SO02-0109-PM	1.283	-0.228	0.335	1.613	-0.580
PMSB-BWBK-SB-SO13-0104-PM	1.587	-0.181	-0.507	1.321	-0.462
PMSB-BWBK-SB-SO14-0105-PM	1.697	-0.293	0.027	1.115	-0.862
PMSS-DABK-S-SO21-0001	0.123	1.746	-1.746	0.749	-1.296
PMSS-DABK-S-SO22-0001	0.400	2.539	-1.541	-0.218	-0.983
PMSS-DABK-S-SO23-0001	0.040	1.491	-0.314	-0.551	-0.578
PMSS-DABK-S-SO24-0001	0.123	1.868	-0.780	0.966	0.497
PMSS-DABK-S-SO25-0001	0.444	1.818	0.245	2.887	1.953
PMSS-DABK-S-SO26-0001	0.443	2.270	-0.757	-0.030	-1.576
PMSS-DABK-S-SO27-0001	-0.270	1.733	-0.887	-0.367	-1.145
PMSS-DABK-S-SO28-0001	0.236	2.339	-2.051	-1.187	-0.175
PMSS-DABK-S-SO29-0001	0.000	2.199	0.155	-0.688	-0.275
PMSS-DABK-S-SO30-0001	0.016	2.091	-0.471	-1.651	-0.111
PMSS-DABK-S-SO31-0001	-0.370	1.252	-1.511	-0.073	1.701
PMSS-DABK-S-SO32-0001	0.510	2.735	-1.960	-0.908	0.932
PMSS-DABK-S-SO33-0001	-0.399	2.099	-1.382	-2.337	-0.497

APPENDIX F, TABLE F3-4
FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca,Cd,Cu,Hg,Na,K,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSS-DABK-S-SO34-0001	-0.299	1.321	-1.613	-0.499	1.881
PMSS-DABK-S-SO35-0001	-0.121	1.608	-1.181	-0.251	0.658
PMSS-DABK-S-SO36-0001	-0.813	1.348	-0.429	-0.172	0.373
PMSS-DABK-S-SO37-0001	-0.256	1.511	-0.715	0.337	1.589
PMSS-DABK-S-SO38-0001	-0.626	1.273	-1.409	-0.457	1.774
PMSS-DABK-S-SO39-0001	-0.261	0.926	-0.645	0.499	1.741
PMSS-DABK-S-SO40-0001	-0.499	1.362	-1.094	-0.734	1.335
SESB-BWBK-SB-SO03-0108	2.094	-0.264	1.026	0.347	-1.269
SESB-BWBK-SB-SO04-0108	1.645	-0.184	-0.334	1.042	-1.003
SESB-BWBK-SB-SO05-0106	1.365	-0.141	0.523	0.671	-0.960
SESB-BWBK-SB-SO06-0108	1.869	0.018	0.678	1.077	-0.925
SESB-BWBK-SB-SO07-0106	1.748	-0.116	-0.819	0.244	-0.448
SESB-BWBK-SB-SO08-0107	1.938	0.020	0.568	0.480	-0.717
SESB-BWBK-SB-SO09-0106	1.280	-0.137	0.221	0.400	-1.022
SESB-BWBK-SB-SO11-0106	1.745	-0.290	0.422	0.264	0.061
SESB-BWBK-SB-SO12-0106	1.688	-0.223	-0.320	1.222	-0.814
SESB-BWBK-SB-SO15-0103	0.638	-0.069	-0.138	0.278	0.531
SESB-BWBK-SB-SO16-0105	1.120	-0.501	-0.633	0.706	-0.458
SESB-BWBK-SB-SO17-0106	0.719	-0.451	-0.681	-0.554	-0.563
SESB-BWBK-SB-SO18-0105	0.463	-0.384	-0.904	-1.343	0.195
SESB-BWBK-SB-SO19-0104	0.892	0.086	-1.789	-2.021	0.809
SESB-BWBK-SB-SO20-0104	1.414	-0.408	-0.708	0.947	-0.197
SESS-DABK-S-SO01-0001	-0.334	0.747	0.668	0.327	-0.944
SESS-DABK-S-SO02-0001	1.156	1.528	0.526	-2.207	-1.049
SESS-DABK-S-SO03-0001	-0.658	1.592	0.015	0.913	-0.745
SESS-DABK-S-SO04-0001	-0.333	1.582	1.035	-0.576	-1.535
SESS-DABK-S-SO05-0001	-0.439	1.287	0.084	0.860	-0.548
SESS-DABK-S-SO06-0001	1.013	1.869	0.530	2.553	1.571
SESS-DABK-S-SO07-0001	-0.031	1.178	0.224	-1.390	-1.961
SESS-DABK-S-SO08-0001	0.068	1.162	0.001	0.131	-0.634
SESS-DABK-S-SO09-0001	-0.277	1.062	-0.082	2.104	-0.753
SESS-DABK-S-SO10-0001	-0.522	0.849	0.422	2.876	-0.113
SESS-DABK-S-SO11-0001	-1.210	0.741	-1.602	-0.744	-0.879
SESS-DABK-S-SO12-0001	-0.625	1.082	-0.217	-0.668	-0.527
SESS-DABK-S-SO13-0001	0.002	0.443	-0.689	1.134	-2.211
SESS-DABK-S-SO14-0001	-0.375	0.477	-0.635	1.847	-1.137
SESS-DABK-S-SO15-0001	-0.558	1.389	-0.447	1.249	-0.379
SESS-DABK-S-SO16-0001	-1.440	0.530	-1.177	-0.215	0.324
SESS-DABK-S-SO17-0001	-1.216	1.407	-0.640	0.687	2.249
SESS-DABK-S-SO18-0001	-0.520	0.861	-1.177	-0.635	-0.749
SESS-DABK-S-SO19-0001	0.175	1.414	-0.142	-1.495	-0.984
SESS-DABK-S-SO20-0001	0.231	1.614	1.000	-0.635	-0.777



APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

XLSTAT 2007.4 - Factor analysis - on 7/25/2007 at 12:20:06 AM
Observations/variables table: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_PMSS_SESS.xls / NECORRDB1!$D$1:$S$175 / 174 rows and 16 columns
Observation labels: Workbook = NECORRDB1_FA_N6_No_CdNaSeHg_No_PMSS_SESS.xls / NECORRDB1!$C$1:$C$175 / 174 rows and 1 column
Correlation: Pearson (n)
Extraction method: Principal factor analysis
Number of factors: 6
Initial communalities: Squared multiple correlations
Stop conditions: Convergence = 0.0001 / Iterations = 400
Rotation: Varimax / Number of factors = 6
Summary statistics

Summary statistics:

Variable	Observ.	w.missing	complete	Minimum	Maximum	Mean	Std. deviation
AL	174	0	174	3710.000	17900.000	10495.029	2789.833
AS	174	0	174	0.830	43.650	8.383	7.846
BA	174	0	174	6.300	61.000	25.495	9.346
BE	174	0	174	0.120	0.790	0.430	0.136
CA	174	0	174	222.000	4830.000	845.658	581.279
CR	174	0	174	4.800	21.300	11.929	3.455
CO	174	0	174	0.850	19.900	6.996	4.339
CU	174	0	174	1.600	43.700	11.636	6.390
FE	174	0	174	5940.000	51700.000	19133.046	8451.579
PB	174	0	174	2.600	44.000	10.278	5.833
MG	174	0	174	555.000	4580.000	2386.615	798.395
MN	174	0	174	27.900	1750.000	303.304	254.941
NI	174	0	174	2.800	37.100	13.558	6.556
K	174	0	174	216.000	2440.000	627.080	395.663
V	174	0	174	5.200	30.400	16.724	4.973
ZN	174	0	174	10.500	74.500	35.076	13.998

Correlation matrix (Pearson (n)):

Variables	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	**1**	0.361	0.600	0.727	-0.207	0.654	0.216	0.328	0.444	0.589	0.178	0.104	0.308	-0.132	0.775	0.429
AS	0.361	**1**	0.160	0.487	0.332	0.643	0.708	0.622	0.869	0.154	0.485	0.457	0.759	-0.213	0.457	0.813
BA	0.600	0.160	**1**	0.492	-0.033	0.467	0.123	0.080	0.186	0.467	0.063	0.073	0.125	0.120	0.676	0.233
BE	0.727	0.487	0.492	**1**	-0.003	0.758	0.503	0.480	0.606	0.292	0.290	0.329	0.497	-0.143	0.746	0.530
CA	-0.207	0.332	-0.033	-0.003	**1**	0.214	0.341	0.165	0.281	-0.157	0.305	0.307	0.354	-0.134	-0.009	0.397
CR	0.654	0.643	0.467	0.758	0.214	**1**	0.694	0.659	0.796	0.228	0.629	0.453	0.738	-0.065	0.711	0.786
CO	0.216	0.708	0.123	0.503	0.341	0.694	**1**	0.787	0.864	-0.084	0.727	0.671	0.925	0.040	0.333	0.838
CU	0.328	0.622	0.080	0.480	0.165	0.659	0.787	**1**	0.783	0.034	0.777	0.475	0.829	0.198	0.263	0.793
FE	0.444	0.869	0.186	0.606	0.281	0.796	0.864	0.783	**1**	0.084	0.707	0.582	0.908	-0.075	0.504	0.911
PB	0.589	0.154	0.467	0.292	-0.157	0.228	-0.084	0.034	0.084	**1**	-0.227	-0.143	-0.022	-0.295	0.613	0.188
MG	0.178	0.485	0.063	0.290	0.305	0.629	0.727	0.777	0.707	-0.227	**1**	0.519	0.780	0.418	0.101	0.705
MN	0.104	0.457	0.073	0.329	0.307	0.453	0.671	0.475	0.582	-0.143	0.519	**1**	0.612	0.054	0.206	0.522
NI	0.308	0.759	0.125	0.497	0.354	0.738	0.925	0.829	0.908	-0.022	0.780	0.612	**1**	-0.005	0.332	0.919
K	-0.132	-0.213	0.120	-0.143	-0.134	-0.065	0.040	0.198	-0.075	-0.295	0.418	0.054	-0.005	**1**	-0.236	-0.096
V	0.775	0.457	0.676	0.746	-0.009	0.711	0.333	0.263	0.504	0.613	0.101	0.206	0.332	-0.236	**1**	0.469
ZN	0.429	0.813	0.233	0.530	0.397	0.786	0.838	0.793	0.911	0.188	0.705	0.522	0.919	-0.096	0.469	**1**

Factor analysis:

Maximum change in communality at each iteration:

Iteration	:imum change
59	0.0002
60	0.0001
61	0.0001
62	0.0001
63	0.0001
64	0.0001
65	0.0001
66	0.0001
67	0.0001
68	0.0001

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Reproduced correlation matrix:

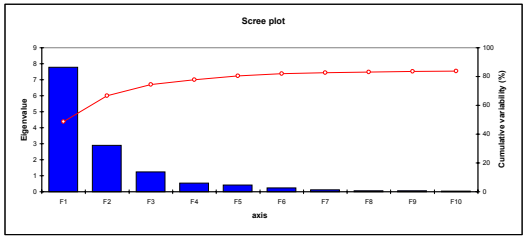
	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	0.865	0.358	0.590	0.716	-0.198	0.666	0.227	0.346	0.441	0.583	0.165	0.090	0.299	-0.127	0.793	0.423
AS	0.358	0.724	0.156	0.493	0.324	0.656	0.734	0.629	0.797	0.174	0.501	0.474	0.772	-0.229	0.449	0.809
BA	0.590	0.156	0.744	0.489	-0.034	0.465	0.120	0.096	0.190	0.472	0.074	0.083	0.108	0.112	0.688	0.225
BE	0.716	0.493	0.489	0.793	-0.019	0.763	0.503	0.445	0.617	0.305	0.310	0.332	0.503	-0.143	0.743	0.526
CA	-0.198	0.324	-0.034	-0.019	0.569	0.218	0.348	0.155	0.295	-0.162	0.302	0.299	0.361	-0.133	-0.006	0.392
CR	0.666	0.656	0.465	0.763	0.218	0.912	0.685	0.650	0.801	0.231	0.622	0.464	0.737	-0.056	0.694	0.786
CO	0.227	0.734	0.120	0.503	0.348	0.685	0.945	0.774	0.888	-0.095	0.723	0.652	0.912	0.055	0.334	0.834
CU	0.346	0.629	0.096	0.445	0.155	0.650	0.774	0.829	0.806	0.009	0.780	0.484	0.825	0.188	0.274	0.789
FE	0.441	0.797	0.190	0.617	0.295	0.801	0.888	0.806	0.940	0.104	0.698	0.581	0.920	-0.091	0.489	0.914
PB	0.583	0.174	0.472	0.305	-0.162	0.231	-0.095	0.009	0.104	0.737	-0.233	-0.154	-0.018	-0.282	0.593	0.194
MG	0.165	0.501	0.074	0.310	0.302	0.622	0.723	0.780	0.698	-0.233	0.949	0.503	0.778	0.418	0.092	0.716
MN	0.090	0.474	0.083	0.332	0.299	0.464	0.652	0.484	0.581	-0.154	0.503	0.477	0.608	0.058	0.200	0.535
NI	0.299	0.772	0.108	0.503	0.361	0.737	0.912	0.825	0.920	-0.018	0.778	0.608	0.939	0.012	0.349	0.910
K	-0.127	-0.229	0.112	-0.143	-0.133	-0.056	0.055	0.188	-0.091	-0.282	0.418	0.058	0.012	0.828	-0.243	-0.098
V	0.793	0.449	0.688	0.743	-0.006	0.694	0.334	0.274	0.489	0.593	0.092	0.200	0.349	-0.243	0.893	0.482
ZN	0.423	0.809	0.225	0.526	0.392	0.786	0.834	0.789	0.914	0.194	0.716	0.535	0.910	-0.098	0.482	0.971

Residual correlation matrix:

	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
AL	0.135	0.003	0.010	0.011	-0.010	-0.012	-0.011	-0.019	0.003	0.006	0.013	0.013	0.008	-0.006	-0.018	0.007
AS	0.003	0.276	0.004	-0.006	0.007	-0.013	-0.026	-0.008	0.072	-0.020	-0.016	-0.016	-0.012	0.016	0.008	0.003
BA	0.010	0.004	0.256	0.002	0.000	0.002	0.003	-0.016	-0.003	-0.005	-0.011	-0.010	0.017	0.009	-0.011	0.008
BE	0.011	-0.006	0.002	0.207	0.016	-0.005	0.000	0.035	-0.011	-0.013	-0.021	-0.003	-0.007	0.000	0.003	0.004
CA	-0.010	0.007	0.000	0.016	0.431	-0.004	-0.007	0.010	-0.015	0.005	0.003	0.008	-0.007	-0.001	-0.004	0.005
CR	-0.012	-0.013	0.002	-0.005	-0.004	0.088	0.009	0.010	-0.005	-0.003	0.008	-0.011	0.001	-0.010	0.017	0.000
CO	-0.011	-0.026	0.003	0.000	-0.007	0.009	0.055	0.013	-0.023	0.012	0.004	0.019	0.013	-0.014	-0.001	0.004
CU	-0.019	-0.008	-0.016	0.035	0.010	0.010	0.013	0.171	-0.023	0.025	-0.003	-0.010	0.004	0.010	-0.010	0.004
FE	0.003	0.072	-0.003	-0.011	-0.015	-0.005	-0.023	-0.023	0.060	-0.020	0.009	0.001	-0.012	0.016	0.016	-0.004
PB	0.006	-0.020	-0.005	-0.013	0.005	-0.003	0.012	0.025	-0.020	0.263	0.006	0.011	-0.004	-0.013	0.020	-0.006
MG	0.013	-0.016	-0.011	-0.021	0.003	0.008	0.004	-0.003	0.009	0.006	0.051	0.016	0.002	0.000	0.009	-0.011
MN	0.013	-0.016	-0.010	-0.003	0.008	-0.011	0.019	-0.010	0.001	0.011	0.016	0.523	0.003	-0.004	0.006	-0.013
NI	0.008	-0.012	0.017	-0.007	-0.007	0.001	0.013	0.004	-0.012	-0.004	0.002	0.003	0.061	-0.016	-0.017	0.009
K	-0.006	0.016	0.009	0.000	-0.001	-0.010	-0.014	0.010	0.016	-0.013	0.000	-0.004	-0.016	0.172	0.007	0.001
V	-0.018	0.008	-0.011	0.003	-0.004	0.017	-0.001	-0.010	0.016	0.020	0.009	0.006	-0.017	0.007	0.107	-0.013
ZN	0.007	0.003	0.008	0.004	0.005	0.000	0.004	0.004	-0.004	-0.006	-0.011	-0.013	0.009	0.001	-0.013	0.029

Eigenvalues:

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Eigenvalue	7.780	2.894	1.234	0.542	0.428	0.236	0.123	0.067	0.060	0.032
Variability (%)	48.627	18.089	7.710	3.390	2.677	1.476	0.769	0.417	0.374	0.198
Cumulative %	48.627	66.717	74.426	77.816	80.493	81.969	82.738	83.156	83.530	83.727



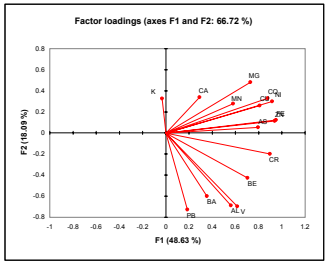
APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Eigenvectors:

	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
AL	0.201	-0.404	-0.159	0.235	0.014	-0.265	0.041	-0.018	-0.421	-0.411
AS	0.285	0.031	0.250	0.049	-0.116	0.126	0.544	-0.085	0.088	-0.033
BA	0.127	-0.353	-0.292	-0.511	-0.083	0.198	0.034	-0.268	-0.305	0.153
BE	0.253	-0.250	-0.066	0.064	0.501	-0.067	-0.096	-0.377	0.275	-0.320
CA	0.104	0.200	0.299	-0.653	-0.169	-0.258	-0.063	-0.129	0.220	-0.351
CR	0.321	-0.116	-0.071	-0.110	0.183	-0.427	-0.114	0.095	0.140	0.532
CO	0.315	0.194	0.041	-0.021	0.168	0.468	-0.347	0.089	-0.061	0.152
CU	0.290	0.153	-0.152	0.346	-0.176	0.024	-0.260	-0.235	0.443	-0.081
FE	0.340	0.072	0.100	0.143	0.025	0.092	0.550	0.153	-0.004	0.007
PB	0.067	-0.427	0.088	0.098	-0.598	0.183	-0.270	0.252	0.150	-0.146
MG	0.262	0.284	-0.321	-0.021	-0.145	-0.448	-0.051	0.433	-0.108	-0.100
MN	0.207	0.163	0.024	-0.179	0.256	0.282	-0.127	0.353	-0.144	-0.421
NI	0.328	0.175	0.064	0.075	-0.051	0.101	-0.178	-0.138	-0.394	0.152
K	-0.012	0.192	-0.748	-0.125	-0.158	0.217	0.231	-0.089	0.202	-0.076
V	0.221	-0.410	0.007	-0.184	0.097	0.127	0.092	0.383	0.336	0.148
ZN	0.336	0.068	0.135	-0.004	-0.355	-0.072	-0.013	-0.343	-0.121	0.096

Factor pattern:

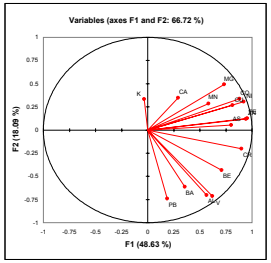
	F1	F2	F3	F4	F5	F6	ial communal	commu	cific variance
AL	0.561	-0.687	-0.177	0.173	0.009	-0.129	0.807	0.865	0.135
AS	0.796	0.053	0.278	0.036	-0.076	0.061	0.818	0.724	0.276
BA	0.354	-0.600	-0.324	-0.376	-0.054	0.096	0.660	0.744	0.256
BE	0.705	-0.425	-0.073	0.047	0.328	-0.033	0.774	0.793	0.207
CA	0.290	0.339	0.332	-0.481	-0.111	-0.125	0.488	0.569	0.431
CR	0.896	-0.197	-0.079	-0.081	0.120	-0.208	0.885	0.912	0.088
CO	0.878	0.329	0.045	-0.015	0.110	0.228	0.904	0.945	0.055
CU	0.809	0.260	-0.169	0.255	-0.115	0.012	0.819	0.829	0.171
FE	0.948	0.122	0.111	0.105	0.017	0.045	0.945	0.940	0.060
PB	0.186	-0.726	0.098	0.072	-0.391	0.089	0.693	0.737	0.263
MG	0.730	0.482	-0.357	-0.016	-0.095	-0.218	0.887	0.949	0.051
MN	0.579	0.277	0.027	-0.132	0.167	0.137	0.487	0.477	0.523
NI	0.916	0.299	0.071	0.056	-0.033	0.049	0.945	0.939	0.061
K	-0.033	0.326	-0.831	-0.092	-0.103	0.106	0.679	0.828	0.172
V	0.616	-0.698	0.008	-0.135	0.064	0.062	0.868	0.893	0.107
ZN	0.938	0.115	0.150	-0.003	-0.233	-0.035	0.932	0.971	0.029



APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Correlations between variables and factors:

	F1	F2	F3	F4	F5	F6
AL	0.564	-0.703	-0.187	0.206	0.011	-0.148
AS	0.800	0.055	0.294	0.043	-0.085	0.070
BA	0.355	-0.613	-0.343	-0.448	-0.061	0.111
BE	0.708	-0.435	-0.077	0.056	0.367	-0.038
CA	0.291	0.347	0.352	-0.572	-0.124	-0.144
CR	0.900	-0.202	-0.084	-0.096	0.134	-0.239
CO	0.882	0.337	0.048	-0.018	0.123	0.261
CU	0.813	0.266	-0.179	0.304	-0.129	0.014
FE	0.953	0.125	0.117	0.125	0.019	0.051
PB	0.187	-0.742	0.104	0.086	-0.438	0.102
MG	0.733	0.493	-0.378	-0.019	-0.106	-0.250
MN	0.581	0.284	0.028	-0.157	0.187	0.157
NI	0.920	0.305	0.075	0.066	-0.037	0.056
K	-0.034	0.334	-0.880	-0.109	-0.116	0.121
V	0.618	-0.714	0.008	-0.161	0.071	0.071
ZN	0.942	0.118	0.158	-0.003	-0.261	-0.040



Factor pattern coefficients:

	F1	F2	F3	F4	F5	F6
AL	0.065	-0.328	-0.212	0.461	0.137	-0.006
AS	-0.018	0.020	-0.005	-0.188	-0.087	-0.118
BA	0.029	-0.112	-0.167	-0.392	-0.080	0.162
BE	0.065	-0.029	-0.071	-0.018	0.352	-0.228
CA	0.015	0.041	0.134	-0.314	0.066	-0.012
CR	0.111	-0.136	-0.012	-0.170	0.561	-0.653
CO	0.165	0.199	-0.047	-0.169	0.604	1.174
CU	0.032	-0.026	-0.124	0.538	-0.132	0.095
FE	0.239	0.079	0.322	0.770	0.489	0.577
PB	0.011	-0.121	0.001	0.126	-0.347	0.158
MG	0.078	0.360	-0.511	-0.290	-0.317	-0.995
MN	0.007	0.014	0.026	-0.109	0.026	-0.004
NI	0.088	0.088	0.025	0.186	0.162	0.146
K	0.005	0.028	-0.542	-0.090	-0.113	0.428
V	0.094	-0.345	-0.050	-0.389	-0.153	0.199
ZN	0.224	-0.002	0.417	-0.433	-1.516	-0.433

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor scores:

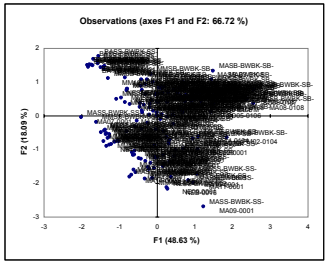
Observation	F1	F2	F3	F4	F5	F6
BASS-BWBK-SS-BA101-0001	-1.576	1.549	0.698	-0.063	-0.749	-0.945
BASS-BWBK-SS-BA102-0001	-1.853	1.511	1.014	0.219	-0.522	-0.355
BASS-BWBK-SS-BA103-0001	-1.744	1.515	0.900	-0.274	-0.499	-0.355
BASS-BWBK-SS-BA104-0001	-1.500	1.439	0.270	-0.201	-0.695	-0.778
BASS-BWBK-SS-BA105-0001	-1.557	1.771	1.996	-2.154	-0.137	-0.512
BASS-BWBK-SS-BA106-0001	-1.426	1.449	0.551	-0.171	-0.664	-1.191
BASS-BWBK-SS-BA107-0001	-1.831	1.449	0.918	0.074	-0.585	-0.261
BASS-BWBK-SS-BA108-0001	-1.797	1.526	0.996	-0.104	-0.449	-0.471
BASS-BWBK-SS-BA109-0001	-1.586	1.652	0.544	0.100	-0.486	-1.286
BASS-BWBK-SS-BA110-0001	-1.413	1.392	-0.197	-0.231	-0.513	-0.563
BASS-BWBK-SS-BA111-0001	-1.712	1.501	0.850	-0.068	-0.445	-0.707
BASS-BWBK-SS-BA112-0001	-1.693	1.692	1.298	-1.209	-0.274	-0.704
BASS-BWBK-SS-BA113-0001	-1.397	1.479	1.696	-0.779	-2.183	-0.747
MASB-BWBK-SB-MA01-0105	1.069	0.770	0.542	-0.667	-0.199	0.186
MASB-BWBK-SB-MA02-0107	1.230	0.830	0.206	-0.397	-0.474	-0.440
MASB-BWBK-SB-MA03-0108	1.479	1.335	1.084	-0.652	-0.471	2.588
MASB-BWBK-SB-MA04-0106	1.449	0.934	-0.122	-1.282	-1.324	-1.742
MASB-BWBK-SB-MA05-0108	1.007	0.728	0.235	-0.876	-0.681	-1.052
MASB-BWBK-SB-MA06-0105	0.974	0.606	0.180	-0.343	-0.718	-0.685
MASB-BWBK-SB-MA07-0108	0.579	0.819	0.773	0.060	-0.901	-0.747
MASB-BWBK-SB-MA08-0108	2.545	0.367	1.085	0.555	-0.618	-1.047
MASB-BWBK-SB-MA09-0108	1.258	0.721	1.070	0.640	-1.433	0.084
MASB-BWBK-SB-MA10-0104	0.290	0.702	1.400	0.685	-0.331	0.116
MASB-BWBK-SB-MA11-0108	1.497	0.354	0.624	0.130	-1.043	-0.539
MASB-BWBK-SB-MA12-0108	1.437	1.082	0.483	-0.486	-0.848	0.043
MASB-BWBK-SB-MA13-0105	-0.036	-0.397	0.198	-1.343	1.231	-0.577
MASB-BWBK-SB-MA14-0104	1.088	-0.611	0.331	-0.068	1.254	0.607
MASB-BWBK-SB-MA15-0105	0.689	-0.971	-0.092	-0.539	1.748	0.024
MASB-BWBK-SB-MA16-0104	0.271	-0.018	0.587	-0.704	0.649	0.327
MASB-BWBK-SB-MA17-0104	0.169	-0.459	0.721	-0.706	0.611	0.268
MASB-BWBK-SB-MA18-0104	0.308	-0.751	-0.037	-1.738	1.125	-1.556
MASB-BWBK-SB-MA19-0103	-0.260	-0.212	0.540	-1.442	0.597	-0.233
MASB-BWBK-SB-MA20-0103	0.761	0.554	0.656	-0.135	-0.147	0.175
MASS-BWBK-SS-MA01-0001	-1.346	-0.518	0.667	-0.741	-0.355	0.350
MASS-BWBK-SS-MA02-0001	-0.644	-1.161	-0.062	-1.544	-0.165	-0.434
MASS-BWBK-SS-MA03-0001	-0.807	-0.462	0.497	-1.008	-0.077	-0.387
MASS-BWBK-SS-MA04-0001	-0.588	-0.315	0.480	-1.302	-0.476	-0.695
MASS-BWBK-SS-MA05-0001	0.250	-0.627	0.227	-1.049	-0.804	-1.183
MASS-BWBK-SS-MA06-0001	0.456	-1.188	-0.329	-2.790	-0.209	-1.483
MASS-BWBK-SS-MA07-0001	-2.015	-0.043	1.313	0.383	-0.299	1.333
MASS-BWBK-SS-MA08-0001	-0.176	-1.401	0.813	-0.389	-1.948	1.316
MASS-BWBK-SS-MA09-0001	1.226	-2.685	-0.229	-1.709	-2.549	-0.177
MASS-BWBK-SS-MA10-0001	0.826	-1.908	0.413	-1.537	-1.963	-0.091
MASS-BWBK-SS-MA11-0001	0.951	-1.977	0.007	-1.678	-0.763	0.334
MASS-BWBK-SS-MA12-0001	-0.410	-0.379	0.678	-0.638	-1.183	-1.081
MASS-BWBK-SS-MA13-0001	-0.133	-1.847	-0.135	-1.711	-0.220	-0.102
MASS-BWBK-SS-MA14-0001	-0.735	-1.807	0.381	-1.260	-1.478	1.025
MASS-BWBK-SS-MA15-0001	-0.686	-1.751	0.136	-1.100	-0.718	0.425
MASS-BWBK-SS-MA16-0001	-0.432	-1.276	0.558	-0.655	-0.438	-0.052
MASS-BWBK-SS-MA17-0001	-0.308	-1.337	0.539	-0.693	-0.266	0.306
MASS-BWBK-SS-MA18-0001	-0.571	-1.673	0.795	-0.933	-0.996	0.560
MASS-BWBK-SS-MA19-0001	-0.214	-1.576	0.566	-1.160	-0.402	0.471
MASS-BWBK-SS-MA20-0001	-0.063	-0.875	0.600	-0.753	-0.695	0.012
MMSB-BWBK-SB-MM101-0110	-0.428	0.894	-0.618	0.441	-0.198	0.372
MMSB-BWBK-SB-MM102-0109	-0.118	1.008	-1.481	0.083	0.055	-0.797
MMSB-BWBK-SB-MM103-0107	-0.268	1.078	-0.919	0.067	0.741	1.118
MMSB-BWBK-SB-MM104-0110	0.693	0.992	-3.482	2.243	-1.370	-0.676
MMSB-BWBK-SB-MM105-0110	-0.811	0.757	-0.005	0.493	1.032	-0.302
MMSB-BWBK-SB-MM106-0110	0.770	0.621	-2.849	-1.009	-0.898	-1.520
MMSB-BWBK-SB-MM107-0110	-0.310	0.644	-1.187	-0.289	0.891	-0.767
MMSB-BWBK-SB-MM108-0110	-0.404	0.762	-1.199	0.005	-0.134	-0.064
MMSB-BWBK-SB-MM109-0110	0.123	0.046	-2.086	-0.271	0.381	0.367
MMSB-BWBK-SB-MM110-0109	-0.188	0.354	-1.264	0.060	0.323	-0.472
MMSB-BWBK-SB-MM111-0110	-0.020	0.641	-2.204	-0.191	-0.393	0.271

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSB-BWBK-SB-MM112-0110	0.040	0.412	-1.784	-0.745	0.032	-0.040
MMSB-BWBK-SB-MM113-0110	0.018	0.651	-1.403	-0.250	0.871	-1.847
MMSB-BWBK-SB-MM114-0110	-0.797	0.805	-0.742	-0.134	0.091	0.471
MMSB-BWBK-SB-MM115-0110	-0.159	0.462	-3.596	-1.805	-1.284	1.026
MMSB-BWBK-SB-MM116-0110	-0.317	0.950	-1.333	-0.212	-0.430	-0.140
MMSB-BWBK-SB-MM117-0110	-0.852	1.133	-0.551	0.551	-0.323	1.062
MMSB-BWBK-SB-MM118-0110	-0.168	1.242	-1.182	0.623	-0.353	0.602
MMSB-BWBK-SB-MM119-0110	-0.418	1.084	-1.482	-0.397	-0.587	-0.209
MMSB-BWBK-SB-MM120-0110	-1.304	1.121	-0.237	0.521	0.027	0.877
MMSS-BWBK-SS-MM101-0001	-0.085	-1.546	-0.461	0.641	0.419	-0.441
MMSS-BWBK-SS-MM102-0001	-0.789	-0.649	0.217	0.733	0.873	-0.075
MMSS-BWBK-SS-MM103-0001	-0.239	-1.524	-0.185	0.825	0.543	-0.187
MMSS-BWBK-SS-MM104-0001	-0.061	-1.232	-0.634	0.657	0.367	-0.362
MMSS-BWBK-SS-MM105-0001	-1.026	-0.752	0.477	0.834	0.427	0.666
MMSS-BWBK-SS-MM106-0001	0.005	-1.224	-0.888	0.261	1.022	-0.517
MMSS-BWBK-SS-MM107-0001	-0.062	-1.204	-0.785	0.512	0.507	-0.811
MMSS-BWBK-SS-MM108-0001	-0.325	-1.865	-0.334	0.799	1.008	-0.065
MMSS-BWBK-SS-MM109-0001	-0.488	-1.252	-0.161	0.886	1.201	-0.503
MMSS-BWBK-SS-MM110-0001	-1.424	-0.756	0.829	0.866	0.232	1.010
MMSS-BWBK-SS-MM111-0001	-1.312	-0.654	0.596	1.026	0.478	0.574
MMSS-BWBK-SS-MM112-0001	-1.494	-0.488	0.855	1.030	-0.046	0.730
MMSS-BWBK-SS-MM113-0001	-0.627	-1.593	-0.088	0.730	-0.231	0.519
MMSS-BWBK-SS-MM114-0001	-1.618	-0.178	1.018	0.909	0.395	0.691
MMSS-BWBK-SS-MM115-0001	-1.271	-0.614	0.785	0.873	0.478	0.511
MMSS-BWBK-SS-MM116-0001	-1.364	-0.543	0.809	0.769	0.332	0.671
MMSS-BWBK-SS-MM117-0001	-0.602	-1.034	-0.067	0.805	0.228	0.125
MMSS-BWBK-SS-MM118-0001	-0.849	0.402	-0.589	0.398	0.422	-0.047
MMSS-BWBK-SS-MM119-0001	-1.084	0.497	-0.110	0.413	0.473	0.249
MMSS-BWBK-SS-MM120-0001	-0.540	-0.144	0.637	0.926	1.512	-0.380
NESB-BWBK-SB-NE01-0108	0.633	0.872	-0.505	0.884	0.195	-1.800
NESB-BWBK-SB-NE02-0109	0.435	0.766	-0.426	-0.053	-0.130	-0.968
NESB-BWBK-SB-NE03-0105	0.143	0.671	-0.212	1.166	0.567	-0.694
NESB-BWBK-SB-NE04-0110	0.121	0.812	-0.314	0.706	0.163	-1.000
NESB-BWBK-SB-NE05-0108	0.443	0.809	-0.183	0.942	0.127	-1.381
NESB-BWBK-SB-NE06-0109	0.201	0.874	-0.098	0.864	0.301	-0.882
NESB-BWBK-SB-NE07-0107	0.543	0.684	-0.320	1.033	0.218	-1.571
NESB-BWBK-SB-NE08-0104	-0.035	0.634	0.042	0.671	0.681	-0.619
NESB-BWBK-SB-NE09-0110	0.109	0.885	-0.006	0.710	0.274	-1.034
NESB-BWBK-SB-NE10-0107	0.087	-0.101	-0.451	0.180	0.479	-1.194
NESB-BWBK-SB-NE101-0110	-0.005	0.018	-2.578	-0.392	0.079	0.668
NESB-BWBK-SB-NE102-0110	-0.392	0.098	-2.272	-0.595	-0.304	0.849
NESB-BWBK-SB-NE103-0110	-0.725	0.346	-1.590	-0.207	-0.214	0.984
NESB-BWBK-SB-NE104-0110	-0.953	0.543	-1.114	-0.090	-0.105	1.103
NESB-BWBK-SB-NE105-0110	-0.105	0.151	-2.875	-0.678	-0.359	0.891
NESB-BWBK-SB-NE106-0110	-0.349	0.329	-2.194	-0.384	-0.309	0.897
NESB-BWBK-SB-NE107-0510	-0.799	0.792	-1.346	-0.026	-0.574	0.595
NESB-BWBK-SB-NE108-0110	-0.404	0.161	-1.878	0.018	-0.235	0.894
NESB-BWBK-SB-NE109-0110	-0.466	0.263	-1.987	-0.138	-0.210	0.876
NESB-BWBK-SB-NE110-0110	-0.455	0.375	-1.910	0.032	-0.117	0.601
NESS-BKG-SS03-NEB-0016	0.277	-2.168	-0.038	1.081	-2.587	0.701
NESS-BKG-SS09-NEB-0018	-0.606	-1.149	0.222	0.731	0.048	-0.085
NESS-BWBK-SS-NE01-0001	1.056	-1.716	-0.045	0.395	-1.337	-1.439
NESS-BWBK-SS-NE02-0001	1.071	-0.980	0.551	0.536	-2.812	-2.529
NESS-BWBK-SS-NE03-0001	0.187	-1.417	0.050	1.108	0.702	-1.134
NESS-BWBK-SS-NE04-0001	0.490	-1.018	-0.545	0.916	1.052	-1.058
NESS-BWBK-SS-NE05-0001	0.327	-1.354	0.019	0.783	0.045	-1.557
NESS-BWBK-SS-NE06-0001	0.308	-0.827	-0.403	0.872	1.271	-1.459
NESS-BWBK-SS-NE07-0001	0.367	-1.812	-0.120	1.230	-0.941	-0.630
NESS-BWBK-SS-NE08-0001	0.167	-1.157	-0.161	0.951	0.948	-1.121
NESS-BWBK-SS-NE09-0001	0.250	-2.115	-0.543	1.021	0.849	-0.694
NESS-BWBK-SS-NE10-0001	0.160	-1.493	-0.140	1.252	-1.267	-0.389
NESS-BWBK-SS-NE101-0001	-0.669	-1.083	-0.461	0.667	1.062	0.292
NESS-BWBK-SS-NE102-0001	-1.105	-0.757	0.282	0.591	0.104	0.589
NESS-BWBK-SS-NE103-0001	-1.268	-0.545	0.489	0.553	0.178	0.482
NESS-BWBK-SS-NE104-0001	-1.041	-0.730	0.364	1.036	-0.619	0.546
NESS-BWBK-SS-NE105-0001	-1.383	-0.408	0.635	0.672	0.518	0.464
NESS-BWBK-SS-NE106-0001	-1.218	-0.841	0.352	0.993	-0.597	0.762

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NESS-BWBK-SS-NE107-0001	-1.267	-0.854	0.493	0.784	0.291	0.576
NESS-BWBK-SS-NE108-0001	-1.130	-0.772	0.192	0.498	-0.112	0.533
NESS-BWBK-SS-NE109-0001	-1.409	-0.440	0.529	0.697	0.451	0.481
NESS-BWBK-SS-NE110-0001	-1.342	-0.896	0.564	0.745	-0.353	1.207
PMSB-BWBK-SB-PM01-0105	0.674	0.099	-0.047	-0.703	1.235	0.719
PMSB-BWBK-SB-PM02-0104	1.848	-0.641	0.208	0.057	2.911	0.099
PMSB-BWBK-SB-PM03-0106	1.583	0.803	0.672	0.401	1.072	1.163
PMSB-BWBK-SB-PM04-0105	1.025	0.535	0.080	-0.472	0.315	-0.469
PMSB-BWBK-SB-PM05-0105	0.989	0.501	0.220	-0.522	0.747	0.144
PMSB-BWBK-SB-PM06-0105	0.923	0.605	0.443	-0.613	0.828	-0.187
PMSB-BWBK-SB-PM07-0105	0.604	0.253	0.566	-0.823	2.547	1.877
PMSB-BWBK-SB-PM08-0106	0.741	0.429	0.318	-0.681	1.337	0.956
PMSB-BWBK-SB-PM09-0106	0.054	0.830	0.695	-0.395	1.052	0.526
PMSB-BWBK-SB-PM10-0105	0.949	-0.674	0.393	-1.021	1.974	0.576
PMSB-BWBK-SB-PM11-0104	0.899	0.444	0.545	-0.572	1.726	2.028
PMSB-BWBK-SB-PM12-0105	-0.197	0.254	0.417	-1.023	1.146	-1.013
PMSB-BWBK-SB-PM13-0106	0.332	-0.704	0.317	-0.911	1.983	-0.444
PMSB-BWBK-SB-PM14-0106	-0.210	0.039	0.464	-0.991	0.964	-0.093
PMSB-BWBK-SB-PM15-0105	0.423	0.023	0.313	-0.363	0.778	-0.354
PMSB-BWBK-SB-PM16-0106	-0.004	0.099	0.296	-0.315	0.721	-0.568
PMSB-BWBK-SB-PM17-0105	0.971	0.332	-0.069	-0.494	1.282	1.397
PMSB-BWBK-SB-PM18-0105	1.160	0.625	0.511	0.945	0.091	-0.546
PMSB-BWBK-SB-PM19-0105	0.667	0.160	0.276	0.244	0.021	-0.336
PMSB-BWBK-SB-PM20-0106	0.433	0.191	0.293	-0.237	0.343	-0.332
PMSB-BWBK-SB-SO01-0107-PM	1.156	0.435	0.639	1.026	-0.609	0.584
PMSB-BWBK-SB-SO02-0109-PM	1.200	0.307	1.057	1.043	-0.564	-0.058
PMSB-BWBK-SB-SO13-0104-PM	1.411	0.602	0.587	1.365	0.480	2.145
PMSB-BWBK-SB-SO14-0105-PM	1.605	0.788	0.664	1.113	-0.646	1.072
SESB-BWBK-SB-SO03-0108	2.554	0.774	0.400	1.555	-0.903	0.840
SESB-BWBK-SB-SO04-0108	1.539	0.681	0.610	0.784	-0.646	1.238
SESB-BWBK-SB-SO05-0106	1.429	0.124	0.416	0.498	-0.410	-0.312
SESB-BWBK-SB-SO06-0108	2.325	0.535	0.955	1.024	-0.461	0.715
SESB-BWBK-SB-SO07-0106	1.587	0.690	0.942	0.136	-0.314	1.844
SESB-BWBK-SB-SO08-0107	2.387	0.508	0.485	0.556	-0.816	0.824
SESB-BWBK-SB-SO09-0106	1.199	0.291	0.228	0.263	-0.362	-0.196
SESB-BWBK-SB-SO11-0106	1.756	0.745	0.393	-0.175	-0.273	0.276
SESB-BWBK-SB-SO12-0106	1.604	0.685	1.036	0.911	-0.898	0.988
SESB-BWBK-SB-SO15-0103	0.431	-0.239	0.360	-0.177	0.674	0.120
SESB-BWBK-SB-SO16-0105	0.628	0.516	0.739	-0.135	0.282	0.558
SESB-BWBK-SB-SO17-0106	0.264	0.403	0.194	-0.633	0.525	0.219
SESB-BWBK-SB-SO18-0105	-0.009	0.423	0.110	-0.745	0.791	0.335
SESB-BWBK-SB-SO19-0104	0.623	0.598	0.007	-1.413	1.183	2.026
SESB-BWBK-SB-SO20-0104	1.073	0.677	0.968	0.504	-0.458	0.821



APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Results after the Varimax rotation:

Rotation matrix:

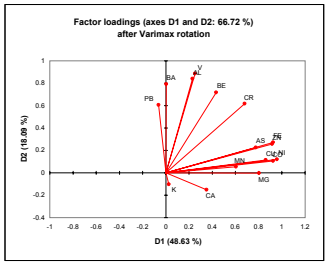
	D1	D2	D3	D4	D5	D6
D1	0.894	0.440	-0.009	0.062	0.040	0.022
D2	0.396	-0.841	0.254	0.151	0.221	0.011
D3	0.091	-0.223	-0.933	0.231	-0.091	-0.102
D4	0.153	-0.183	-0.177	-0.915	-0.153	0.226
D5	-0.084	0.118	-0.160	-0.208	0.937	-0.180
D6	0.067	-0.042	0.091	-0.199	-0.200	-0.952

Percentage of variance after Varimax rotation:

	D1	D2	D3	D4	D5	D6
Variability (%)	41.908	22.758	8.067	4.021	3.513	1.702
Cumulative %	41.908	64.666	72.733	76.754	80.267	81.969

Factor pattern after Varimax rotation:

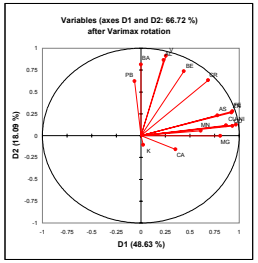
	D1	D2	D3	D4	D5	D6
AL	0.231	0.839	-0.059	-0.245	-0.105	0.182
AS	0.774	0.226	-0.241	0.092	-0.070	-0.047
BA	0.003	0.791	0.231	0.193	-0.101	-0.133
BE	0.433	0.716	-0.110	-0.142	0.248	0.001
CA	0.351	-0.151	-0.135	0.634	0.052	0.007
CR	0.680	0.616	-0.008	0.098	0.166	0.183
CO	0.923	0.106	0.040	0.060	0.164	-0.222
CU	0.861	0.114	0.191	-0.162	-0.043	0.105
FE	0.924	0.271	-0.098	-0.006	0.046	-0.011
PB	-0.062	0.607	-0.220	-0.078	-0.557	-0.012
MG	0.802	-0.004	0.447	0.113	0.126	0.278
MN	0.605	0.054	0.050	0.142	0.232	-0.177
NI	0.958	0.120	0.002	0.064	0.047	-0.012
K	0.025	-0.104	0.901	-0.060	0.043	-0.015
V	0.253	0.886	-0.171	0.033	-0.062	-0.096
ZN	0.915	0.258	-0.084	0.168	-0.161	0.081



APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Correlations between variables and factors after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	0.233	0.863	-0.062	-0.286	-0.119	0.207
AS	0.780	0.232	-0.256	0.107	-0.080	-0.053
BA	0.003	0.813	0.245	0.225	-0.115	-0.150
BE	0.436	0.736	-0.117	-0.166	0.283	0.001
CA	0.354	-0.156	-0.143	0.740	0.059	0.008
CR	0.685	0.633	-0.009	0.114	0.190	0.207
CO	0.931	0.109	0.042	0.070	0.187	-0.251
CU	0.867	0.117	0.203	-0.189	-0.050	0.119
FE	0.932	0.278	-0.104	-0.007	0.052	-0.013
PB	-0.063	0.624	-0.233	-0.091	-0.636	-0.014
MG	0.808	-0.004	0.474	0.132	0.144	0.315
MN	0.610	0.055	0.053	0.166	0.265	-0.201
NI	0.966	0.124	0.002	0.075	0.054	-0.014
K	0.025	-0.107	0.955	-0.070	0.049	-0.017
V	0.255	0.911	-0.181	0.038	-0.071	-0.109
ZN	0.922	0.265	-0.089	0.196	-0.184	0.092



Factor pattern coefficients after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.033	0.283	0.009	-0.543	0.009	0.105
AS	-0.038	0.005	0.047	0.215	-0.025	0.086
BA	-0.076	0.200	0.224	0.290	-0.056	-0.212
BE	-0.007	0.124	-0.016	-0.028	0.381	0.158
CA	-0.012	0.008	-0.070	0.314	0.110	-0.085
CR	-0.072	0.290	-0.143	0.152	0.658	0.484
CO	0.224	-0.031	0.133	-0.176	0.412	-1.254
CU	0.107	-0.054	0.043	-0.515	-0.218	0.068
FE	0.390	-0.140	-0.444	-0.820	0.223	-0.490
PB	0.021	0.036	0.016	-0.092	-0.403	-0.061
MG	0.081	-0.097	0.579	0.471	0.076	0.996
MN	-0.005	0.009	-0.006	0.104	0.043	-0.028
NI	0.140	-0.062	-0.047	-0.208	0.115	-0.126
K	-0.009	0.085	0.585	-0.100	-0.122	-0.352
V	-0.091	0.387	0.070	0.290	-0.191	-0.246
ZN	0.268	-0.075	-0.112	0.908	-1.297	0.549

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Factor scores after Varimax rotation:

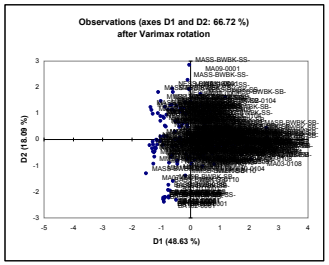
	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-0.741	-2.184	-0.198	0.697	-0.288	0.929
BASS-BWBK-SS-BA102-0001	-0.911	-2.392	-0.531	0.326	-0.285	0.353
BASS-BWBK-SS-BA103-0001	-0.900	-2.230	-0.342	0.752	-0.173	0.252
BASS-BWBK-SS-BA104-0001	-0.771	-1.938	0.203	0.669	-0.232	0.774
BASS-BWBK-SS-BA105-0001	-0.860	-2.214	-1.037	2.725	0.448	-0.191
BASS-BWBK-SS-BA106-0001	-0.701	-1.961	-0.104	0.788	-0.145	1.140
BASS-BWBK-SS-BA107-0001	-0.935	-2.295	-0.414	0.423	-0.345	0.253
BASS-BWBK-SS-BA108-0001	-0.920	-2.304	-0.476	0.630	-0.138	0.381
BASS-BWBK-SS-BA109-0001	-0.743	-2.225	-0.130	0.542	0.037	1.259
BASS-BWBK-SS-BA110-0001	-0.759	-1.738	0.620	0.506	-0.065	0.580
BASS-BWBK-SS-BA111-0001	-0.878	-2.210	-0.376	0.612	-0.081	0.629
BASS-BWBK-SS-BA112-0001	-0.933	-2.232	-0.570	1.749	0.255	0.295
BASS-BWBK-SS-BA113-0001	-0.496	-2.315	-0.772	1.839	-1.657	0.739
MASB-BWBK-SB-MA01-0105	1.234	-0.206	-0.151	0.920	0.042	-0.315
MASB-BWBK-SB-MA02-0107	1.393	-0.167	0.114	0.796	-0.081	0.428
MASB-BWBK-SB-MA03-0108	2.059	-0.755	-0.257	0.720	-0.603	-2.581
MASB-BWBK-SB-MA04-0106	1.448	0.031	0.617	1.992	-0.418	1.656
MASB-BWBK-SB-MA05-0108	1.059	-0.097	0.125	1.375	-0.113	0.929
MASB-BWBK-SB-MA06-0105	1.086	-0.114	0.091	0.791	-0.325	0.711
MASB-BWBK-SB-MA07-0108	0.944	-0.690	-0.451	0.618	-0.568	0.827
MASB-BWBK-SB-MA08-0108	2.580	0.438	-1.033	0.292	-0.369	1.178
MASB-BWBK-SB-MA09-0108	1.727	-0.579	-0.700	0.129	-1.342	0.247
MASB-BWBK-SB-MA10-0104	0.802	-0.941	-1.185	-0.133	-0.399	-0.025
MASB-BWBK-SB-MA11-0108	1.602	0.098	-0.410	0.494	-0.806	0.701
MASB-BWBK-SB-MA12-0108	1.752	-0.397	0.038	0.973	-0.474	-0.004
MASB-BWBK-SB-MA13-0105	-0.517	0.687	-0.296	1.068	1.363	-0.001
MASB-BWBK-SB-MA14-0104	0.685	1.051	-0.606	-0.268	0.940	-0.834
MASB-BWBK-SB-MA15-0105	-0.004	1.441	-0.348	-0.001	1.534	-0.444
MASB-BWBK-SB-MA16-0104	0.148	0.195	-0.503	0.592	0.602	-0.640
MASB-BWBK-SB-MA17-0104	-0.105	0.488	-0.737	0.571	0.466	-0.597
MASB-BWBK-SB-MA18-0104	-0.489	1.288	-0.173	1.559	1.478	0.886
MASB-BWBK-SB-MA19-0103	-0.552	0.287	-0.415	1.314	0.718	-0.273
MASB-BWBK-SB-MA20-0103	0.960	-0.276	-0.413	0.400	-0.059	-0.214
MASS-BWBK-SS-MA01-0001	-1.404	-0.226	-0.520	0.673	-0.518	-0.537
MASS-BWBK-SS-MA02-0001	-1.289	0.986	0.029	1.300	-0.108	0.074
MASS-BWBK-SS-MA03-0001	-1.030	0.114	-0.417	1.007	-0.020	0.080
MASS-BWBK-SS-MA04-0001	-0.811	0.110	-0.278	1.451	-0.244	0.387
MASS-BWBK-SS-MA05-0001	-0.176	0.731	-0.166	1.332	-0.503	1.007
MASS-BWBK-SS-MA06-0001	-0.600	1.817	0.392	2.657	0.314	0.847
MASS-BWBK-SS-MA07-0001	-1.522	-1.301	-1.112	-0.381	-0.814	-1.303
MASS-BWBK-SS-MA08-0001	-0.445	0.703	-0.610	0.463	-2.412	-1.089
MASS-BWBK-SS-MA09-0001	-0.047	2.859	0.214	1.741	-2.605	0.261
MASS-BWBK-SS-MA10-0001	-0.056	1.923	-0.298	1.686	-2.005	0.047
MASS-BWBK-SS-MA11-0001	-0.101	2.276	-0.068	1.385	-0.920	-0.560
MASS-BWBK-SS-MA12-0001	-0.525	0.009	-0.519	1.115	-0.954	1.012
MASS-BWBK-SS-MA13-0001	-1.109	1.811	-0.013	1.309	-0.323	-0.259
MASS-BWBK-SS-MA14-0001	-1.334	1.121	-0.254	1.022	-1.855	-1.066
MASS-BWBK-SS-MA15-0001	-1.370	1.235	-0.216	0.793	-1.013	-0.570
MASS-BWBK-SS-MA16-0001	-0.905	0.826	-0.658	0.609	-0.648	-0.100
MASS-BWBK-SS-MA17-0001	-0.817	0.948	-0.645	0.530	-0.560	-0.475
MASS-BWBK-SS-MA18-0001	-1.119	1.005	-0.783	0.842	-1.363	-0.675
MASS-BWBK-SS-MA19-0001	-0.873	1.246	-0.612	0.928	-0.699	-0.716
MASS-BWBK-SS-MA20-0001	-0.404	0.628	-0.534	0.831	-0.786	-0.128
MMSB-BWBK-SB-MM101-0110	0.024	-0.919	0.793	-0.469	-0.091	-0.155
MMSB-BWBK-SB-MM102-0109	0.112	-0.543	1.538	-0.125	0.550	0.925
MMSB-BWBK-SB-MM103-0107	0.127	-0.788	1.102	-0.503	0.769	-1.079
MMSB-BWBK-SB-MM104-0110	1.104	-0.297	3.244	-2.237	-0.923	1.773
MMSB-BWBK-SB-MM105-0110	-0.456	-0.946	-0.075	-0.541	1.084	0.203
MMSB-BWBK-SB-MM106-0110	0.492	0.592	2.983	0.895	0.046	1.690
MMSB-BWBK-SB-MM107-0110	-0.300	-0.223	1.109	0.037	1.267	0.624
MMSB-BWBK-SB-MM108-0110	-0.160	-0.564	1.326	-0.149	0.147	0.208
MMSB-BWBK-SB-MM109-0110	-0.110	0.558	1.971	-0.370	0.530	-0.262
MMSB-BWBK-SB-MM110-0109	-0.192	-0.051	1.161	-0.277	0.572	0.532
MMSB-BWBK-SB-MM111-0110	0.057	-0.079	2.333	-0.210	-0.051	0.001
MMSB-BWBK-SB-MM112-0110	-0.082	0.210	1.886	0.335	0.407	0.051

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MMSB-BWBK-SB-MM113-0110	-0.089	-0.001	1.207	0.190	1.493	1.691
MMSB-BWBK-SB-MM114-0110	-0.457	-0.844	0.953	-0.089	0.223	-0.426
MMSB-BWBK-SB-MM115-0110	-0.386	0.478	4.080	0.942	-0.706	-0.781
MMSB-BWBK-SB-MM116-0110	-0.035	-0.646	1.577	0.128	-0.024	0.302
MMSB-BWBK-SB-MM117-0110	-0.180	-1.385	0.858	-0.655	-0.333	-0.776
MMSB-BWBK-SB-MM118-0110	0.398	-1.033	1.416	-0.710	-0.170	-0.237
MMSB-BWBK-SB-MM119-0110	-0.105	-0.751	1.802	0.322	-0.089	0.368
MMSB-BWBK-SB-MM120-0110	-0.606	-1.588	0.500	-0.621	-0.014	-0.711
MMSS-BWBK-SS-MM101-0001	-0.695	1.312	-0.183	-0.928	0.080	0.516
MMSS-BWBK-SS-MM102-0001	-0.907	0.122	-0.635	-0.931	0.524	0.033
MMSS-BWBK-SS-MM103-0001	-0.764	1.135	-0.462	-1.115	0.090	0.262
MMSS-BWBK-SS-MM104-0001	-0.553	1.086	0.070	-0.938	0.099	0.475
MMSS-BWBK-SS-MM105-0001	-1.032	-0.056	-0.780	-1.049	-0.112	-0.600
MMSS-BWBK-SS-MM106-0001	-0.639	1.321	0.260	-0.736	0.830	0.442
MMSS-BWBK-SS-MM107-0001	-0.621	1.157	0.180	-0.777	0.361	0.859
MMSS-BWBK-SS-MM108-0001	-1.023	1.471	-0.467	-1.303	0.440	0.067
MMSS-BWBK-SS-MM109-0001	-0.943	0.872	-0.557	-1.213	0.806	0.453
MMSS-BWBK-SS-MM110-0001	-1.312	-0.348	-1.048	-1.049	-0.416	-0.928
MMSS-BWBK-SS-MM111-0001	-1.219	-0.315	-0.914	-1.192	-0.076	-0.496
MMSS-BWBK-SS-MM112-0001	-1.237	-0.661	-1.014	-1.044	-0.592	-0.578
MMSS-BWBK-SS-MM113-0001	-1.030	0.898	-0.361	-1.020	-0.799	-0.309
MMSS-BWBK-SS-MM114-0001	-1.269	-0.936	-1.138	-0.940	-0.105	-0.663
MMSS-BWBK-SS-MM115-0001	-1.177	-0.342	-1.059	-0.987	-0.047	-0.489
MMSS-BWBK-SS-MM116-0001	-1.223	-0.453	-1.006	-0.883	-0.190	-0.641
MMSS-BWBK-SS-MM117-0001	-0.839	0.492	-0.362	-1.015	-0.181	0.004
MMSS-BWBK-SS-MM118-0001	-0.630	-0.600	0.515	-0.568	0.450	0.104
MMSS-BWBK-SS-MM119-0001	-0.740	-0.899	0.112	-0.541	0.405	-0.235
MMSS-BWBK-SS-MM120-0001	-0.491	-0.233	-1.063	-0.991	1.235	0.219
NESB-BWBK-SB-NE01-0108	0.860	-0.404	0.334	-0.435	0.670	1.947
NESB-BWBK-SB-NE02-0109	0.589	-0.322	0.528	0.312	0.305	0.992
NESB-BWBK-SB-NE03-0105	0.457	-0.570	0.007	-0.983	0.663	0.852
NESB-BWBK-SB-NE04-0110	0.427	-0.626	0.255	-0.421	0.456	1.123
NESB-BWBK-SB-NE05-0108	0.738	-0.542	0.059	-0.505	0.463	1.537
NESB-BWBK-SB-NE06-0109	0.563	-0.709	0.030	-0.554	0.535	1.001
NESB-BWBK-SB-NE07-0107	0.759	-0.362	0.105	-0.612	0.561	1.736
NESB-BWBK-SB-NE08-0104	0.227	-0.573	-0.162	-0.527	0.792	0.618
NESB-BWBK-SB-NE09-0110	0.462	-0.748	-0.034	-0.361	0.553	1.104
NESB-BWBK-SB-NE10-0107	-0.096	0.296	0.176	-0.140	0.681	1.134
NESB-BWBK-SB-NE101-0110	-0.253	0.609	2.520	-0.383	0.239	-0.473
NESB-BWBK-SB-NE102-0110	-0.525	0.288	2.373	-0.095	-0.150	-0.661
NESB-BWBK-SB-NE103-0110	-0.602	-0.283	1.733	-0.321	-0.173	-0.792
NESB-BWBK-SB-NE104-0110	-0.667	-0.668	1.315	-0.349	-0.122	-0.949
NESB-BWBK-SB-NE105-0110	-0.309	0.511	2.971	-0.130	-0.119	-0.641
NESB-BWBK-SB-NE106-0110	-0.353	0.055	2.326	-0.241	-0.151	-0.662
NESB-BWBK-SB-NE107-0510	-0.438	-0.804	1.610	-0.215	-0.386	-0.339
NESB-BWBK-SB-NE108-0110	-0.385	0.037	1.906	-0.578	-0.210	-0.618
NESB-BWBK-SB-NE109-0110	-0.437	-0.019	2.056	-0.451	-0.129	-0.630
NESB-BWBK-SB-NE110-0110	-0.376	-0.134	1.943	-0.536	0.004	-0.354
NESS-BKG-SS03-NEB-0016	-0.184	1.416	-0.231	-0.907	-3.184	0.028
NESS-BKG-SS09-NEB-0018	-0.872	0.524	-0.637	-0.819	-0.347	0.188
NESS-BWBK-SS-NE01-0001	0.335	1.743	-0.390	-0.002	-1.353	1.703
NESS-BWBK-SS-NE02-0001	0.764	0.845	-0.646	0.642	-2.427	2.981
NESS-BWBK-SS-NE03-0001	-0.354	1.187	-0.818	-1.121	0.404	1.183
NESS-BWBK-SS-NE04-0001	-0.033	1.191	-0.182	-1.092	0.900	1.076
NESS-BWBK-SS-NE05-0001	-0.229	1.202	-0.651	-0.594	-0.053	1.636
NESS-BWBK-SS-NE06-0001	-0.159	0.969	-0.327	-0.967	1.212	1.391
NESS-BWBK-SS-NE07-0001	-0.175	1.398	-0.475	-1.080	-1.314	1.044
NESS-BWBK-SS-NE08-0001	-0.332	1.064	-0.567	-1.043	0.731	1.115
NESS-BWBK-SS-NE09-0001	-0.623	1.947	-0.413	-1.398	0.370	0.773
NESS-BWBK-SS-NE10-0001	-0.189	0.991	-0.304	-1.049	-1.607	0.879
NESS-BWBK-SS-NE101-0001	-1.033	0.708	-0.101	-1.197	0.609	-0.298
NESS-BWBK-SS-NE102-0001	-1.138	-0.033	-0.512	-0.795	-0.348	-0.506
NESS-BWBK-SS-NE103-0001	-1.200	-0.308	-0.664	-0.685	-0.230	-0.448
NESS-BWBK-SS-NE104-0001	-0.937	-0.211	-0.549	-1.015	-1.082	-0.242
NESS-BWBK-SS-NE105-0001	-1.246	-0.488	-0.841	-0.814	0.086	-0.482
NESS-BWBK-SS-NE106-0001	-1.133	-0.192	-0.541	-1.055	-1.128	-0.464
NESS-BWBK-SS-NE107-0001	-1.288	-0.083	-0.796	-0.983	-0.247	-0.509
NESS-BWBK-SS-NE108-0001	-1.174	-0.018	-0.386	-0.679	-0.521	-0.426
NESS-BWBK-SS-NE109-0001	-1.281	-0.461	-0.743	-0.856	0.017	-0.470
NESS-BWBK-SS-NE110-0001	-1.275	-0.191	-0.705	-0.934	-0.988	-1.011

APPENDIX F, TABLE F3-5
SIX FACTOR ANALYSIS OF SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

PMSB-BWBK-SB-PM01-0105	0.474	0.467	0.056	0.288	1.171	-1.042
PMSB-BWBK-SB-PM02-0104	1.187	1.631	-0.838	-0.610	2.606	-0.592
PMSB-BWBK-SB-PM03-0106	1.840	-0.122	-0.572	-0.446	0.887	-1.231
PMSB-BWBK-SB-PM04-0105	1.003	0.126	0.043	0.620	0.612	0.302
PMSB-BWBK-SB-PM05-0105	0.968	0.143	-0.100	0.479	0.879	-0.384
PMSB-BWBK-SB-PM06-0105	0.927	0.017	-0.308	0.675	1.034	-0.128
PMSB-BWBK-SB-PM07-0105	0.478	0.300	-0.558	0.056	2.158	-2.465
PMSB-BWBK-SB-PM08-0106	0.708	0.138	-0.200	0.338	1.258	-1.312
PMSB-BWBK-SB-PM09-0106	0.327	-0.653	-0.486	0.326	1.059	-0.837
PMSB-BWBK-SB-PM10-0105	0.334	1.290	-0.627	0.455	1.739	-1.158
PMSB-BWBK-SB-PM11-0104	0.931	0.125	-0.392	0.009	1.379	-2.394
PMSB-BWBK-SB-PM12-0105	-0.357	-0.028	-0.416	1.019	1.439	0.481
PMSB-BWBK-SB-PM13-0106	-0.287	1.084	-0.672	0.495	1.910	-0.173
PMSB-BWBK-SB-PM14-0106	-0.367	0.071	-0.407	0.822	1.028	-0.359
PMSB-BWBK-SB-PM15-0105	0.271	0.269	-0.381	0.342	0.846	0.093
PMSB-BWBK-SB-PM16-0106	-0.084	0.015	-0.362	0.334	0.830	0.310
PMSB-BWBK-SB-PM17-0105	0.902	0.347	0.150	0.001	1.113	-1.636
PMSB-BWBK-SB-PM18-0105	1.427	-0.267	-0.558	-0.489	0.187	0.694
PMSB-BWBK-SB-PM19-0105	0.697	0.069	-0.299	-0.032	0.086	0.358
PMSB-BWBK-SB-PM20-0106	0.401	0.062	-0.271	0.334	0.455	0.182
PMSB-BWBK-SB-SO01-0107-PM	1.507	-0.283	-0.526	-0.642	-0.758	-0.249
PMSB-BWBK-SB-SO02-0109-PM	1.490	-0.220	-1.015	-0.460	-0.655	0.313
PMSB-BWBK-SB-SO13-0104-PM	1.862	-0.298	-0.529	-1.458	-0.052	-1.837
PMSB-BWBK-SB-SO14-0105-PM	2.098	-0.428	-0.429	-0.724	-0.810	-0.675
SESB-BWBK-SB-SO03-0108	2.989	-0.042	-0.254	-1.032	-1.012	-0.262
SESB-BWBK-SB-SO04-0108	1.953	-0.302	-0.331	-0.490	-0.814	-0.903
SESB-BWBK-SB-SO05-0106	1.450	0.305	-0.419	-0.105	-0.350	0.472
SESB-BWBK-SB-SO06-0108	2.614	0.089	-0.816	-0.537	-0.605	-0.406
SESB-BWBK-SB-SO07-0106	1.944	-0.229	-0.522	-0.007	-0.552	-1.717
SESB-BWBK-SB-SO08-0107	2.582	0.282	-0.237	-0.166	-0.848	-0.503
SESB-BWBK-SB-SO09-0106	1.262	0.149	-0.156	0.045	-0.248	0.316
SESB-BWBK-SB-SO11-0106	1.911	0.047	-0.093	0.472	-0.085	-0.246
SESB-BWBK-SB-SO12-0106	2.075	-0.414	-0.732	-0.401	-1.054	-0.635
SESB-BWBK-SB-SO15-0103	0.248	0.416	-0.465	0.072	0.565	-0.304
SESB-BWBK-SB-SO16-0105	0.824	-0.287	-0.532	0.240	0.244	-0.666
SESB-BWBK-SB-SO17-0106	0.287	-0.097	-0.032	0.547	0.625	-0.454
SESB-BWBK-SB-SO18-0105	0.012	-0.168	0.041	0.538	0.869	-0.635
SESB-BWBK-SB-SO19-0104	0.614	0.084	0.384	0.772	1.072	-2.434
SESB-BWBK-SB-SO20-0104	1.483	-0.492	-0.680	-0.138	-0.565	-0.651



APPENDIX F, PART 4

ANALYTE BACK-PREDICTION EQUATIONS FOR GEOCHEMICAL FACTOR ANALYSIS

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

FACTOR PATTERN MATRIX (FPM) after Varimax rotation: USED TO PREDICT CASE VALUES
(PREDICT each sample and metal from SUMPRODUCT of (FACTOR SCORES ON ONE SAMPLE) X (FACTOR PATTERN MATRIX)

	D1	D2	D3	D4	D5	D6
AL	0.13906484	0.1895	0.84917	0.16796	0.16795	-0.049942
AS	0.19333554	0.34857	0.23343	0.12126	0.74105	0.0438516
BA	0.85525121	0.09472	0.32184	0.23295	0.11547	0.0418594
CR	0.30599073	0.37653	0.30108	0.66983	0.19463	-0.166552
CO	0.54924049	0.62952	0.08532	0.19608	0.4127	0.0622797
FE	0.17188788	0.56409	0.26476	0.11635	0.75183	-0.058086
PB	0.53918613	0.0583	0.19624	0.8088	0.0845	0.0779513
MG	0.05380058	0.85875	0.01804	0.05279	0.14712	-0.148014
MN	0.81678043	0.23786	0.00567	0.2565	0.14842	-0.194802
NI	0.31117534	0.82513	0.1318	0.17119	0.37195	0.1441073
V	0.3173681	-0.06283	0.6763	0.29209	0.35579	0.138706
ZN	0.75830948	0.31714	0.16435	0.39241	0.20217	0.1780585

FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.049582	0.04836	0.70737	-0.0926	-0.30677	-0.193148
AS	0.05558287	-0.08374	-0.03888	-0.0401	-0.02059	0.2278614
BA	0.45712064	-0.10749	0.24427	-0.2583	0.07868	-0.115244
CR	-0.0192392	0.16393	0.1565	-0.0573	-0.19947	-0.547714
CO	0.34868042	-0.15303	-0.22251	-0.0679	0.04879	-0.128681
FE	-0.3322588	-0.38723	-0.14255	0.14992	1.80432	-0.86091
PB	-0.4321996	-0.2719	-0.34004	1.75016	0.22178	0.2476654
MG	-0.054455	0.30623	0.02571	0.07674	-0.35497	-0.334604
MN	0.36825512	0.04461	-0.15676	-0.1422	-0.12768	-0.602941
NI	-0.3098339	1.18653	0.0803	0.12138	-0.61767	1.3300857
V	-0.0044276	-0.05186	0.36153	-0.1108	-0.0898	0.3935333
ZN	0.57539152	-0.04797	-0.01273	-0.6969	-0.11395	0.4402701

TRANSPOSE FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
D1	-0.0496	0.0556	0.4571	-0.0192	0.3487	-0.3323	-0.4322	-0.0545	0.3683	-0.3098	-0.0044	0.5754
D2	0.0484	-0.0837	-0.1075	0.1639	-0.1530	-0.3872	-0.2719	0.3062	0.0446	1.1865	-0.0519	-0.0480
D3	0.7074	-0.0389	0.2443	0.1565	-0.2225	-0.1426	-0.3400	0.0257	-0.1568	0.0803	0.3615	-0.0127
D4	-0.0926	-0.0401	-0.2583	-0.0573	-0.0679	0.1499	1.7502	0.0767	-0.1422	0.1214	-0.1108	-0.6969
D5	-0.3068	-0.0206	0.0787	-0.1995	0.0488	1.8043	0.2218	-0.3550	-0.1277	-0.6177	-0.0898	-0.1139
D6	-0.1931	0.2279	-0.1152	-0.5477	-0.1287	-0.8609	0.2477	-0.3346	-0.6029	1.3301	0.3935	0.4403

FACTOR PATTERN COEFFICIENT MATRIX (FPC) IS MULTIPLIED BY STANDARDIZED CONCENTRATIONS FOR EACH CASE (SAMPLE), WHERE CONCENTRATIONS ARE NORMALIZED FROM RAW CONCENTRATIONS AS (VALUE - MEAN)/(STANDARD DEVIATION), YIELDING FACTOR SCORES FOR THAT CASE (ONE SAMPLE). FACTOR SCORES FOR EACH CASE (SAMPLE) ARE THEN MULTIPLIED BY THE FACTOR PATTERN MATRIX, WHICH YIELDS PREDICTED CASE VALUES FOR EACH METAL

STANDARDIZATION OF VARIABLES FOR THE ENTIRE DATA SET:

Variable	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
Mean	10933.504	9.690	32.472	13.138	7.776	20122.735	20.148	2303.271	519.753	13.956	19.631	50.611
Std. deviation	2851.868	8.715	24.158	6.240	5.329	8686.108	30.256	810.981	1036.001	7.033	7.276	54.960

ADJUSTED FACTOR PATTERN COEFFICIENTS (FPC) MATRICES ELIMINATE THE INFLUENCE OF THE METAL TO BE PREDICTED FROM THE PREDICTION EQUATION FOR THAT METAL:

IN EACH FPC MATRIX, EACH "D" LOADING COEFFICIENT COLUMN VALUE IS MULTIPLIED BY THE SUM OF ENTIRE COLUMN VALUES, THEN DIVIDED BY AN ADJUSTED SUM OF THE VALUES IN THAT "D" COLUMN, LESS THE METAL IN QUESTION.
THE ADJUSTED FACTOR PATTERN COEFFICIENT (FPC) MATRIX ALSO ZEROES OUT THE ROW FOR THE METAL TO BE PREDICTED.

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
BASS	BASS-BWBK-SS-BA101-0001	-2.1647231	-0.97417	-1.03369	-1.2079	-1.1026	-1.265554	-0.56677	-0.164334	-0.37138	-1.14544	-1.83228	-0.52785	BASS
BASS	BASS-BWBK-SS-BA102-0001	-2.5258899	-1.00974	-1.07922	-1.3361	-1.15889	-1.464722	-0.57999	-0.793202	-0.40227	-1.24497	-1.98347	-0.59153	BASS
BASS	BASS-BWBK-SS-BA103-0001	-2.385631	-1.00171	-1.01299	-1.3041	-1.12136	-1.420974	-0.57669	-0.620571	-0.39551	-1.17388	-1.87351	-0.58061	BASS
BASS	BASS-BWBK-SS-BA104-0001	-2.1542037	-0.9627	-0.97574	-1.0797	-1.00877	-1.303545	-0.55355	-0.004034	-0.39262	-0.97482	-1.55739	-0.54786	BASS
BASS	BASS-BWBK-SS-BA105-0001	-2.4592669	-0.97417	-1.08336	-1.1919	-1.0463	-1.34384	-0.55355	-0.669894	-0.38297	-1.07435	-1.85977	-0.53695	BASS
BASS	BASS-BWBK-SS-BA106-0001	-2.1506972	-0.9822	-1.05025	-0.9115	-1.03692	-1.283398	-0.54033	-0.02253	-0.37235	-0.86818	-1.63298	-0.50965	BASS
BASS	BASS-BWBK-SS-BA107-0001	-2.4978381	-1.01089	-1.04197	-1.3361	-1.15889	-1.465873	-0.57008	-0.780871	-0.39744	-1.24497	-1.88726	-0.58971	BASS
BASS	BASS-BWBK-SS-BA108-0001	-2.4767993	-1.0063	-1.07094	-1.272	-1.14013	-1.49005	-0.56677	-0.694556	-0.39937	-1.18809	-1.94224	-0.58971	BASS
BASS	BASS-BWBK-SS-BA109-0001	-2.3751115	-1.004	-1.07508	-0.9836	-1.08383	-1.411764	-0.57669	-0.016365	-0.39455	-0.81841	-1.85977	-0.56424	BASS
BASS	BASS-BWBK-SS-BA110-0001	-1.97888	-0.98564	-0.74393	-0.9836	-0.99001	-1.174604	-0.56677	0.082281	-0.37524	-0.91794	-1.62611	-0.55696	BASS
BASS	BASS-BWBK-SS-BA111-0001	-2.3435533	-1.00056	-1.06681	-1.1598	-1.12136	-1.391041	-0.57008	-0.484933	-0.38683	-1.17388	-1.87351	-0.57697	BASS
BASS	BASS-BWBK-SS-BA112-0001	-2.3505662	-1.01662	-1.04611	-1.272	-1.14013	-1.395646	-0.57669	-0.447941	-0.39165	-1.24497	-1.901	-0.58425	BASS
BASS	BASS-BWBK-SS-BA113-0001	-2.5329029	-0.99253	-1.05439	-1.1678	-1.09322	-1.41234	-0.50893	-0.799367	-0.4028	-1.18809	-1.86664	-0.27949	BASS
MASB	MASB-BWBK-SB-MA01-0105	-0.1169424	0.34536	-0.46659	0.25033	0.83019	0.7917545	-0.36516	0.908442	1.187496	1.12952	-0.34785	0.04711	MASB
MASB	MASB-BWBK-SB-MA02-0107	0.16357551	0.09293	-0.27204	0.44263	0.79266	1.0220072	-0.3883	1.524979	0.061049	1.35702	-0.40283	0.08714	MASB
MASB	MASB-BWBK-SB-MA03-0108	-0.5412257	0.75843	-0.22237	0.04201	2.27508	1.0565451	-0.3883	0.72348	0.445219	1.62717	-0.58151	0.22906	MASB
MASB	MASB-BWBK-SB-MA04-0106	0.16357551	0.28799	-0.1727	0.50673	0.7176	0.8838556	-0.41143	2.338809	0.234794	1.4992	-0.11419	0.19813	MASB
MASB	MASB-BWBK-SB-MA05-0108	-0.1520071	2.20418	-0.31344	0.37853	0.49242	0.8147798	-0.39821	1.278364	-0.06829	1.15796	-0.29287	0.04893	MASB
MASB	MASB-BWBK-SB-MA06-0105	-0.0818777	-0.11361	-0.35483	0.31443	0.45489	0.6536029	-0.39491	1.216711	-0.09822	1.1153	-0.25163	0.04893	MASB
MASB	MASB-BWBK-SB-MA07-0108	-0.2221366	0.81006	-0.59077	-0.1262	0.06083	0.9068809	-0.40152	0.988592	-0.24107	0.7314	-0.55402	-0.0284	MASB
MASB	MASB-BWBK-SB-MA08-0108	1.1278558	3.89662	-0.61768	0.89132	0.97092	3.6353757	-0.2627	2.209336	-0.01376	1.62006	0.74486	0.37826	MASB
MASB	MASB-BWBK-SB-MA09-0108	0.02331655	3.77614	-0.45004	-0.0221	0.73636	1.7127654	-0.31889	0.896111	0.003134	1.07265	-0.3341	0.17266	MASB
MASB	MASB-BWBK-SB-MA10-0104	-0.8077177	0.35683	-0.78119	-0.2464	0.15465	0.7802419	-0.37838	0.156266	-0.27486	0.26219	-0.59525	-0.11482	MASB
MASB	MASB-BWBK-SB-MA11-0108	0.12851077	0.68959	-0.38381	0.4266	0.64254	1.4249495	-0.22304	1.229041	-0.09243	1.24327	0.03701	0.19995	MASB
MASB	MASB-BWBK-SB-MA12-0108	-0.0117482	3.32865	-0.35483	0.34648	1.14919	1.5515885	-0.37508	1.426333	0.012787	1.51342	-0.40283	0.17448	MASB
MASB	MASB-BWBK-SB-MA13-0105	-0.6779782	-0.45783	0.07981	0.17021	-0.23941	-0.497661	-0.4544	-0.287641	-0.35015	-0.23546	0.03701	-0.36591	MASB
MASB	MASB-BWBK-SB-MA14-0104	0.3388992	1.06823	0.35922	0.52275	0.52057	1.2925542	-0.33376	0.039124	-0.0876	0.47547	0.26379	-0.11573	MASB
MASB	MASB-BWBK-SB-MA15-0105	0.37396393	0.43715	0.2992	0.33046	0.09836	0.492426	-0.3916	-0.176664	-0.13393	0.16266	0.54556	-0.2622	MASB
MASB	MASB-BWBK-SB-MA16-0104	-0.7410947	-0.18245	-0.11474	-0.0702	0.15465	0.1355342	-0.37177	-0.139672	-0.07891	0.04891	-0.07295	-0.24037	MASB
MASB	MASB-BWBK-SB-MA17-0104	-0.0117482	-0.18245	0.06325	-0.1182	0.04206	0.0779711	-0.40482	-0.472602	-0.18219	-0.30655	-0.14168	-0.22217	MASB
MASB	MASB-BWBK-SB-MA18-0104	-0.0818777	-0.23982	-0.20581	0.57083	-0.31447	-0.336484	-0.43457	0.291904	-0.31733	-0.07905	0.80671	-0.31133	MASB
MASB	MASB-BWBK-SB-MA19-0103	-0.6779782	-0.28572	-0.08991	-0.1823	-0.352	-0.578249	-0.44118	-0.447941	-0.14744	-0.26389	-0.14168	-0.35682	MASB
MASB	MASB-BWBK-SB-MA20-0103	-0.4640833	-0.29719	-0.31344	0.05804	0.56748	0.5154512	-0.39821	0.563181	-0.2266	1.00155	-0.3341	-0.02931	MASB
MASS	MASS-BWBK-SS-MA01-0001	-0.8252501	-0.83648	0.00116	-0.8073	-1.06507	-1.500411	-0.30897	-1.471393	-0.45507	-1.23075	-0.82891	-0.54968	MASS
MASS	MASS-BWBK-SS-MA02-0001	0.6194171	-0.83648	0.75867	-0.2304	-0.91495	-1.347293	-0.30236	-1.076809	-0.44021	-0.74732	-0.74645	-0.37501	MASS
MASS	MASS-BWBK-SS-MA03-0001	-0.5833034	-0.46931	0.13362	-0.4067	-0.91495	-0.958166	-0.29575	-0.830194	-0.42109	-0.84685	-0.66398	-0.45507	MASS
MASS	MASS-BWBK-SS-MA04-0001	-0.1870719	-0.71026	0.18329	-0.3105	-0.76483	-0.946654	-0.28253	-0.423279	-0.38876	-0.51983	-0.78768	-0.36045	MASS
MASS	MASS-BWBK-SS-MA05-0001	0.44409341	-0.57257	0.04255	0.10611	-0.4083	-0.278921	-0.22304	0.328896	-0.38007	-0.00796	0.03701	-0.15485	MASS
MASS	MASS-BWBK-SS-MA06-0001	1.00512922	1.46983	1.18089	0.4266	-0.57718	0.0319205	-0.15694	0.489196	-0.31057	-0.09327	0.17445	-0.23855	MASS
MASS	MASS-BWBK-SS-MA07-0001	-1.9157635	-0.69879	-0.72324	-1.3361	-1.29963	-1.632807	-0.26601	-2.15575	-0.47476	-1.58621	-1.10381	-0.72981	MASS
MASS	MASS-BWBK-SS-MA08-0001	0.02331655	0.02408	0.08809	-0.4387	-0.55842	-0.140769	0.35205	-0.891848	-0.35787	-0.63357	0.33939	-0.27676	MASS
MASS	MASS-BWBK-SS-MA09-0001	2.05707137	0.12735	0.87871	0.683	-0.05176	0.0779711	0.46443	-0.004034	-0.26617	0.14844	1.3565	0.13081	MASS
MASS	MASS-BWBK-SS-MA10-0001	1.18045291	0.26504	0.30747	0.34648	-0.12682	0.1700721	0.30248	-0.065688	-0.24976	-0.05062	1.08161	0.01072	MASS
MASS	MASS-BWBK-SS-MA11-0001	1.18045291	0.37978	0.73797	0.45865	-0.07053	0.745704	0.02154	0.119274	-0.22563	-0.13593	1.4802	-0.10027	MASS
MASS	MASS-BWBK-SS-MA12-0001	-0.1520071	-0.73321	-0.09405	-0.2144	-0.89618	-0.601274	-0.26601	-0.27531	-0.40845	-0.30655	-0.55402	-0.24765	MASS
MASS	MASS-BWBK-SS-MA13-0001	0.54928762	-0.50373	0.94494	0.07406	-0.76483	-0.555224	-0.1966	-0.694556	-0.4042	-0.74732	0.64177	-0.36045	MASS
MASS	MASS-BWBK-SS-MA14-0001	-0.3343438	-0.74469	0.41924	-0.4868	-0.97124	-1.229864	0.09425	-1.459062	-0.41723	-1.01747	0.60054	-0.43687	MASS
MASS	MASS-BWBK-SS-MA15-0001	0.19864024	-0.68732	0.48547	-0.2785	-0.97124	-1.107831	-0.07431	-1.237109	-0.44609	-0.98904	0.36688	-0.45689	MASS
MASS	MASS-BWBK-SS-MA16-0001	-0.3483697	-0.33162	0.05083	-0.2304	-0.87742	-0.589762	-0.15033	-0.891848	-0.42399	-0.74732	0.49058	-0.4023	MASS
MASS	MASS-BWBK-SS-MA17-0001	0.12851077	-0.37751	0.05497	-0.1503	-0.57718	-0.601274	-0.16685	-0.978163	-0.35401	-0.70467	0.39437	-0.355	MASS
MASS	MASS-BWBK-SS-MA18-0001	-0.1870719	-0.2513	-0.02368	-0.4387	-0.93371	-0.820015	-0.04787	-1.298763	-0.43798	-0.86107	0.86169	-0.40594	MASS
MASS	MASS-BWBK-SS-MA19-0001	0.05838129	-0.29719	0.19571	-0.1503	-0.59595	-0.566737	-0.07431	-1.027486	-0.37042	-0.67623	0.7105	-0.34772	MASS
MASS	MASS-BWBK-SS-MA20-0001	-0.2922661	-0.27425	0.12534	-0.1503	-0.52089	-0.313459	-0.14041	-0.521925	-0.32215	-0.22124	0.20194	-0.26584	MASS
MMSB	MMSB-BWBK-SB-MM101-0110	-1.1215471	-0.60126	-0.39622	-0.5669	-0.14559	-0.382534	-0.31558	0.421377	-0.21308	-0.27811	-1.16566	-0.39684	MMSB
MMSB	MMSB-BWBK-SB-MM102-0109	-0.6253811	-0.66437	-0.4252	-0.1663	-0.10806	-0.497661	-0.41804	1.389341	-0.24783	0.53234	-0.88389	-0.37865	MMSB
MMSB	MMSB-BWBK-SB-MM103-0107	-1.0110932	-0.50373	-0.47901	-0.2144	0.6613	-0.601274	-0.39491	0.439873	-0.18316	-0.13593	-1.18628	-0.40594	MMSB
MMSB	MMSB-BWBK-SB-MM104-0110	0.12851077	-0.34309	-0.33827	0.09009	0.19218	0.4463754	-0.36516	2.807377	-0.17833	-0.15014	-0.55402	-0.21308	MMSB
MMSB	MMSB-BWBK-SB-MM105-0110	-1.4634283	-0.59552	-0.66114	-0.8714	-0.50212	-0.935141	-0.41143	-0.423279	-0.29899	-0.51983	-1.33747	-0.50056	MMSB
MMSB	MMSB-BWBK-SB-MM106-0110	0.37396393	-0.65289	0.0053	0.31443	0.13589	0.1700721	-0.3916	2.721062	-0.06733	0.27641	-0.0867	-0.14211	MMSB
MMSB	MMSB-BWBK-SB-MM107-0110	-1.1513522	-0.65289	-0.4459	0.45865	-0.22065	-0.6243	-0.44118	0.427542	-0.26521	-0.36342	-0.99385	-0.4205	MMSB
MMSB	MMSB-BWBK-SB-MM108-0110	-0.7568739	-0.69305	-0.46659	-0.5269	-0.26756	-0.526442	-0.42961	0.686488	-0.27486	-0.4203	-0.86328	-0.39866	MMSB
MMSB	MMSB-BWBK-SB-MM109-0110	-0.0468129	-0.69879	0.05911	-0.0221	-0.05176	-0.267408	-0.36847	0.661827	-0.22177	-0.07905	-0.40283	-0.34044	MMSB
MMSB	MMSB-BWBK-SB-MM110-0109	-0.506161	-0.607	-0.35897	0.18623	-0.29571	-0.371022	-0.40152	0.612504	-0.27003	-0.27811	-0.66398	-0.39321	MMSB
MMSB	MMSB-BWBK-SB-MM111-0110	-0.3273308	-0.65289	-0.11888	-0.2464	-0.18312	-0.106231	-0.35525	1.192049	-0.23142	-0.09327	-0.71896	-0.34408	MMSB
MMSB	MMSB-BWBK-SB-MM112-0110	-0.2046042	-0.72748	-0.19753	-0.1743	-0.22065	-0.065937	-0.45275	1.198214	0.144544	0.02759	-0.16229	-0.365	MMSB
MMSB	MMSB-BWBK-SB-MM113-0110	-0.7165494	-0.73321	-0.45004	0.90734	-0.18312	-0.463123	-0.44779	1.130395	-0.243	0.09157	-0.87015	-0.35682	MMSB
MMSB	MMSB-BWBK-SB-MM114-0110	-1.0145997	-0.5152	-0.38794	-0.6951	-0.42706	-0.854552	-0.45109	-0.004034	-0.22273	-0.39186	-1.24126	-0.48964	MMSB

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
MMSB	MMSB-BWBK-SB-MM115-0110	-0.0818777	-0.76763	0.43166	-0.5349	-0.31447	-0.440098	-0.47754	1.414003	-0.19957	-0.60514	-0.40283	-0.34954	MMSB
MMSB	MMSB-BWBK-SB-MM116-0110	-0.8620681	-0.69879	-0.27825	-0.2384	-0.1925	-0.520686	-0.40152	0.828292	-0.19329	-0.13593	-1.17941	-0.34772	MMSB
MMSB	MMSB-BWBK-SB-MM117-0110	-1.3547277	-0.69879	-0.5618	-0.9996	-0.20188	-0.762451	-0.44448	0.020628	-0.25652	-0.47717	-1.39245	-0.46598	MMSB
MMSB	MMSB-BWBK-SB-MM118-0110	-1.0671968	-0.68732	-0.46245	-0.5829	0.11712	-0.601274	-0.36186	0.920772	0.018578	1.22905	-1.03509	-0.35863	MMSB
MMSB	MMSB-BWBK-SB-MM119-0110	-1.0496644	-0.65289	-0.45831	-0.4708	-0.31447	-0.497661	-0.43787	1.068742	-0.21019	-0.29233	-0.93887	-0.38593	MMSB
MMSB	MMSB-BWBK-SB-MM120-0110	-1.8982311	-0.82501	-0.73979	-1.1118	-0.59595	-1.096318	-0.49076	-0.521925	-0.3154	-0.90372	-1.51615	-0.58061	MMSB
MMSS	MMSS-BWBK-SS-MM101-0001	1.49603555	-0.44636	-0.06093	-0.1663	-0.82112	-0.267408	-0.20321	-0.410949	-0.34436	-0.61936	0.28441	-0.39321	MMSS
MMSS	MMSS-BWBK-SS-MM102-0001	0.16357551	-0.68732	-0.55766	-0.5669	-0.97124	-0.693376	-0.40813	-0.990494	-0.34339	-0.81841	-0.40283	-0.52785	MMSS
MMSS	MMSS-BWBK-SS-MM103-0001	1.14538817	-0.42341	-0.3093	-0.1503	-0.85865	-0.313459	-0.16355	-0.669894	-0.35304	-0.67623	0.35313	-0.44597	MMSS
MMSS	MMSS-BWBK-SS-MM104-0001	1.11032344	-0.42341	-0.03196	-0.1182	-0.67101	-0.244383	-0.16355	-0.139672	-0.31829	-0.47717	0.13322	-0.40594	MMSS
MMSS	MMSS-BWBK-SS-MM105-0001	-0.1870719	-0.61847	-0.57836	-0.7432	-0.95248	-0.935141	-0.29906	-1.446732	-0.37042	-1.03169	-0.40283	-0.56242	MMSS
MMSS	MMSS-BWBK-SS-MM106-0001	1.0752587	-0.49225	-0.11888	0.31443	-0.59595	-0.255895	-0.30236	-0.201326	-0.31443	-0.54826	0.20194	-0.40958	MMSS
MMSS	MMSS-BWBK-SS-MM107-0001	1.46097082	-0.58405	-0.11474	-0.0862	-0.7836	-0.267408	-0.30236	-0.016365	-0.33181	-0.51983	0.10573	-0.38593	MMSS
MMSS	MMSS-BWBK-SS-MM108-0001	1.60122977	-0.59552	-0.20581	-0.1984	-0.95248	-0.543711	-0.25609	-1.027486	-0.39262	-0.77576	0.42186	-0.48418	MMSS
MMSS	MMSS-BWBK-SS-MM109-0001	1.18045291	-0.59552	-0.50799	-0.2625	-0.93371	-0.532199	-0.36847	-0.719217	-0.3791	-0.81841	0.09198	-0.51693	MMSS
MMSS	MMSS-BWBK-SS-MM110-0001	-0.4640833	-0.80206	-0.5618	-0.9675	-1.17766	-1.179209	-0.27262	-1.864744	-0.42215	-1.31606	-0.609	-0.64611	MMSS
MMSS	MMSS-BWBK-SS-MM111-0001	-0.0117482	-0.81353	-0.60733	-0.8554	-1.1026	-1.119343	-0.3255	-1.557708	-0.40758	-1.23075	-0.78768	-0.62428	MMSS
MMSS	MMSS-BWBK-SS-MM112-0001	-0.5271998	-0.76763	-0.66114	-1.0797	-1.21519	-1.266705	-0.27923	-1.761166	-0.42409	-1.30184	-0.93887	-0.617	MMSS
MMSS	MMSS-BWBK-SS-MM113-0001	0.89993501	-0.66437	-0.28032	-0.4708	-1.02754	-0.693376	-0.05778	-1.052148	-0.38586	-0.94638	0.25692	-0.50056	MMSS
MMSS	MMSS-BWBK-SS-MM114-0001	-0.839276	-0.83648	-0.68184	-1.1759	-1.17766	-1.368016	-0.42796	-1.894338	-0.41096	-1.3445	-1.21377	-0.63702	MMSS
MMSS	MMSS-BWBK-SS-MM115-0001	-0.2572014	-0.79058	-0.46245	-0.9675	-1.17766	-1.050267	-0.37838	-1.708144	-0.36559	-1.20231	-0.84266	-0.58607	MMSS
MMSS	MMSS-BWBK-SS-MM116-0001	-0.4956416	-0.76763	-0.59077	-0.9836	-1.12136	-1.142368	-0.3255	-1.647723	-0.39262	-1.27341	-0.7327	-0.62064	MMSS
MMSS	MMSS-BWBK-SS-MM117-0001	0.65448184	-0.67584	-0.19753	-0.4547	-0.89618	-0.589762	-0.23296	-0.780871	-0.36849	-0.78998	-0.25163	-0.48782	MMSS
MMSS	MMSS-BWBK-SS-MM118-0001	-0.5903164	-0.59552	-0.5411	-0.599	-0.59595	-0.808502	-0.46432	-0.053357	-0.32988	-0.70467	-0.95262	-0.53695	MMSS
MMSS	MMSS-BWBK-SS-MM119-0001	-0.9234314	-0.72174	-0.55766	-0.8874	-0.70854	-1.004217	-0.49076	-0.509595	-0.32602	-0.69045	-1.15879	-0.56788	MMSS
MMSS	MMSS-BWBK-SS-MM120-0001	-0.7130429	-0.69879	-0.6984	-0.0541	-0.67101	-0.290433	-0.43457	-0.916509	-0.33663	-0.71888	-0.71896	-0.46962	MMSS
NESB	NESB-BWBK-SB-NE01-0108	0.47915815	-0.5152	-0.57836	0.28238	0.3423	0.4118375	-0.42135	1.956556	-0.15517	0.71718	-0.76019	-0.15849	NESB
NESB	NESB-BWBK-SB-NE02-0109	0.05838129	-0.44636	0.17087	0.07406	0.286	0.239148	-0.41804	1.463326	0.110277	0.54656	-0.99385	-0.18032	NESB
NESB	NESB-BWBK-SB-NE03-0105	0.05838129	-0.48078	-0.55352	-0.1182	0.0233	0.2506606	-0.43787	0.88378	-0.21115	0.23375	-0.93887	-0.28949	NESB
NESB	NESB-BWBK-SB-NE04-0110	-0.0818777	-0.58405	-0.49971	-0.1984	0.09836	-0.01413	-0.42465	1.179718	-0.16965	0.23375	-0.92513	-0.26766	NESB
NESB	NESB-BWBK-SB-NE05-0108	0.21617261	-0.54389	-0.65287	0.07406	0.22033	0.3197364	-0.42796	1.500318	-0.17158	0.53945	-0.74645	-0.18396	NESB
NESB	NESB-BWBK-SB-NE06-0109	-0.1520071	-0.54963	-0.62389	-0.1823	0.17341	0.112509	-0.43457	1.130395	-0.19378	0.41859	-0.87015	-0.25128	NESB
NESB	NESB-BWBK-SB-NE07-0107	0.47915815	-0.5152	-0.50799	0.23431	0.22971	0.3427617	-0.40813	1.53731	-0.21212	0.68875	-0.82891	-0.16395	NESB
NESB	NESB-BWBK-SB-NE08-0104	-0.2221366	-0.607	-0.66528	-0.2144	0.07959	-0.221357	-0.45109	0.600173	-0.25555	0.21954	-0.80142	-0.32224	NESB
NESB	NESB-BWBK-SB-NE09-0110	-0.2046042	-0.59552	-0.6301	-0.1182	0.08897	0.0434331	-0.45109	1.050245	-0.18992	0.24797	-0.96636	-0.25856	NESB
NESB	NESB-BWBK-SB-NE10-0107	0.12851077	-0.67584	-0.38794	0.04201	-0.25818	-0.221357	-0.41804	0.649496	-0.26134	-0.15014	-0.15542	-0.31315	NESB
NESB	NESB-BWBK-SB-NE101-0110	0.30383446	-0.74469	0.20813	-0.2304	-0.20188	-0.290433	-0.42135	0.785134	-0.26714	-0.20702	-0.43032	-0.37501	NESB
NESB	NESB-BWBK-SB-NE102-0110	-0.0468129	-0.81353	0.29506	-0.5028	-0.4083	-0.658838	-0.44779	0.402881	-0.28065	-0.4203	-0.69147	-0.4205	NESB
NESB	NESB-BWBK-SB-NE103-0110	-0.5587581	-0.84222	-0.04644	-0.7111	-0.53027	-0.808502	-0.47258	-0.010199	-0.30478	-0.58381	-0.91825	-0.48145	NESB
NESB	NESB-BWBK-SB-NE104-0110	-0.9970673	-0.8709	-0.25962	-0.8714	-0.55842	-0.958166	-0.48415	-0.312303	-0.33181	-0.70467	-1.09006	-0.51875	NESB
NESB	NESB-BWBK-SB-NE105-0110	-0.0468129	-0.68732	0.2578	-0.3426	-0.33324	-0.324971	-0.43126	0.772803	-0.19088	-0.32077	-0.47155	-0.36955	NESB
NESB	NESB-BWBK-SB-NE106-0110	-0.2572014	-0.81353	0.09223	-0.5028	-0.31447	-0.566737	-0.45109	0.513858	-0.26327	-0.30655	-0.71896	-0.40776	NESB
NESB	NESB-BWBK-SB-NE107-0510	-0.9514832	-0.89385	-0.3093	-0.8874	-0.55842	-0.750939	-0.47754	0.328896	-0.30864	-0.7331	-1.07632	-0.47144	NESB
NESB	NESB-BWBK-SB-NE108-0110	-0.1520071	-0.85943	-0.07335	-0.5349	-0.33324	-0.566737	-0.46101	0.402881	-0.30188	-0.54826	-0.49904	-0.44051	NESB
NESB	NESB-BWBK-SB-NE109-0110	-0.1870719	-0.85943	0.03841	-0.5669	-0.38953	-0.601274	-0.4544	0.365889	-0.29513	-0.53404	-0.77393	-0.44233	NESB
NESB	NESB-BWBK-SB-NE110-0110	-0.2221366	-0.82501	-0.22651	-0.4948	-0.31447	-0.612787	-0.45275	0.507692	-0.28499	-0.5767	-0.73957	-0.44142	NESB
NESS	NESS-BKG-SS03-NEB-0016	1.53110029	-0.40046	0.0053	-0.1823	-0.44583	-0.278921	0.78833	-0.373956	-0.30478	-0.3492	0.47684	-0.1876	NESS
NESS	NESS-BKG-SS09-NEB-0018	0.68954658	0.12735	-0.47073	-0.2785	-0.7836	-0.739426	-0.16355	-0.904179	-0.32891	-0.93216	-0.10044	-0.4678	NESS
NESS	NESS-BWBK-SS-NE01-0001	2.16226558	0.5519	0.08809	0.63492	-0.14559	0.3312491	-0.01482	0.254912	-0.22177	0.04891	0.46309	0.09442	NESS
NESS	NESS-BWBK-SS-NE02-0001	1.60122977	0.85022	-0.30102	0.6189	-0.23941	0.2851985	-0.12058	0.587842	-0.28741	0.36172	-0.00423	0.30548	NESS
NESS	NESS-BWBK-SS-NE03-0001	1.8116182	-0.12508	-0.23479	0.21828	-0.61471	-0.048668	-0.2594	-0.373956	-0.31636	-0.30655	-0.01797	-0.27858	NESS
NESS	NESS-BWBK-SS-NE04-0001	1.77655346	-0.34309	-0.22651	0.41058	-0.07053	0.0779711	-0.28253	0.489196	-0.25748	0.02048	0.13322	-0.28404	NESS
NESS	NESS-BWBK-SS-NE05-0001	1.28564713	-0.03329	-0.23065	0.57083	-0.52089	-0.175307	-0.09083	-0.176664	-0.30092	-0.26389	-0.00423	-0.20034	NESS
NESS	NESS-BWBK-SS-NE06-0001	1.39084134	-0.46931	-0.36725	0.33046	-0.27694	-0.117744	-0.34203	0.378219	-0.32409	0.07735	-0.01797	-0.32043	NESS
NESS	NESS-BWBK-SS-NE07-0001	1.42590608	0.23062	-0.1313	0.20226	-0.59595	-0.106231	0.13391	-0.336964	-0.33084	-0.33499	0.46309	-0.1967	NESS
NESS	NESS-BWBK-SS-NE08-0001	1.53110029	-0.37751	-0.21823	0.17021	-0.53965	-0.129256	-0.29245	-0.152003	-0.32312	-0.13593	-0.07295	-0.31679	NESS
NESS	NESS-BWBK-SS-NE09-0001	2.44278349	-0.1595	0.15846	0.12214	-0.67101	-0.278921	-0.09083	-0.682225	-0.2903	-0.44873	0.17445	-0.31315	NESS
NESS	NESS-BWBK-SS-NE10-0001	0.93499974	-0.17098	-0.16856	-0.0541	-0.61471	-0.313459	0.20332	-0.238318	-0.3154	-0.30655	0.25692	-0.24401	NESS
NESS	NESS-BWBK-SS-NE101-0001	1.0752587	-0.75616	-0.22651	-0.4547	-0.82112	-0.796989	-0.39491	-0.953502	-0.36076	-0.83263	-0.32036	-0.53876	NESS
NESS	NESS-BWBK-SS-NE102-0001	-0.0818777	-0.83648	-0.41278	-0.8393	-1.02754	-1.084805	-0.24618	-1.311093	-0.37814	-1.07435	-0.52653	-0.5697	NESS
NESS	NESS-BWBK-SS-NE103-0001	-0.5622646	-0.79058	-0.50799	-0.7752	-1.08383	-1.18036	-0.28253	-1.385078	-0.40131	-1.08857	-0.63649	-0.60973	NESS
NESS	NESS-BWBK-SS-NE104-0001	0.02331655	-0.83648	-0.59077	-0.8393	-1.02754	-0.900603	0.0579	-0.953502	-0.37331	-0.94638	-0.58151	-0.55514	NESS
NESS	NESS-BWBK-SS-NE105-0001	-0.4746027	-0.85943	-0.53282	-1.0477	-1.14013	-1.257495	-0.38499	-1.635392	-0.38683	-1.24497	-0.98011	-0.60973	NESS
NESS	NESS-BWBK-SS-NE106-0001	-0.2221366	-0.84795	-0.51627	-0.9675	-1.1026	-1.153881	0.14052	-1.298763	-0.37621	-1.21653	-0.70521	-0.59699	NESS
NESS	NESS-BWBK-SS-NE107-0001	-0.0818777	-0.84795	-0.45417	-1.0477	-1.17766	-1.24368	-0.2627	-1.690881	-0.34339	-1.31606	-0.66398	-0.59517	NESS
NESS	NESS-BWBK-SS-NE108-0001	-0.1520071	-0.83648	-0.26376	-0.9675	-1.08383	-1.153881	-0.20982	-1.286432	-0.37717	-1.18809	-0.59525	-0.56424	NESS
NESS	NESS-BWBK-SS-NE109-0001	-0.4255121	-0.9168	-0.47487	-1.0957	-1.17766	-1.278218	-0.3883	-1.608265	-0.38683	-1.33028	-0.98011	-0.61882	NESS
NESS	NESS-BWBK-SS-NE110-0001	-0.5868099	-0.76763	-0.53282	-1.0477	-1.14013	-1.213747	-0.07761	-1.656354	-0.41916	-1.31606	-0.32036	-0.63702	NESS

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
PMSB	PMSB-BWBK-SB-PM01-0105	0.47915815	0.02408	-0.00298	0.12214	0.94278	0.1009963	-0.41474	0.513858	0.039814	1.04421	-0.14168	-0.20216	PMSB
PMSB	PMSB-BWBK-SB-PM02-0104	0.79474079	1.24035	-0.07335	1.30796	1.18672	2.138733	-0.33211	0.846788	0.127652	0.70296	0.9579	-0.08935	PMSB
PMSB	PMSB-BWBK-SB-PM03-0106	0.16357551	0.9076	-0.56594	0.41058	1.74967	1.7242781	-0.42796	1.303026	-0.09629	1.3428	0.14696	0.03801	PMSB
PMSB	PMSB-BWBK-SB-PM04-0105	0.05838129	1.38951	-0.37967	0.29841	0.69883	0.872343	-0.3255	1.290695	-0.00362	1.02999	-0.04546	-0.07479	PMSB
PMSB	PMSB-BWBK-SB-PM05-0105	-0.0117482	0.52321	-0.29481	0.27437	0.92401	0.872343	-0.3916	1.099568	0.129582	0.75984	-0.00423	-0.10209	PMSB
PMSB	PMSB-BWBK-SB-PM06-0105	0.09344603	0.75843	-0.20167	0.15419	0.60501	1.1716715	-0.44779	1.167388	0.965489	0.71718	-0.16917	-0.1312	PMSB
PMSB	PMSB-BWBK-SB-PM07-0105	-0.5797969	0.78138	-0.12716	-0.0221	1.13043	0.745704	-0.45109	-0.152003	0.318771	0.14844	0.00952	-0.31679	PMSB
PMSB	PMSB-BWBK-SB-PM08-0106	-0.1520071	0.95349	-0.30102	0.09009	1.13043	0.5384765	-0.41143	0.526188	0.079389	0.61765	-0.05921	-0.19124	PMSB
PMSB	PMSB-BWBK-SB-PM09-0106	-0.8918731	0.57484	-0.59077	-0.1984	0.52995	0.0204079	-0.49406	0.143935	-0.08277	0.37594	-0.609	-0.30769	PMSB
PMSB	PMSB-BWBK-SB-PM10-0105	-0.3869409	0.54042	-0.28446	0.65095	0.77389	0.6420902	-0.40482	-0.016365	0.033057	0.16266	1.21905	-0.21853	PMSB
PMSB	PMSB-BWBK-SB-PM11-0104	-0.432525	0.4601	0.03013	0.02599	1.18672	0.9759567	-0.42465	0.156266	0.820701	1.01577	-0.11419	-0.18942	PMSB
PMSB	PMSB-BWBK-SB-PM12-0105	-0.8112242	-0.50373	-0.47901	0.20226	-0.16435	-0.601274	-0.46432	0.032958	-0.1571	-0.17858	-0.45781	-0.37319	PMSB
PMSB	PMSB-BWBK-SB-PM13-0106	-0.1169424	0.03556	0.03841	0.34648	-0.23941	0.4809133	-0.43457	-0.238318	0.073598	-0.36342	0.35313	-0.35136	PMSB
PMSB	PMSB-BWBK-SB-PM14-0106	-0.7270688	-0.29719	-0.31344	-0.1984	-0.16435	-0.428585	-0.45109	-0.27531	0.049466	-0.30655	-0.23789	-0.38047	PMSB
PMSB	PMSB-BWBK-SB-PM15-0105	-0.2221366	-0.02181	-0.19339	0.17021	0.13589	0.3312491	-0.40152	0.341227	-0.11945	0.17688	-0.12793	-0.22763	PMSB
PMSB	PMSB-BWBK-SB-PM16-0106	-0.4184991	-0.23982	-0.36311	-0.1823	-0.22065	-0.163794	-0.44118	0.082281	-0.08374	-0.05062	-0.32036	-0.31497	PMSB
PMSB	PMSB-BWBK-SB-PM17-0105	-0.1344748	0.17898	-0.30723	0.08207	1.46819	0.5845271	-0.35525	0.828292	-0.04947	0.39727	0.3119	-0.1685	PMSB
PMSB	PMSB-BWBK-SB-PM18-0105	0.12851077	0.82728	-0.37553	0.29841	0.43612	1.6091517	-0.37177	1.20438	-0.14262	1.02999	-0.41657	0.00708	PMSB
PMSB	PMSB-BWBK-SB-PM19-0105	-0.0117482	0.1962	-0.13958	0.12214	0.19218	0.6651155	-0.38169	0.649496	-0.06154	0.60344	-0.22415	-0.11664	PMSB
PMSB	PMSB-BWBK-SB-PM20-0106	-0.1870719	0.08719	-0.26997	0.05003	0.17341	0.2794422	-0.40978	0.464535	-0.14744	0.39727	-0.21727	-0.18578	PMSB
PMSB	PMSB-BWBK-SB-SO01-0107-PM	0.19864024	0.36831	-0.41692	-0.0061	0.84895	1.0565451	-0.31558	0.674157	-0.26714	1.37123	-0.30661	0.10716	PMSB
PMSB	PMSB-BWBK-SB-SO02-0109-PM	0.30383446	1.22887	-0.52454	0.23431	0.52995	1.7012528	-0.29245	0.809796	-0.21887	1.02999	-0.12793	0.0926	PMSB
PMSB	PMSB-BWBK-SB-SO13-0104-PM	-0.3588891	1.04529	-0.27618	0.20226	1.52449	1.5861264	-0.30897	0.575511	-0.29513	1.6556	-0.07295	0.02164	PMSB
PMSB	PMSB-BWBK-SB-SO14-0105-PM	0.12851077	1.58457	-0.23479	0.25033	1.33684	1.8394044	-0.30897	1.105734	-0.22949	1.86888	-0.36159	0.19631	PMSB
PMSS	PMSS-DABK-S-SO21-0001	-0.5762905	0.41421	0.20399	-0.1022	-0.31447	0.0319205	0.51731	-1.126132	-0.31154	-0.37764	1.09535	0.26181	PMSS
PMSS	PMSS-DABK-S-SO22-0001	0.40902867	0.36831	0.34473	0.29841	0.11712	0.3888122	0.72553	-0.941171	-0.21212	-0.24967	2.09872	0.78401	PMSS
PMSS	PMSS-DABK-S-SO23-0001	0.40902867	-0.10213	0.28678	0.07406	-0.16435	-0.221357	0.40163	-0.423279	-0.31154	-0.05062	1.4802	-0.12392	PMSS
PMSS	PMSS-DABK-S-SO24-0001	0.26876972	0.25357	0.39026	0.17021	-0.12682	0.6420902	0.2529	-1.163124	-0.25845	-0.56248	1.54893	0.09442	PMSS
PMSS	PMSS-DABK-S-SO25-0001	0.74214368	1.33214	0.34887	0.23431	0.00453	2.6683143	0.39998	-0.762375	-0.06395	-0.45584	2.22242	-0.05842	PMSS
PMSS	PMSS-DABK-S-SO26-0001	0.51422289	0.60927	0.531	0.33046	-0.14559	0.5154512	0.80486	-0.423279	-0.25748	0.06313	2.13995	0.61479	PMSS
PMSS	PMSS-DABK-S-SO27-0001	0.02331655	-0.21687	0.22469	-0.1823	-0.44583	-0.474635	0.77511	-0.76854	-0.34822	-0.36342	1.46646	-0.07297	PMSS
PMSS	PMSS-DABK-S-SO28-0001	-0.0468129	0.01261	0.47305	0.13816	0.37983	-0.209845	0.54045	-0.879517	-0.19378	-0.40608	1.6314	0.36189	PMSS
PMSS	PMSS-DABK-S-SO29-0001	1.28564713	0.1044	0.66346	0.45865	-0.10806	0.1930974	0.41816	-0.608241	-0.36559	-0.33499	1.94752	0.13445	PMSS
PMSS	PMSS-DABK-S-SO30-0001	1.0752587	-0.14803	0.85387	0.33046	0.06083	-0.244383	0.20993	-0.879517	-0.25362	-0.40608	1.26029	0.23088	PMSS
PMSS	PMSS-DABK-S-SO31-0001	-0.4044733	-0.45783	-0.17684	-0.2464	-0.22065	-0.417072	-0.06109	-1.138463	-0.09725	-0.91794	1.01288	-0.27494	PMSS
PMSS	PMSS-DABK-S-SO32-0001	0.26876972	0.37978	0.67174	0.31443	1.13043	0.3542743	0.97011	-0.793202	-0.04127	-0.3492	1.98876	0.3819	PMSS
PMSS	PMSS-DABK-S-SO33-0001	0.09344603	-0.57257	0.65932	0.04201	-0.20188	-0.854552	0.33553	-0.76854	-0.36559	-0.63357	1.53518	-0.00383	PMSS
PMSS	PMSS-DABK-S-SO34-0001	-0.639407	-0.43488	0.1626	-0.1823	-0.01423	-0.543711	0.09425	-1.101471	-0.08374	-0.78998	0.94416	-0.36773	PMSS
PMSS	PMSS-DABK-S-SO35-0001	-0.3851876	-0.2513	0.2371	0.034	-0.13621	-0.261652	0.45617	-0.632902	-0.25121	-0.56959	1.41835	-0.22217	PMSS
PMSS	PMSS-DABK-S-SO36-0001	-0.1169424	-0.44636	-0.0154	-0.1182	-0.61471	-0.681863	0.43138	-0.76854	-0.4042	-0.84685	1.16407	-0.42596	PMSS
PMSS	PMSS-DABK-S-SO37-0001	0.16357551	0.1044	0.00116	0.12214	-0.22065	-0.002617	-0.01812	-0.92884	-0.2015	-0.77576	1.54893	-0.2622	PMSS
PMSS	PMSS-DABK-S-SO38-0001	-0.5271998	-0.49225	-0.18097	-0.3105	-0.29571	-0.739426	0.10747	-1.076809	-0.17158	-0.88951	1.2328	-0.44961	PMSS
PMSS	PMSS-DABK-S-SO39-0001	-0.365902	-0.30867	0.19571	-0.1343	-0.31447	-0.152282	-0.07431	-0.916509	-0.14165	-0.7331	0.88918	-0.39866	PMSS
PMSS	PMSS-DABK-S-SO40-0001	-0.2221366	-0.38899	0.11706	-0.1503	-0.352	-0.647325	0.02154	-0.941171	-0.11366	-0.8042	1.28778	-0.34772	PMSS
SESB	SESB-BWBK-SB-SO03-0108	1.0752587	1.71079	-0.10647	0.5548	1.86226	2.392011	-0.23957	1.907233	-0.06636	3.29073	-0.12793	0.43466	SESB
SESB	SESB-BWBK-SB-SO04-0108	-0.1169424	1.56162	-0.23065	0.28238	1.31807	1.5515885	-0.30897	0.785134	-0.2459	1.82623	-0.29287	0.19813	SESB
SESB	SESB-BWBK-SB-SO05-0106	0.51422289	1.28624	-0.15614	0.4266	0.64254	1.3213358	-0.32219	0.871449	-0.18509	1.51342	-0.0867	0.14537	SESB
SESB	SESB-BWBK-SB-SO06-0108	0.88240264	2.58283	-0.37346	0.59486	1.68399	2.5934821	-0.22304	1.561972	-0.2541	2.33809	0.20881	0.34369	SESB
SESB	SESB-BWBK-SB-SO07-0106	-0.1870719	0.65516	-0.48729	0.21828	1.7872	1.0335199	-0.23626	0.661827	0.502169	2.15325	0.02326	0.18721	SESB
SESB	SESB-BWBK-SB-SO08-0107	0.75967605	1.75668	-0.16442	0.66697	1.69337	2.2768846	-0.21974	1.598964	0.013752	2.4234	0.20194	0.391	SESB
SESB	SESB-BWBK-SB-SO09-0106	0.23370498	1.24035	-0.09405	0.34648	0.73636	1.0220072	-0.33541	0.982426	-0.3125	1.37123	-0.16917	0.06531	SESB
SESB	SESB-BWBK-SB-SO11-0106	0.58435236	1.59605	-0.32171	0.4266	1.31807	1.6897402	-0.31228	1.635956	0.782091	1.8831	-0.01797	0.1763	SESB
SESB	SESB-BWBK-SB-SO12-0106	-0.0643453	1.48704	-0.48522	0.30642	1.23363	1.7012528	-0.30071	0.828292	-0.0847	1.79779	-0.14168	0.23725	SESB
SESB	SESB-BWBK-SB-SO15-0103	0.02331655	0.08145	-0.29274	0.04201	0.22971	0.2967111	-0.38169	0.131604	-0.09436	0.24797	0.17445	-0.22035	SESB
SESB	SESB-BWBK-SB-SO16-0105	-0.6464199	-0.02181	-0.45004	0.02599	0.54871	0.5499891	-0.41474	0.267243	-0.19571	0.93046	-0.23789	-0.09481	SESB
SESB	SESB-BWBK-SB-SO17-0106	-0.6288876	-0.5152	-0.31757	-0.0061	0.37983	-0.23287	-0.41804	0.156266	-0.31733	0.54656	-0.44406	-0.20398	SESB
SESB	SESB-BWBK-SB-SO18-0105	-0.572784	-0.607	-0.34241	-0.0862	0.45489	-0.589762	-0.43126	0.094612	-0.26231	0.16266	-0.56776	-0.30041	SESB
SESB	SESB-BWBK-SB-SO19-0104	-0.6569394	-0.59552	-0.2679	-0.0061	1.86226	-0.428585	-0.40152	0.279573	-0.1793	0.36172	-0.15542	-0.15303	SESB
SESB	SESB-BWBK-SB-SO20-0104	-0.572784	0.04703	-0.40864	0.09009	0.86772	1.1025957	-0.35525	0.476865	0.041744	1.00155	-0.37534	0.09078	SESB
SESS	SESS-DABK-S-SO01-0001	1.18045291	-0.21687	-0.47073	-0.0221	-0.57718	-0.175307	-0.14372	-0.657564	-0.41154	-0.46295	0.53182	-0.10573	SESS
SESS	SESS-DABK-S-SO02-0001	0.54928762	0.75843	1.16433	2.41366	0.68007	0.4578881	0.4446	0.587842	-0.21598	0.7314	-0.10044	0.56567	SESS
SESS	SESS-DABK-S-SO03-0001	0.47915815	-0.12508	-0.16856	-0.1984	-0.76483	-0.117744	0.28265	-0.706887	-0.43538	-0.74732	2.0025	-0.18942	SESS
SESS	SESS-DABK-S-SO04-0001	2.02200663	-0.22835	0.00944	0.20226	-0.48336	-0.198332	0.07112	-0.879517	-0.43605	-0.23546	1.4802	0.07804	SESS
SESS	SESS-DABK-S-SO05-0001	0.75967605	-0.02181	-0.35897	-0.1984	-0.65224	-0.094718	0.1868	-0.904179	-0.34339	-0.59092	1.3565	-0.13484	SESS
SESS	SESS-DABK-S-SO06-0001	1.3557766	7.11513	0.66346	0.4266	0.77389	3.8886537	0.18019	0.094612	-0.14165	0.10579	1.97501	0.18721	SESS
SESS	SESS-DABK-S-SO07-0001	0.77720842	0.02408	0.59723	0.07406	-0.37077	-0.474635	0.10417	0.045289	-0.41424	0.05602	0.62116	0.02164	SESS
SESS	SESS-DABK-S-SO08-0001	0.47915815	0.40273	0.40268	-0.0702	-0.31447	0.0434331	0.22976	-0.26298	-0.30285	-0.15014	0.76548	-0.08935	SESS
SESS	SESS-DABK-S-SO09-0001	0.09344603	0.33389	-0.36725	-0.3105	-0.67101	0.3312491	0.13061	-0.805533	-0.41212	-0.46295	1.53518	-0.22035	SESS

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
SESS	SESS-DABK-S-SO10-0001	0.54928762	0.17325	-0.19753	-0.3426	-0.7273	0.4233501	-0.01482	-1.989285	-0.41945	-0.71888	0.47684	-0.28404	SESS
SESS	SESS-DABK-S-SO11-0001	-0.9444702	-0.81066	-0.03817	-0.7752	-0.76483	-1.29894	-0.11067	-2.097179	-0.45295	-0.97482	-0.23102	-0.42414	SESS
SESS	SESS-DABK-S-SO12-0001	0.3388992	-0.37751	0.43166	-0.2945	-0.59595	-0.647325	-0.06109	-0.75621	-0.42187	-0.74732	0.35313	-0.22399	SESS
SESS	SESS-DABK-S-SO13-0001	-0.3834344	0.28799	-0.23479	-0.3586	-0.61471	-0.163794	-0.20982	-0.780871	-0.418	-0.15014	0.14696	0.00344	SESS
SESS	SESS-DABK-S-SO14-0001	-0.5903164	0.17325	-0.7191	-0.5349	-0.67101	-0.244383	0.01162	-0.76854	-0.43509	-0.43451	0.64177	-0.34408	SESS
SESS	SESS-DABK-S-SO15-0001	0.26876972	0.1503	-0.30102	-0.0541	-0.59595	-0.301946	0.08764	-2.020112	-0.39551	-0.5767	1.34276	-0.27676	SESS
SESS	SESS-DABK-S-SO16-0001	-0.6709653	-0.66437	-0.09819	-0.7752	-0.7836	-1.242528	-0.22304	-2.168081	-0.45343	-1.17388	-0.77393	-0.53149	SESS
SESS	SESS-DABK-S-SO17-0001	0.02331655	-0.44636	0.61379	-0.647	-0.59595	-0.612787	0.04468	-2.245764	-0.39069	-1.23075	0.38062	-0.51875	SESS
SESS	SESS-DABK-S-SO18-0001	-0.6288876	-0.44636	0.07981	-0.5188	-0.50212	-0.808502	-0.02143	-0.484933	-0.43055	-0.66201	0.38062	-0.29313	SESS
SESS	SESS-DABK-S-SO19-0001	0.72461132	-0.05624	0.50616	0.15419	-0.05176	-0.324971	0.59002	0.193258	-0.26231	-0.00796	0.58679	0.07077	SESS
SESS	SESS-DABK-S-SO20-0001	1.49603555	1.58457	0.5517	0.45865	-0.20188	0.3888122	0.42807	0.772803	-0.32409	0.12001	1.50769	0.03801	SESS
SESD	SESD-SD01	1.14538817	0.51747	1.25953	0.73107	1.07413	0.5269639	0.72553	0.920772	1.303326	1.05843	1.41148	1.0442	SESD
SESD	SESD-SD02	-1.0216126	-0.2054	0.13776	-0.1022	0.32353	0.0894837	0.50078	-0.078018	1.052361	0.41859	-0.18291	1.13517	SESD
SESD	SESD-SD03	1.77655346	1.13708	2.38545	1.83677	2.43459	1.5976391	1.76665	1.401672	4.430737	2.15325	1.8788	2.90918	SESD
SESD	SESD-SD04	1.00512922	0.78138	2.58828	1.32398	2.12497	1.2867979	1.18164	1.130395	4.034984	1.6556	1.17782	2.77272	SESD
SESD	SESD-SD05	0.51422289	0.72401	0.15432	0.50673	0.81142	0.8032671	1.72038	1.105734	0.226107	0.9589	0.9579	1.06239	SESD
SESD	SESD-SD06	1.3557766	0.91907	2.09155	1.54833	1.58078	1.2407473	1.44605	1.019419	2.982862	1.30014	1.64514	2.68174	SESD
SESD	SESD-SD07	2.96875456	0.79285	1.65278	1.61243	1.31807	1.0335199	1.85589	1.635956	0.070702	1.74091	2.64851	2.06311	SESD
SESD	SESD-SD08	1.56616503	1.71079	2.65865	1.86882	2.46273	2.5992384	1.59478	0.982426	3.069734	1.74091	1.82382	3.1912	SESD
SESD	SESD-SD09	-1.3512212	-0.18245	-0.06921	-0.4227	0.0233	-0.509173	0.55036	-0.941171	0.473211	-0.4203	-0.54027	0.48561	SESD
SESD	SESD-SD10	1.77655346	0.95349	1.30507	1.45218	1.84349	1.2752852	2.83752	1.278364	1.728036	1.71248	2.20868	2.19048	SESD
SESD	SESD-SD11	0.3388992	2.06649	8.21786	1.82075	4.75205	1.8509171	2.90362	0.501527	8.899845	1.86888	0.97165	4.35568	SESD
SESD	SESD-SD12	1.79408583	2.82952	7.32789	2.26943	5.36191	2.3862547	5.38247	1.025584	2.258924	5.05382	3.10896	8.79524	SESD
SESD	SESD-SD13	1.46097082	1.63047	3.58174	2.99054	2.96939	1.5515885	4.52314	1.130395	3.629579	2.40918	1.94752	4.24651	SESD
SESD	SESD-SD14	1.21551765	0.75843	0.80834	0.76312	0.36106	0.4348628	0.87096	0.143935	0.463559	0.14844	1.1091	0.57477	SESD
SESD	SESD-SD15	1.88174767	1.44688	2.11225	1.91689	2.29385	1.6091517	3.30024	1.36468	2.017612	1.92575	2.16744	3.42773	SESD
SESD	SESD-SD16	1.56616503	0.99939	1.48306	1.85279	1.88102	1.25226	4.49008	1.179718	2.191357	1.61295	1.92004	2.44521	SESD
SESD	SESD-SD17	0.47915815	1.06823	2.74144	1.25988	2.20002	1.0104946	2.03767	0.378219	5.44425	1.52764	0.98539	3.33676	SESD
SESD	SESD-SD18	-0.9935609	0.11588	0.03013	-0.1984	0.30477	0.3427617	0.53384	0.082281	0.492516	0.17688	-0.67772	1.20795	SESD
SESD	SESD-SD19	1.0752587	0.9076	2.33164	10.9548	2.12497	1.125621	9.15033	1.019419	3.735757	1.81201	1.31527	3.48232	SESD
SESD	SESD-SD20	-1.6492715	-0.2513	-0.60319	-0.0221	-0.31447	0.1470469	0.07773	-0.287641	-0.18702	-0.24967	-1.255	0.5875	SESD

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499

10933.5043	Mean
2851.8679	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AS	0.0514	-0.0905	0.5700	-0.0350	-0.0106	-0.6644
BA	0.4224	-0.1162	-3.5811	-0.2253	0.0403	0.3361
CR	-0.0178	0.1772	-2.2945	-0.0500	-0.1023	1.5971
CO	0.3222	-0.1654	3.2622	-0.0592	0.0250	0.3752
FE	-0.3070	-0.4185	2.0899	0.1308	0.9250	2.5104
PB	-0.3994	-0.2939	4.9853	1.5266	0.1137	-0.7222
MG	-0.0503	0.3310	-0.3769	0.0669	-0.1820	0.9757
MN	0.3403	0.0482	2.2982	-0.1241	-0.0655	1.7582
NI	-0.2863	1.2825	-1.1772	0.1059	-0.3166	-3.8785
V	-0.0041	-0.0561	-5.3004	-0.0967	-0.0460	-1.1475
ZN	0.5317	-0.0519	0.1867	-0.6078	-0.0584	-1.2838

ARSENIC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439

9.6901	Mean
8.7152	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0546	0.0428	0.6681	-0.0871	-0.2884	-0.0747
AS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BA	0.5035	-0.0952	0.2307	-0.2429	0.0740	-0.0446
CR	-0.0212	0.1451	0.1478	-0.0539	-0.1875	-0.2119
CO	0.3841	-0.1355	-0.2102	-0.0638	0.0459	-0.0498
FE	-0.3660	-0.3428	-0.1346	0.1410	1.6961	-0.3331
PB	-0.4761	-0.2407	-0.3212	1.6458	0.2085	0.0958
MG	-0.0600	0.2711	0.0243	0.0722	-0.3337	-0.1295
MN	0.4056	0.0395	-0.1481	-0.1338	-0.1200	-0.2333
NI	-0.3413	1.0504	0.0758	0.1141	-0.5806	0.5147
V	-0.0049	-0.0459	0.3415	-0.1042	-0.0844	0.1523
ZN	0.6338	-0.0425	-0.0120	-0.6553	-0.1071	0.1704

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-18175.0558	-1.1566	-2.41432	-11.7472	-1.23564	-1.03549	-21.1661	-1.853517	-1.67896	-1.7838	-2.23142	-1.28379	-1.60431	-1.6421
MAXIMUM DOMAIN VALUE	67424.932	8.12808	3.55	21.6803	10.4382	3.40142	10.8106	44.487628	9.54445	3.0806	2.63187	11.1941	5.98387	2.42516
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	26896.1855	-0.26885	-0.53832	7.02068	-0.22634	-0.63841	1.59886	-0.060747	-0.14263	-0.60583	-1.93444	-0.09227	-0.56527	0.03552
BASS-BWBK-SS-BA102-0001	28913.2589	-0.22296	-0.78147	7.86451	-0.2468	-0.65525	0.86426	-0.669757	-0.06601	-0.82309	-2.23142	-0.08423	-0.49268	0.16313
BASS-BWBK-SS-BA103-0001	27057.4619	-0.21918	-0.6678	7.0747	-0.25408	-0.67422	0.81827	-0.586015	-0.06966	-0.72338	-2.08652	-0.10399	-0.56777	0.15804
BASS-BWBK-SS-BA104-0001	22291.3937	-0.28536	-0.27041	5.04727	-0.21953	-0.77389	0.91329	-0.732841	-0.16358	-0.38508	-1.79985	-0.08541	-0.8165	0.12469
BASS-BWBK-SS-BA105-0001	28099.7406	-0.25681	-0.58485	7.472	-0.22603	-0.63951	0.67665	-0.004901	-0.11218	-0.65655	-2.16031	-0.06629	-0.48236	0.17991
BASS-BWBK-SS-BA106-0001	22902.4709	-0.34343	-0.10396	5.26895	-0.19437	-0.80494	0.84209	-0.808278	-0.23181	-0.25005	-1.8125	-0.05932	-0.87482	0.1356
BASS-BWBK-SS-BA107-0001	27493.4215	-0.20929	-0.78931	7.27429	-0.25035	-0.66077	0.77526	-0.66611	-0.05118	-0.82839	-2.17469	-0.09054	-0.51091	0.17294
BASS-BWBK-SS-BA108-0001	27960.866	-0.23134	-0.66446	7.44825	-0.22906	-0.72111	0.73214	-1.121589	-0.0789	-0.72489	-2.17167	-0.06924	-0.62755	0.17669
BASS-BWBK-SS-BA109-0001	24704.2007	-0.36515	0.04063	5.9883	-0.19037	-0.92417	0.52376	-1.853517	-0.24411	-0.14284	-2.00959	-0.0363	-1.02917	0.19654
BASS-BWBK-SS-BA110-0001	21075.2232	-0.23786	-0.22474	4.55125	-0.25837	-0.68705	1.485	0.3860922	-0.11513	-0.34188	-1.65159	-0.14342	-0.70827	0.03775
BASS-BWBK-SS-BA111-0001	26844.7027	-0.25818	-0.60544	7.00218	-0.22941	-0.68818	1.24308	-0.682657	-0.11852	-0.67042	-2.0537	-0.08101	-0.60547	0.09842
BASS-BWBK-SS-BA112-0001	27450.8889	-0.23717	-0.69654	7.27549	-0.23486	-0.6634	1.41196	-0.625411	-0.09211	-0.74653	-2.07658	-0.08688	-0.55832	0.07795
BASS-BWBK-SS-BA113-0001	27983.8301	-0.0886	-0.76163	7.45046	-0.34526	-0.65392	0.47251	-0.363055	0.09349	-0.80586	-2.2088	-0.18912	-0.48789	0.21412
MASB-BWBK-SB-MA01-0105	27752.1547	0.04789	1.5295	6.74544	-0.38446	0.07611	1.50842	13.276456	0.04234	1.27338	-0.50003	-0.3913	0.17996	-0.22188
MASB-BWBK-SB-MA02-0107	18778.7969	-0.41781	1.92296	2.91698	-0.24597	0.16606	0.37972	14.855069	-0.51269	1.58895	-0.07523	-0.27592	0.25912	-0.07081
MASB-BWBK-SB-MA03-0108	38128.2863	0.2814	1.62867	10.7864	-0.48533	0.30612	-1.17419	16.591654	0.31857	1.36707	-1.02869	-0.44754	0.73208	0.12939
MASB-BWBK-SB-MA04-0106	12541.502	-0.3042	2.42031	0.29238	-0.37471	-0.1951	0.10194	12.319144	-0.3892	2.01078	0.10103	-0.40737	-0.39934	-0.05115
MASB-BWBK-SB-MA05-0108	17497.3675	-0.35025	1.51729	2.39384	-0.34064	0.06188	-1.5382	13.682752	-0.54418	1.39969	-0.17484	-0.27095	0.19997	0.02113
MASB-BWBK-SB-MA06-0105	13336.4548	-0.4446	1.71436	0.71132	-0.26982	-0.03362	-0.53018	12.301544	-0.51858	1.39227	-0.10471	-0.28805	-0.04024	0.08649
MASB-BWBK-SB-MA07-0108	21264.3021	-0.65817	0.98743	4.10267	-0.14251	0.40669	0.02722	15.335583	-0.82207	0.85933	-0.38299	-0.10378	0.82547	-0.05843
MASB-BWBK-SB-MA08-0108	24269.4646	-1.1566	1.01894	5.19454	-0.00551	2.22932	2.81489	36.090719	-1.67896	1.17177	0.562	0.04271	3.83804	-0.8014
MASB-BWBK-SB-MA09-0108	32015.4738	-0.41495	0.64379	8.41656	-0.23539	1.01303	-1.00789	22.359883	-0.72714	0.80827	-0.388	-0.11351	1.92394	-0.20094
MASB-BWBK-SB-MA10-0104	25328.9713	-0.58093	0.1879	5.94959	-0.10924	0.61311	0.87962	15.89278	-0.67026	0.14578	-0.90988	-0.03401	1.36407	-0.08782
MASB-BWBK-SB-MA11-0108	17660.6695	-0.61875	1.40498	2.45288	-0.05089	0.61771	-0.01097	19.030408	-0.78685	1.20741	-0.04684	-0.04006	1.10896	-0.06895
MASB-BWBK-SB-MA12-0108	29803.6023	-0.34768	1.49923	7.3727	-0.30441	0.60514	-1.39776	19.744735	-0.61763	1.47427	-0.3606	-0.20174	1.17745	-0.10713
MASB-BWBK-SB-MA13-0105	-3283.67044	0.03233	0.0466	-5.70727	-0.53698	-0.35783	0.03612	6.0146154	0.1036	-0.0248	-0.1021	-0.53715	-0.46951	0.08625
MASB-BWBK-SB-MA14-0104	7671.77833	-0.12903	0.0349	-1.33687	-0.40704	0.96307	1.81296	20.694433	-0.23773	0.12229	0.35179	-0.42808	1.68891	-0.3601
MASB-BWBK-SB-MA15-0105	-2686.74946	-0.04504	0.00363	-5.55605	-0.50981	0.36669	0.56561	13.994206	-0.10088	0.05139	0.62387	-0.56571	0.57301	-0.14155
MASB-BWBK-SB-MA16-0104	9682.40792	-0.06123	0.07361	-0.44221	-0.36446	0.12393	0.56496	11.206185	-0.02135	0.01504	-0.47337	-0.33528	0.43742	-0.00349
MASB-BWBK-SB-MA17-0104	8119.86773	0.10273	-0.47129	-0.94745	-0.505	0.2582	1.31285	11.210866	0.13428	-0.40005	0.04649	-0.55029	0.47332	-0.15725
MASB-BWBK-SB-MA18-0104	-12815.5341	-0.20272	0.41817	-9.68517	-0.5008	-0.45891	-0.13955	5.5639027	-0.22251	0.32123	0.56047	-0.54182	-0.82252	0.04578
MASB-BWBK-SB-MA19-0103	2943.92921	0.04969	-0.03346	-3.15378	-0.49797	-0.3737	-0.44879	5.4531625	0.11376	-0.07762	-0.26029	-0.48861	-0.49527	0.13542
MASB-BWBK-SB-MA20-0103	15515.5782	-0.37147	1.36121	1.61651	-0.27402	0.04257	-1.33308	12.552921	-0.39929	1.07304	-0.42513	-0.26622	0.20612	0.23779
MASS-BWBK-SS-MA01-0001	6304.04534	0.19545	-1.18489	-1.53068	-0.29359	-0.60066	-0.48166	0.1205742	0.32928	-1.06787	-0.48349	-0.2762	-0.87963	0.19935
MASS-BWBK-SS-MA02-0001	-3747.9783	0.44321	-0.52392	-5.81256	-0.51027	-0.72281	-0.65253	0.2932373	0.54573	-0.46463	0.75762	-0.63557	-1.5202	0.11405
MASS-BWBK-SS-MA03-0001	4164.80476	0.05877	-0.72615	-2.49815	-0.26819	-0.38692	0.25242	3.6158956	0.13065	-0.65454	-0.24602	-0.25604	-0.55037	0.05148
MASS-BWBK-SS-MA04-0001	5059.40276	0.05293	-0.16893	-2.24501	-0.25067	-0.55584	-0.13555	2.6855681	0.1168	-0.19904	-0.00644	-0.28073	-0.97904	0.09459
MASS-BWBK-SS-MA05-0001	-1147.62997	-0.19624	0.40179	-4.96214	-0.1888	-0.32176	-0.28823	6.4872125	-0.22314	0.30566	0.59538	-0.26379	-0.72915	0.05554
MASS-BWBK-SS-MA06-0001	-10396.602	0.20248	-0.03651	-8.72603	-0.35046	-0.04752	0.47755	10.05673	0.09649	0.1221	1.28773	-0.40995	-0.34852	-0.26809
MASS-BWBK-SS-MA07-0001	18520.7667	-0.11128	-1.78389	3.58218	0.00847	-0.43915	-0.88955	0.3052539	0.01475	-1.59497	-1.53645	0.14959	-0.26634	0.32284
MASS-BWBK-SS-MA08-0001	7703.08491	-0.2751	-1.17199	-1.24686	0.60637	0.33088	-0.58048	11.017857	-0.33069	-0.95717	0.09679	0.65261	0.60047	0.07316
MASS-BWBK-SS-MA09-0001	-13590.078	0.0706	-0.05978	-10.2824	0.32349	-0.01105	-1.62981	10.188262	-0.03599	0.04854	2.04155	0.17447	-0.61098	0.0513
MASS-BWBK-SS-MA10-0001	-4710.86018	-0.14246	-0.29731	-6.51592	0.30579	0.15661	-0.92034	11.163575	-0.25053	-0.17333	1.21824	0.2369	-0.04809	0.01053
MASS-BWBK-SS-MA11-0001	-14289.1618	-0.04043	-0.56913	-10.3107	-0.12847	0.64311	1.23519	16.38449	-0.13592	-0.38746	1.46694	-0.22696	0.8462	-0.28562
MASS-BWBK-SS-MA12-0001	4177.8358	-0.23825	0.05731	-2.67933	-0.17025	-0.36908	-0.38453	5.0085839	-0.23082	-0.01392	0.04413	-0.19794	-0.64713	0.12704
MASS-BWBK-SS-MA13-0001	-18175.0558	0.29159	-0.85948	-11.7329	-0.44487	-0.1382	0.46816	7.020902	0.34845	-0.71781	1.10441	-0.54642	-0.42156	-0.05876
MASS-BWBK-SS-MA14-0001	-10298.8535	0.16252	-1.2388	-8.55353	0.05032	-0.46375	-2.00093	2.6736603	0.25759	-1.0842	0.30033	0.05529	-0.76836	0.35617
MASS-BWBK-SS-MA15-0001	-10976.3915	0.18077	-1.09363	-8.76999	-0.16219	-0.42485	-0.90664	2.9695997	0.24673	-0.93823	0.6725	-0.21805	-0.84962	0.16607
MASS-BWBK-SS-MA16-0001	-6869.04503	-0.13441	-0.86126	-7.12057	-0.13213	-0.12784	-0.59538	6.6713129	-0.12089	-0.74494	0.21381	-0.12462	-0.14039	0.13428
MASS-BWBK-SS-MA17-0001	-3701.48043	0.01192	-0.85092	-5.81046	-0.20937	-0.14112	-0.41678	6.2706333	0.0303	-0.71946	0.44635	-0.25113	-0.30313	0.07899
MASS-BWBK-SS-MA18-0001	-9395.77064	-0.10159	-1.12306	-8.19662	-0.04931	-0.21902	-2.0813	5.2486541	-0.0955	-0.94652	0.39386	-0.04635	-0.35253	0.31233
MASS-BWBK-SS-MA19-0001	-7749.28526	0.01322	-0.91184	-7.52319	-0.13022	-0.10822	-0.9694	6.9213165	0.03076	-0.7664	0.51278	-0.15667	-0.22103	0.15048
MASS-BWBK-SS-MA20-0001	-628.817047	-0.13617	-0.2273	-4.71791	-0.11198	-0.10327	-1.00466	8.251035	-0.12958	-0.21902	0.09861	-0.10561	-0.11039	0.17934
MMSB-BWBK-SB-MM101-0110	23450.3298	-0.21191	0.13539	5.3125	-0.00543	-0.24284	1.53616	6.4047291	-0.15454	0.0183	-1.1137	0.06913	-0.13352	-0.06701
MMSB-BWBK-SB-MM102-0109	13572.351	-0.43019	1.62889	0.94327	-0.07381	-0.84603	-0.59947	2.8309614	-0.438	1.25816	-0.50301	-0.05016	-1.38386	0.18487
MMSB-BWBK-SB-MM103-0107	26702.8533	0.07447	0.37159	6.63732	-0.18517	-0.52329	1.37205	3.8436208	0.17484	0.22373	-1.12167	-0.13059	-0.67773	-0.06209
MMSB-BWBK-SB-MM104-0110	15556.2476	-0.36138	0.74518	2.154	-0.04952	-0.05675	5.63187	9.3341743	-0.41681	0.59042	-0.06551	-0.0775	-0.14777	-0.7267
MMSB-BWBK-SB-MM105-0110	23737.5362	-0.197	-0.14856	5.46402	-0.12003	-0.50358	-0.20216	2.7801208	-0.11845	-0.22849	-1.35168	-0.02444	-0.51293	0.18871
MMSB-BWBK-SB-MM106-0110	2679.44915	-0.20309	1.39973	-3.33887	-0.26318	-0.47483	3.44499	6.6717212	-0.22256	1.11409	0.441	-0.3409	-0.99116	-0.42753
MMSB-BWBK-SB-MM107-0110	12201.7414	-0.16047	0.35978	0.79479	-0.267	-0.56618	2.72583	3.4715095	-0.08844	0.19699	-0.84445	-0.21223	-0.71881	-0.2181
MMSB-BWBK-SB-MM108-0110	16411.3709	-0.19249	0.15846	2.47554	-0.19182	-0.41092	1.66966	4.4196395	-0.1457	0.046	-0.69064	-0.16702	-0.54866	-0.10389
MMSB-BWBK-SB-MM109-0110	6482.17636	-0.06345	0.42846	-1.71846	-0.27287	-0.32096	1.48605	6.4649476	-0.03029	0.29713	0.05377	-0.31644	-0.58857	-0.13209
MMSB-BWBK-SB-MM110-0109	9667.64252	-0.25655	0.34249	-0.30768	-0.20293	-0.37553	2.296	5.3698172	-0.24102	0.21386	-0.34066	-0.19759	-0.55439	-0.21333
MMSB-BWBK-SB-MM111-0110	12815.3896	-0.2559	0.53032	0.90375	-0.10616	-0.23497	2.30617	7.3342087	-0.24721	0.37196	-0.30091	-0.11055	-0.34911	-0.224
MMSB-BWBK-SB-MM112-0110	6323.82606	-0.20014	0.72203	-1.78184	-0.30533	-0.30788	2.18831	7.0944776	-0.18287	0.5287	-0.04862	-0.33878	-0.51964	-0.21095
MMSB-BWBK-SB-MM113-0110	7607.44745	-0.3338	1.18228	-1.23265	-0.23513	-0.74494	2.6543	3.077622	-0.31389	0.88335	-0.42627	-0.21875	-1.17354	-0.23402
MMSB-BWBK-SB-MM114-0110	19494.97	-0.0917	0.10977	3.7012	-0.23144	-0.56639	0.29931	2.7327214	-0.02236	0.00827	-0.93527	-0.1806	-0.75598	0.08154

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-18175.0558	-1.1566	-2.41432	-11.7472	-1.23564	-1.03549	-21.1661	-1.853517	-1.67896	-1.7838	-2.23142	-1.28379	-1.60431	-1.6421
MAXIMUM DOMAIN VALUE	67424.932	8.12808	3.55	21.6803	10.4382	3.40142	10.8106	44.487628	9.54445	3.0806	2.63187	11.1941	5.98387	2.42516
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	2172.83211	0.22691	0.02415	-3.29181	-0.50487	-0.40269	3.20971	4.9267054	0.32198	-0.04064	0.12918	-0.5661	-0.72966	-0.35213
MMSB-BWBK-SB-MM116-0110	17924.4069	-0.13958	0.59576	3.01725	-0.1802	-0.53197	1.69597	4.1811056	-0.07652	0.39926	-0.79604	-0.14555	-0.7404	-0.09901
MMSB-BWBK-SB-MM117-0110	26699.0389	-0.10264	-0.08073	6.69705	-0.16478	-0.41844	0.6262	3.7945751	-0.00558	-0.17593	-1.36228	-0.08604	-0.39016	0.07977
MMSB-BWBK-SB-MM118-0110	20797.9456	-0.43175	2.30978	3.59153	0.02691	-1.03549	-4.02155	2.4707638	-0.41432	1.79525	-0.96967	0.09602	-1.60431	0.67402
MMSB-BWBK-SB-MM119-0110	16464.2725	-0.23536	0.45927	2.46299	-0.17328	-0.50381	1.8567	4.1798644	-0.18327	0.28283	-0.88398	-0.12004	-0.63378	-0.11037
MMSB-BWBK-SB-MM120-0110	25903.0018	-0.11935	-0.56656	6.51154	-0.19817	-0.48671	0.82914	1.9965145	0.01191	-0.60649	-1.7181	-0.07948	-0.36106	0.10459
MMSS-BWBK-SS-MM101-0001	-2709.9912	-0.27641	-0.61701	-5.39351	-0.09779	0.03159	0.75205	7.5085292	-0.38389	-0.47442	1.33066	-0.25249	-0.38212	-0.17225
MMSS-BWBK-SS-MM102-0001	7365.77283	-0.30953	-0.74669	-1.16189	-0.22878	-0.15807	0.29747	4.8938473	-0.33584	-0.65555	0.15891	-0.28678	-0.35032	0.0089
MMSS-BWBK-SS-MM103-0001	-1227.51657	-0.3962	-0.73375	-4.77824	0.01646	0.04628	0.46214	7.4285721	-0.50894	-0.58335	1.05758	-0.09792	-0.25362	-0.1096
MMSS-BWBK-SS-MM104-0001	137.107934	-0.29003	-0.37753	-4.26968	-0.00051	-0.03123	0.8577	7.5247484	-0.38047	-0.29308	1.00138	-0.11317	-0.38564	-0.15947
MMSS-BWBK-SS-MM105-0001	9670.06332	-0.21845	-1.13976	-0.18993	-0.11268	-0.19802	-0.3365	3.8905999	-0.21232	-0.98741	-0.13547	-0.1285	-0.32113	0.11317
MMSS-BWBK-SS-MM106-0001	-3591.62478	-0.23227	-0.3664	-5.71072	-0.23458	-0.07228	1.81294	7.0540376	-0.30547	-0.29057	1.06827	-0.36506	-0.45213	-0.27754
MMSS-BWBK-SS-MM107-0001	-2060.05504	-0.29543	-0.29268	-5.12363	-0.1902	-0.084	1.25584	6.7177249	-0.39621	-0.22048	1.28478	-0.35425	-0.58662	-0.22435
MMSS-BWBK-SS-MM108-0001	-5713.84321	-0.27063	-0.84941	-6.59567	-0.17725	-0.07041	-0.07418	5.7323715	-0.3736	-0.67133	1.47291	-0.35293	-0.60238	-0.05732
MMSS-BWBK-SS-MM109-0001	124.111621	-0.3645	-0.73238	-4.134	-0.21088	-0.10408	0.74957	5.2799923	-0.46253	-0.59349	1.03318	-0.35256	-0.54277	-0.13519
MMSS-BWBK-SS-MM110-0001	11161.195	-0.18388	-1.52284	0.49861	-0.05787	-0.21698	-0.3354	2.8564898	-0.14475	-1.32666	-0.37165	-0.05221	-0.27957	0.14991
MMSS-BWBK-SS-MM111-0001	13032.4856	-0.20135	-1.29794	1.27259	-0.09838	-0.25581	0.22405	2.476442	-0.18958	-1.12393	-0.11971	-0.1357	-0.48143	0.04288
MMSS-BWBK-SS-MM112-0001	16011.2344	-0.19779	-1.42011	2.48679	-0.02751	-0.30224	-0.41608	1.900817	-0.15999	-1.24266	-0.54065	-0.01269	-0.41704	0.1623
MMSS-BWBK-SS-MM113-0001	66.0839526	-0.31387	-1.08257	-4.21522	0.14852	-0.09598	-0.17579	5.2150265	-0.38263	-0.89744	0.84846	0.05674	-0.44836	0.01464
MMSS-BWBK-SS-MM114-0001	18345.8722	-0.0919	-1.4303	3.49539	-0.23448	-0.35149	-0.26396	1.2893334	-0.0125	-1.26948	-0.81667	-0.21125	-0.41869	0.17151
MMSS-BWBK-SS-MM115-0001	12565.9432	-0.127	-1.34788	1.07835	-0.22365	-0.16682	0.09256	3.5961476	-0.08894	-1.17364	-0.27035	-0.24851	-0.24702	0.07665
MMSS-BWBK-SS-MM116-0001	12976.7413	-0.16516	-1.40104	1.25206	-0.11913	-0.23812	-0.03431	2.7926864	-0.12281	-1.22569	-0.44002	-0.11421	-0.30857	0.10928
MMSS-BWBK-SS-MM117-0001	4612.89165	-0.24297	-0.78286	-2.33177	-0.05819	-0.09231	0.57702	5.7660874	-0.28401	-0.66331	0.56269	-0.14518	-0.37107	-0.0659
MMSS-BWBK-SS-MM118-0001	15215.5449	-0.19626	-0.27197	2.06457	-0.22538	-0.44017	1.22279	2.9673844	-0.16525	-0.29219	-0.5493	-0.21403	-0.64843	-0.06564
MMSS-BWBK-SS-MM119-0001	17717.3131	-0.16563	-0.32085	3.05671	-0.25289	-0.5073	0.10872	2.1611229	-0.10283	-0.35585	-0.84042	-0.21944	-0.67791	0.11823
MMSS-BWBK-SS-MM120-0001	13455.6395	-0.39276	-0.68182	1.4057	-0.21792	0.12688	2.20616	8.3512679	-0.38649	-0.6408	-0.59264	-0.1992	0.42474	-0.17785
NESB-BWBK-SB-NE01-0108	18607.9708	-0.56139	1.66941	3.06776	-0.07945	-0.23388	1.99601	8.9031816	-0.66386	1.3497	0.10358	-0.14678	-0.57701	-0.25526
NESB-BWBK-SB-NE02-0109	17326.6887	-0.05078	1.2648	2.60502	-0.3026	-0.20542	2.35568	9.3163016	-0.0364	1.00538	-0.14522	-0.34814	-0.40214	-0.27761
NESB-BWBK-SB-NE03-0105	21061.1807	-0.48429	0.75656	4.22516	-0.11279	0.01661	1.93234	9.8243714	-0.55108	0.58654	-0.25086	-0.1448	0.00431	-0.21839
NESB-BWBK-SB-NE04-0110	20156.6777	-0.35446	0.93804	3.82986	-0.13612	-0.27196	1.56287	7.2116023	-0.38232	0.72152	-0.3229	-0.16164	-0.48637	-0.14978
NESB-BWBK-SB-NE05-0108	19405.5102	-0.54435	1.32523	3.43876	-0.09933	-0.16305	1.61737	9.0124079	-0.62743	1.0544	-0.09709	-0.1464	-0.37184	-0.18283
NESB-BWBK-SB-NE06-0109	21161.4424	-0.46633	1.10531	4.17471	-0.10917	-0.21254	0.98553	8.1738946	-0.51396	0.85808	-0.39071	-0.12518	-0.35654	-0.07096
NESB-BWBK-SB-NE07-0107	18235.7279	-0.54392	1.52252	2.90417	-0.08913	-0.19883	1.40465	9.0282775	-0.64303	1.22938	0.11412	-0.15723	-0.51274	-0.17678
NESB-BWBK-SB-NE08-0104	18673.5895	-0.38268	0.83581	3.19227	-0.17199	-0.35883	0.25548	6.0553909	-0.4069	0.63009	-0.37638	-0.18896	-0.60567	0.03622
NESB-BWBK-SB-NE09-0110	21203.71	-0.42113	0.92989	4.27004	-0.14882	-0.21353	1.63326	7.7416816	-0.45439	0.70874	-0.43368	-0.16508	-0.34408	-0.14893
NESB-BWBK-SB-NE10-0107	4790.68616	-0.29208	0.40666	-2.38461	-0.27754	-0.29963	1.37207	6.1967053	-0.31382	0.28849	0.21468	-0.33588	-0.59957	-0.13209
NESB-BWBK-SB-NE101-0110	4565.04577	-0.02261	0.30624	-2.46261	-0.34527	-0.2999	1.77076	6.2725729	0.00205	0.20863	0.33431	-0.42675	-0.65194	-0.19203
NESB-BWBK-SB-NE102-0110	5522.84194	0.12516	0.06651	-2.02343	-0.41875	-0.46408	1.21598	4.0981178	0.20157	-0.00784	0.06921	-0.47804	-0.85322	-0.08613
NESB-BWBK-SB-NE103-0110	11080.8755	0.0276	-0.16974	0.31031	-0.36358	-0.45803	0.9112	3.4488113	0.11498	-0.22539	-0.42425	-0.37507	-0.69506	-0.0049
NESB-BWBK-SB-NE104-0110	15261.2459	0.00191	-0.3448	2.0605	-0.33248	-0.4853	0.59627	2.7080369	0.11005	-0.38967	-0.83092	-0.30446	-0.61921	0.07218
NESB-BWBK-SB-NE105-0110	4693.33643	0.03776	0.17024	-2.36716	-0.3864	-0.28854	2.04487	6.3408482	0.08965	0.08648	0.09599	-0.4384	-0.52889	-0.20725
NESB-BWBK-SB-NE106-0110	8571.40023	0.0174	0.22131	-0.8027	-0.35937	-0.44193	1.12947	4.5644572	0.0846	0.10995	-0.15001	-0.39571	-0.75193	-0.05893
NESB-BWBK-SB-NE107-0510	16261.0705	-0.07737	-0.25481	2.50913	-0.27554	-0.40557	1.78482	3.6283697	0.01446	-0.31571	-0.83021	-0.24791	-0.48662	-0.08692
NESB-BWBK-SB-NE108-0110	7370.94969	-0.01307	-0.11417	-1.20712	-0.36247	-0.35539	1.60427	4.6420152	0.04534	-0.16374	-0.05535	-0.40993	-0.62448	-0.12575
NESB-BWBK-SB-NE109-0110	9611.56049	0.02478	-0.08919	-0.28727	-0.35127	-0.36566	1.71647	4.5656207	0.09238	-0.14478	-0.13804	-0.3948	-0.6332	-0.13802
NESB-BWBK-SB-NE110-0110	11665.4924	-0.05071	-0.06609	0.58275	-0.29997	-0.40727	1.99883	3.94073	0.00219	-0.1248	-0.21626	-0.33515	-0.69871	-0.1759
NESS-BKG-SS03-NEB-0016	9636.96984	-0.47454	-0.64119	-0.64698	1.25904	0.03115	-1.31284	8.0682564	-0.6248	-0.48932	1.04997	1.20899	-0.39215	0.09509
NESS-BKG-SS09-NEB-0018	6822.00147	-0.19534	-0.99974	-1.39232	-0.0088	-0.20082	0.15101	4.2346717	-0.27832	-0.7799	0.55509	-0.06472	-0.56461	-0.0828
NESS-BWBK-SS-NE01-0001	175.166733	-0.14241	0.04765	-4.41444	-0.09397	0.15968	0.48106	10.77541	-0.32165	0.17252	1.74938	-0.26875	-0.32004	-0.2741
NESS-BWBK-SS-NE02-0001	6615.92959	-0.27952	0.65234	-1.87198	-0.19742	-0.06065	-0.68643	9.4299226	-0.47273	0.66591	1.22168	-0.3202	-0.55648	-0.10355
NESS-BWBK-SS-NE03-0001	2485.62751	-0.33811	-0.24116	-3.31351	-0.16678	0.08257	0.83347	8.4887514	-0.49434	-0.12925	1.4193	-0.34224	-0.37342	-0.23497
NESS-BWBK-SS-NE04-0001	2568.76091	-0.32408	0.3752	-3.36146	-0.14781	-0.07745	1.33788	8.1068846	-0.46235	0.35794	1.39096	-0.32695	-0.66096	-0.28006
NESS-BWBK-SS-NE05-0001	2482.78009	-0.31146	-0.08362	-3.3505	0.01358	-0.10553	0.87048	7.2532977	-0.43947	-0.01592	1.07363	-0.09854	-0.56488	-0.20867
NESS-BWBK-SS-NE06-0001	2304.25418	-0.42333	0.56568	-3.50815	-0.16829	-0.25093	0.49492	6.5502115	-0.55188	0.48809	1.13806	-0.32021	-0.87027	-0.12825
NESS-BWBK-SS-NE07-0001	859.993012	-0.36628	-0.43896	-4.09118	0.29504	0.05286	-0.35143	8.6189165	-0.52864	-0.2814	1.22476	0.20264	-0.30979	-0.08027
NESS-BWBK-SS-NE08-0001	2165.99546	-0.3635	0.09929	-3.51049	-0.16242	-0.07481	0.43477	7.5535618	-0.49384	0.11889	1.2353	-0.32263	-0.586	-0.13884
NESS-BWBK-SS-NE09-0001	-1646.41542	-0.14091	-0.53675	-5.02822	-0.05534	0.00598	0.23412	7.2435257	-0.29162	-0.34688	1.95022	-0.27833	-0.69653	-0.19958
NESS-BWBK-SS-NE10-0001	4361.30576	-0.40038	-0.29039	-2.6979	0.46665	-0.11815	-0.77357	7.0849609	-0.5179	-0.2105	0.79225	0.41525	-0.48958	0.04785
NESS-BWBK-SS-NE101-0001	3421.36302	-0.11013	-0.75529	-2.78161	-0.30705	-0.25029	0.4004	3.7422424	-0.14371	-0.62867	0.86987	-0.45314	-0.78365	-0.06682
NESS-BWBK-SS-NE102-0001	9307.1701	-0.15795	-1.09965	-0.3449	-0.05005	-0.31806	-0.29613	2.6468569	-0.13261	-0.96622	-0.0632	-0.07836	-0.57579	0.11917
NESS-BWBK-SS-NE103-0001	9820.08065	-0.19215	-1.057	-0.12273	-0.0667	-0.39598	-0.3712	2.0135763	-0.14995	-0.94845	-0.3968	-0.05275	-0.57926	0.16099
NESS-BWBK-SS-NE104-0001	15760.3757	-0.45615	-0.9604	2.21316	0.51169	-0.22451	-0.20765	3.7408749	-0.49383	-0.84766	-0.15773	0.5181	-0.43459	0.09957
NESS-BWBK-SS-NE105-0001	14384.9569	-0.09117	-1.28791	1.82943	-0.21014	-0.34286	-0.1275	1.765371	-0.03014	-1.13894	-0.46653	-0.21762	-0.50847	0.12817
NESS-BWBK-SS-NE106-0001	17420.314	-0.33042	-1.34836	2.96103	0.58521	-0.27833	-0.2019	2.5160796	-0.32985	-1.17679	-0.37033	0.61831	-0.46273	0.11816
NESS-BWBK-SS-NE107-0001	11420.1411	-0.07816	-1.45953	0.60196	-0.09358	-0.2997	-0.25991	1.9497386	-0.03678	-1.26184	-0.12463	-0.12572	-0.54236	0.11537
NESS-BWBK-SS-NE108-0001	9499.81832	-0.06934	-1.24624	-0.23907	-0.0346	-0.32579	-0.1328	2.4049874	-0.02315	-1.08929	-0.11688	-0.05559	-0.56976	0.10274
NESS-BWBK-SS-NE109-0001	13763.2536	-0.05497	-1.38208	1.60578	-0.22601	-0.33287	0.15863	1.6711821	0.01384	-1.21822	-0.42143	-0.24116	-0.50543	0.09159
NESS-BWBK-SS-NE110-0001	10149.6457	-0.22945	-1.54011	0.02083	0.2095	-0.26875	-0.82427	2.5840689	-0.19447	-1.3435	-0.4216	0.24803	-0.33845	0.22092

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-18175.0558	-1.1566	-2.41432	-11.7472	-1.23564	-1.03549	-21.1661	-1.853517	-1.67896	-1.7838	-2.23142	-1.28379	-1.60431	-1.6421
MAXIMUM DOMAIN VALUE	67424.932	8.12808	3.55	21.6803	10.4382	3.40142	10.8106	44.487628	9.54445	3.0806	2.63187	11.1941	5.98387	2.42516
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	12490.4258	0.01802	1.47307	0.34496	-0.40542	-0.35144	-1.97162	8.5498699	-0.00616	1.22886	0.29881	-0.47789	-0.78212	0.2237
PMSB-BWBK-SB-PM02-0104	7656.21842	-0.38402	0.27306	-1.29312	-0.3128	1.39646	4.6341	25.655369	-0.57714	0.34964	0.65986	-0.35968	2.35549	-0.78371
PMSB-BWBK-SB-PM03-0106	25467.6239	-0.45763	1.30956	5.71489	-0.25212	0.85063	0.83332	21.226382	-0.61004	1.14692	-0.22557	-0.25185	1.53018	-0.20283
PMSB-BWBK-SB-PM04-0105	17546.5571	-0.40762	1.34055	2.46685	-0.15638	0.17256	-0.48069	14.194847	-0.57419	1.20354	-0.06889	-0.12132	0.32648	-0.06309
PMSB-BWBK-SB-PM05-0105	17498.3175	-0.19929	0.98284	2.6019	-0.30358	0.297	1.3005	14.678173	-0.26896	0.84331	-0.15627	-0.30655	0.55811	-0.21783
PMSB-BWBK-SB-PM06-0105	22557.7484	-0.03953	0.89223	4.79751	-0.42457	0.52881	3.58381	16.992964	-0.09866	0.79104	-0.2188	-0.43729	0.9574	-0.54943
PMSB-BWBK-SB-PM07-0105	21408.5873	0.20738	-0.25505	4.45436	-0.49796	0.63348	2.25697	16.3042	0.23105	-0.1758	-0.64567	-0.45694	1.3439	-0.32506
PMSB-BWBK-SB-PM08-0106	20168.5508	0.0057	0.65654	3.71189	-0.38186	0.16553	0.05315	12.772851	-0.04329	0.60194	-0.30569	-0.36252	0.36581	-0.07976
PMSB-BWBK-SB-PM09-0106	22419.9384	-0.15884	0.60633	4.69029	-0.35439	-0.12746	-0.6597	9.0961059	-0.17583	0.50107	-0.87697	-0.28277	0.0346	0.10352
PMSB-BWBK-SB-PM10-0105	-1265.24767	-0.04576	-0.03053	-4.93002	-0.54018	0.38946	1.07255	14.514557	-0.06651	-0.0015	0.07894	-0.52833	0.83618	-0.16106
PMSB-BWBK-SB-PM11-0104	23677.0319	0.16855	0.8897	5.09004	-0.4727	0.49036	0.97788	17.198516	0.19638	0.74433	-0.60002	-0.45463	1.03279	-0.13801
PMSB-BWBK-SB-PM12-0105	8240.45569	-0.11525	0.3717	-0.94969	-0.38841	-0.54403	0.71402	3.8963143	-0.06224	0.23238	-0.49933	-0.36711	-0.7734	0.01029
PMSB-BWBK-SB-PM13-0106	208.347981	-0.08651	-0.52325	-4.1052	-0.4977	0.51307	3.32622	14.17289	-0.09892	-0.43095	0.18765	-0.52506	0.97521	-0.43578
PMSB-BWBK-SB-PM14-0106	9235.97655	0.03179	-0.08151	-0.50433	-0.44679	-0.26394	0.73227	6.2736399	0.0958	-0.11992	-0.46421	-0.42959	-0.28007	-0.01663
PMSB-BWBK-SB-PM15-0105	9438.52145	-0.21236	0.36448	-0.55228	-0.33473	0.14807	1.26982	11.673584	-0.23969	0.28741	-0.11364	-0.34236	0.33515	-0.14998
PMSB-BWBK-SB-PM16-0106	10191.2286	-0.19136	0.25887	-0.20419	-0.34959	-0.16097	0.47211	7.8145368	-0.19057	0.17634	-0.27527	-0.3495	-0.17912	-0.01022
PMSB-BWBK-SB-PM17-0105	17449.498	0.0503	0.42345	2.67593	-0.31801	0.23654	1.22257	13.008379	0.05635	0.35435	-0.25568	-0.3244	0.47597	-0.16797
PMSB-BWBK-SB-PM18-0105	21753.3996	-0.72503	1.12091	4.27913	-0.09882	0.88545	1.67096	20.946833	-0.92197	0.98495	-0.15944	-0.08655	1.60259	-0.30428
PMSB-BWBK-SB-PM19-0105	12402.4665	-0.32838	0.82661	0.51529	-0.28102	0.26833	0.62732	13.916709	-0.40284	0.6911	-0.03384	-0.29456	0.49921	-0.09967
PMSB-BWBK-SB-PM20-0106	11385.9097	-0.26188	0.68506	0.14392	-0.31863	0.01948	0.13481	10.848806	-0.30731	0.55958	-0.13106	-0.32395	0.09136	-0.0116
PMSB-BWBK-SB-SO01-0107-PM	22344.9679	-0.54107	1.5046	4.28411	-0.12453	0.41101	-2.11166	16.622698	-0.67841	1.26819	-0.12976	-0.13767	0.70351	0.2329
PMSB-BWBK-SB-SO02-0109-PM	22500.6854	-0.75774	0.85825	4.54233	-0.04533	1.03682	0.50072	22.134982	-0.99513	0.80709	-0.04451	-0.02901	1.83737	-0.19751
PMSB-BWBK-SB-SO13-0104-PM	25254.618	-0.53053	1.45058	5.41514	-0.09459	0.81971	-2.01003	21.778727	-0.67685	1.25027	-0.55028	-0.03134	1.6268	0.20139
PMSB-BWBK-SB-SO14-0105-PM	28376.6164	-0.59578	1.78981	6.6436	-0.10927	0.87512	-1.79973	22.850961	-0.81427	1.58898	-0.28397	-0.06929	1.5983	0.0895
PMSS-DABK-S-SO21-0001	776.173113	-0.01497	-1.13973	-4.24393	0.41543	0.37395	-2.55628	12.885237	-0.01173	-0.92749	-0.09641	0.51366	0.8599	0.34577
PMSS-DABK-S-SO22-0001	-7489.38358	0.24275	-1.21609	-7.714	0.30347	0.54635	-2.894	15.006828	0.24449	-0.95126	0.7838	0.30545	0.89101	0.32099
PMSS-DABK-S-SO23-0001	-9578.98872	-0.17298	-0.30574	-8.61725	0.46634	-0.10558	-2.92883	8.867804	-0.2223	-0.24048	0.82472	0.46331	-0.31353	0.36709
PMSS-DABK-S-SO24-0001	-6765.43535	0.01133	-1.57076	-7.14023	0.05976	0.945	0.30985	17.90975	-0.0167	-1.25627	0.64891	0.05059	1.66023	-0.08356
PMSS-DABK-S-SO25-0001	-699.707138	-0.65893	-2.31628	-4.55572	0.55169	2.67808	4.45413	35.320694	-0.9076	-1.76668	0.83829	0.58037	4.7225	-0.76399
PMSS-DABK-S-SO26-0001	-11316.4694	-0.04316	-0.70987	-9.43201	0.57697	0.48529	-3.39603	15.548747	-0.11683	-0.51426	0.97362	0.60023	0.75338	0.3585
PMSS-DABK-S-SO27-0001	-5546.81142	-0.24103	-0.80984	-6.96123	0.96954	-0.11758	-3.53189	7.9098337	-0.27533	-0.67841	0.4561	1.03506	-0.22652	0.48606
PMSS-DABK-S-SO28-0001	-5288.71337	0.44928	-1.0969	-6.72428	0.20567	0.08673	-2.36388	10.157477	0.53737	-0.89952	0.4024	0.22629	0.17279	0.31607
PMSS-DABK-S-SO29-0001	-17553.5876	0.08198	-0.95581	-11.7472	0.19311	0.34538	-1.31613	12.674432	0.02111	-0.7201	1.61966	0.1002	0.2646	0.06936
PMSS-DABK-S-SO30-0001	-12446.2857	0.54979	-0.90347	-9.57637	-0.25139	0.03528	-1.30093	9.3206171	0.60574	-0.70495	1.32996	-0.37021	-0.24824	0.10532
PMSS-DABK-S-SO31-0001	-2142.74188	0.1242	-1.35393	-5.092	-0.15871	0.09828	0.23463	8.2960143	0.19818	-1.16024	0.041	-0.15315	0.28799	0.03946
PMSS-DABK-S-SO32-0001	2651.1389	0.48642	-1.52073	-3.50078	0.77069	0.60094	-1.17605	15.363692	0.54193	-1.20593	0.41907	0.8218	1.03178	0.10249
PMSS-DABK-S-SO33-0001	-17061.7226	0.399	-0.89528	-11.4981	0.06252	-0.43504	-2.48632	4.5737015	0.50559	-0.77176	0.78219	0.03769	-0.83575	0.37343
PMSS-DABK-S-SO34-0001	-1825.17111	0.228	-1.2252	-5.04502	0.04657	-0.02869	-0.15531	7.7137741	0.33335	-1.06315	-0.11815	0.08949	0.12336	0.10674
PMSS-DABK-S-SO35-0001	-6203.80812	-0.07358	-1.02086	-7.0149	0.55031	0.07483	-0.92886	9.6250484	-0.05129	-0.87129	0.18535	0.61735	0.24342	0.17421
PMSS-DABK-S-SO36-0001	-6571.77036	-0.27597	-1.12157	-7.09969	0.68615	-0.1751	-1.11634	5.9624917	-0.29527	-0.95675	0.36288	0.73311	-0.29599	0.19623
PMSS-DABK-S-SO37-0001	-10318.2351	-0.00485	-1.3303	-8.49904	-0.13464	0.34831	0.35723	11.376102	-0.0211	-1.07488	0.66069	-0.15547	0.59355	-0.06884
PMSS-DABK-S-SO38-0001	-5218.90523	-0.00101	-1.21387	-6.45373	0.16752	-0.19112	-1.01434	5.6397676	0.05772	-1.05332	0.04547	0.20795	-0.20796	0.21741
PMSS-DABK-S-SO39-0001	-4705.76323	0.03651	-1.16054	-6.18781	-0.10637	0.25825	0.80132	10.696322	0.08241	-0.98912	0.14285	-0.09445	0.57307	-0.05177
PMSS-DABK-S-SO40-0001	-10295.4807	0.15764	-1.08471	-8.54026	-0.08339	-0.18654	-0.74533	6.1633497	0.22387	-0.92681	0.38751	-0.08522	-0.28552	0.14981
SESB-BWBK-SB-SO03-0108	28047.1862	-0.83472	3.55	5.97736	0.00578	0.74858	-4.83989	25.111813	-1.15854	3.0806	0.39615	-0.02291	1.09571	0.41105
SESB-BWBK-SB-SO04-0108	25992.4493	-0.49002	1.75509	5.64885	-0.17923	0.67521	-2.7189	20.843122	-0.67337	1.54833	-0.38472	-0.1242	1.30207	0.23185
SESB-BWBK-SB-SO05-0106	15672.7262	-0.53993	1.63042	1.5161	-0.22665	0.50796	-1.86699	18.436382	-0.75048	1.45282	0.29313	-0.24065	0.80804	0.09591
SESB-BWBK-SB-SO06-0108	27871.4579	-0.85283	2.09027	6.27882	0.01764	1.27486	-2.25985	27.917789	-1.22299	1.94136	0.2799	0.03953	2.13321	0.0062
SESB-BWBK-SB-SO07-0106	28903.9719	-0.20264	2.37098	6.7115	-0.1614	0.07781	-3.90449	15.562912	-0.27147	1.98258	-0.53333	-0.13304	0.2093	0.47434
SESB-BWBK-SB-SO08-0107	24399.0233	-0.61931	2.41603	4.82574	-0.09091	0.93868	-2.19586	25.080718	-0.88732	2.14168	0.26118	-0.09795	1.53618	0.07972
SESB-BWBK-SB-SO09-0106	15125.8324	-0.43768	1.58383	1.32091	-0.23509	0.28475	-2.01713	16.055318	-0.61047	1.39925	0.1166	-0.22706	0.47876	0.14084
SESB-BWBK-SB-SO11-0106	27736.0652	-0.2924	2.12111	6.44967	-0.23198	0.53234	-0.0633	19.759684	-0.4782	1.8807	0.03352	-0.24083	0.83854	-0.176
SESB-BWBK-SB-SO12-0106	27098.3174	-0.59726	1.71966	6.13496	-0.1418	0.78189	-2.16634	21.698554	-0.79952	1.51603	-0.38363	-0.09124	1.48107	0.16117
SESB-BWBK-SB-SO15-0103	8356.7906	-0.21246	0.34275	-1.05913	-0.33262	0.12839	0.10476	11.404198	-0.25953	0.28777	0.08681	-0.35757	0.23027	-0.02283
SESB-BWBK-SB-SO16-0105	16407.7547	-0.41397	1.15035	2.00882	-0.27152	0.14076	-1.50657	13.263095	-0.45685	0.91294	-0.56212	-0.23728	0.44409	0.25016
SESB-BWBK-SB-SO17-0106	12288.0215	-0.17862	1.01279	0.40986	-0.32664	-0.40854	-1.6681	6.871202	-0.14705	0.76444	-0.46551	-0.31682	-0.57776	0.31379
SESB-BWBK-SB-SO18-0105	14109.3919	0.0276	0.65248	1.30267	-0.36615	-0.58962	-0.81035	3.9759959	0.10135	0.46491	-0.48892	-0.36776	-0.92775	0.20386
SESB-BWBK-SB-SO19-0104	19965.1141	0.48893	0.63775	3.66351	-0.51045	-0.53697	-0.86177	5.0712727	0.6552	0.45009	-0.69682	-0.51557	-0.80672	0.21596
SESB-BWBK-SB-SO20-0104	24523.4707	-0.33559	1.01922	5.39108	-0.24968	0.58032	0.29372	17.769512	-0.37166	0.81379	-0.7283	-0.21754	1.2302	-0.00031
SESS-DABK-S-SO01-0001	42.216198	-0.31712	-0.57406	-4.34442	-0.12254	0.06751	-0.64636	8.1243709	-0.42923	-0.43574	1.06064	-0.24305	-0.2208	0.01667
SESS-DABK-S-SO02-0001	-330.726205	0.37752	0.88739	-4.8244	0.09829	-0.06962	1.57197	12.423592	0.3736	0.80659	0.70567	0.08673	-0.27137	-0.31653
SESS-DABK-S-SO03-0001	-15636.8203	-0.40477	-1.22733	-10.8483	0.36274	0.23155	-1.68849	10.164429	-0.50104	-0.99404	1.01447	0.34464	0.28398	0.19928
SESS-DABK-S-SO04-0001	-14462.5681	-0.13586	-0.50366	-10.4893	-0.11326	-0.0149	-2.76308	8.1143698	-0.25841	-0.3429	2.01839	-0.30674	-0.61482	0.23567
SESS-DABK-S-SO05-0001	-5370.07918	-0.3843	-1.04155	-6.6341	0.27327	0.2429	-1.61796	10.013982	-0.49828	-0.82221	0.93418	0.22766	0.22591	0.15985
SESS-DABK-S-SO06-0001	13928.7828	-0.3702	-2.41432	1.3318	0.04866	3.40142	3.02528	44.487628	-0.95099	-1.39197	1.08134	0.20255	5.98387	-1.13014
SESS-DABK-S-SO07-0001	-8864.47783	0.08654	0.20184	-8.30048	-0.03305	-0.44892	-2.74489	5.7920326	0.05924	0.20039	1.05494	-0.10239	-1.04681	0.30404
SESS-DABK-S-SO08-0001	-1881.50949	-0.11187	-0.46184	-5.33529	0.25814	0.16279	-1.38965	11.159488	-0.18418	-0.32791	0.67867	0.25176	0.16814	0.11308
SESS-DABK-S-SO09-0001	-5952.9287	-0.5931	-1.06346	-6.90421	0.30274	0.58022	-1.54951	14.107205	-0.73258	-0.84231	0.51951	0.33083	1.04346	0.1692

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-18175.0558	-1.1566	-2.41432	-11.7472	-1.23564	-1.03549	-21.1661	-1.853517	-1.67896	-1.7838	-2.23142	-1.28379	-1.60431	-1.6421
MAXIMUM DOMAIN VALUE	67424.932	8.12808	3.55	21.6803	10.4382	3.40142	10.8106	44.487628	9.54445	3.0806	2.63187	11.1941	5.98387	2.42516
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	5726.49842	-0.41662	-1.71858	-1.91783	0.10069	1.00865	-0.00081	16.623404	-0.53726	-1.37129	0.49692	0.06726	1.6945	-0.05622
SESS-DABK-S-SO11-0001	4912.325	0.15852	-1.28807	-2.2657	-0.12509	-0.39155	-2.4324	2.7316332	0.29019	-1.15557	-0.51484	-0.08319	-0.46131	0.46485
SESS-DABK-S-SO12-0001	-5088.75903	0.18722	-0.91794	-6.40508	-0.18736	-0.17041	-0.57773	6.0970299	0.22779	-0.76534	0.62522	-0.24572	-0.41751	0.08462
SESS-DABK-S-SO13-0001	4056.59843	-0.20071	-0.31002	-2.83377	-0.27719	0.04346	-2.42086	9.5275364	-0.23595	-0.249	-0.06304	-0.25461	0.19583	0.32451
SESS-DABK-S-SO14-0001	5011.11873	-0.60168	-0.6678	-2.40515	0.31184	0.07883	-2.20899	8.9385047	-0.69563	-0.55941	-0.2331	0.39411	0.31812	0.32198
SESS-DABK-S-SO15-0001	-7423.33322	-0.27324	-1.27726	-7.48774	0.08605	0.23802	-2.94764	9.9028025	-0.34961	-1.02353	0.6675	0.07504	0.36187	0.35781
SESS-DABK-S-SO16-0001	11656.8138	0.16773	-1.5246	0.64666	-0.18777	-0.24935	-0.87118	3.2010514	0.27728	-1.32675	-0.51436	-0.16906	-0.27661	0.22433
SESS-DABK-S-SO17-0001	-1271.80141	0.28118	-2.13863	-4.68676	-0.02064	0.35572	-0.2002	9.5869825	0.36124	-1.7838	0.30114	-0.0411	0.6369	0.06418
SESS-DABK-S-SO18-0001	-1218.73957	0.02502	-0.66947	-4.88386	0.00709	-0.3762	-1.43085	4.5620894	0.09151	-0.60837	-0.12193	0.04557	-0.51712	0.27623
SESS-DABK-S-SO19-0001	1990.40537	-0.00585	-0.05067	-3.8684	0.6864	-0.27618	-1.8136	7.2198052	-0.04311	-0.01465	0.73131	0.67481	-0.71647	0.19147
SESS-DABK-S-SO20-0001	-10477.2923	-0.21859	-0.07383	-8.99837	0.44945	0.13284	-1.60392	12.056822	-0.4393	0.12105	1.63749	0.41402	-0.15714	-0.03869
SESD-SD01	3390.08529	1.08367	0.91666	-3.55486	0.01534	-0.14661	-1.42654	12.466044	1.1976	0.83822	1.01331	-0.06368	-0.58911	0.05807
SESD-SD02	27226.116	0.7727	0.25949	6.49966	-0.0255	-0.07914	-1.09298	10.655997	0.9895	0.15358	-1.10887	0.05371	0.14549	0.2395
SESD-SD03	26523.819	2.98144	1.53772	5.6837	-0.08514	0.15259	1.54338	19.724307	3.38753	1.41987	0.86257	-0.2036	-0.21047	-0.43784
SESD-SD04	23781.9747	3.23904	1.10801	4.8236	-0.87919	0.12828	2.50412	18.378964	3.75852	1.00851	0.3895	-1.00592	-0.0395	-0.47631
SESD-SD05	26460.8265	-0.27118	0.52817	5.69492	2.00704	0.27985	-3.2472	15.415137	-0.39569	0.50831	0.00326	2.14632	0.37889	0.32863
SESD-SD06	14916.7465	2.46458	0.65977	1.16123	-0.25787	0.24312	1.09435	18.167246	2.80771	0.66659	0.86479	-0.36141	0.07263	-0.32759
SESD-SD07	-9900.03038	0.60576	1.34802	-9.61103	1.18458	-0.00266	-6.36693	15.683227	0.51144	1.29001	2.63187	1.04853	-0.8456	0.5531
SESD-SD08	22357.0618	2.72213	0.34162	4.14679	-0.37037	1.34387	2.45263	30.47684	3.05477	0.4737	0.84209	-0.47118	2.04571	-0.59336
SESD-SD09	29729.6484	0.50205	-0.82543	7.76064	0.40616	-0.09558	-0.70374	7.7255881	0.68347	-0.74747	-1.4095	0.54865	0.21085	0.21046
SESD-SD10	26998.8959	0.83263	0.81204	5.53853	2.4969	0.32478	-3.73479	18.810027	0.83717	0.81188	0.86518	2.5732	0.10171	0.27876
SESD-SD11	48763.3143	8.12808	-0.5216	15.1442	-1.23564	0.71974	10.8106	29.780445	9.54445	-0.25951	-0.67336	-1.28379	1.26205	-1.6421
SESD-SD12	26611.1418	5.97927	2.1266	3.49425	1.02493	0.39525	-21.1661	33.333043	6.85665	2.02844	1.07749	1.05542	0.26219	2.42516
SESD-SD13	44262.7801	2.95569	0.80584	12.269	3.02957	0.3013	-2.90702	22.870531	3.34385	0.84347	0.24557	3.20046	0.16275	0.13281
SESD-SD14	4754.16291	0.41086	-0.35665	-2.71971	0.62956	0.26868	-0.04624	13.422766	0.37697	-0.18386	1.01521	0.60149	0.15684	-0.15158
SESD-SD15	31246.0347	1.73958	0.65994	7.16799	2.24231	0.50472	-4.15117	22.001962	1.88239	0.72838	0.8486	2.30815	0.41088	0.28264
SESD-SD16	50866.6208	0.58996	0.24098	15.1175	4.75118	0.47558	-3.19426	20.111302	0.55657	0.33852	0.10916	5.0236	0.43978	0.21871
SESD-SD17	44572.9683	3.94146	0.54098	13.3188	-0.21728	0.04267	2.71576	17.397224	4.60703	0.54282	-0.4987	-0.23571	-0.03925	-0.49038
SESD-SD18	34306.1751	0.5598	-0.14671	9.49547	0.13522	0.26305	-0.30728	13.109675	0.7145	-0.15411	-1.27134	0.23664	0.7711	0.10482
SESD-SD19	67424.932	0.0687	0.6633	21.6803	10.4382	-0.16887	9.24642	17.72909	-0.0324	0.65662	-0.64502	11.1941	-0.60215	-1.38739
SESD-SD20	31219.1361	-0.10499	-0.328	8.47065	0.04403	0.28466	1.16883	11.798323	-0.0197	-0.35789	-1.65691	0.18158	0.99269	-0.00968

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

BARIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
32.4720	Mean					
24.1581	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.2049	0.0415	1.1208	-0.0657	-0.4057	-0.9719
AS	0.2297	-0.0718	-0.0616	-0.0284	-0.0272	1.1466
BA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CR	-0.0795	0.1406	0.2480	-0.0407	-0.2638	-2.7562
CO	1.4410	-0.1312	-0.3526	-0.0482	0.0645	-0.6475
FE	-1.3732	-0.3320	-0.2259	0.1064	2.3861	-4.3322
PB	-1.7862	-0.2331	-0.5388	1.2425	0.2933	1.2463
MG	-0.2251	0.2626	0.0407	0.0545	-0.4694	-1.6838
MN	1.5219	0.0383	-0.2484	-0.1010	-0.1688	-3.0341
NI	-1.2805	1.0174	0.1272	0.0862	-0.8168	6.6931
V	-0.0183	-0.0445	0.5728	-0.0787	-0.1187	1.9803
ZN	2.3780	-0.0411	-0.0202	-0.4947	-0.1507	2.2155

CHROMIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
13.1378	Mean					
6.2404	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0480	0.0648	0.9263	-0.0849	-0.1896	0.0688
AS	0.0539	-0.1122	-0.0509	-0.0367	-0.0127	-0.0811
BA	0.4430	-0.1440	0.3199	-0.2368	0.0486	0.0410
CR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CO	0.3379	-0.2050	-0.2914	-0.0622	0.0302	0.0458
FE	-0.3220	-0.5188	-0.1867	0.1375	1.1150	0.3066
PB	-0.4188	-0.3643	-0.4453	1.6047	0.1371	-0.0882
MG	-0.0528	0.4103	0.0337	0.0704	-0.2194	0.1192
MN	0.3569	0.0598	-0.2053	-0.1304	-0.0789	0.2147
NI	-0.3003	1.5896	0.1051	0.1113	-0.3817	-0.4736
V	-0.0043	-0.0695	0.4734	-0.1016	-0.0555	-0.1401
ZN	0.5576	-0.0643	-0.0167	-0.6389	-0.0704	-0.1568

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-39.92493	-4.318	-1.79787	-4.43739	-0.46638	-2.19485	-15.6493	4.4017127	-1.25057	-2.99845	-3.18548	-1.23191	-1.11781	-2.90403
MAXIMUM DOMAIN VALUE	418.42803	20.7592	2.85092	3.7264	8.85244	8.15559	39.0318	54.027844	8.54208	4.34811	3.27791	11.4565	3.89593	0.98838
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	29.670972	1.19395	-0.61207	-2.7849	-0.23149	-0.66117	-1.2546	5.5985402	-0.20047	-0.54223	-2.38468	-0.11765	-0.50812	0.28195
BASS-BWBK-SS-BA102-0001	34.917979	1.55926	-0.82413	-3.26327	-0.23276	-0.55334	0.33772	4.4437021	-0.13737	-0.83887	-2.76832	-0.11524	-0.47575	0.19241
BASS-BWBK-SS-BA103-0001	33.65766	1.42226	-0.72203	-3.04634	-0.23576	-0.66609	0.31916	5.0120271	-0.13956	-0.69592	-2.57443	-0.13311	-0.52126	0.19019
BASS-BWBK-SS-BA104-0001	28.217863	1.00849	-0.39376	-2.58227	-0.21601	-1.02095	-0.04814	6.5699803	-0.21589	-0.23762	-2.22495	-0.10465	-0.65762	0.17395
BASS-BWBK-SS-BA105-0001	33.319292	1.40202	-0.66577	-3.14458	-0.22099	-0.53935	0.59431	5.1864822	-0.17339	-0.62251	-2.70111	-0.09148	-0.45163	0.14595
BASS-BWBK-SS-BA106-0001	26.008105	0.88878	-0.26844	-2.57346	-0.20943	-1.09472	0.0281	6.930013	-0.27383	-0.06803	-2.27598	-0.06965	-0.67498	0.13268
BASS-BWBK-SS-BA107-0001	35.31169	1.54425	-0.82574	-3.18246	-0.23066	-0.58283	0.48564	4.5670389	-0.12439	-0.84676	-2.68962	-0.12135	-0.48772	0.18347
BASS-BWBK-SS-BA108-0001	34.310402	1.49605	-0.7285	-3.16647	-0.22003	-0.74403	0.5228	4.8732363	-0.14733	-0.70472	-2.69881	-0.09739	-0.55655	0.16715
BASS-BWBK-SS-BA109-0001	23.911507	0.88455	-0.16534	-2.89311	-0.19599	-1.30868	0.78116	6.8346357	-0.28717	0.11249	-2.53333	-0.0502	-0.78506	0.09244
BASS-BWBK-SS-BA110-0001	23.53347	0.74706	-0.3289	-2.42187	-0.21665	-0.89218	-1.07071	6.9376443	-0.17272	-0.19077	-2.03795	-0.15531	-0.57433	0.23708
BASS-BWBK-SS-BA111-0001	31.766711	1.34088	-0.67578	-2.97052	-0.22831	-0.71356	-0.48603	5.167582	-0.17979	-0.64757	-2.55853	-0.10318	-0.52828	0.21683
BASS-BWBK-SS-BA112-0001	32.319108	1.39719	-0.74643	-3.01593	-0.22849	-0.64894	-0.75864	4.9142824	-0.15951	-0.73631	-2.56645	-0.1142	-0.51091	0.25885
BASS-BWBK-SS-BA113-0001	46.93951	2.1147	-0.80639	-3.236	-0.30788	-0.54965	1.03496	4.4017127	0.00701	-0.85168	-2.77232	-0.2093	-0.45207	0.11127
MASB-BWBK-SB-MA01-0105	48.814786	1.11966	1.16547	-0.67949	-0.39078	0.29232	-2.75997	14.579835	0.06052	1.83329	-0.76211	-0.38104	0.14477	0.12734
MASB-BWBK-SB-MA02-0107	5.6686425	-1.38826	1.50716	-0.02663	-0.26083	0.39032	-0.97202	16.583673	-0.43779	2.29693	-0.19973	-0.24917	0.22373	-0.02871
MASB-BWBK-SB-MA03-0108	62.272602	1.78957	1.24906	-1.68627	-0.40021	1.0324	2.42337	14.467851	0.3219	1.97448	-1.47336	-0.462	0.47681	-0.18881
MASB-BWBK-SB-MA04-0106	12.547498	-1.06783	1.91085	0.21857	-0.34739	-0.55168	-0.43505	17.622162	-0.31744	2.89934	0.02156	-0.38113	-0.20373	-0.07513
MASB-BWBK-SB-MA05-0108	14.795179	-0.94323	1.16844	-0.30777	-0.32473	0.25391	2.62043	14.957888	-0.35296	1.78772	-0.43219	-0.32526	0.15007	-0.27213
MASB-BWBK-SB-MA06-0105	7.5490276	-1.3014	1.32387	-0.03131	-0.27929	-0.01661	0.78874	15.767698	-0.45648	2.05063	-0.20381	-0.26015	0.01375	-0.1317
MASB-BWBK-SB-MA07-0108	-4.314067	-1.78213	0.71965	-0.46371	-0.20972	1.20072	-0.17366	13.755801	-0.68194	1.23727	-0.54633	-0.13758	0.51681	0.01267
MASB-BWBK-SB-MA08-0108	-38.44241	-4.23722	0.79814	0.94176	-0.19187	5.35768	-6.31202	16.829127	-1.25057	1.14031	0.39809	-0.05468	2.58347	0.24748
MASB-BWBK-SB-MA09-0108	14.470174	-1.0105	0.4702	-0.7093	-0.27564	2.65067	1.45565	13.379467	-0.43672	0.80435	-0.72563	-0.25057	1.21405	-0.11717
MASB-BWBK-SB-MA10-0104	6.458125	-0.95697	0.04357	-1.24594	-0.17907	1.99059	-1.18592	10.977332	-0.57505	0.23469	-1.22908	-0.05922	0.86184	0.09993
MASB-BWBK-SB-MA11-0108	-4.171686	-2.06867	1.0845	0.02749	-0.12024	1.58129	-0.32855	16.28313	-0.64714	1.65613	-0.18748	-0.04198	0.77286	-0.07571
MASB-BWBK-SB-MA12-0108	16.616257	-0.88229	1.15612	-0.67263	-0.31205	1.60275	2.21774	15.181532	-0.35761	1.78146	-0.7404	-0.30078	0.77442	-0.23908
MASB-BWBK-SB-MA13-0105	30.592268	0.13276	0.01621	-0.17396	-0.37785	-0.65636	0.64291	10.582452	0.06966	-0.02354	-0.15312	-0.49795	-0.28185	-0.07542
MASB-BWBK-SB-MA14-0104	9.7966117	-1.32519	0.07485	0.38529	-0.28769	2.30957	-3.24968	12.831388	-0.14186	-0.04959	0.32619	-0.42914	1.16116	0.14275
MASB-BWBK-SB-MA15-0105	20.965533	-0.84331	0.04596	0.90381	-0.38464	0.7631	-1.16602	12.546659	-0.05904	-0.04385	0.77493	-0.55025	0.41188	0.03034
MASB-BWBK-SB-MA16-0104	28.653449	0.09478	0.01709	-0.73842	-0.26896	0.63229	-0.32118	10.984761	-0.02991	0.05864	-0.63259	-0.32388	0.28124	0.0317
MASB-BWBK-SB-MA17-0104	36.573977	0.34241	-0.36852	0.06475	-0.39864	0.66427	-2.21747	10.143751	0.1061	-0.55897	0.09797	-0.53604	0.29891	0.18258
MASB-BWBK-SB-MA18-0104	25.447895	-0.50111	0.30936	1.0346	-0.43995	-1.12922	0.20104	12.459333	-0.19803	0.38766	0.67223	-0.48946	-0.46732	-0.13401
MASB-BWBK-SB-MA19-0103	37.690056	0.53102	-0.06294	-0.38424	-0.37722	-0.67963	1.38129	10.268654	0.08129	-0.04536	-0.30895	-0.47547	-0.34444	-0.06588
MASB-BWBK-SB-MA20-0103	12.359525	-0.9742	1.03169	-0.57354	-0.25	0.33069	2.56977	14.56658	-0.3662	1.64444	-0.58615	-0.24559	0.14644	-0.20603
MASS-BWBK-SS-MA01-0001	43.069583	1.04109	-0.97406	-0.75996	-0.1845	-1.21484	1.63396	7.5194012	0.22958	-1.34486	-0.46226	-0.28098	-0.66715	0.04187
MASS-BWBK-SS-MA02-0001	41.528763	0.42211	-0.32001	1.0288	-0.31689	-2.19485	0.96399	11.033873	0.43076	-0.55868	1.14014	-0.60104	-1.01716	0.00786
MASS-BWBK-SS-MA03-0001	27.598403	0.12993	-0.58791	-0.4355	-0.15544	-0.77541	0.20883	9.2347739	0.08208	-0.84855	-0.23383	-0.25377	-0.40598	0.07002
MASS-BWBK-SS-MA04-0001	26.215977	-0.07122	-0.12488	-0.03798	-0.15811	-1.37709	0.52203	11.107582	0.05871	-0.15332	0.09088	-0.26393	-0.67288	0.03115
MASS-BWBK-SS-MA05-0001	15.763932	-1.04911	0.34106	1.01755	-0.17505	-1.01463	0.09044	13.960705	-0.22517	0.50349	0.83282	-0.23057	-0.45899	-0.02535
MASS-BWBK-SS-MA06-0001	9.9405751	-1.53128	0.12155	1.61257	-0.13476	-0.65321	-1.1162	14.256305	0.17201	-0.07382	1.623	-0.43128	-0.19524	0.04425
MASS-BWBK-SS-MA07-0001	39.658313	1.26117	-1.56121	-2.25441	0.00018	-0.28042	2.97767	4.8252668	-0.04957	-2.04185	-1.82068	0.1013	-0.3309	0.0202
MASS-BWBK-SS-MA08-0001	8.6230917	-1.40159	-0.92063	0.12679	0.50814	0.83495	1.03014	12.760542	-0.29781	-1.35484	0.22288	0.61234	0.34037	0.01629
MASS-BWBK-SS-MA09-0001	20.484635	-1.76582	0.11885	3.07673	0.28922	-0.95445	1.32277	18.596173	-0.01207	-0.09083	2.68387	0.20133	-0.3191	-0.19076
MASS-BWBK-SS-MA10-0001	18.390964	-1.45995	-0.15857	1.90825	0.22768	-0.10687	0.6192	16.018916	-0.19967	-0.36813	1.60442	0.23944	0.00772	-0.09878
MASS-BWBK-SS-MA11-0001	10.828676	-1.8169	-0.33452	2.15175	-0.04682	1.10336	-2.85091	14.566168	-0.09057	-0.72969	1.92037	-0.21113	0.60801	0.14258
MASS-BWBK-SS-MA12-0001	13.53749	-0.85677	0.0305	0.15559	-0.14582	-0.88066	0.75678	11.926601	-0.24656	0.10828	0.14244	-0.17732	-0.44253	-0.0156
MASS-BWBK-SS-MA13-0001	26.743241	-0.59354	-0.57195	1.51794	-0.2249	-0.67766	-0.79378	11.577915	0.2808	-1.04602	1.54158	-0.51035	-0.2616	0.08051
MASS-BWBK-SS-MA14-0001	35.134292	0.00337	-0.95794	0.38742	0.1398	-1.1043	4.02107	10.84704	0.17743	-1.45026	0.55405	0.05569	-0.55566	-0.1724
MASS-BWBK-SS-MA15-0001	33.095419	-0.14932	-0.81458	0.98255	-0.05604	-1.22707	1.65303	10.875838	0.17485	-1.28155	1.02439	-0.20198	-0.58413	-0.04274
MASS-BWBK-SS-MA16-0001	21.198034	-0.62579	-0.69298	0.35942	-0.07532	-0.19376	1.39551	10.532014	-0.12852	-1.03952	0.36052	-0.12143	-0.11647	-0.05173
MASS-BWBK-SS-MA17-0001	33.706292	-0.07687	-0.66463	0.75072	-0.16877	-0.42189	0.6262	10.776008	0.00352	-1.01341	0.66881	-0.23888	-0.213	-0.01275
MASS-BWBK-SS-MA18-0001	30.33095	-0.3713	-0.90084	0.68533	-0.03218	-0.48665	3.75976	10.680491	-0.10573	-1.30783	0.64873	-0.05901	-0.28264	-0.18147
MASS-BWBK-SS-MA19-0001	30.871328	-0.32259	-0.70289	0.80275	-0.07393	-0.32323	1.72964	11.274415	0.00825	-1.09346	0.75683	-0.14973	-0.16005	-0.08506
MASS-BWBK-SS-MA20-0001	18.249567	-0.78595	-0.18088	0.1338	-0.04894	-0.16087	2.09048	12.188822	-0.13157	-0.26767	0.18147	-0.10079	-0.0876	-0.11348
MMSB-BWBK-SB-MM101-0110	17.921553	0.03059	0.02438	-1.67782	-0.00337	-0.13024	-1.79062	10.524798	-0.17892	0.21966	-1.39719	0.05969	-0.15001	0.22103
MMSB-BWBK-SB-MM102-0109	5.416527	-0.99264	1.22705	-0.63831	-0.09694	-1.88454	1.39574	14.70838	-0.42422	2.01505	-0.62945	-0.03324	-0.92182	-0.08378
MMSB-BWBK-SB-MM103-0107	44.729801	1.44519	0.2087	-1.66516	-0.1721	-0.8899	-1.66279	10.407329	0.12268	0.44216	-1.48546	-0.12009	-0.46556	0.13982
MMSB-BWBK-SB-MM104-0110	2.1263228	-1.00358	0.56529	0.04216	-0.11078	-0.16334	-10.0399	13.328074	-0.38349	0.9122	-0.09181	-0.05822	-0.08167	0.67903
MMSB-BWBK-SB-MM105-0110	29.30375	0.6678	-0.23946	-1.97484	-0.12275	-0.63661	1.38783	8.7356913	-0.15254	-0.08758	-1.66501	-0.04775	-0.43705	0.04461
MMSB-BWBK-SB-MM106-0110	8.983649	-0.995	1.12637	0.77793	-0.23781	-1.37718	-6.30536	15.414916	-0.2251	1.69016	0.58018	-0.29186	-0.60453	0.38509
MMSB-BWBK-SB-MM107-0110	23.226613	0.36058	0.19657	-1.20375	-0.22341	-0.94709	-3.84345	9.930792	-0.10442	0.27063	-1.23147	-0.15883	-0.40771	0.16423
MMSB-BWBK-SB-MM108-0110	23.457791	0.17564	0.05131	-0.93526	-0.19193	-0.70445	-2.41626	10.430514	-0.17533	0.26308	-0.81422	-0.16507	-0.41682	0.2546
MMSB-BWBK-SB-MM109-0110	20.185909	-0.38584	0.34339	0.11038	-0.20817	-0.81515	-2.48467	12.64246	-0.0647	0.5329	0.11465	-0.28401	-0.38076	0.18256
MMSB-BWBK-SB-MM110-0109	15.48694	-0.36557	0.21762	-0.39512	-0.19772	-0.72606	-3.67838	11.306489	-0.24127	0.35084	-0.47954	-0.16056	-0.33378	0.20925
MMSB-BWBK-SB-MM111-0110	6.956463	-0.85288	0.39616	-0.41853	-0.08669	-0.46099	-3.73052	12.612788	-0.25725	0.69025	-0.33342	-0.09675	-0.25158	0.30718
MMSB-BWBK-SB-MM112-0110	16.924966	-0.48005	0.54608	0.0397	-0.27128	-0.69069	-3.69202	12.885858	-0.20332	0.92	0.00535	-0.31273	-0.35385	0.28716
MMSB-BWBK-SB-MM113-0110	10.467729	-0.4959	0.8667	-0.49571	-0.2268	-1.5842	-4.14502	12.572734	-0.29873	1.21977	-0.73958	-0.13865	-0.65033	0.09789
MMSB-BWBK-SB-MM114-0110	29.020014	0.53065	0.00925	-1.38702	-0.19282	-1.00915	0.24464	9.8115119	-0.06038	0.22298	-1.12794	-0.19369	-0.57612	0.10234

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-39.92493	-4.318	-1.79787	-4.43739	-0.46638	-2.19485	-15.6493	4.4017127	-1.25057	-2.99845	-3.18548	-1.23191	-1.11781	-2.90403
MAXIMUM DOMAIN VALUE	418.42803	20.7592	2.85092	3.7264	8.85244	8.15559	39.0318	54.027844	8.54208	4.34811	3.27791	11.4565	3.89593	0.98838
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	27.784774	0.2162	0.05555	0.09693	-0.32637	-1.05052	-5.20905	11.062957	0.23194	0.1421	0.32779	-0.55185	-0.53585	0.49066
MMSB-BWBK-SB-MM116-0110	19.973928	0.07804	0.41122	-1.1846	-0.14103	-0.99365	-2.25019	11.384696	-0.10941	0.73497	-1.01916	-0.12877	-0.50725	0.19432
MMSB-BWBK-SB-MM117-0110	32.276363	0.87989	-0.17199	-2.02472	-0.14809	-0.47141	-0.08971	8.9002183	-0.06119	0.0317	-1.64818	-0.11074	-0.37082	0.17825
MMSB-BWBK-SB-MM118-0110	9.9380106	-0.8387	1.74544	-1.40528	0.00724	-2.19018	7.70899	16.460055	-0.41239	2.9219	-1.18985	0.08824	-1.11781	-0.45081
MMSB-BWBK-SB-MM119-0110	18.195085	0.02824	0.27857	-1.26527	-0.15609	-0.82616	-2.44966	10.793061	-0.20518	0.60466	-1.0958	-0.11779	-0.46638	0.24636
MMSB-BWBK-SB-MM120-0110	35.08088	1.2528	-0.59633	-2.54494	-0.17219	-0.40852	-0.01488	6.621463	-0.05468	-0.58109	-2.11206	-0.10561	-0.36392	0.18753
MMSS-BWBK-SS-MM101-0001	14.404018	-1.42773	-0.43305	2.28323	-0.18908	-0.51909	-2.78719	12.974197	-0.36487	-0.63135	1.90158	-0.23851	-0.26603	0.22717
MMSS-BWBK-SS-MM102-0001	23.714181	-0.36438	-0.63695	0.52473	-0.29921	-0.41611	-0.99573	9.6173637	-0.34305	-0.79043	0.37148	-0.28415	-0.29144	0.15815
MMSS-BWBK-SS-MM103-0001	13.067088	-1.42243	-0.56308	1.91986	-0.11859	-0.3131	-2.09012	12.445424	-0.47335	-0.80228	1.51854	-0.08781	-0.17987	0.16453
MMSS-BWBK-SS-MM104-0001	10.464749	-1.46435	-0.25639	1.71826	-0.07925	-0.52768	-2.57781	13.322364	-0.35973	-0.37005	1.43407	-0.10099	-0.26271	0.20417
MMSS-BWBK-SS-MM105-0001	32.056337	0.15394	-0.96521	0.0347	-0.18547	-0.37476	0.42711	8.674387	-0.23396	-1.26165	-0.00401	-0.14162	-0.29486	0.09099
MMSS-BWBK-SS-MM106-0001	17.446887	-1.03459	-0.25703	1.86834	-0.28339	-0.6103	-4.2426	12.335448	-0.2894	-0.45355	1.44163	-0.32132	-0.25221	0.23403
MMSS-BWBK-SS-MM107-0001	12.980889	-1.40393	-0.18217	2.23559	-0.27186	-0.79744	-3.65371	13.132592	-0.38164	-0.2492	1.82857	-0.32846	-0.38884	0.27066
MMSS-BWBK-SS-MM108-0001	21.958974	-1.1497	-0.62639	2.58713	-0.28724	-0.80982	-1.54765	12.24685	-0.36446	-0.90555	2.11296	-0.33265	-0.41288	0.13976
MMSS-BWBK-SS-MM109-0001	20.953661	-0.91246	-0.57886	1.96643	-0.34236	-0.69453	-2.73545	11.222297	-0.44388	-0.77368	1.51647	-0.33565	-0.3816	0.22392
MMSS-BWBK-SS-MM110-0001	32.839058	0.334	-1.27906	-0.3566	-0.11961	-0.31301	0.70406	7.474138	-0.18859	-1.70516	-0.27612	-0.07228	-0.29285	0.11583
MMSS-BWBK-SS-MM111-0001	32.331534	0.24921	-1.08609	0.08435	-0.19066	-0.59196	-0.72743	8.1430952	-0.22655	-1.42173	0.05075	-0.14736	-0.41159	0.19339
MMSS-BWBK-SS-MM112-0001	33.628348	0.47244	-1.20934	-0.60376	-0.10898	-0.49701	0.84702	7.3912963	-0.20223	-1.55728	-0.48918	-0.04092	-0.39749	0.12352
MMSS-BWBK-SS-MM113-0001	18.576539	-1.05863	-0.8473	1.57269	0.01033	-0.58352	-0.73389	11.765943	-0.38119	-1.18017	1.30657	0.05498	-0.34434	0.13225
MMSS-BWBK-SS-MM114-0001	41.165321	1.04909	-1.23227	-1.05453	-0.26071	-0.49531	0.87582	6.0747308	-0.07797	-1.56902	-0.84863	-0.23703	-0.40956	0.13938
MMSS-BWBK-SS-MM115-0001	33.189853	0.35835	-1.12253	-0.22583	-0.24992	-0.27788	-0.17793	7.5277838	-0.13887	-1.47489	-0.13627	-0.2641	-0.2716	0.18232
MMSS-BWBK-SS-MM116-0001	34.307108	0.47897	-1.18642	-0.46218	-0.17271	-0.35174	0.19835	7.3701664	-0.16773	-1.55272	-0.36937	-0.13484	-0.31434	0.15355
MMSS-BWBK-SS-MM117-0001	17.989227	-0.84763	-0.6121	1.062	-0.1266	-0.48309	-1.74642	11.180766	-0.29474	-0.8281	0.9077	-0.14062	-0.29141	0.20418
MMSS-BWBK-SS-MM118-0001	26.455736	0.26543	-0.2901	-0.67533	-0.24386	-0.83973	-1.85019	9.3165252	-0.18863	-0.24382	-0.60845	-0.21827	-0.49255	0.22555
MMSS-BWBK-SS-MM119-0001	29.672211	0.50193	-0.34421	-1.1495	-0.24739	-0.87604	0.38651	8.6946789	-0.14589	-0.26264	-0.94652	-0.23407	-0.54587	0.12285
MMSS-BWBK-SS-MM120-0001	16.619312	-0.29116	-0.63481	-0.6808	-0.25857	0.68925	-3.51912	8.2778011	-0.37866	-0.87944	-0.77494	-0.17139	0.28145	0.23093
NESB-BWBK-SB-NE01-0108	-0.056114	-1.51643	1.29088	0.42933	-0.20221	-0.73756	-4.24559	15.881442	-0.60652	2.03829	0.11196	-0.10934	-0.33797	0.22163
NESB-BWBK-SB-NE02-0109	14.112303	-0.5619	1.02151	-0.28223	-0.21879	-0.57138	-4.0228	14.398399	-0.05468	1.55526	-0.19378	-0.31914	-0.24957	0.27724
NESB-BWBK-SB-NE03-0105	4.3139558	-1.13231	0.55157	-0.17697	-0.19713	0.07675	-3.71235	13.047361	-0.51292	0.96752	-0.29907	-0.12972	-0.00562	0.26305
NESB-BWBK-SB-NE04-0110	12.961867	-0.62453	0.69468	-0.31227	-0.19704	-0.61636	-2.90724	13.287119	-0.37151	1.20097	-0.37727	-0.14656	-0.33677	0.22391
NESB-BWBK-SB-NE05-0108	4.12884	-1.2456	1.00008	0.12332	-0.21477	-0.44039	-3.37979	14.675507	-0.5799	1.64039	-0.12208	-0.11886	-0.2284	0.19794
NESB-BWBK-SB-NE06-0109	9.0791462	-0.87593	0.81302	-0.38008	-0.19327	-0.42171	-1.91478	13.686125	-0.48517	1.40025	-0.47631	-0.11144	-0.24987	0.14546
NESB-BWBK-SB-NE07-0107	-0.181445	-1.57125	1.18084	0.41978	-0.19719	-0.65446	-3.18429	15.613995	-0.5891	1.86678	0.13642	-0.12205	-0.30164	0.15879
NESB-BWBK-SB-NE08-0104	18.609093	-0.40922	0.59251	-0.33649	-0.24738	-0.76633	-0.61078	12.76524	-0.39466	1.0687	-0.44695	-0.1732	-0.41688	0.05773
NESB-BWBK-SB-NE09-0110	11.67999	-0.65125	0.67111	-0.44693	-0.22322	-0.40229	-2.98503	12.912881	-0.43404	1.16533	-0.54668	-0.14528	-0.2332	0.20844
NESB-BWBK-SB-NE10-0107	18.383151	-0.59977	0.29217	0.55189	-0.30547	-0.78473	-2.71764	12.439882	-0.31171	0.50317	0.32342	-0.30044	-0.38039	0.1682
NESB-BWBK-SB-NE101-0110	18.383817	-0.55657	0.27472	0.52613	-0.26281	-0.91855	-3.23039	12.632119	-0.0426	0.44988	0.54861	-0.40082	-0.44752	0.28208
NESB-BWBK-SB-NE102-0110	26.430573	0.01196	0.07802	0.05202	-0.28363	-1.2089	-1.88179	11.342	0.12414	0.18984	0.24041	-0.46261	-0.61255	0.24335
NESB-BWBK-SB-NE103-0110	28.614823	0.32568	-0.1621	-0.64182	-0.2677	-0.95007	-1.0563	9.8321677	0.04253	-0.09041	-0.39955	-0.37211	-0.53389	0.21155
NESB-BWBK-SB-NE104-0110	32.665893	0.70332	-0.33879	-1.23972	-0.25268	-0.82041	-0.21044	8.6592983	0.03366	-0.30061	-0.92903	-0.31065	-0.50341	0.17419
NESB-BWBK-SB-NE105-0110	20.305328	-0.30855	0.15687	0.10358	-0.26413	-0.75217	-3.3338	11.77371	0.03547	0.28322	0.23827	-0.42019	-0.38118	0.31332
NESB-BWBK-SB-NE106-0110	24.085967	-0.04369	0.1734	-0.23721	-0.25867	-1.04529	-1.64564	11.435746	0.02124	0.36809	-0.0635	-0.38234	-0.54596	0.21831
NESB-BWBK-SB-NE107-0510	25.993514	0.43323	-0.27009	-1.21789	-0.21844	-0.62808	-2.33462	8.9602235	-0.05197	-0.18259	-0.92359	-0.25551	-0.41793	0.3256
NESB-BWBK-SB-NE108-0110	27.706775	0.11125	-0.10363	-0.01152	-0.29847	-0.84751	-2.66327	10.648092	-0.01638	-0.0339	0.07663	-0.39621	-0.46554	0.28978
NESB-BWBK-SB-NE109-0110	25.658483	0.07659	-0.07497	-0.19349	-0.26655	-0.87141	-2.75799	10.631505	0.02441	0.00183	-0.03144	-0.38315	-0.47522	0.30732
NESB-BWBK-SB-NE110-0110	28.093227	0.24663	-0.08251	-0.22429	-0.27108	-0.93694	-3.36481	10.468978	-0.05173	0.01236	-0.15641	-0.32246	-0.50984	0.32533
NESS-BKG-SS03-NEB-0016	-0.731543	-2.44619	-0.44467	1.78392	0.92506	-0.54134	0.78048	17.978309	-0.57465	-0.65552	1.51339	1.18388	-0.27519	-0.01945
NESS-BKG-SS09-NEB-0018	32.534917	-0.12567	-0.80787	1.1055	-0.1388	-0.74881	-1.20377	10.58746	-0.24319	-1.13336	0.82015	-0.08242	-0.40713	0.12018
NESS-BWBK-SS-NE01-0001	23.940509	-1.24644	0.13558	2.86646	-0.20244	-0.47444	-2.88067	15.780078	-0.24141	0.05972	2.26705	-0.24894	-0.13916	0.08363
NESS-BWBK-SS-NE02-0001	24.796018	-1.00964	0.55614	2.11347	-0.32111	-0.77472	-0.5463	15.573736	-0.35855	0.77641	1.52356	-0.3109	-0.30037	-0.0944
NESS-BWBK-SS-NE03-0001	15.247815	-1.43988	-0.13783	2.47943	-0.29786	-0.49751	-3.33525	13.605682	-0.43757	-0.2295	1.9293	-0.31761	-0.21699	0.18381
NESS-BWBK-SS-NE04-0001	15.349764	-1.3856	0.35043	2.44211	-0.2786	-0.89695	-4.16683	15.125466	-0.41759	0.49	1.86169	-0.28459	-0.37955	0.20549
NESS-BWBK-SS-NE05-0001	16.167554	-1.22075	-0.03428	1.89232	-0.11574	-0.7698	-2.8855	13.931186	-0.37778	-0.14572	1.37315	-0.06485	-0.30058	0.08339
NESS-BWBK-SS-NE06-0001	11.669479	-1.4846	0.47257	2.08013	-0.29572	-1.17335	-2.41887	14.851239	-0.50464	0.71871	1.53394	-0.27759	-0.52542	0.09165
NESS-BWBK-SS-NE07-0001	11.909959	-1.68236	-0.3012	2.09112	0.12234	-0.42844	-0.85558	14.803081	-0.44888	-0.49614	1.64476	0.19973	-0.18166	0.01571
NESS-BWBK-SS-NE08-0001	12.010353	-1.52727	0.12214	2.17991	-0.27284	-0.79143	-2.36497	14.111877	-0.45162	0.18489	1.69691	-0.29174	-0.35946	0.12521
NESS-BWBK-SS-NE09-0001	20.772572	-1.43014	-0.3099	3.21996	-0.17653	-0.99206	-2.68636	14.631524	-0.26287	-0.53387	2.6868	-0.25909	-0.44083	0.17278
NESS-BWBK-SS-NE10-0001	8.6316827	-1.66392	-0.20713	1.40475	0.28744	-0.66657	0.32842	15.004318	-0.46584	-0.28748	1.11814	0.4083	-0.32636	-0.0196
NESS-BWBK-SS-NE101-0001	30.77791	-0.28497	-0.57545	1.59343	-0.36211	-1.05831	-1.8674	10.781765	-0.17564	-0.76666	1.33764	-0.43792	-0.56162	0.21155
NESS-BWBK-SS-NE102-0001	30.715659	0.09014	-0.91377	0.10526	-0.11105	-0.74432	0.35123	9.1812207	-0.17737	-1.18401	0.12698	-0.08977	-0.47135	0.12191
NESS-BWBK-SS-NE103-0001	29.79164	0.21548	-0.90863	-0.42032	-0.11048	-0.74055	0.89247	8.4534652	-0.18896	-1.17634	-0.35098	-0.06313	-0.46632	0.0672
NESS-BWBK-SS-NE104-0001	11.783818	-0.92886	-0.81535	0.01559	0.30659	-0.52716	-0.00692	11.274599	-0.49516	-1.00459	-0.00407	0.49176	-0.37853	0.13995
NESS-BWBK-SS-NE105-0001	37.553305	0.6961	-1.09046	-0.52343	-0.23754	-0.63649	0.37232	7.2524075	-0.09234	-1.39706	-0.38831	-0.23566	-0.45248	0.15612
NESS-BWBK-SS-NE106-0001	18.477766	-0.457	-1.12642	-0.36917	0.39623	-0.57419	0.26493	10.271204	-0.3539	-1.47323	-0.27195	0.58315	-0.41268	0.14878
NESS-BWBK-SS-NE107-0001	38.18661	0.52523	-1.20307	0.01895	-0.15407	-0.69267	0.26472	8.0261297	-0.09757	-1.58433	0.0851	-0.14648	-0.47491	0.16697
NESS-BWBK-SS-NE108-0001	32.096724	0.2193	-1.01923	-0.04245	-0.06654	-0.75134	0.22395	8.9071635	-0.08346	-1.3421	0.07884	-0.07432	-0.48319	0.16204
NESS-BWBK-SS-NE109-0001	38.170708	0.73846	-1.15779	-0.46667	-0.24306	-0.63668	-0.13555	7.0670406	-0.05763	-1.50004	-0.31301	-0.25903	-0.45568	0.20382
NESS-BWBK-SS-NE110-0001	29.273749	0.10063	-1.29518	-0.45373	0.11137	-0.3998	1.68379	8.456846	-0.23197	-1.71692	-0.33071	0.21497	-0.34187	0.06332

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-39.92493	-4.318	-1.79787	-4.43739	-0.46638	-2.19485	-15.6493	4.4017127	-1.25057	-2.99845	-3.18548	-1.23191	-1.11781	-2.90403
MAXIMUM DOMAIN VALUE	418.42803	20.7592	2.85092	3.7264	8.85244	8.15559	39.0318	54.027844	8.54208	4.34811	3.27791	11.4565	3.89593	0.98838
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	36.698772	-0.01196	1.18815	0.50091	-0.362	-1.10067	2.93495	15.87313	-0.00185	1.83012	0.388	-0.4604	-0.49943	-0.23164
PMSB-BWBK-SB-PM02-0104	3.7292503	-1.74187	0.2428	1.05888	-0.32027	3.28767	-8.81197	13.988789	-0.41655	0.1027	0.58361	-0.32752	1.69398	0.36547
PMSB-BWBK-SB-PM03-0106	14.534296	-1.01116	0.99347	-0.21526	-0.31972	2.18689	-1.92524	15.175013	-0.48015	1.54365	-0.44307	-0.25731	1.04503	0.03294
PMSB-BWBK-SB-PM04-0105	12.02875	-1.11782	1.03086	-0.05423	-0.20073	0.46096	0.5526	15.417665	-0.42474	1.59989	-0.22741	-0.15365	0.23373	-0.11289
PMSB-BWBK-SB-PM05-0105	24.047308	-0.33197	0.75201	-0.18027	-0.30037	0.8016	-2.40381	14.006543	-0.20332	1.15723	-0.29951	-0.30369	0.39408	0.1045
PMSB-BWBK-SB-PM06-0105	30.377885	0.18504	0.69308	-0.3357	-0.38868	1.34724	-6.3923	13.367738	-0.04307	1.07813	-0.37354	-0.44612	0.63876	0.41401
PMSB-BWBK-SB-PM07-0105	49.70792	1.2866	-0.23809	-1.08202	-0.3905	1.88262	-3.40504	9.8589066	0.24494	-0.34886	-0.93039	-0.47537	0.87084	0.24005
PMSB-BWBK-SB-PM08-0106	42.294805	0.6253	0.48677	-0.45503	-0.356	0.51999	-0.11854	12.795891	0.01496	0.78416	-0.4908	-0.38375	0.23946	-0.02154
PMSB-BWBK-SB-PM09-0106	35.627608	0.58843	0.38956	-1.27786	-0.33815	0.09449	1.66268	11.176188	-0.12743	0.73734	-1.20441	-0.30724	-0.00902	-0.10322
PMSB-BWBK-SB-PM10-0105	41.499445	0.41201	-0.06648	0.20922	-0.46638	1.19125	-1.63976	11.211498	-0.01727	-0.20587	-0.05148	-0.50075	0.62308	-0.0226
PMSB-BWBK-SB-PM11-0104	42.918178	0.78557	0.69063	-1.04654	-0.35078	1.43732	-1.24965	13.22674	0.19804	1.06908	-0.8606	-0.4588	0.67632	0.0846
PMSB-BWBK-SB-PM12-0105	34.059527	0.5557	0.21708	-0.62119	-0.35065	-1.0245	-0.7215	10.567586	-0.07812	0.36376	-0.70805	-0.32879	-0.47711	-0.00805
PMSB-BWBK-SB-PM13-0106	20.784719	-0.43555	-0.41639	0.29773	-0.39034	1.367	-5.60407	10.036309	-0.07865	-0.73225	0.18734	-0.49502	0.68338	0.33057
PMSB-BWBK-SB-PM14-0106	41.636233	0.88329	-0.12369	-0.63908	-0.37333	-0.35331	-0.73877	9.8324442	0.06457	-0.10457	-0.58778	-0.41835	-0.20479	0.0781
PMSB-BWBK-SB-PM15-0105	18.658628	-0.53893	0.2621	-0.11443	-0.2933	0.49222	-2.08755	12.147533	-0.20887	0.40001	-0.19132	-0.32405	0.24159	0.10659
PMSB-BWBK-SB-PM16-0106	25.678882	-0.08412	0.15454	-0.30645	-0.32361	-0.20769	-0.61852	11.285797	-0.18398	0.3338	-0.33205	-0.34153	-0.13718	0.06443
PMSB-BWBK-SB-PM17-0105	45.91536	0.83296	0.30202	-0.32101	-0.30632	0.69671	-2.15724	12.638697	0.06075	0.49813	-0.38039	-0.31855	0.32075	0.12404
PMSB-BWBK-SB-PM18-0105	-17.60616	-2.55965	0.85992	-0.17309	-0.15773	2.27113	-3.22623	14.942043	-0.76099	1.33218	-0.32432	-0.0991	1.07982	0.15469
PMSB-BWBK-SB-PM19-0105	8.3717153	-1.20263	0.64238	-0.01484	-0.25354	0.71149	-1.15209	13.830416	-0.34155	0.99702	-0.08194	-0.28798	0.34075	0.05198
PMSB-BWBK-SB-PM20-0106	18.383133	-0.62294	0.51081	-0.12074	-0.29654	0.15424	-0.20738	12.967123	-0.26473	0.82604	-0.19639	-0.31642	0.06512	-0.00616
PMSB-BWBK-SB-SO01-0107-PM	4.977492	-1.67307	1.16338	-0.07901	-0.19086	1.02308	3.20921	16.269125	-0.57711	1.87917	-0.19741	-0.14808	0.45706	-0.24303
PMSB-BWBK-SB-SO02-0109-PM	-11.54819	-2.46036	0.64508	0.05264	-0.15305	2.606	-1.46359	14.891958	-0.80492	1.03204	-0.17229	-0.06112	1.22116	0.03635
PMSB-BWBK-SB-SO13-0104-PM	0.9374327	-1.77758	1.11038	-0.88059	-0.10404	2.28893	3.65734	15.961043	-0.53539	1.73034	-0.85755	-0.05833	1.08111	-0.3096
PMSB-BWBK-SB-SO14-0105-PM	-6.201401	-2.24748	1.40351	-0.4831	-0.14044	2.22983	2.8447	17.145754	-0.62634	2.17185	-0.52566	-0.11261	1.06144	-0.25977
PMSS-DABK-S-SO21-0001	32.173324	-0.33424	-0.90922	-0.2662	0.4134	1.17724	5.08974	12.568453	0.01008	-1.4276	-0.1338	0.48022	0.54744	-0.33187
PMSS-DABK-S-SO22-0001	56.44319	0.35063	-0.91597	1.1587	0.28333	1.20761	4.7965	14.257801	0.24049	-1.5464	1.00672	0.29996	0.61786	-0.38348
PMSS-DABK-S-SO23-0001	18.900005	-1.39927	-0.19915	1.27875	0.40525	-0.46814	4.82299	16.059529	-0.19969	-0.36873	1.13338	0.45936	-0.19569	-0.34398
PMSS-DABK-S-SO24-0001	27.956147	-0.74168	-1.19894	0.92187	0.10254	2.28818	-0.56962	11.648459	0.00214	-1.96695	0.85183	0.04895	1.10922	0.02313
PMSS-DABK-S-SO25-0001	-27.34774	-3.75828	-1.77453	1.18913	0.46421	6.57126	-8.20542	12.396892	-0.72235	-2.87445	1.04633	0.52922	3.11658	0.54928
PMSS-DABK-S-SO26-0001	26.750286	-1.30156	-0.49287	1.39018	0.53316	0.98805	5.66862	16.734874	-0.06381	-0.91916	1.25104	0.5802	0.52827	-0.44381
PMSS-DABK-S-SO27-0001	15.283662	-1.50731	-0.62076	0.6915	0.82876	-0.33615	6.20257	16.080891	-0.25731	-0.96226	0.68073	1.00755	-0.16863	-0.39415
PMSS-DABK-S-SO28-0001	64.082366	1.12536	-0.82849	0.49117	0.25722	0.19352	4.39914	13.20792	0.47601	-1.393	0.52892	0.22742	0.13046	-0.31884
PMSS-DABK-S-SO29-0001	29.666024	-1.15021	-0.64377	2.45374	0.19434	0.30037	1.4064	15.347409	0.03275	-1.20217	2.14612	0.11797	0.22916	-0.16175
PMSS-DABK-S-SO30-0001	58.721116	0.62552	-0.59342	1.90963	-0.11869	-0.43405	1.69508	13.460273	0.53109	-1.12278	1.78362	-0.33815	-0.12058	-0.14937
PMSS-DABK-S-SO31-0001	51.657774	0.97245	-1.10712	0.16542	-0.13502	0.43603	-0.11432	9.3240389	0.1451	-1.65031	0.13065	-0.14544	0.16478	0.0489
PMSS-DABK-S-SO32-0001	60.864741	0.85147	-1.13331	0.4196	0.73277	1.37132	2.15781	14.901052	0.50309	-1.93661	0.4972	0.80382	0.71223	-0.18646
PMSS-DABK-S-SO33-0001	52.364816	0.51982	-0.64557	1.09221	0.16565	-1.22878	4.58213	13.306867	0.41474	-1.11289	1.10494	0.06	-0.53697	-0.3054
PMSS-DABK-S-SO34-0001	47.912161	0.84362	-0.98346	-0.23434	0.10974	0.16847	0.98377	10.376848	0.26644	-1.52004	-0.1043	0.09364	0.06416	-0.02738
PMSS-DABK-S-SO35-0001	23.984933	-0.6981	-0.80395	0.23464	0.51668	0.32463	2.1148	13.389073	-0.05803	-1.2978	0.26279	0.61293	0.16742	-0.14656
PMSS-DABK-S-SO36-0001	15.109613	-1.18125	-0.89598	0.64218	0.56331	-0.40266	2.03119	13.311067	-0.28601	-1.37181	0.55004	0.72495	-0.20348	-0.12131
PMSS-DABK-S-SO37-0001	38.312589	-0.05738	-1.04841	1.10141	-0.12012	0.83206	-0.77478	10.70433	-0.01066	-1.66516	0.88561	-0.149	0.40393	0.03105
PMSS-DABK-S-SO38-0001	42.987438	0.44539	-1.00148	0.17664	0.1378	-0.26034	2.15788	10.756234	0.01848	-1.47058	0.15173	0.20451	-0.16873	-0.09957
PMSS-DABK-S-SO39-0001	30.219583	-0.13146	-0.91777	0.18289	-0.02663	0.79427	-0.9137	10.299061	0.05337	-1.43273	0.24127	-0.0878	0.36413	0.09888
PMSS-DABK-S-SO40-0001	46.617243	0.52943	-0.8589	0.6287	-0.0318	-0.40327	1.56999	10.972544	0.1732	-1.3259	0.58784	-0.07669	-0.20128	-0.07699
SESB-BWBK-SB-SO03-0108	-22.82273	-3.75259	2.85092	0.60036	-0.08549	1.50598	7.2453	23.605717	-0.91674	4.34811	0.34841	-0.05603	0.76695	-0.6253
SESB-BWBK-SB-SO04-0108	3.5092798	-1.73196	1.36618	-0.65229	-0.18048	1.81328	4.67187	16.64974	-0.50303	2.10588	-0.67074	-0.16363	0.87094	-0.39515
SESB-BWBK-SB-SO05-0106	-2.46199	-2.22528	1.30031	0.47292	-0.2469	1.118	2.6315	16.998774	-0.58301	1.96057	0.25348	-0.25947	0.56744	-0.27583
SESB-BWBK-SB-SO06-0108	-17.64968	-3.28968	1.66034	0.45496	-0.11211	2.96962	2.82557	19.530188	-0.92573	2.51745	0.13464	-0.02509	1.44287	-0.3313
SESB-BWBK-SB-SO07-0106	38.390288	0.05258	1.82818	-0.74641	-0.20843	0.3273	6.63715	18.133313	-0.19946	2.87881	-0.81747	-0.14231	0.15616	-0.53226
SESB-BWBK-SB-SO08-0107	-6.008599	-2.61497	1.93293	0.39354	-0.15407	2.13043	2.95565	20.051577	-0.67357	2.89745	0.13597	-0.12499	1.06977	-0.34599
SESB-BWBK-SB-SO09-0106	2.5811551	-1.82781	1.25744	0.15558	-0.22394	0.64955	3.19925	16.458265	-0.4638	1.90224	0.02749	-0.24874	0.34167	-0.29784
SESB-BWBK-SB-SO11-0106	21.013564	-0.81975	1.67721	0.08241	-0.2862	1.1697	-0.64529	17.959259	-0.32678	2.57332	-0.12222	-0.27102	0.58354	-0.05074
SESB-BWBK-SB-SO12-0106	3.5222275	-1.74145	1.31679	-0.54735	-0.20016	2.09363	3.51958	16.55385	-0.61758	2.06009	-0.67036	-0.12749	0.99253	-0.32874
SESB-BWBK-SB-SO15-0103	25.474011	-0.40199	0.24588	0.2539	-0.32593	0.3522	-0.37322	12.615878	-0.22316	0.41712	0.10759	-0.34941	0.15553	0.0062
SESB-BWBK-SB-SO16-0105	13.892033	-0.86886	0.84427	-0.76743	-0.26103	0.67219	2.96716	13.779023	-0.40261	1.37829	-0.78352	-0.22918	0.29543	-0.23351
SESB-BWBK-SB-SO17-0106	27.482069	-0.07009	0.74808	-0.62624	-0.28275	-0.76575	3.30569	13.121565	-0.15723	1.21596	-0.6179	-0.29028	-0.37402	-0.24578
SESB-BWBK-SB-SO18-0105	43.277025	0.88768	0.46229	-0.65024	-0.32315	-1.25304	1.75656	11.875442	0.05486	0.79058	-0.62925	-0.34079	-0.61281	-0.12155
SESB-BWBK-SB-SO19-0104	80.512197	2.82754	0.45398	-1.02854	-0.4214	-1.09084	1.97029	11.690011	0.54422	0.74927	-0.93449	-0.48111	-0.52352	-0.14924
SESB-BWBK-SB-SO20-0104	16.65365	-0.61161	0.74711	-1.06645	-0.2405	1.77194	-0.18713	13.562974	-0.32276	1.20645	-1.03055	-0.2091	0.81926	-0.0211
SESS-DABK-S-SO01-0001	28.36254	-0.77094	-0.44983	1.97475	-0.26363	-0.25575	-0.3049	12.559627	-0.38971	-0.63023	1.486	-0.23016	-0.14512	0.00657
SESS-DABK-S-SO02-0001	24.218634	-0.6237	0.83404	0.6864	0.2574	-0.52357	-2.57139	17.33882	0.41454	0.60544	0.44506	0.18354	0.10947	-0.24101
SESS-DABK-S-SO03-0001	16.057897	-1.59015	-0.96929	1.7747	0.23283	0.42047	2.35033	13.326761	-0.45123	-1.4467	1.45344	0.33019	0.16384	-0.13455
SESS-DABK-S-SO04-0001	35.858917	-1.0398	-0.31483	3.39623	-0.22334	-0.85971	2.8084	15.244807	-0.23587	-0.53771	2.76839	-0.28005	-0.37635	-0.2378
SESS-DABK-S-SO05-0001	22.593877	-1.19633	-0.82783	1.70735	0.10666	0.35576	1.84556	13.137203	-0.44324	-1.19824	1.33687	0.21234	0.12434	-0.10665
SESS-DABK-S-SO06-0001	-11.85586	-3.18699	-1.79787	1.11884	0.07216	8.15559	-6.15367	11.377555	-0.44544	-2.99845	1.04946	-0.04151	3.89593	0.37949
SESS-DABK-S-SO07-0001	26.65358	-0.9005	0.24739	1.53701	0.03154	-1.5355	4.32776	15.705465	0.05479	0.28428	1.44612	-0.09682	-0.67937	-0.29619
SESS-DABK-S-SO08-0001	15.250366	-1.35926	-0.30939	0.9578	0.25244	0.18368	2.1659	14.581856	-0.14165	-0.526	0.93475	0.22698	0.09676	-0.12306
SESS-DABK-S-SO09-0001	4.8708519	-1.97806	-0.8736	0.99303	0.17291	1.4971	2.37017	12.585773	-0.6323	-1.24393	0.76687	0.29397	0.64346	-0.12223

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-39.92493	-4.318	-1.79787	-4.43739	-0.46638	-2.19485	-15.6493	4.4017127	-1.25057	-2.99845	-3.18548	-1.23191	-1.11781	-2.90403
MAXIMUM DOMAIN VALUE	418.42803	20.7592	2.85092	3.7264	8.85244	8.15559	39.0318	54.027844	8.54208	4.34811	3.27791	11.4565	3.89593	0.98838
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	9.3344456	-1.60277	-1.35874	0.89936	0.00963	2.39973	-0.64703	10.268395	-0.46972	-2.01938	0.7503	0.04121	1.06956	0.1045
SESS-DABK-S-SO11-0001	47.111486	0.97464	-1.06448	-0.79893	-0.04674	-0.62294	5.0934	8.4165478	0.19718	-1.48752	-0.51361	-0.09207	-0.38852	-0.2108
SESS-DABK-S-SO12-0001	35.637584	-0.04757	-0.67435	0.905	-0.09561	-0.62201	0.91792	11.388966	0.17457	-1.05117	0.94636	-0.24118	-0.30598	0.0102
SESS-DABK-S-SO13-0001	27.71866	-0.37556	-0.28347	-0.03263	-0.24345	0.29208	4.41417	11.127926	-0.19876	-0.33037	-0.02857	-0.27766	0.08087	-0.25207
SESS-DABK-S-SO14-0001	11.42122	-1.21162	-0.6205	-0.12338	0.16074	0.51764	3.96876	11.638922	-0.61263	-0.74852	-0.22236	0.34978	0.141	-0.20604
SESS-DABK-S-SO15-0001	31.200157	-0.7085	-1.02982	1.22697	-0.00282	0.53631	4.6509	11.551373	-0.30049	-1.55388	0.92884	0.0648	0.22931	-0.33092
SESS-DABK-S-SO16-0001	46.100975	1.07319	-1.2463	-0.7839	-0.12673	-0.36083	2.09858	7.3050131	0.1937	-1.76298	-0.52039	-0.18116	-0.26895	-0.00133
SESS-DABK-S-SO17-0001	36.514357	0.09324	-1.639	0.2951	0.09422	0.84432	0.67877	8.9307845	0.2817	-2.50726	0.57281	-0.05768	0.34463	0.10336
SESS-DABK-S-SO18-0001	32.947784	0.09002	-0.5498	-0.20793	0.06174	-0.72365	3.12671	11.152257	0.04679	-0.75662	-0.03998	0.03357	-0.39824	-0.11679
SESS-DABK-S-SO19-0001	20.425189	-1.13089	0.0365	1.03432	0.60385	-1.05909	2.71896	17.253346	-0.03808	-0.04973	0.98512	0.6681	-0.45129	-0.20171
SESS-DABK-S-SO20-0001	6.2956964	-2.32649	0.05431	2.43572	0.36865	-0.32163	1.63375	17.945302	-0.29258	-0.09532	2.09548	0.36955	-0.06694	-0.18243
SESD-SD01	90.149469	2.23264	0.89075	1.18046	0.16817	-0.97393	2.07893	19.704265	1.09511	1.04987	1.22865	-0.04268	-0.30376	-0.23802
SESD-SD02	92.391496	3.40507	0.17619	-1.90078	0.07165	0.19595	2.95897	13.122038	0.85756	0.2779	-1.5059	0.05454	0.08566	-0.18381
SESD-SD03	211.11345	8.46424	1.51336	0.45366	0.25137	-0.57526	-3.00673	23.780735	3.07571	1.61774	0.76152	-0.14376	0.07358	-0.04758
SESD-SD04	219.54414	9.39128	1.15919	-0.3965	-0.307	-0.34615	-3.79725	18.810738	3.37337	1.14775	0.22887	-0.93988	0.12729	0.1167
SESD-SD05	15.284124	-1.60979	0.45453	-0.09886	1.62801	0.49727	5.19335	23.257466	-0.29966	0.57671	-0.13619	2.09266	0.30234	-0.46001
SESD-SD06	177.22472	6.79397	0.77237	0.58456	0.08455	-0.14046	-1.99331	19.981323	2.54848	0.56559	0.83481	-0.30477	0.22691	-0.0751
SESD-SD07	54.755775	-1.02141	1.34478	3.7264	1.07208	-1.38319	9.06033	28.822932	0.52272	1.50911	3.27791	1.07791	-0.36724	-0.88783
SESD-SD08	180.44504	6.83142	0.58097	0.27822	0.08315	2.5548	-4.21289	20.161171	2.81446	0.11449	0.69734	-0.42403	1.55348	0.04274
SESD-SD09	73.225519	2.65312	-0.7172	-2.32638	0.40669	0.30881	2.4876	10.748642	0.58358	-1.01785	-1.85816	0.51941	0.08883	-0.09643
SESD-SD10	77.381888	0.89446	0.83812	0.88749	2.15475	-0.01867	5.4752	29.768093	0.81494	0.80272	0.8533	2.55011	0.23374	-0.61714
SESD-SD11	418.42803	20.7592	0.35767	-4.43739	0.47897	0.86421	-14.2195	19.46089	8.54208	-1.02444	-1.41187	-1.23191	1.02783	0.98838
SESD-SD12	337.36307	12.5315	2.43675	-1.20293	2.05999	-0.47062	39.0318	39.874934	6.22693	2.25378	0.88465	1.04433	0.41611	-2.90403
SESD-SD13	175.86051	6.15369	1.02994	-1.07473	3.0265	-0.18809	5.67374	34.260757	3.08537	0.43672	-0.35543	3.21765	0.45489	-0.8378
SESD-SD14	46.776793	0.06145	-0.15803	1.34343	0.58073	0.11589	-0.63285	17.710703	0.38672	-0.53092	1.21245	0.59868	0.18753	-0.07088
SESD-SD15	127.92982	3.40443	0.79622	0.51689	2.08865	0.31887	6.55959	30.049665	1.76973	0.51894	0.70996	2.298	0.488	-0.75139
SESD-SD16	48.68928	-0.48405	0.39279	-0.45244	4.03595	0.43718	4.85011	35.71009	0.57802	-0.00674	-0.27925	4.95858	0.50479	-0.64373
SESD-SD17	271.02929	12.3513	0.70168	-1.96338	0.29437	-0.36954	-3.56246	19.313329	4.13411	0.4249	-1.00396	-0.20285	0.11591	0.11887
SESD-SD18	75.707856	2.65041	-0.1548	-2.15146	0.18088	1.07852	1.51342	12.177647	0.63113	-0.20265	-1.72779	0.21604	0.48101	-0.06717
SESD-SD19	-39.92493	-4.318	0.78566	-2.04033	8.85244	-1.11444	-15.6493	54.027844	0.22463	-1.51403	-3.18548	11.4565	0.94298	-0.93351
SESD-SD20	36.249473	1.00791	-0.38417	-2.5305	0.03362	1.46617	-0.76384	9.1318944	-0.03128	-0.50856	-2.27975	0.18511	0.65309	0.03361

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COBALT

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623

7.7759	Mean
5.3291	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.1176	0.0391	0.5295	-0.0836	-0.3614	-1.8343
AS	0.1318	-0.0677	-0.0291	-0.0362	-0.0243	2.1640
BA	1.0838	-0.0869	0.1828	-0.2333	0.0927	-1.0945
CR	-0.0456	0.1325	0.1171	-0.0518	-0.2350	-5.2016
CO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FE	-0.7877	-0.3131	-0.1067	0.1354	2.1258	-8.1759
PB	-1.0247	-0.2199	-0.2545	1.5805	0.2613	2.3520
MG	-0.1291	0.2476	0.0192	0.0693	-0.4182	-3.1777
MN	0.8731	0.0361	-0.1173	-0.1285	-0.1504	-5.7260
NI	-0.7346	0.9594	0.0601	0.1096	-0.7277	12.6316
V	-0.0105	-0.0419	0.2706	-0.1001	-0.1058	3.7373
ZN	1.3642	-0.0388	-0.0095	-0.6293	-0.1342	4.1812

IRON

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581

20122.7350	Mean
8686.1077	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0320	0.0302	0.5821	-0.1214	0.0668	0.0387
AS	0.0358	-0.0524	-0.0320	-0.0525	0.0045	-0.0457
BA	0.2947	-0.0672	0.2010	-0.3386	-0.0171	0.0231
CR	-0.0124	0.1025	0.1288	-0.0751	0.0434	0.1099
CO	0.2248	-0.0957	-0.1831	-0.0890	-0.0106	0.0258
FE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PB	-0.2787	-0.1700	-0.2798	2.2943	-0.0483	-0.0497
MG	-0.0351	0.1915	0.0212	0.1006	0.0773	0.0671
MN	0.2374	0.0279	-0.1290	-0.1865	0.0278	0.1209
NI	-0.1998	0.7420	0.0661	0.1591	0.1345	-0.2668
V	-0.0029	-0.0324	0.2975	-0.1453	0.0196	-0.0789
ZN	0.3710	-0.0300	-0.0105	-0.9135	0.0248	-0.0883

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-0.038669	-3.90279	-1.70321	-1.93189	-1.01639	-2.0008	-30.0224	5520.9042	-0.51196	-1.48549	-2.08346	-2.26193	-0.58303	-1.79839
MAXIMUM DOMAIN VALUE	72.794105	16.8867	2.9282	2.28205	10.8471	7.2827	72.1953	46329.484	6.05719	2.66578	2.38869	15.3357	0.88962	0.48328
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	3.9585286	0.47613	-0.62379	-1.68821	-0.12092	-0.62146	-2.58386	9676.1899	-0.38951	-0.68341	-1.80252	0.17128	-0.3707	0.24464
BASS-BWBK-SS-BA102-0001	4.9779184	0.68289	-0.82678	-1.93189	-0.11536	-0.52638	0.40227	7498.3005	-0.3886	-0.88325	-2.08346	0.2235	-0.46594	0.21451
BASS-BWBK-SS-BA103-0001	4.9910512	0.64505	-0.73161	-1.81105	-0.13233	-0.62284	0.34063	8397.8008	-0.38108	-0.80264	-1.95236	0.18694	-0.43132	0.20923
BASS-BWBK-SS-BA104-0001	4.4522821	0.35499	-0.41134	-1.56626	-0.109	-0.942	-0.25573	10940.733	-0.4095	-0.53728	-1.69009	0.1877	-0.32738	0.20445
BASS-BWBK-SS-BA105-0001	5.2550546	0.49513	-0.66315	-1.85782	-0.09253	-0.52077	1.02866	8692.425	-0.38846	-0.7382	-2.00847	0.22288	-0.42067	0.18331
BASS-BWBK-SS-BA106-0001	4.4154389	0.22883	-0.29017	-1.58041	-0.08497	-1.01301	-0.0647	11541.624	-0.44582	-0.43599	-1.69813	0.22113	-0.30603	0.19621
BASS-BWBK-SS-BA107-0001	5.098025	0.71465	-0.83154	-1.8869	-0.12138	-0.5492	0.64067	7623.2757	-0.38021	-0.88721	-2.03414	0.21499	-0.46218	0.20967
BASS-BWBK-SS-BA108-0001	4.9457941	0.64009	-0.735	-1.88152	-0.09995	-0.69657	0.76545	8067.2229	-0.40145	-0.82019	-2.0345	0.24919	-0.44463	0.2117
BASS-BWBK-SS-BA109-0001	4.7469796	0.23827	-0.19659	-1.74377	-0.06495	-1.20324	1.32636	11251.932	-0.4813	-0.3902	-1.88418	0.27959	-0.32081	0.18779
BASS-BWBK-SS-BA110-0001	4.4276992	0.44073	-0.36801	-1.44499	-0.16272	-0.80688	-2.41635	11713.336	-0.35434	-0.47433	-1.54507	0.08271	-0.30188	0.2283
BASS-BWBK-SS-BA111-0001	4.2917505	0.54004	-0.68332	-1.78507	-0.11031	-0.67012	-1.12007	8804.3139	-0.40323	-0.75804	-1.92029	0.21302	-0.41082	0.23491
BASS-BWBK-SS-BA112-0001	4.191414	0.61029	-0.75406	-1.80586	-0.11651	-0.60956	-1.68014	8418.1559	-0.38933	-0.81208	-1.94025	0.20659	-0.42362	0.24705
BASS-BWBK-SS-BA113-0001	6.2761147	0.97415	-0.80408	-1.90353	-0.21269	-0.52457	1.77124	7817.7935	-0.28341	-0.8593	-2.05816	0.06608	-0.44639	0.17825
MASB-BWBK-SB-MA01-0105	9.0105651	-0.54965	1.24236	-0.26803	-0.33738	0.16945	-3.68356	25937.709	0.20677	1.07315	-0.35379	-0.71922	0.27097	-0.03749
MASB-BWBK-SB-MA02-0107	8.0630775	-1.74649	1.54303	0.0697	-0.21975	0.27695	-0.56803	28522.444	-0.07782	1.36505	0.05138	-0.59038	0.34198	-0.14402
MASB-BWBK-SB-MA03-0108	13.202185	-1.09512	1.47875	-0.45833	-0.3178	0.76836	7.59717	25627.251	0.43999	1.18183	-0.7965	-0.87136	0.24896	-0.28417
MASB-BWBK-SB-MA04-0106	8.6799129	-1.39295	1.90581	0.19119	-0.35764	-0.54874	0.24491	30621.118	-0.02814	1.61936	0.18248	-0.75671	0.44112	-0.13927
MASB-BWBK-SB-MA05-0108	9.9464116	-1.28786	1.19006	-0.12068	-0.30978	0.16885	5.89022	26298.387	-0.06499	1.0706	-0.12726	-0.65363	0.28372	-0.25238
MASB-BWBK-SB-MA06-0105	8.2326968	-1.50716	1.33559	-0.00391	-0.24463	-0.07383	2.43279	26753.143	-0.16759	1.14772	-0.01091	-0.52403	0.26565	-0.1525
MASB-BWBK-SB-MA07-0108	7.3165369	-1.71289	0.73753	-0.31694	-0.12525	1.01145	0.39316	23813.011	-0.25787	0.78422	-0.25319	-0.36546	0.16874	-0.16333
MASB-BWBK-SB-MA08-0108	6.556181	-3.90279	0.9265	0.49366	-0.04049	4.66001	-10.0498	32180.338	-0.0643	1.50402	0.79137	-0.85964	0.55679	-0.39042
MASB-BWBK-SB-MA09-0108	10.833369	-1.67614	0.57364	-0.29471	-0.20053	2.2774	4.1396	24582.986	0.07663	0.78797	-0.25791	-0.69322	0.24422	-0.36417
MASB-BWBK-SB-MA10-0104	6.7131399	-1.52345	0.12812	-0.70565	-0.03609	1.69209	-1.19417	19286.032	-0.21239	0.27324	-0.71255	-0.21949	-0.00783	-0.10551
MASB-BWBK-SB-MA11-0108	8.4703475	-2.13384	1.13558	0.04983	-0.02405	1.33624	0.58522	27605.374	-0.13059	1.16187	0.10428	-0.37213	0.3061	-0.24183
MASB-BWBK-SB-MA12-0108	11.191465	-1.84069	1.2633	-0.19123	-0.24376	1.32892	5.97816	27510.578	0.09017	1.24283	-0.23864	-0.76102	0.35183	-0.36451
MASB-BWBK-SB-MA13-0105	7.2110823	0.36057	-0.02127	-0.10746	-0.51393	-0.56358	0.8334	17920.59	-0.06238	-0.11406	-0.13268	-0.62694	-0.08883	0.06215
MASB-BWBK-SB-MA14-0104	8.0720071	-0.80124	0.10377	0.33439	-0.41784	2.06094	-5.88994	22962.711	0.17603	0.34346	0.42391	-0.90689	0.12141	-0.08536
MASB-BWBK-SB-MA15-0105	7.5630579	-0.24083	0.0295	0.49804	-0.55305	0.70191	-2.40783	21723.486	0.06211	0.13266	0.58728	-0.90835	0.0627	-0.03164
MASB-BWBK-SB-MA16-0104	7.9716275	-0.19783	0.04523	-0.34405	-0.30589	0.54377	-0.29157	18696.759	0.01	0.053	-0.39065	-0.48444	-0.0489	-0.01325
MASB-BWBK-SB-MA17-0104	6.6767724	0.23021	-0.34782	0.04916	-0.51927	0.59524	-4.20275	17796.586	0.08876	-0.25416	0.05549	-0.77285	-0.07984	0.07638
MASB-BWBK-SB-MA18-0104	5.4356354	-0.25055	0.27072	0.39874	-0.53091	-1.00701	0.22035	21299.042	-0.21092	0.15799	0.45647	-0.67658	0.05727	0.04533
MASB-BWBK-SB-MA19-0103	7.7459085	0.49818	-0.0951	-0.25658	-0.48045	-0.59357	2.27508	17161.244	-0.06753	-0.1799	-0.28545	-0.55247	-0.11376	0.04271
MASB-BWBK-SB-MA20-0103	9.5037193	-1.36767	1.07039	-0.23373	-0.21012	0.23293	5.88633	24274.536	-0.13394	0.89838	-0.30039	-0.45681	0.15346	-0.19867
MASS-BWBK-SS-MA01-0001	6.3687789	1.47895	-1.05046	-0.53618	-0.30023	-1.02096	1.78084	10623.826	-0.15867	-1.07387	-0.57044	-0.04619	-0.38954	0.19398
MASS-BWBK-SS-MA02-0001	6.9686767	1.82072	-0.48094	0.47233	-0.63614	-1.83244	-0.12916	16475.769	0.00083	-0.61067	0.52874	-0.57725	-0.18097	0.21175
MASS-BWBK-SS-MA03-0001	6.238307	0.97571	-0.67925	-0.33368	-0.28497	-0.62582	-0.87026	14040.406	-0.14561	-0.66982	-0.3117	-0.14396	-0.2511	0.16021
MASS-BWBK-SS-MA04-0001	6.3537321	0.79005	-0.22833	-0.11181	-0.29075	-1.16587	-0.15007	16825.481	-0.15989	-0.33265	-0.09393	-0.16797	-0.14835	0.14689
MASS-BWBK-SS-MA05-0001	5.9041827	-0.2182	0.26742	0.42047	-0.25762	-0.8765	-0.37485	21903.351	-0.21088	0.17835	0.50428	-0.28282	0.05676	0.04554
MASS-BWBK-SS-MA06-0001	7.7163413	0.8785	-0.05943	0.88155	-0.48224	-0.4393	-4.10433	22816.52	0.11599	0.017	1.07856	-0.65496	0.09988	0.06627
MASS-BWBK-SS-MA07-0001	5.9948254	1.01403	-1.57023	-1.41366	0.08929	-0.24215	4.82292	5520.9042	-0.3662	-1.48549	-1.50769	0.56614	-0.58303	0.14654
MASS-BWBK-SS-MA08-0001	6.6047102	-0.24695	-0.94494	-0.017	0.59161	0.78411	1.16531	16142.498	-0.22285	-0.71149	0.06704	0.93614	-0.19432	-0.01472
MASS-BWBK-SS-MA09-0001	7.5226769	-0.01788	0.02931	1.60547	0.15977	-0.76588	1.47143	25827.57	0.0002	0.0465	1.78362	0.2212	0.17276	-0.04588
MASS-BWBK-SS-MA10-0001	6.7021591	-0.39945	-0.19195	0.93655	0.21013	-0.05942	0.67709	22799.796	-0.10071	-0.09514	1.07277	0.28288	0.07916	-0.04694
MASS-BWBK-SS-MA11-0001	6.4443014	-0.1842	-0.38833	1.13966	-0.23601	1.05542	-6.27425	22976.626	0.0938	-0.11301	1.35328	-0.48289	0.09868	0.00193
MASS-BWBK-SS-MA12-0001	6.2020142	0.14742	-0.07396	-0.09295	-0.21847	-0.74177	0.43598	18354.236	-0.29019	-0.11704	-0.00863	-0.11925	-0.08963	0.07149
MASS-BWBK-SS-MA13-0001	6.8041999	1.31586	-0.71613	0.76245	-0.55337	-0.47216	-3.46691	17798.749	0.06696	-0.61513	0.91312	-0.62613	-0.12277	0.14935
MASS-BWBK-SS-MA14-0001	7.9884087	1.25918	-1.05999	0.09791	0.02053	-0.88912	5.94301	13533.806	-0.13938	-1.0247	0.1412	0.35791	-0.3086	0.06178
MASS-BWBK-SS-MA15-0001	6.4988442	1.24337	-0.93055	0.39115	-0.24404	-0.99235	1.40145	14963.679	-0.11754	-0.89504	0.4779	-0.05013	-0.24156	0.13663
MASS-BWBK-SS-MA16-0001	6.5256686	0.42143	-0.76649	0.03295	-0.16144	-0.11747	1.50578	15535.881	-0.20899	-0.65167	0.1277	-0.04039	-0.20071	0.04739
MASS-BWBK-SS-MA17-0001	6.1025603	0.49261	-0.70296	0.26856	-0.26287	-0.33759	0.41628	16239.625	-0.1246	-0.63406	0.33039	-0.21208	-0.16773	0.08013
MASS-BWBK-SS-MA18-0001	7.2282061	0.53321	-0.96301	0.16391	-0.09263	-0.38207	5.98047	14702.452	-0.24057	-0.85403	0.25497	0.10976	-0.24167	-0.00881
MASS-BWBK-SS-MA19-0001	6.9807721	0.5197	-0.7536	0.31574	-0.17622	-0.23556	2.32179	16362.056	-0.11405	-0.66306	0.38975	-0.09141	-0.17282	0.03344
MASS-BWBK-SS-MA20-0001	7.9886829	0.11557	-0.24592	-0.00063	-0.12342	-0.10175	3.17152	18264.013	-0.15282	-0.21626	0.05791	-0.07121	-0.09883	-0.0263
MMSB-BWBK-SB-MM101-0110	5.3790342	-0.29151	0.03942	-0.88929	0.07922	-0.14439	-3.12363	16650.044	-0.19396	-0.04822	-0.99586	0.20313	-0.12208	0.12827
MMSB-BWBK-SB-MM102-0109	5.9895401	-0.94093	1.18074	-0.39727	-0.03075	-1.71211	2.96742	23237.156	-0.38679	0.80303	-0.47533	0.06278	0.12208	0.02047
MMSB-BWBK-SB-MM103-0107	5.2161181	-0.23676	0.32027	-0.76406	-0.06666	-0.87521	-1.80569	17223.727	-0.04452	0.03881	-1.03159	-0.03742	-0.08151	0.15903
MMSB-BWBK-SB-MM104-0110	-0.038669	-1.10119	0.58627	-0.00992	-0.05023	-0.18792	-18.3428	23578.826	-0.16064	0.54314	0.00627	-0.17775	0.2081	0.31528
MMSB-BWBK-SB-MM105-0110	6.2774801	0.08166	-0.23049	-1.13742	-0.03269	-0.59956	2.72914	13520.173	-0.29101	-0.35667	-1.26819	0.181	-0.2513	0.09087
MMSB-BWBK-SB-MM106-0110	2.6698859	-0.67739	1.07856	0.39109	-0.29541	-1.23423	-11.7395	26476.02	-0.11723	0.86237	0.42502	-0.47434	0.29353	0.22208
MMSB-BWBK-SB-MM107-0110	3.3927225	-0.09399	0.19682	-0.68692	-0.1937	-0.87239	-7.0352	17306.826	-0.20891	0.02216	-0.78801	-0.13885	-0.08171	0.25069
MMSB-BWBK-SB-MM108-0110	4.1128826	-0.18374	0.05584	-0.57168	-0.15171	-0.65546	-4.3764	17303.607	-0.2229	-0.05869	-0.64125	-0.09296	-0.08286	0.17642
MMSB-BWBK-SB-MM109-0110	5.0413418	-0.11449	0.31229	0.05433	-0.28176	-0.71775	-4.81715	20705.076	-0.10006	0.18173	0.03784	-0.35185	0.02815	0.14657
MMSB-BWBK-SB-MM110-0109	3.3259488	-0.3543	0.19984	-0.30153	-0.1859	-0.66311	-6.91052	19073.122	-0.24231	0.09301	-0.32087	-0.17063	-0.02007	0.20238
MMSB-BWBK-SB-MM111-0110	4.1380167	-0.46673	0.36127	-0.24995	-0.09376	-0.41119	-7.1341	20636.803	-0.19085	0.27121	-0.25371	-0.09894	0.03621	0.16429
MMSB-BWBK-SB-MM112-0110	4.523588	-0.30706	0.50484	-0.05411	-0.31252	-0.62095	-7.02122	21872.065	-0.14724	0.3956	-0.02682	-0.42108	0.09122	0.15398
MMSB-BWBK-SB-MM113-0110	2.7148995	-0.62084	0.83378	-0.34695	-0.19475	-1.44253	-7.55393	21702.043	-0.30922	0.55024	-0.40222	-0.1754	0.08662	0.23478
MMSB-BWBK-SB-MM114-0110	6.0017034	0.23702	-0.0104	-0.79728	-0.18096	-0.91044	0.36439	15696.23	-0.21462	-0.17412	-0.89854	-0.05675	-0.16296	0.12884

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-0.038669	-3.90279	-1.70321	-1.93189	-1.01639	-2.0008	-30.0224	5520.9042	-0.51196	-1.48549	-2.08346	-2.26193	-0.58303	-1.79839
MAXIMUM DOMAIN VALUE	72.794105	16.8867	2.9282	2.28205	10.8471	7.2827	72.1953	46329.484	6.05719	2.66578	2.38869	15.3357	0.88962	0.48328
SAMPLE	CO predict	D1	D2	D3	D4	D5	D6	FE predict	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	4.184404	0.8518	-0.02405	0.07233	-0.53512	-0.8778	-10.6875	19087.628	0.06667	-0.09508	0.08548	-0.66233	-0.00733	0.29359
MMSB-BWBK-SB-MM116-0110	5.0023726	-0.09766	0.38816	-0.64254	-0.12629	-0.89995	-4.17738	18723.171	-0.18138	0.19254	-0.73221	-0.06386	-0.0362	0.17316
MMSB-BWBK-SB-MM117-0110	5.9791753	0.06279	-0.13834	-1.09281	-0.06971	-0.46044	0.19884	14237.742	-0.19165	-0.27232	-1.25386	0.06662	-0.21234	0.12224
MMSB-BWBK-SB-MM118-0110	10.764906	-1.07914	1.7007	-0.7289	0.12426	-2.0008	15.1981	24417.279	-0.39595	1.15854	-0.89329	0.28813	0.13233	-0.21413
MMSB-BWBK-SB-MM119-0110	4.3972998	-0.22054	0.26362	-0.73388	-0.11092	-0.76042	-4.50582	18007.047	-0.23728	0.11347	-0.80759	-0.03523	-0.05165	0.17298
MMSB-BWBK-SB-MM120-0110	5.4582332	0.40957	-0.57181	-1.43674	-0.08299	-0.39826	0.05331	10644.111	-0.25745	-0.65071	-1.59897	0.14801	-0.35084	0.1728
MMSS-BWBK-SS-MM101-0001	2.6306715	-0.20628	-0.50469	0.9307	-0.27663	-0.4209	-6.1969	19980.955	-0.29798	-0.37651	1.14215	-0.27597	-0.01855	0.15586
MMSS-BWBK-SS-MM102-0001	3.5370197	-0.01051	-0.67237	-0.01583	-0.31005	-0.36656	-2.45578	15264.116	-0.36974	-0.59499	0.07909	-0.2274	-0.19438	0.14652
MMSS-BWBK-SS-MM103-0001	2.5076424	-0.44138	-0.61037	0.70738	-0.13133	-0.25824	-4.65539	18786.071	-0.38022	-0.46581	0.89811	-0.05265	-0.06631	0.13028
MMSS-BWBK-SS-MM104-0001	3.1031964	-0.31998	-0.32204	0.6941	-0.13447	-0.43449	-5.65002	20247.902	-0.29022	-0.24404	0.85726	-0.08748	-0.00858	0.14421
MMSS-BWBK-SS-MM105-0001	4.3042418	0.24889	-0.97782	-0.24799	-0.15939	-0.33272	0.27507	12797.789	-0.34677	-0.89157	-0.20792	0.03714	-0.29584	0.13108
MMSS-BWBK-SS-MM106-0001	2.0374369	-0.2297	-0.3058	0.76161	-0.36928	-0.52047	-8.60502	20141.389	-0.25126	-0.24145	0.91638	-0.43275	0.00199	0.21054
MMSS-BWBK-SS-MM107-0001	2.0586369	-0.28197	-0.25878	0.9046	-0.36708	-0.67602	-7.72748	20947.835	-0.31013	-0.18991	1.10659	-0.4106	0.02821	0.18915
MMSS-BWBK-SS-MM108-0001	2.4647162	-0.09521	-0.69068	1.02589	-0.37574	-0.68578	-3.85954	18687.609	-0.3565	-0.5747	1.23844	-0.35385	-0.07676	0.15081
MMSS-BWBK-SS-MM109-0001	1.4852712	-0.30211	-0.61727	0.68055	-0.37423	-0.61216	-5.74756	17937.022	-0.40608	-0.51693	0.8567	-0.35559	-0.08605	0.18918
MMSS-BWBK-SS-MM110-0001	4.311061	0.55628	-1.30309	-0.46731	-0.09328	-0.26324	0.50443	10282.025	-0.36609	-1.1807	-0.43644	0.20111	-0.40219	0.16257
MMSS-BWBK-SS-MM111-0001	3.1006231	0.39624	-1.10787	-0.25483	-0.16844	-0.52028	-2.05559	11865.525	-0.37991	-1.0224	-0.20956	0.07357	-0.33195	0.20824
MMSS-BWBK-SS-MM112-0001	4.259287	0.55906	-1.23335	-0.60848	-0.05888	-0.43421	0.8371	10108.024	-0.39251	-1.14436	-0.59503	0.27158	-0.40457	0.16968
MMSS-BWBK-SS-MM113-0001	2.9777379	-0.06166	-0.90182	0.52055	0.01556	-0.48677	-2.33396	16394.902	-0.39631	-0.76706	0.67908	0.25026	-0.17156	0.1425
MMSS-BWBK-SS-MM114-0001	4.7653417	0.8364	-1.24854	-0.81896	-0.24476	-0.43677	0.95997	8906.7789	-0.33036	-1.18423	-0.84517	0.01833	-0.44431	0.18555
MMSS-BWBK-SS-MM115-0001	4.472786	0.67792	-1.16411	-0.38737	-0.28221	-0.22273	-1.26883	11260.738	-0.30539	-1.04199	-0.33343	-0.09848	-0.35901	0.17775
MMSS-BWBK-SS-MM116-0001	4.198193	0.5615	-1.20624	-0.51311	-0.15062	-0.30366	-0.34947	10605.912	-0.34412	-1.10226	-0.49277	0.10563	-0.38084	0.17569
MMSS-BWBK-SS-MM117-0001	3.3507126	0.04051	-0.67095	0.31631	-0.16988	-0.39717	-4.17494	16738.019	-0.3168	-0.57599	0.44265	-0.05097	-0.14881	0.16688
MMSS-BWBK-SS-MM118-0001	3.5897756	0.05849	-0.30028	-0.51721	-0.2205	-0.764	-3.62785	15273.5	-0.29127	-0.37101	-0.55432	-0.10817	-0.17014	0.20084
MMSS-BWBK-SS-MM119-0001	5.1751336	0.26929	-0.36381	-0.76298	-0.22804	-0.79141	0.4739	13816.526	-0.30118	-0.45676	-0.82686	-0.07063	-0.24078	0.1451
MMSS-BWBK-SS-MM120-0001	3.2105866	-0.36923	-0.62098	-0.56105	-0.20712	0.58788	-6.69711	14375.069	-0.31348	-0.48639	-0.52801	-0.1839	-0.21566	0.17427
NESB-BWBK-SB-NE01-0108	3.0088715	-1.77969	1.30997	0.15408	-0.10134	-0.73036	-6.96121	26906.417	-0.31881	1.08013	0.15503	-0.2585	0.2932	0.08474
NESB-BWBK-SB-NE02-0109	6.0574199	-0.37359	0.98386	-0.05445	-0.30064	-0.50963	-7.42954	24460.778	0.01393	0.79148	-0.08418	-0.50887	0.18514	0.123
NESB-BWBK-SB-NE03-0105	3.6903679	-1.26871	0.57114	-0.18092	-0.12022	0.01573	-6.37187	22094.915	-0.28609	0.50021	-0.17376	-0.22585	0.09534	0.09189
NESB-BWBK-SB-NE04-0110	4.1318216	-0.98114	0.71071	-0.2225	-0.12806	-0.60107	-4.81959	22210.257	-0.24774	0.53684	-0.26427	-0.19186	0.10451	0.10677
NESB-BWBK-SB-NE05-0108	3.5884047	-1.60424	1.02711	-0.02441	-0.10741	-0.46551	-5.39472	24841.529	-0.31825	0.85074	-0.02967	-0.23835	0.20935	0.06441
NESB-BWBK-SB-NE06-0109	4.6405888	-1.32199	0.84239	-0.26473	-0.08969	-0.44349	-2.71893	22833.794	-0.29643	0.66217	-0.30959	-0.16774	0.12435	0.04247
NESB-BWBK-SB-NE07-0107	3.7596258	-1.6418	1.18615	0.14368	-0.11826	-0.64334	-5.17286	26145.621	-0.32142	0.97841	0.15611	-0.25948	0.25117	0.05599
NESB-BWBK-SB-NE08-0104	4.8483899	-1.02156	0.62643	-0.26733	-0.15462	-0.74895	-0.32732	21085.437	-0.30734	0.42327	-0.33444	-0.18802	0.05062	0.04719
NESB-BWBK-SB-NE09-0110	4.0003855	-1.13003	0.69866	-0.31151	-0.13152	-0.42191	-4.83515	21907.918	-0.27801	0.54236	-0.35366	-0.20737	0.09411	0.09691
NESB-BWBK-SB-NE10-0107	3.5818228	-0.55108	0.2773	0.14679	-0.31391	-0.72023	-5.0198	20927.458	-0.25533	0.18557	0.18268	-0.38921	0.0489	0.13758
NESB-BWBK-SB-NE101-0110	4.5039595	0.07317	0.216	0.25297	-0.39523	-0.78743	-6.57106	20829.203	-0.08771	0.11604	0.281	-0.49869	0.03358	0.18372
NESB-BWBK-SB-NE102-0110	5.5324914	0.66416	-0.00259	0.01052	-0.45464	-1.02617	-4.3733	18443.638	-0.05231	-0.12248	0.00904	-0.49416	-0.06486	0.19559
NESB-BWBK-SB-NE103-0110	5.5149261	0.57485	-0.21444	-0.4	-0.3622	-0.82023	-2.59069	15928.13	-0.13608	-0.3109	-0.43749	-0.3197	-0.16044	0.18063
NESB-BWBK-SB-NE104-0110	5.7642193	0.58373	-0.36602	-0.72611	-0.29508	-0.72285	-0.79543	13920.125	-0.17206	-0.46168	-0.8084	-0.19036	-0.23695	0.16784
NESB-BWBK-SB-NE105-0110	5.0517655	0.37787	0.08429	0.04057	-0.41655	-0.62705	-6.98111	19636.9	-0.04177	0.01839	0.06749	-0.51116	-0.00825	0.19495
NESB-BWBK-SB-NE106-0110	5.512207	0.33485	0.11659	-0.14757	-0.36983	-0.90461	-3.59098	18669.417	-0.10104	-0.01697	-0.17113	-0.3975	-0.05214	0.16558
NESB-BWBK-SB-NE107-0510	4.4973673	0.37495	-0.29692	-0.72488	-0.23995	-0.55612	-4.74993	14814.536	-0.18444	-0.35806	-0.78274	-0.15105	-0.18635	0.21557
NESB-BWBK-SB-NE108-0110	4.2474136	0.2598	-0.13259	-0.07435	-0.38298	-0.74268	-5.35321	17659.837	-0.12567	-0.2079	-0.08721	-0.41492	-0.08187	0.20232
NESB-BWBK-SB-NE109-0110	4.5525126	0.40758	-0.12224	-0.14926	-0.3719	-0.75037	-5.72309	17486.082	-0.10554	-0.20287	-0.1633	-0.38704	-0.09342	0.21464
NESB-BWBK-SB-NE110-0110	3.4957009	0.15597	-0.09704	-0.19974	-0.31126	-0.83762	-6.48664	17434.687	-0.15956	-0.19335	-0.23389	-0.30343	-0.08262	0.23469
NESS-BKG-SS03-NEB-0016	4.0231311	-1.029	-0.47496	0.76944	1.14817	-0.45615	0.92234	21239.043	-0.43982	-0.39223	0.8948	1.7612	-0.02054	0.01718
NESS-BKG-SS09-NEB-0018	2.877925	0.06552	-0.81789	0.30567	-0.11478	-0.66569	-2.71423	15869.952	-0.31675	-0.73665	0.39277	0.04841	-0.15918	0.16478
NESS-BWBK-SS-NE01-0001	4.180914	-0.49922	0.10218	1.34596	-0.28698	-0.40614	-5.71086	25225.784	-0.09753	0.17318	1.54521	-0.46874	0.20678	0.05966
NESS-BWBK-SS-NE02-0001	5.6158525	-0.70751	0.521	0.90349	-0.35293	-0.70432	-0.99414	25796.504	-0.18513	0.49493	1.07055	-0.54708	0.24481	-0.03443
NESS-BWBK-SS-NE03-0001	2.3683272	-0.5723	-0.18564	1.02597	-0.3618	-0.42965	-6.7887	21937.048	-0.30426	-0.09653	1.23475	-0.46095	0.06683	0.13591
NESS-BWBK-SS-NE04-0001	1.8766015	-0.98204	0.34143	1.10049	-0.30588	-0.81602	-7.70213	24635.506	-0.26622	0.2897	1.23189	-0.45307	0.18223	0.14738
NESS-BWBK-SS-NE05-0001	2.7898781	-0.51967	-0.07674	0.765	-0.12534	-0.67724	-5.82978	21763.356	-0.29598	-0.05195	0.91582	-0.10116	0.06184	0.13995
NESS-BWBK-SS-NE06-0001	2.5164955	-1.02073	0.4433	0.86938	-0.30748	-1.06344	-4.50152	24073.946	-0.36507	0.34085	0.99265	-0.39857	0.15325	0.10825
NESS-BWBK-SS-NE07-0001	3.8432468	-0.61476	-0.34637	0.86458	0.14973	-0.3596	-2.19927	21360.272	-0.32392	-0.23658	1.04714	0.29125	0.03106	0.04941
NESS-BWBK-SS-NE08-0001	2.9682267	-0.66654	0.06737	0.90001	-0.32923	-0.69428	-4.88393	22531.15	-0.33028	0.07245	1.07308	-0.40451	0.08328	0.11154
NESS-BWBK-SS-NE09-0001	2.6943002	-0.09399	-0.38905	1.43832	-0.30263	-0.83055	-6.06327	22048.138	-0.23616	-0.30423	1.67137	-0.3248	0.05106	0.1589
NESS-BWBK-SS-NE10-0001	4.4532344	-0.62905	-0.25674	0.53041	0.36728	-0.57413	0.05308	20588.268	-0.37642	-0.21565	0.65889	0.64945	-0.01051	0.03714
NESS-BWBK-SS-NE101-0001	2.816469	0.26984	-0.62459	0.57456	-0.45811	-0.91663	-4.27982	16931.61	-0.28195	-0.59749	0.68851	-0.43532	-0.13501	0.20681
NESS-BWBK-SS-NE102-0001	4.245273	0.45379	-0.95299	-0.19688	-0.10795	-0.6423	-0.14108	12970.37	-0.33999	-0.90143	-0.15555	0.14792	-0.29662	0.16378
NESS-BWBK-SS-NE103-0001	4.5517424	0.46904	-0.94683	-0.47194	-0.08847	-0.64453	0.91576	11983.648	-0.36897	-0.91442	-0.45885	0.19998	-0.33316	0.1565
NESS-BWBK-SS-NE104-0001	3.1269298	-0.32368	-0.8447	-0.27178	0.46484	-0.46533	-0.6222	14276.525	-0.51196	-0.77307	-0.21629	0.94318	-0.25695	0.14213
NESS-BWBK-SS-NE105-0001	4.4961935	0.76438	-1.12311	-0.53457	-0.24775	-0.55089	-0.1075	10634.141	-0.31783	-1.06405	-0.52644	-0.01107	-0.38018	0.18998
NESS-BWBK-SS-NE106-0001	3.3595275	0.08981	-1.15382	-0.45242	0.55688	-0.49601	-0.28243	11974.936	-0.47065	-1.0663	-0.43084	1.13325	-0.35001	0.17675
NESS-BWBK-SS-NE107-0001	4.1639257	0.78262	-1.24078	-0.27022	-0.16221	-0.59149	-0.44251	11120.596	-0.31835	-1.14812	-0.22733	0.11372	-0.36685	0.1937
NESS-BWBK-SS-NE108-0001	4.5333121	0.73592	-1.07236	-0.24879	-0.08954	-0.6315	-0.61318	12258.921	-0.29072	-1.00509	-0.21041	0.19322	-0.32516	0.18422
NESS-BWBK-SS-NE109-0001	4.2486173	0.88251	-1.19628	-0.50341	-0.27058	-0.54353	-1.17526	10369.445	-0.29858	-1.12207	-0.48774	-0.0368	-0.38929	0.21514
NESS-BWBK-SS-NE110-0001	4.6126931	0.42278	-1.31616	-0.50164	0.19609	-0.34002	2.36757	10455.124	-0.40136	-1.20277	-0.48511	0.62462	-0.40197	0.13015

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-0.038669	-3.90279	-1.70321	-1.93189	-1.01639	-2.0008	-30.0224	5520.9042	-0.51196	-1.48549	-2.08346	-2.26193	-0.58303	-1.79839
MAXIMUM DOMAIN VALUE	72.794105	16.8867	2.9282	2.28205	10.8471	7.2827	72.1953	46329.484	6.05719	2.66578	2.38869	15.3357	0.88962	0.48328
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	9.3203905	-0.78945	1.23739	0.3931	-0.40202	-1.03504	6.69438	25958.496	0.01889	0.89126	0.27139	-0.6873	0.221	-0.13449
PMSB-BWBK-SB-PM02-0104	4.273591	-2.05977	0.38219	0.68445	-0.31756	2.85392	-15.0999	26579.474	0.1648	0.69995	0.78605	-0.98689	0.30025	-0.01977
PMSB-BWBK-SB-PM03-0106	7.6053959	-2.6398	1.20257	0.08624	-0.16747	1.79523	-0.87582	27427.712	0.04483	1.18021	-0.02328	-0.73764	0.32711	-0.23408
PMSB-BWBK-SB-PM04-0105	8.0508652	-1.63043	1.09161	0.02136	-0.12396	0.3353	2.31243	26272.429	-0.09941	0.98865	-0.00215	-0.41356	0.27338	-0.18143
PMSB-BWBK-SB-PM05-0105	7.0045402	-1.27379	0.84913	0.01484	-0.25669	0.6337	-3.08474	24705.761	0.0482	0.77956	-0.05055	-0.62627	0.21583	-0.06163
PMSB-BWBK-SB-PM06-0105	6.8505516	-0.61255	0.74599	-0.09469	-0.4103	1.14676	-11.1038	24874.531	0.22043	0.8028	-0.07744	-0.8797	0.242	0.04781
PMSB-BWBK-SB-PM07-0105	7.8693517	-0.33423	-0.0736	-0.34612	-0.3978	1.60043	-4.90554	18598.738	0.32299	0.01548	-0.50002	-0.82458	-0.01483	0.00402
PMSB-BWBK-SB-PM08-0106	8.1762815	-0.902	0.62508	-0.08172	-0.31336	0.37037	1.48718	22484.523	0.12419	0.50567	-0.23365	-0.66128	0.13112	-0.09521
PMSB-BWBK-SB-PM09-0106	8.1459933	-0.74079	0.48429	-0.62341	-0.25987	-0.00104	4.43211	19449.657	-0.07795	0.32879	-0.77999	-0.42838	0.00258	-0.08345
PMSB-BWBK-SB-PM10-0105	7.0338699	-0.71169	0.05779	0.17572	-0.47948	0.99042	-1.83757	20732.655	0.11799	0.12613	0.1268	-0.89107	0.06101	-0.05209
PMSB-BWBK-SB-PM11-0104	10.817738	-0.49771	0.79551	-0.29122	-0.38051	1.21506	-0.94114	23430.78	0.34051	0.73804	-0.42296	-0.84974	0.14628	-0.11802
PMSB-BWBK-SB-PM12-0105	5.3709917	-0.06448	0.22601	-0.4084	-0.34438	-0.94767	-1.03825	18123.81	-0.18329	0.04492	-0.48942	-0.36712	-0.05935	0.12151
PMSB-BWBK-SB-PM13-0106	4.9184722	-0.01031	-0.42564	0.1078	-0.52017	1.23516	-10.9109	18616.303	0.0464	-0.18982	0.21875	-0.82832	-0.0368	0.14121
PMSB-BWBK-SB-PM14-0106	6.537187	0.30289	-0.10974	-0.38658	-0.41186	-0.33437	-1.25205	16944.764	-0.04639	-0.17294	-0.44517	-0.49901	-0.10486	0.09621
PMSB-BWBK-SB-PM15-0105	6.2319115	-0.63109	0.2808	-0.06679	-0.31965	0.41277	-3.56201	21059.28	-0.07011	0.28439	-0.05945	-0.54121	0.05242	0.02154
PMSB-BWBK-SB-PM16-0106	6.2532872	-0.25938	0.14999	-0.2479	-0.34047	-0.206	-1.03955	19164.559	-0.15523	0.09746	-0.25135	-0.44242	-0.02394	0.04454
PMSB-BWBK-SB-PM17-0105	6.5530891	-1.06883	0.49319	0.03671	-0.22802	0.50781	-1.94078	22088.513	0.16462	0.38249	-0.1599	-0.5765	0.12022	-0.02205
PMSB-BWBK-SB-PM18-0105	6.7276502	-2.23589	0.89754	-0.07779	-0.08633	1.96344	-5.14474	26358.963	-0.16529	1.04212	0.02339	-0.48037	0.26473	-0.15794
PMSB-BWBK-SB-PM19-0105	7.4589115	-1.00005	0.6417	-0.00052	-0.27819	0.60987	-1.78667	23658.124	-0.08627	0.63898	0.04226	-0.55164	0.14658	-0.07215
PMSB-BWBK-SB-PM20-0106	7.1318743	-0.7933	0.52663	-0.07751	-0.30361	0.10242	0.11601	22088.846	-0.11689	0.45839	-0.08419	-0.51108	0.08903	-0.04623
PMSB-BWBK-SB-SO01-0107-PM	9.9775635	-2.11342	1.23839	0.02784	-0.09351	0.824	7.55035	26829.733	-0.15755	1.13241	-0.0009	-0.41891	0.25383	-0.31999
PMSB-BWBK-SB-SO02-0109-PM	7.4992656	-2.41799	0.7195	0.01723	-0.03986	2.24256	-1.54044	25941.677	-0.17398	0.91775	0.12147	-0.43936	0.24833	-0.24755
PMSB-BWBK-SB-SO13-0104-PM	11.627804	-2.57929	1.25977	-0.21258	0.0255	1.92594	9.0676	26723.959	-0.01893	1.21254	-0.32678	-0.41033	0.25105	-0.42604
PMSB-BWBK-SB-SO14-0105-PM	11.581893	-2.64887	1.50938	-0.04849	-0.04195	1.88792	7.25933	29192.098	-0.02578	1.4849	-0.08232	-0.54133	0.3596	-0.43643
PMSS-DABK-S-SO21-0001	11.346109	0.2893	-0.91407	-0.14083	0.45901	1.08577	8.99806	16242.314	0.01482	-0.66913	-0.0935	0.68801	-0.18482	-0.20366
PMSS-DABK-S-SO22-0001	12.159724	0.47793	-0.87926	0.6299	0.28717	1.10107	8.81803	19323.205	0.2396	-0.59709	0.71665	0.33003	-0.05199	-0.25035
PMSS-DABK-S-SO23-0001	8.7082725	-0.35605	-0.23306	0.62914	0.43854	-0.38103	8.58749	21063.251	-0.1812	-0.21813	0.69577	0.69472	-0.0148	-0.14738
PMSS-DABK-S-SO24-0001	8.3986426	0.10231	-1.18026	0.48572	0.03163	2.08197	-1.65712	17243.757	0.13687	-0.74521	0.63252	-0.06899	-0.1312	-0.07915
PMSS-DABK-S-SO25-0001	5.3455535	-1.78164	-1.70321	0.62628	0.5094	5.88631	-15.862	19286.537	0.08812	-0.67156	1.00067	0.21464	-0.03963	-0.12563
PMSS-DABK-S-SO26-0001	12.115494	-0.05082	-0.52896	0.72955	0.54543	0.93783	9.93904	22002.519	0.06387	-0.27035	0.88916	0.70341	0.03073	-0.30267
PMSS-DABK-S-SO27-0001	9.0398744	-0.25263	-0.66009	0.29349	0.9745	-0.25302	10.9151	18427.882	-0.27061	-0.5828	0.34861	1.54756	-0.135	-0.16007
PMSS-DABK-S-SO28-0001	11.235435	0.84426	-0.77541	0.38177	0.24013	0.19442	8.24873	17533.884	0.27003	-0.68689	0.32555	0.35603	-0.12243	-0.12817
PMSS-DABK-S-SO29-0001	7.9328446	0.14853	-0.67813	1.26244	0.08583	0.33531	1.79606	21440.645	0.05747	-0.46738	1.43031	0.09625	0.01504	-0.07406
PMSS-DABK-S-SO30-0001	9.5024035	1.23396	-0.62631	1.06835	-0.34643	-0.31104	2.33885	19765.345	0.2969	-0.5494	1.1347	-0.46027	-0.03918	-0.00563
PMSS-DABK-S-SO31-0001	6.4419958	0.54862	-1.05598	0.00906	-0.14402	0.38474	-0.29185	14083.611	0.01024	-0.89661	0.00144	-0.10747	-0.23266	0.07249
PMSS-DABK-S-SO32-0001	10.650374	0.28198	-0.98726	0.5093	0.84471	1.21897	4.71859	18278.957	0.40671	-0.78596	0.39449	1.05602	-0.09813	-0.13165
PMSS-DABK-S-SO33-0001	9.5319107	1.17964	-0.69108	0.60288	0.04455	-1.02199	7.67931	17419.117	0.09235	-0.72212	0.5995	0.25057	-0.14473	-0.01984
PMSS-DABK-S-SO34-0001	7.5617823	0.67194	-0.94333	-0.08335	0.1008	0.16598	1.66127	14285.239	0.06306	-0.8599	-0.1528	0.25445	-0.24418	0.05843
PMSS-DABK-S-SO35-0001	7.5812183	-0.03091	-0.79562	0.13151	0.59359	0.31902	3.5652	16943.273	-0.09508	-0.66567	0.13882	0.92522	-0.16034	-0.03363
PMSS-DABK-S-SO36-0001	5.2631217	-0.18617	-0.91967	0.19817	0.68249	-0.32481	3.099	16051.166	-0.3349	-0.81759	0.25043	1.17941	-0.20136	0.03642
PMSS-DABK-S-SO37-0001	5.937399	0.15074	-1.01609	0.48377	-0.1666	0.75406	-1.73312	16532.53	-0.00917	-0.76539	0.57193	-0.22169	-0.13807	0.03136
PMSS-DABK-S-SO38-0001	6.4234921	0.30382	-0.96529	0.00111	0.19938	-0.23171	3.90916	14291.191	-0.14226	-0.89734	-0.03138	0.46106	-0.24458	0.03749
PMSS-DABK-S-SO39-0001	6.6391796	0.39665	-0.92141	0.0698	-0.0988	0.74382	-2.32287	15485.128	0.00455	-0.71942	0.11646	-0.08552	-0.19399	0.06724
PMSS-DABK-S-SO40-0001	7.0914524	0.72157	-0.8637	0.25977	-0.08933	-0.32818	2.40468	15607.217	-0.02158	-0.79108	0.2741	0.02886	-0.18996	0.0519
SESB-BWBK-SB-SO03-0108	14.773136	-3.80758	2.9282	0.5743	0.03021	1.22474	16.066	38629.36	-0.10439	2.66578	0.57097	-0.59192	0.69375	-0.70428
SESB-BWBK-SB-SO04-0108	12.608489	-2.33314	1.47149	-0.13079	-0.09501	1.51828	10.6802	28169.428	-0.00579	1.38769	-0.20312	-0.56011	0.31503	-0.45946
SESB-BWBK-SB-SO05-0106	10.346795	-1.97694	1.31932	0.30187	-0.23827	0.9446	5.92241	28779.6	-0.11012	1.27888	0.36921	-0.66273	0.33778	-0.33665
SESB-BWBK-SB-SO06-0108	11.415574	-3.68401	1.80659	0.42711	0.04769	2.51417	7.79923	33419.861	-0.0677	1.86415	0.46543	-0.59029	0.53646	-0.56908
SESB-BWBK-SB-SO07-0106	13.927651	-1.97536	1.98754	-0.14404	-0.04194	0.14369	15.2433	29489.887	0.08599	1.61645	-0.36435	-0.42299	0.36057	-0.45427
SESB-BWBK-SB-SO08-0107	12.299525	-3.07816	2.04665	0.43788	-0.05386	1.78539	7.8274	33987.611	0.03135	1.97225	0.43841	-0.67632	0.54667	-0.51476
SESB-BWBK-SB-SO09-0106	10.288882	-1.7592	1.28511	0.17894	-0.21781	0.52763	7.0406	27638.272	-0.09393	1.17095	0.18178	-0.58254	0.29624	-0.30616
SESB-BWBK-SB-SO11-0106	10.316773	-1.90853	1.77273	0.19964	-0.20825	0.93648	0.74504	31333.583	0.13928	1.65412	0.17634	-0.75165	0.47686	-0.27349
SESB-BWBK-SB-SO12-0106	11.74227	-2.54467	1.4366	-0.14182	-0.06583	1.74929	8.68095	28360.581	-0.05024	1.40502	-0.18223	-0.53966	0.33204	-0.44526
SESB-BWBK-SB-SO15-0103	6.8425641	-0.73776	0.28574	0.10468	-0.33224	0.27343	-0.10324	21440.501	-0.08543	0.27087	0.10782	-0.56104	0.06361	-0.04312
SESB-BWBK-SB-SO16-0105	9.6293529	-1.43977	0.90319	-0.35343	-0.19344	0.52558	6.76288	23149.328	-0.15037	0.77922	-0.42449	-0.43771	0.11313	-0.22364
SESB-BWBK-SB-SO17-0106	8.6693068	-0.69838	0.78007	-0.29064	-0.26232	-0.73347	7.05041	21375.024	-0.15442	0.51058	-0.41638	-0.36881	0.04004	-0.09889
SESB-BWBK-SB-SO18-0105	7.2067906	-0.2379	0.522	-0.29401	-0.30332	-1.1742	4.24572	19453.021	-0.08878	0.21737	-0.47569	-0.36486	-0.01953	0.02391
SESB-BWBK-SB-SO19-0104	8.6368123	-0.20775	0.68184	-0.2247	-0.35943	-1.10369	6.28743	19759.77	0.27035	0.24534	-0.63828	-0.60319	0.01582	-0.01072
SESB-BWBK-SB-SO20-0104	9.496208	-1.51104	0.84744	-0.43399	-0.15744	1.49083	1.15447	23639.472	0.02035	0.8394	-0.50665	-0.52243	0.14846	-0.19237
SESS-DABK-S-SO01-0001	4.149731	-0.47529	-0.45471	0.75068	-0.26093	-0.2383	-0.76558	19678.888	-0.29657	-0.3389	0.91038	-0.29297	-0.0187	0.03154
SESS-DABK-S-SO02-0001	9.1233035	0.34187	0.76948	0.6504	0.09752	-0.39761	-5.29607	26831.555	0.34395	0.64093	0.64421	-0.00893	0.2462	0.05034
SESS-DABK-S-SO03-0001	5.8071148	-0.46263	-0.99406	0.68016	0.28862	0.40293	3.68548	17921.264	-0.32298	-0.72415	0.87397	0.51015	-0.11262	-0.07724
SESS-DABK-S-SO04-0001	6.3316921	-0.18669	-0.35753	1.52559	-0.31592	-0.73725	4.69914	22537.743	-0.20192	-0.27829	1.74241	-0.37663	0.06348	-0.07747
SESS-DABK-S-SO05-0001	5.6247087	-0.53614	-0.83018	0.63229	0.17944	0.32116	3.07883	18339.102	-0.31273	-0.6026	0.80342	0.33712	-0.08966	-0.0655
SESS-DABK-S-SO06-0001	9.6697737	-1.74898	-1.65736	0.77873	-0.01554	7.2827	-11.3939	22054.782	0.53139	-0.4142	1.17055	-0.85566	0.1736	-0.41085
SESS-DABK-S-SO07-0001	9.2378708	0.43718	0.13551	0.77352	-0.12191	-1.29128	7.06084	22485.894	-0.06614	0.02535	0.86259	-0.05071	0.05613	-0.07674
SESS-DABK-S-SO08-0001	8.3022536	-0.08338	-0.36567	0.47371	0.20792	0.21904	3.26258	20388.389	-0.08407	-0.24221	0.58345	0.32126	-0.02008	-0.08452
SESS-DABK-S-SO09-0001	6.6753539	-0.97805	-0.87494	0.29021	0.26449	1.33827	4.05503	17848.367	-0.34587	-0.53227	0.48076	0.37853	-0.11009	-0.16016

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-0.038669	-3.90279	-1.70321	-1.93189	-1.01639	-2.0008	-30.0224	5520.9042	-0.51196	-1.48549	-2.08346	-2.26193	-0.58303	-1.79839
MAXIMUM DOMAIN VALUE	72.794105	16.8867	2.9282	2.28205	10.8471	7.2827	72.1953	46329.484	6.05719	2.66578	2.38869	15.3357	0.88962	0.48328
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	5.9360175	-0.53229	-1.35417	0.26761	0.01375	2.16138	-1.89373	15161.868	-0.21757	-0.87522	0.47702	0.00146	-0.22545	-0.05188
SESS-DABK-S-SO11-0001	8.895761	1.15001	-1.09516	-0.51177	-0.09742	-0.51454	8.71963	10776.937	-0.13746	-1.08839	-0.57495	0.18191	-0.40717	0.0204
SESS-DABK-S-SO12-0001	7.0363026	0.93318	-0.74719	0.40718	-0.25883	-0.47987	0.53164	16599.1	-0.01887	-0.67762	0.48083	-0.19548	-0.15933	0.08517
SESS-DABK-S-SO13-0001	9.6285064	0.03826	-0.32298	-0.16072	-0.29259	0.27378	7.83639	17585.434	-0.16288	-0.23064	-0.08335	-0.33786	-0.10844	-0.15308
SESS-DABK-S-SO14-0001	6.6883314	-0.91969	-0.60568	-0.30151	0.33108	0.43308	7.45705	16187.737	-0.45332	-0.46341	-0.23728	0.58833	-0.16895	-0.13261
SESS-DABK-S-SO15-0001	7.72613	-0.24002	-1.01874	0.42533	0.0301	0.48415	8.37858	15944.538	-0.26394	-0.804	0.54128	0.15605	-0.20181	-0.1402
SESS-DABK-S-SO16-0001	6.8966707	1.15701	-1.26374	-0.51877	-0.18632	-0.28552	3.1104	9908.9024	-0.12769	-1.20331	-0.57259	0.04344	-0.42714	0.12864
SESS-DABK-S-SO17-0001	7.5318301	1.21134	-1.67272	0.15237	-0.05984	0.84334	-0.11904	11394.21	0.06417	-1.38509	0.20474	0.08659	-0.39035	0.09294
SESS-DABK-S-SO18-0001	7.7661455	0.55322	-0.58755	-0.16726	0.02915	-0.60843	5.19992	15474.819	-0.13564	-0.60216	-0.18678	0.24588	-0.19989	0.01683
SESS-DABK-S-SO19-0001	8.023348	-0.0574	-0.01598	0.57253	0.64689	-0.89364	4.51413	22224.913	-0.09686	-0.0861	0.60077	1.00752	0.03804	-0.04056
SESS-DABK-S-SO20-0001	7.1803523	-0.56982	-0.02171	1.21787	0.32788	-0.22379	2.23277	25454.714	-0.11706	0.09668	1.42145	0.4175	0.1963	-0.1195
SESD-SD01	15.735646	1.75787	0.86344	0.96682	-0.01406	-0.81266	3.85762	29003.367	0.83242	0.69262	0.92803	-0.21952	0.34587	-0.14474
SESD-SD02	15.814731	1.83521	0.19421	-0.81885	0.07884	0.16874	5.82892	19651.216	0.59099	0.14091	-0.94896	0.06808	0.00053	-0.13021
SESD-SD03	26.444762	5.4283	1.52107	1.05592	-0.08747	-0.43133	-5.31	36086.605	2.36581	1.33033	0.90248	-0.65755	0.68165	-0.10089
SESD-SD04	26.920122	6.43588	1.13114	0.63983	-0.86404	-0.19061	-7.40228	31423.821	2.50363	0.9831	0.46527	-1.69621	0.5183	-0.01102
SESD-SD05	11.989436	-1.42701	0.51563	0.11666	2.08464	0.41067	10.6239	27276.775	-0.03358	0.51567	0.0739	2.79608	0.23111	-0.34213
SESD-SD06	23.190282	4.85742	0.74218	0.92182	-0.28345	-0.02214	-4.11917	30905.825	1.94216	0.72321	0.86952	-0.79594	0.47484	-0.08645
SESD-SD07	17.647693	0.11566	1.28762	2.28205	1.05899	-1.15483	16.901	37361.241	0.54918	1.12002	2.38869	1.21688	0.60558	-0.50138
SESD-SD08	26.524319	4.76443	0.62154	1.02768	-0.36346	2.3809	-7.85094	32727.127	2.40617	0.87447	0.98376	-1.25754	0.55508	-0.21945
SESD-SD09	11.951668	1.42774	-0.66745	-1.10775	0.5349	0.26736	4.79894	13714.421	0.28443	-0.64176	-1.28181	0.87447	-0.24975	-0.01283
SESD-SD10	18.795628	0.40355	0.90506	0.96489	2.54952	-0.00163	11.1576	34072.739	0.79739	0.8324	0.87281	3.28632	0.48183	-0.40827
SESD-SD11	49.741744	16.8867	0.21105	0.19772	-1.01639	1.25847	-30.0224	29326.613	6.05719	0.15669	-0.43561	-2.26193	0.44419	0.43711
SESD-SD12	72.794105	10.6981	2.32451	1.66453	1.23972	-0.04825	72.1953	46329.484	4.62597	1.86256	1.12807	0.85364	0.88962	-1.79839
SESD-SD13	32.807186	4.95721	1.02739	0.6417	3.19637	-0.00626	10.4165	36865.673	2.34806	0.88617	0.34378	4.07085	0.5793	-0.41127
SESD-SD14	9.7675234	0.61282	-0.1746	0.84256	0.57229	0.15742	-1.63779	24049.56	0.34099	-0.06429	0.91117	0.71317	0.13794	-0.03118
SESD-SD15	25.403378	2.34593	0.85111	1.0124	2.30474	0.34801	12.8711	35099.458	1.49839	0.82843	0.88175	2.82531	0.54361	-0.49048
SESD-SD16	18.18269	-0.22537	0.47427	0.3707	4.90328	0.41881	9.82896	33489.226	0.62985	0.49005	0.21002	6.7043	0.39467	-0.37527
SESD-SD17	31.280106	8.23789	0.69566	-0.05987	-0.13019	-0.20157	-7.03506	28606.456	2.95137	0.5722	-0.3501	-0.58329	0.41095	0.03087
SESD-SD18	14.16981	1.30116	-0.11089	-0.96007	0.24173	0.94612	3.19567	18278.836	0.4958	-0.03192	-1.07106	0.25643	-0.04344	-0.11881
SESD-SD19	4.95485	-1.70678	0.80119	-0.18364	10.8471	-0.89887	-29.4892	41903.45	0.2547	0.68889	-0.45893	15.3357	0.58588	0.48328
SESD-SD20	9.1024107	0.18445	-0.34877	-1.35806	0.1642	1.26835	-1.1657	14990.463	0.01096	-0.20404	-1.41817	0.23743	-0.17333	-0.00889

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LEAD

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780

20.1483	**Mean**
30.2559	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0289	0.0340	0.4674	0.0523	-0.9810	-0.0710
AS	0.0324	-0.0589	-0.0257	0.0227	-0.0659	0.0837
BA	0.2663	-0.0757	0.1614	0.1460	0.2516	-0.0423
CR	-0.0112	0.1154	0.1034	0.0324	-0.6379	-0.2012
CO	0.2031	-0.1077	-0.1470	0.0384	0.1560	-0.0473
FE	-0.1935	-0.2726	-0.0942	-0.0848	5.7702	-0.3163
PB	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MG	-0.0317	0.2156	0.0170	-0.0434	-1.1352	-0.1229
MN	0.2145	0.0314	-0.1036	0.0804	-0.4083	-0.2215
NI	-0.1805	0.8352	0.0531	-0.0686	-1.9753	0.4886
V	-0.0026	-0.0365	0.2389	0.0627	-0.2872	0.1446
ZN	0.3352	-0.0338	-0.0084	0.3940	-0.3644	0.1617

MAGNESIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480

2303.2714	**Mean**
810.9806	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0455	0.0919	0.7359	-0.1054	-0.1461	0.1456
AS	0.0510	-0.1591	-0.0405	-0.0456	-0.0098	-0.1718
BA	0.4193	-0.2042	0.2541	-0.2940	0.0375	0.0869
CR	-0.0176	0.3115	0.1628	-0.0652	-0.0950	0.4129
CO	0.3198	-0.2908	-0.2315	-0.0772	0.0232	0.0970
FE	-0.3047	-0.7358	-0.1483	0.1706	0.8592	0.6490
PB	-0.3964	-0.5167	-0.3538	1.9920	0.1056	-0.1867
MG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MN	0.3378	0.0848	-0.1631	-0.1619	-0.0608	0.4545
NI	-0.2842	2.2546	0.0835	0.1382	-0.2941	-1.0027
V	-0.0041	-0.0985	0.3761	-0.1262	-0.0428	-0.2967
ZN	0.5277	-0.0912	-0.0132	-0.7931	-0.0543	-0.3319

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-15.46862	-0.82784	-1.49171	-1.66528	-0.57159	-8.59809	-2.07379	-372.7979	-1.08897	-4.17486	-2.39579	-1.69186	-0.94388	-5.46962
MAXIMUM DOMAIN VALUE	231.75062	5.84521	2.47621	2.23763	4.75584	19.7614	2.04961	6196.2316	8.07748	5.22994	2.82311	13.4181	2.97743	2.71776
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-10.12963	-0.24966	-0.53275	-1.45548	-0.52745	-1.45697	0.00374	1478.6566	-0.17663	-1.04967	-2.08693	-0.05289	-0.30457	0.1396
BASS-BWBK-SS-BA102-0001	-10.60822	-0.21362	-0.70593	-1.66528	-0.54618	-1.1983	0.12312	1414.1586	-0.14605	-1.14439	-2.39579	0.0134	-0.37374	0.05573
BASS-BWBK-SS-BA103-0001	-10.17262	-0.21446	-0.62649	-1.56339	-0.53085	-1.45663	0.11866	1496.3292	-0.14007	-1.03211	-2.24114	-0.02596	-0.38268	0.02072
BASS-BWBK-SS-BA104-0001	-11.14869	-0.25704	-0.35538	-1.35865	-0.51824	-2.3218	0.08816	1757.8172	-0.18548	-0.67097	-1.94344	-0.05911	-0.40485	-0.07654
BASS-BWBK-SS-BA105-0001	-9.844201	-0.23023	-0.57055	-1.61051	-0.52999	-1.18426	0.13962	1620.7906	-0.17652	-0.86435	-2.32221	0.02271	-0.34802	-0.01418
BASS-BWBK-SS-BA106-0001	-12.11411	-0.29042	-0.24433	-1.36404	-0.52128	-2.52832	0.09568	1965.744	-0.24421	-0.36728	-1.9561	-0.02504	-0.43733	-0.08977
BASS-BWBK-SS-BA107-0001	-10.01952	-0.20332	-0.70818	-1.62334	-0.5326	-1.26728	0.13144	1404.2653	-0.13315	-1.16275	-2.33359	0.00473	-0.38088	0.03369
BASS-BWBK-SS-BA108-0001	-11.32403	-0.217	-0.62552	-1.6206	-0.54203	-1.66673	0.13508	1521.7351	-0.15168	-0.99156	-2.33276	0.02276	-0.42542	0.00384
BASS-BWBK-SS-BA109-0001	-15.46862	-0.30678	-0.16477	-1.50951	-0.57159	-3.02621	0.15502	2128.2824	-0.25525	-0.1373	-2.17246	0.00328	-0.51426	-0.20631
BASS-BWBK-SS-BA110-0001	-8.843593	-0.23549	-0.3222	-1.25733	-0.49696	-1.94272	0.0049	1781.065	-0.142	-0.62481	-1.78152	-0.13581	-0.33521	0.07502
BASS-BWBK-SS-BA111-0001	-10.99711	-0.2386	-0.58319	-1.53897	-0.53809	-1.58965	0.06155	1510.7226	-0.17391	-0.99754	-2.20866	-0.01006	-0.37886	0.10246
BASS-BWBK-SS-BA112-0001	-10.71902	-0.22681	-0.64402	-1.55605	-0.54147	-1.4235	0.04138	1383.5884	-0.15089	-1.17986	-2.2342	-0.01966	-0.34857	0.13576
BASS-BWBK-SS-BA113-0001	-5.412932	-0.11083	-0.67965	-1.63393	-0.4124	-1.23352	0.16651	1453.469	-0.01268	-1.10656	-2.37141	-0.1138	-0.37253	-0.04502
MASB-BWBK-SB-MA01-0105	17.131651	-0.05836	0.92223	-0.44069	-0.11826	0.84849	-0.14852	3783.1082	0.09823	2.14951	-0.58905	-0.5687	0.24133	0.14379
MASB-BWBK-SB-MA02-0107	13.01685	-0.36587	1.18359	-0.14225	-0.21624	1.15084	-0.02412	4090.7847	-0.34598	2.50825	-0.12741	-0.47139	0.38811	-0.26269
MASB-BWBK-SB-MA03-0108	23.573185	0.09527	0.96794	-0.8263	-0.09798	2.71605	0.22167	4065.3859	0.34006	2.3925	-1.18311	-0.63945	0.48569	-0.56488
MASB-BWBK-SB-MA04-0106	11.176282	-0.30008	1.50307	-0.02916	-0.15568	-1.08576	0.01298	4378.4292	-0.19257	2.90905	0.03707	-0.71047	0.1902	-0.5398
MASB-BWBK-SB-MA05-0108	13.212379	-0.31666	0.90675	-0.26839	-0.18121	0.81758	0.24081	3717.7144	-0.27689	1.90957	-0.31594	-0.54013	0.29576	-0.74228
MASB-BWBK-SB-MA06-0105	10.132992	-0.37733	1.03812	-0.15905	-0.22017	0.15065	0.10854	3943.0856	-0.37681	2.29835	-0.14328	-0.44973	0.18638	-0.45591
MASB-BWBK-SB-MA07-0108	10.710963	-0.50958	0.55866	-0.37893	-0.31658	3.03976	0.04887	3155.6272	-0.59381	1.14026	-0.48106	-0.2489	0.57731	-0.27469
MASB-BWBK-SB-MA08-0108	36.588446	-0.82784	0.6517	0.23401	-0.19735	12.9871	-0.41077	2904.15	-1.08897	0.60936	0.40232	-0.31901	2.27943	0.33466
MASB-BWBK-SB-MA09-0108	25.663609	-0.34254	0.35903	-0.44006	-0.16176	6.52291	0.15434	2876.2642	-0.36818	0.6125	-0.60408	-0.38788	1.08903	-0.48323
MASB-BWBK-SB-MA10-0104	12.683256	-0.43816	0.02245	-0.73065	-0.3459	4.88556	-0.01908	2453.8373	-0.53209	0.16517	-1.02082	-0.07108	0.7139	0.07038
MASB-BWBK-SB-MA11-0108	19.292306	-0.44993	0.87669	-0.10059	-0.181	3.88557	0.01256	3625.865	-0.55862	1.76661	-0.11236	-0.18729	0.76274	-0.29415
MASB-BWBK-SB-MA12-0108	20.717189	-0.31327	0.90419	-0.42203	-0.17445	4.05258	0.21106	3700.308	-0.27333	1.80461	-0.56999	-0.52057	0.8049	-0.72288
MASB-BWBK-SB-MA13-0105	11.496282	-0.07444	-0.0797	-0.16175	-0.13707	-1.24489	0.0849	2376.8765	0.04856	0.187	-0.08625	-0.60412	-0.28197	-0.01683
MASB-BWBK-SB-MA14-0104	31.492043	-0.17516	-0.02961	0.14365	-0.04869	5.91221	-0.22209	2366.8781	-0.14153	0.06973	0.34323	-0.57025	0.85168	0.50819
MASB-BWBK-SB-MA15-0105	24.353996	-0.13778	-0.05986	0.33719	-0.03747	2.19837	-0.06216	2381.6292	-0.07053	0.14353	0.67422	-0.6892	0.25612	0.24525
MASB-BWBK-SB-MA16-0104	16.1961	-0.11079	-0.04844	-0.40997	-0.17044	1.76383	0.01524	2392.1541	-0.03405	0.14259	-0.51029	-0.38528	0.19976	0.07338
MASB-BWBK-SB-MA17-0104	21.322784	-0.03681	-0.38481	-0.05374	-0.07386	1.90941	-0.12774	1859.5568	0.0789	-0.55461	0.07123	-0.61643	0.16167	0.45692
MASB-BWBK-SB-MA18-0104	9.5686701	-0.23484	0.18638	0.30058	-0.10969	-2.47431	0.06293	2635.1545	-0.18292	0.55777	0.61923	-0.67034	-0.36497	-0.12163
MASB-BWBK-SB-MA19-0103	10.54152	-0.06017	-0.12931	-0.27386	-0.14927	-1.35324	0.14479	2349.6075	0.05778	0.13952	-0.26317	-0.53922	-0.3238	-0.10176
MASB-BWBK-SB-MA20-0103	11.294636	-0.32103	0.79449	-0.37922	-0.24072	1.00325	0.23711	3766.4629	-0.31948	2.02267	-0.47132	-0.35785	0.20252	-0.55429
MASS-BWBK-SS-MA01-0001	6.9858271	0.06926	-0.8589	-0.38614	-0.15864	-2.71837	0.14735	1291.9955	0.15804	-1.3027	-0.45936	-0.16762	-0.68609	0.12647
MASS-BWBK-SS-MA02-0001	14.563489	0.18539	-0.37799	0.48352	0.06398	-4.90235	0.06577	2003.4952	0.35798	-0.23757	0.89714	-0.63704	-0.94388	0.19312
MASS-BWBK-SS-MA03-0001	9.7582995	-0.02057	-0.54937	-0.22648	-0.14935	-1.63175	0.0365	1630.3826	0.04339	-0.84709	-0.22979	-0.21598	-0.41452	0.18974
MASS-BWBK-SS-MA04-0001	8.1674739	-0.03236	-0.17046	-0.04973	-0.12689	-3.08364	0.05606	2174.4285	0.0399	-0.06788	0.03296	-0.2704	-0.56053	0.04449
MASS-BWBK-SS-MA05-0001	12.060791	-0.19269	0.23409	0.38108	-0.07508	-2.28473	0.02509	2652.0613	-0.19856	0.55577	0.67016	-0.32188	-0.30815	-0.09282
MASS-BWBK-SS-MA06-0001	25.768165	0.0591	-0.0196	0.82777	0.12449	-1.17121	-0.11721	2095.7446	0.1797	-0.25648	1.34587	-0.60594	-0.10828	0.14642
MASS-BWBK-SS-MA07-0001	-0.174448	-0.08179	-1.2779	-1.11658	-0.369	-0.67143	0.27221	795.23161	-0.13101	-2.05773	-1.60644	0.40122	-0.49244	0.03486
MASS-BWBK-SS-MA08-0001	22.006032	-0.08546	-0.69509	0.14619	-0.04346	1.7916	0.03945	1265.2513	-0.31866	-1.53927	0.1295	0.86667	0.1532	0.07829
MASS-BWBK-SS-MA09-0001	33.715736	0.10202	0.11998	1.52916	0.35756	-2.4164	0.01711	2381.2914	-0.02367	0.08627	2.24367	0.20572	-0.31143	-0.12081
MASS-BWBK-SS-MA10-0001	27.609197	-0.04775	-0.09555	0.91333	0.16289	-0.3956	0.00467	2065.6748	-0.19837	-0.37598	1.3329	0.28037	-0.03806	-0.04948
MASS-BWBK-SS-MA11-0001	35.51226	-0.05416	-0.32634	1.02123	0.16638	2.83859	-0.24134	1638.0177	-0.08786	-0.96146	1.59724	-0.30243	0.44509	0.46114
MASS-BWBK-SS-MA12-0001	7.8224762	-0.21277	-0.01876	-0.01006	-0.16083	-1.96465	0.08344	2420.5709	-0.24332	0.24699	0.08563	-0.18209	-0.36716	-0.0521
MASS-BWBK-SS-MA13-0001	25.046806	0.11846	-0.57868	0.74132	0.12258	-1.26156	-0.08007	1487.1969	0.22976	-1.05635	1.25543	-0.5777	-0.326	0.37622
MASS-BWBK-SS-MA14-0001	17.396908	0.13584	-0.80012	0.25039	0.04315	-2.63184	0.26724	1325.3715	0.10365	-1.35953	0.39996	0.22833	-0.62854	-0.19794
MASS-BWBK-SS-MA15-0001	17.277916	0.08951	-0.7197	0.47138	0.042	-2.79252	0.10689	1401.1894	0.10861	-1.18451	0.80163	-0.1245	-0.63275	0.10659
MASS-BWBK-SS-MA16-0001	15.373927	-0.11251	-0.60153	0.12431	-0.08135	-0.34915	0.11341	1553.8485	-0.16211	-1.02716	0.27278	-0.0578	-0.21861	0.02032
MASS-BWBK-SS-MA17-0001	17.500473	-0.0382	-0.58173	0.28444	-0.02267	-0.88808	0.05857	1606.8496	-0.04287	-0.91495	0.53307	-0.2013	-0.31519	0.15771
MASS-BWBK-SS-MA18-0001	16.393904	-0.07069	-0.74693	0.27121	-0.0252	-1.14885	0.27985	1427.0333	-0.15719	-1.23582	0.47873	0.06881	-0.39564	-0.23771
MASS-BWBK-SS-MA19-0001	19.855682	-0.01206	-0.60608	0.34964	0.01393	-0.67971	0.12475	1574.5758	-0.04085	-0.99978	0.60432	-0.08632	-0.28273	0.01706
MASS-BWBK-SS-MA20-0001	15.966804	-0.11275	-0.18485	0.04448	-0.08166	-0.2579	0.16009	2213.9039	-0.14794	-0.12275	0.13367	-0.06973	-0.14145	-0.17064
MMSB-BWBK-SB-MM101-0110	2.5467722	-0.18065	-0.0104	-0.8345	-0.36748	-0.19082	-0.08524	2191.717	-0.13829	-0.11023	-1.21366	0.07428	0.00948	0.12755
MMSB-BWBK-SB-MM102-0109	-7.099129	-0.35838	0.95953	-0.42872	-0.39857	-4.36778	0.15794	3682.1777	-0.32917	1.9977	-0.56435	-0.15177	-0.45966	-0.59651
MMSB-BWBK-SB-MM103-0107	1.7242706	-0.02328	0.132	-0.86041	-0.32368	-1.99244	-0.06518	2452.9823	0.14186	0.30439	-1.22688	-0.17351	-0.26402	0.09653
MMSB-BWBK-SB-MM104-0110	4.8307261	-0.32346	0.41979	-0.11905	-0.32253	-0.22113	-0.68544	2016.6634	-0.22433	-0.31172	-0.13337	-0.32337	0.40303	0.76657
MMSB-BWBK-SB-MM105-0110	-2.502951	-0.18551	-0.22531	-1.02265	-0.40594	-1.41402	0.16675	2153.125	-0.15013	-0.14935	-1.45343	0.03455	-0.32554	-0.15858
MMSB-BWBK-SB-MM106-0110	5.5496006	-0.23742	0.84936	0.23727	-0.19734	-3.05128	-0.42493	2879.1842	-0.08269	0.91176	0.43937	-0.6205	-0.03575	0.2587
MMSB-BWBK-SB-MM107-0110	-0.360382	-0.17898	0.11067	-0.67305	-0.32377	-2.08958	-0.22158	2382.7957	-0.08557	0.27791	-0.91517	-0.26443	-0.28546	0.42922
MMSB-BWBK-SB-MM108-0110	0.9325773	-0.20765	-0.00479	-0.56183	-0.34041	-1.51625	-0.11756	2108.1474	-0.12236	-0.19044	-0.75105	-0.23051	-0.1551	0.14829
MMSB-BWBK-SB-MM109-0110	8.8653352	-0.13141	0.20692	-0.02722	-0.1902	-1.69503	-0.15038	2492.281	-0.02779	0.36382	0.06979	-0.40893	-0.17943	0.21043
MMSB-BWBK-SB-MM110-0109	2.8133431	-0.2482	0.12897	-0.31291	-0.29228	-1.56133	-0.21682	2352.2074	-0.20104	0.19919	-0.36705	-0.26496	-0.17135	0.36538
MMSB-BWBK-SB-MM111-0110	4.8827182	-0.2413	0.26624	-0.27353	-0.29986	-0.89275	-0.235	2400.8204	-0.17958	0.2086	-0.33692	-0.20815	0.03104	0.24786
MMSB-BWBK-SB-MM112-0110	5.818686	-0.23424	0.37661	-0.11704	-0.26081	-1.39885	-0.21999	2627.0816	-0.12951	0.55331	-0.05618	-0.48151	-0.05357	0.23371
MMSB-BWBK-SB-MM113-0110	-3.754376	-0.30247	0.65988	-0.37995	-0.32821	-3.62664	-0.24282	3132.3674	-0.24228	1.35486	-0.4701	-0.33005	-0.39622	0.29674
MMSB-BWBK-SB-MM114-0110	-0.709347	-0.14207	-0.04939	-0.74235	-0.34947	-2.21804	0.07533	2312.4539	-0.04509	0.10209	-1.00923	-0.19474	-0.37858	-0.06934

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-15.46862	-0.82784	-1.49171	-1.66528	-0.57159	-8.59809	-2.07379	-372.7979	-1.08897	-4.17486	-2.39579	-1.69186	-0.94388	-5.46962
MAXIMUM DOMAIN VALUE	231.75062	5.84521	2.47621	2.23763	4.75584	19.7614	2.04961	6196.2316	8.07748	5.22994	2.82311	13.4181	2.97743	2.71776
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	10.588101	0.02519	-0.07846	0.0028	-0.14957	-2.09312	-0.35512	1666.4745	0.29958	-0.78785	0.13552	-0.77366	-0.12309	0.46121
MMSB-BWBK-SB-MM116-0110	0.3950714	-0.16418	0.2818	-0.6291	-0.32565	-2.18813	-0.11597	2577.6036	-0.05797	0.48617	-0.87071	-0.21665	-0.22821	0.104
MMSB-BWBK-SB-MM117-0110	-0.781972	-0.13748	-0.18376	-1.03485	-0.40395	-0.9661	0.05768	2065.478	-0.03924	-0.2784	-1.4728	-0.07407	-0.1873	-0.04057
MMSB-BWBK-SB-MM118-0110	-9.501022	-0.33245	1.39868	-0.74194	-0.43139	-5.15611	0.61531	4756.245	-0.33403	3.42677	-1.06489	0.06714	-0.65031	-1.42737
MMSB-BWBK-SB-MM119-0110	-1.505354	-0.2283	0.17956	-0.69996	-0.37592	-1.80263	-0.1196	2313.3991	-0.13251	0.08906	-0.97586	-0.20886	-0.134	0.05758
MMSB-BWBK-SB-MM120-0110	-3.902668	-0.14396	-0.52752	-1.2909	-0.45654	-0.82598	0.07489	1629.816	-0.05821	-0.86675	-1.84512	-0.01298	-0.26303	0.06961
MMSS-BWBK-SS-MM101-0001	15.638373	-0.26862	-0.3898	0.89662	-0.05939	-1.1265	-0.18242	1712.6848	-0.36292	-0.70811	1.49474	-0.24934	-0.25865	0.51593
MMSS-BWBK-SS-MM102-0001	6.1822341	-0.3026	-0.55883	0.03712	-0.24701	-0.8571	-0.01195	1696.1617	-0.36414	-0.7213	0.22933	-0.22924	-0.33814	0.35058
MMSS-BWBK-SS-MM103-0001	13.385266	-0.32402	-0.47017	0.71392	-0.11256	-0.71897	-0.12462	1661.6199	-0.47881	-0.79489	1.19994	-0.04069	-0.23755	0.45524
MMSS-BWBK-SS-MM104-0001	13.631739	-0.25608	-0.23938	0.67461	-0.10339	-1.1681	-0.17196	1889.6824	-0.34535	-0.4804	1.12386	-0.10546	-0.21481	0.41865
MMSS-BWBK-SS-MM105-0001	6.827367	-0.2076	-0.80588	-0.14606	-0.23269	-0.83967	0.08288	1390.6491	-0.28058	-1.17906	-0.0855	-0.00095	-0.40114	0.25071
MMSS-BWBK-SS-MM106-0001	13.482387	-0.2536	-0.25989	0.69198	-0.09087	-1.29133	-0.27719	1880.8632	-0.2895	-0.42818	1.20197	-0.40181	-0.25823	0.67606
MMSS-BWBK-SS-MM107-0001	12.40897	-0.30456	-0.19875	0.8458	-0.09944	-1.74282	-0.23438	1933.13	-0.36049	-0.37076	1.43922	-0.4007	-0.2942	0.54154
MMSS-BWBK-SS-MM108-0001	14.254733	-0.28132	-0.54769	0.98809	-0.05471	-1.8285	-0.08097	1663.0072	-0.39275	-0.74825	1.67395	-0.31026	-0.47297	0.47317
MMSS-BWBK-SS-MM109-0001	8.966247	-0.35664	-0.50731	0.65524	-0.16614	-1.54602	-0.14467	1644.4791	-0.4514	-0.76056	1.18135	-0.33673	-0.39068	0.5471
MMSS-BWBK-SS-MM110-0001	5.857218	-0.17115	-1.05973	-0.30062	-0.25655	-0.70494	0.09999	1063.2283	-0.25455	-1.63474	-0.32704	0.13627	-0.44894	0.3161
MMSS-BWBK-SS-MM111-0001	4.5453075	-0.20854	-0.90799	-0.13597	-0.25895	-1.35346	0.00222	1218.6389	-0.27712	-1.37647	-0.05729	0.00893	-0.49919	0.44915
MMSS-BWBK-SS-MM112-0001	3.2368959	-0.17976	-0.99624	-0.42121	-0.28607	-1.17021	0.11524	1142.0316	-0.26031	-1.52021	-0.51735	0.17348	-0.50141	0.25992
MMSS-BWBK-SS-MM113-0001	12.22642	-0.2384	-0.68546	0.59759	-0.10635	-1.44064	-0.03645	1377.1209	-0.40501	-1.20824	0.98957	0.19087	-0.39845	0.351
MMSS-BWBK-SS-MM114-0001	2.0345216	-0.14144	-1.04197	-0.64593	-0.31543	-1.06582	0.13175	1148.444	-0.14766	-1.48932	-0.81504	-0.05206	-0.52408	0.2874
MMSS-BWBK-SS-MM115-0001	7.033324	-0.16789	-0.95899	-0.25382	-0.24293	-0.51997	0.04102	1213.3467	-0.19967	-1.39927	-0.22012	-0.11552	-0.4061	0.41736
MMSS-BWBK-SS-MM116-0001	5.0236708	-0.17175	-0.99161	-0.36121	-0.27083	-0.76839	0.06911	1118.7916	-0.22369	-1.5498	-0.40954	0.0407	-0.42729	0.3346
MMSS-BWBK-SS-MM117-0001	10.772827	-0.23072	-0.53215	0.35864	-0.15855	-1.0527	-0.09794	1605.7045	-0.30993	-0.86177	0.66802	-0.07668	-0.31333	0.44146
MMSS-BWBK-SS-MM118-0001	-0.101214	-0.22357	-0.28609	-0.47326	-0.34428	-1.83751	-0.06992	1859.6678	-0.17062	-0.50133	-0.57952	-0.22722	-0.33165	0.24364
MMSS-BWBK-SS-MM119-0001	-1.473465	-0.2013	-0.33432	-0.6796	-0.37005	-1.91072	0.09648	1977.3681	-0.14786	-0.35239	-0.88288	-0.18817	-0.42246	0.02219
MMSS-BWBK-SS-MM120-0001	6.9301327	-0.33641	-0.55149	-0.49424	-0.3261	1.79926	-0.18781	1686.6256	-0.4032	-0.73087	-0.6	-0.12917	0.0671	0.69773
NESB-BWBK-SB-NE01-0108	1.089558	-0.47382	1.02288	-0.00897	-0.34037	-1.63028	-0.24713	3545.3706	-0.4813	1.84038	0.0826	-0.32506	0.04347	0.09226
NESB-BWBK-SB-NE02-0109	9.5712317	-0.13895	0.74569	-0.18404	-0.21447	-1.04225	-0.26289	3214.0363	0.02003	1.37741	-0.18104	-0.52883	0.048	0.2484
NESB-BWBK-SB-NE03-0105	4.1969645	-0.41723	0.4109	-0.26151	-0.35714	0.35688	-0.20775	2826.4238	-0.43922	0.82115	-0.28051	-0.23052	0.15628	0.28514
NESB-BWBK-SB-NE04-0110	1.9577235	-0.328	0.52684	-0.30628	-0.33627	-1.31505	-0.15245	2922.573	-0.28919	0.95509	-0.36359	-0.27204	-0.04125	0.09455
NESB-BWBK-SB-NE05-0108	1.8879105	-0.45715	0.78852	-0.15009	-0.34779	-0.9257	-0.18017	3296.8162	-0.47522	1.47663	-0.12507	-0.28344	0.07056	0.07116
NESB-BWBK-SB-NE06-0109	1.2535638	-0.39899	0.6315	-0.35682	-0.36722	-0.86857	-0.07384	3163.4363	-0.39951	1.27142	-0.43836	-0.22518	0.01585	-0.05249
NESB-BWBK-SB-NE07-0107	2.4023545	-0.45948	0.92975	0.00137	-0.32101	-1.42099	-0.17383	3537.7137	-0.4849	1.8261	0.10542	-0.30108	0.00516	0.04513
NESB-BWBK-SB-NE08-0104	0.417096	-0.3484	0.45043	-0.34904	-0.34653	-1.70063	0.02462	3027.8728	-0.33977	1.09973	-0.40607	-0.25344	-0.19941	-0.11769
NESB-BWBK-SB-NE09-0110	1.398851	-0.37314	0.5123	-0.38941	-0.36063	-0.81143	-0.15021	2954.9342	-0.35625	1.00484	-0.48169	-0.26437	0.00906	0.12753
NESB-BWBK-SB-NE10-0107	5.899009	-0.29308	0.18921	0.07361	-0.22705	-1.6988	-0.14395	2472.2786	-0.26332	0.3488	0.24643	-0.43243	-0.18731	0.2096
NESB-BWBK-SB-NE101-0110	9.604891	-0.12911	0.12914	0.15832	-0.17724	-1.87009	-0.20632	2302.3539	0.00296	0.10944	0.37736	-0.55112	-0.19024	0.30399
NESB-BWBK-SB-NE102-0110	8.3639675	-0.03248	-0.04398	-0.03129	-0.17413	-2.53159	-0.10913	2134.3805	0.14648	-0.1218	0.09836	-0.57667	-0.35614	0.20593
NESB-BWBK-SB-NE103-0110	4.5872784	-0.08544	-0.22001	-0.38131	-0.26122	-1.97402	-0.03215	1981.9811	0.0523	-0.34381	-0.43296	-0.41465	-0.34556	0.15679
NESB-BWBK-SB-NE104-0110	2.0707647	-0.09189	-0.35115	-0.66764	-0.31577	-1.7059	0.03968	1866.3645	0.03164	-0.51605	-0.87165	-0.3015	-0.35792	0.08775
NESB-BWBK-SB-NE105-0110	10.178909	-0.08342	0.02674	-0.01209	-0.17874	-1.4482	-0.21507	2121.5218	0.07821	-0.15469	0.11286	-0.56676	-0.13055	0.32691
NESB-BWBK-SB-NE106-0110	6.2478629	-0.09517	0.04904	-0.18538	-0.2269	-2.18464	-0.083	2279.8182	0.05464	0.06643	-0.14607	-0.48671	-0.28607	0.12493
NESB-BWBK-SB-NE107-0510	1.4829669	-0.14152	-0.28973	-0.66507	-0.34375	-1.25798	-0.1139	1720.5453	-0.0171	-0.72676	-0.88709	-0.28802	-0.18215	0.23993
NESB-BWBK-SB-NE108-0110	6.7701562	-0.11991	-0.16776	-0.12022	-0.2292	-1.74098	-0.14939	1905.9575	0.01406	-0.44911	-0.03698	-0.49215	-0.23981	0.291
NESB-BWBK-SB-NE109-0110	6.7180281	-0.09338	-0.15142	-0.17658	-0.23175	-1.77534	-0.16163	1945.2603	0.05138	-0.38689	-0.12708	-0.4706	-0.25048	0.32423
NESB-BWBK-SB-NE110-0110	4.1865485	-0.13954	-0.13725	-0.2318	-0.2652	-2.00163	-0.19487	1907.1102	-0.01487	-0.43201	-0.21841	-0.41236	-0.26004	0.35635
NESS-BKG-SS03-NEB-0016	19.150669	-0.1449	-0.21458	0.92187	0.04412	-1.86688	-0.01497	1797.3799	-0.55933	-0.76892	1.18272	1.51421	-0.25793	-0.02214
NESS-BKG-SS09-NEB-0018	10.349668	-0.18423	-0.65892	0.34828	-0.12004	-1.81325	-0.05307	1390.3806	-0.27041	-1.16806	0.63046	-0.00517	-0.44009	0.36753
NESS-BWBK-SS-NE01-0001	25.495403	-0.15596	0.1018	1.20621	0.15943	-1.11465	-0.21269	2338.7372	-0.22695	0.13413	1.89775	-0.37272	-0.12445	0.37492
NESS-BWBK-SS-NE02-0001	19.07194	-0.25282	0.45627	0.80565	0.09246	-1.86368	-0.01617	2939.0453	-0.32091	0.9519	1.29553	-0.47767	-0.19087	-0.09259
NESS-BWBK-SS-NE03-0001	15.497056	-0.33077	-0.14504	0.93776	-0.05375	-1.0782	-0.20995	2164.6094	-0.43666	-0.0399	1.57839	-0.37585	-0.25114	0.57361
NESS-BWBK-SS-NE04-0001	12.678179	-0.32674	0.25075	0.91833	-0.09078	-2.02566	-0.26891	2578.4806	-0.37803	0.5382	1.5329	-0.4228	-0.24877	0.48117
NESS-BWBK-SS-NE05-0001	14.29411	-0.25635	-0.02808	0.73147	-0.0314	-1.85518	-0.19263	2258.8417	-0.37644	0.07393	1.18865	-0.10231	-0.31568	0.45682
NESS-BWBK-SS-NE06-0001	7.6863329	-0.39315	0.35029	0.7313	-0.15656	-2.68727	-0.12993	2840.0564	-0.46455	0.90219	1.26242	-0.39918	-0.37232	0.23507
NESS-BWBK-SS-NE07-0001	18.366366	-0.23837	-0.21171	0.8809	0.0159	-1.16409	-0.06909	1955.2486	-0.44524	-0.44459	1.34873	0.26418	-0.21614	0.20177
NESS-BWBK-SS-NE08-0001	12.022632	-0.347	0.06081	0.8081	-0.10397	-1.76136	-0.13681	2487.1782	-0.43803	0.40369	1.37999	-0.35999	-0.31884	0.37369
NESS-BWBK-SS-NE09-0001	20.1588	-0.18225	-0.28379	1.3479	0.07385	-2.29475	-0.19457	1960.4066	-0.28502	-0.32217	2.17282	-0.27001	-0.46659	0.58832
NESS-BWBK-SS-NE10-0001	13.954581	-0.22822	-0.11838	0.60426	-0.05235	-1.79855	0.01261	2086.3867	-0.45184	-0.28592	0.88594	0.5312	-0.28661	-0.00373
NESS-BWBK-SS-NE101-0001	9.649939	-0.1999	-0.53087	0.53918	-0.13547	-2.33616	-0.09081	1695.3754	-0.20583	-0.67418	1.01423	-0.43067	-0.55072	0.50061
NESS-BWBK-SS-NE102-0001	6.1979096	-0.15919	-0.76606	-0.07803	-0.21545	-1.72922	0.06552	1386.5961	-0.21854	-1.17782	-0.00071	0.05783	-0.50508	0.24224
NESS-BWBK-SS-NE103-0001	3.3968881	-0.17603	-0.76159	-0.32073	-0.26578	-1.71827	0.11237	1440.2386	-0.23434	-1.10392	-0.36804	0.09319	-0.5198	0.17155
NESS-BWBK-SS-NE104-0001	3.7676126	-0.27365	-0.61359	-0.07584	-0.27317	-1.4645	0.01924	1456.4603	-0.50145	-1.13142	-0.11439	0.74851	-0.37311	0.19023
NESS-BWBK-SS-NE105-0001	3.9174468	-0.14069	-0.92861	-0.39076	-0.2696	-1.40021	0.08477	1242.4016	-0.15059	-1.35617	-0.43536	-0.08134	-0.52557	0.31046
NESS-BWBK-SS-NE106-0001	4.4611832	-0.1665	-0.8588	-0.20569	-0.25191	-1.61809	0.02841	1099.0786	-0.38274	-1.63512	-0.33887	0.90047	-0.44561	0.24307
NESS-BWBK-SS-NE107-0001	6.8620248	-0.11304	-1.00359	-0.12442	-0.20358	-1.603	0.06246	1082.4298	-0.15831	-1.58949	-0.05775	0.03421	-0.55223	0.34741
NESS-BWBK-SS-NE108-0001	7.4442342	-0.09215	-0.85696	-0.10741	-0.19316	-1.73447	0.04661	1194.6512	-0.12617	-1.45631	-0.06049	0.08323	-0.49785	0.26804
NESS-BWBK-SS-NE109-0001	4.522474	-0.12012	-0.98889	-0.35848	-0.26002	-1.38374	0.04554	1112.2152	-0.11554	-1.53298	-0.38409	-0.10959	-0.51888	0.38474
NESS-BWBK-SS-NE110-0001	5.9095786	-0.14724	-1.03784	-0.29264	-0.24332	-1.04582	0.15255	986.53973	-0.28379	-1.79764	-0.38903	0.47988	-0.44388	0.11927

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-15.46862	-0.82784	-1.49171	-1.66528	-0.57159	-8.59809	-2.07379	-372.7979	-1.08897	-4.17486	-2.39579	-1.69186	-0.94388	-5.46962
MAXIMUM DOMAIN VALUE	231.75062	5.84521	2.47621	2.23763	4.75584	19.7614	2.04961	6196.2316	8.07748	5.22994	2.82311	13.4181	2.97743	2.71776
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	12.210861	-0.10689	0.89628	0.11522	-0.12253	-2.3683	0.25213	3939.4722	0.02176	2.33469	0.31441	-0.62439	-0.30958	-0.56958
PMSB-BWBK-SB-PM02-0104	34.198941	-0.34866	0.14132	0.3551	-0.08428	8.16748	-0.61001	2340.1883	-0.37503	0.06033	0.654	-0.56587	1.32417	1.10019
PMSB-BWBK-SB-PM03-0106	20.926147	-0.40096	0.77652	-0.27725	-0.25151	5.44957	-0.07766	3475.7816	-0.3966	1.55904	-0.32002	-0.46003	0.98648	-0.08943
PMSB-BWBK-SB-PM04-0105	13.165508	-0.3406	0.81273	-0.15702	-0.21768	1.25005	0.08603	3491.1366	-0.34279	1.61103	-0.16662	-0.32295	0.36992	-0.44136
PMSB-BWBK-SB-PM05-0105	16.73477	-0.22388	0.56473	-0.21073	-0.19134	2.14204	-0.12738	3078.1908	-0.14236	1.08693	-0.2227	-0.49094	0.46344	0.05714
PMSB-BWBK-SB-PM06-0105	21.154813	-0.14036	0.49855	-0.27314	-0.16301	3.5248	-0.4174	2899.288	0.01482	0.89786	-0.3029	-0.66583	0.67486	0.64567
PMSB-BWBK-SB-PM07-0105	24.950732	0.03391	-0.27218	-0.57308	-0.15395	4.84058	-0.20216	2002.5867	0.22462	-0.41322	-0.73873	-0.5754	0.64742	0.53742
PMSB-BWBK-SB-PM08-0106	16.995823	-0.0956	0.34366	-0.33077	-0.16757	1.47354	0.04153	2906.058	0.03885	0.83405	-0.38935	-0.52822	0.2649	-0.14113
PMSB-BWBK-SB-PM09-0106	7.0595136	-0.19876	0.26996	-0.73922	-0.30587	0.43026	0.19135	2939.3238	-0.10991	0.90023	-0.99306	-0.38103	0.03622	-0.33673
PMSB-BWBK-SB-PM10-0105	23.726977	-0.11959	-0.11053	-0.04962	-0.0707	3.09628	-0.07084	2241.6607	-0.02865	-0.0797	0.06552	-0.66266	0.41551	0.22508
PMSB-BWBK-SB-PM11-0104	24.275412	0.01184	0.48343	-0.52695	-0.13645	3.78455	-0.05387	3321.9892	0.19478	1.43343	-0.6837	-0.58489	0.54508	0.15042
PMSB-BWBK-SB-PM12-0105	3.1446262	-0.16612	0.12559	-0.44066	-0.25016	-2.26872	0.00985	2611.3861	-0.07586	0.55974	-0.5305	-0.42423	-0.38127	0.05816
PMSB-BWBK-SB-PM13-0106	22.578955	-0.16057	-0.42793	0.03272	-0.11354	3.62363	-0.37122	1670.1072	-0.09246	-0.79195	0.21163	-0.61629	0.45337	0.90303
PMSB-BWBK-SB-PM14-0106	9.8562358	-0.07253	-0.16417	-0.41843	-0.19483	-0.61333	0.00038	2202.4059	0.05086	-0.0499	-0.49193	-0.48235	-0.18549	0.15289
PMSB-BWBK-SB-PM15-0105	14.38067	-0.22854	0.15296	-0.16914	-0.19198	1.42642	-0.10769	2570.0558	-0.18364	0.4218	-0.13342	-0.44318	0.22766	0.20987
PMSB-BWBK-SB-PM16-0106	8.6263509	-0.21962	0.06991	-0.28551	-0.23187	-0.28071	0.01036	2516.8019	-0.1668	0.36876	-0.2957	-0.41926	-0.07448	0.04036
PMSB-BWBK-SB-PM17-0105	18.824634	-0.05384	0.2032	-0.26326	-0.15244	1.85947	-0.11216	2491.6425	0.09742	0.2501	-0.31102	-0.47314	0.37936	0.08756
PMSB-BWBK-SB-PM18-0105	17.75591	-0.55437	0.66322	-0.21631	-0.29711	5.66135	-0.18581	3255.1777	-0.66534	1.28158	-0.2413	-0.24769	1.00727	0.1469
PMSB-BWBK-SB-PM19-0105	15.4482	-0.30277	0.46488	-0.11447	-0.19616	1.95616	-0.04347	3063.0298	-0.29298	1.07418	-0.06259	-0.42219	0.36074	-0.00336
PMSB-BWBK-SB-PM20-0106	11.887119	-0.26286	0.36136	-0.18598	-0.20875	0.59569	0.03357	2938.7367	-0.22823	0.91685	-0.16031	-0.43663	0.12394	-0.10957
PMSB-BWBK-SB-SO01-0107-PM	15.691109	-0.42628	0.92624	-0.17114	-0.22117	2.59298	0.28066	3987.7561	-0.51242	2.27106	-0.17586	-0.24231	0.46671	-0.68707
PMSB-BWBK-SB-SO02-0109-PM	21.349171	-0.56008	0.51331	-0.12841	-0.24411	6.37739	-0.05803	3134.5906	-0.72549	1.06551	-0.1204	-0.1619	1.05557	-0.03058
PMSB-BWBK-SB-SO13-0104-PM	21.092706	-0.40187	0.87335	-0.4812	-0.26322	5.68484	0.30682	3981.307	-0.48154	2.18226	-0.6638	-0.13588	0.9111	-0.7171
PMSB-BWBK-SB-SO14-0105-PM	22.009369	-0.45708	1.11087	-0.30876	-0.22819	5.55235	0.24574	4218.4356	-0.54198	2.51489	-0.40646	-0.25271	0.981	-0.7255
PMSS-DABK-S-SO21-0001	33.863461	0.13745	-0.66286	0.03814	0.21246	2.5313	0.31588	1438.131	-0.0449	-1.40132	-0.09283	0.70117	0.24119	-0.46073
PMSS-DABK-S-SO22-0001	48.75889	0.32388	-0.6392	0.70182	0.54266	2.49247	0.26957	1349.6133	0.17534	-1.55266	0.87361	0.4351	0.28866	-0.45123
PMSS-DABK-S-SO23-0001	23.74142	-0.01975	-0.10832	0.66976	0.11656	-1.34479	0.30343	2200.2919	-0.21144	-0.25361	0.92386	0.60238	-0.22937	-0.59087
PMSS-DABK-S-SO24-0001	41.736414	0.06305	-0.96542	0.50422	0.22559	5.4522	-0.08112	910.40963	-0.05907	-2.0599	0.73561	0.15126	0.64193	0.41265
PMSS-DABK-S-SO25-0001	56.474872	-0.33613	-1.40668	0.64204	0.07704	15.695	-0.65022	-70.30094	-0.72587	-3.56022	0.88986	0.70827	2.25032	1.45192
PMSS-DABK-S-SO26-0001	44.017272	0.16057	-0.29076	0.84624	0.44937	1.95212	0.31814	1801.6397	-0.08736	-0.95441	1.05909	0.73566	0.30412	-0.69634
PMSS-DABK-S-SO27-0001	24.096312	0.04252	-0.37827	0.49876	0.13977	-1.3061	0.37279	1734.2357	-0.27869	-0.97437	0.53171	1.32978	-0.24252	-0.71585
PMSS-DABK-S-SO28-0001	39.200123	0.42064	-0.61252	0.40259	0.39904	0.2037	0.25197	1393.4111	0.40415	-1.42088	0.46626	0.35013	-0.06126	-0.3961
PMSS-DABK-S-SO29-0001	38.813454	0.11982	-0.49868	1.22424	0.35591	0.59674	0.03654	1498.5781	-0.00748	-1.20825	1.79606	0.16965	0.0302	0.00037
PMSS-DABK-S-SO30-0001	39.176981	0.36839	-0.51161	0.98129	0.42698	-0.98369	0.0685	1610.7507	0.45289	-0.97773	1.49443	-0.3645	-0.27296	0.0421
PMSS-DABK-S-SO31-0001	23.147577	0.0746	-0.90722	0.02672	0.02126	1.05325	0.0047	1043.6764	0.08481	-1.75493	0.09413	-0.06503	-0.04205	0.28894
PMSS-DABK-S-SO32-0001	49.440631	0.54312	-0.79556	0.50134	0.47448	2.79716	0.04083	904.1935	0.43098	-2.1872	0.46745	1.04661	0.38487	-0.06482
PMSS-DABK-S-SO33-0001	28.582094	0.3333	-0.51566	0.63724	0.29639	-3.04358	0.27608	1546.0986	0.3534	-1.11813	0.90528	0.13887	-0.54765	-0.43532
PMSS-DABK-S-SO34-0001	23.301552	0.18593	-0.80165	-0.0503	0.02961	0.38147	0.05636	1194.191	0.20038	-1.57174	-0.08309	0.22435	-0.11942	0.14459
PMSS-DABK-S-SO35-0001	25.220089	0.07958	-0.59065	0.2386	0.07453	0.52116	0.10285	1338.2949	-0.08713	-1.4618	0.23126	0.81394	0.0188	-0.13658
PMSS-DABK-S-SO36-0001	16.527009	-0.06199	-0.65185	0.36222	-0.02402	-1.28354	0.10969	1249.3712	-0.30699	-1.53526	0.43832	0.97479	-0.27546	-0.11177
PMSS-DABK-S-SO37-0001	28.081215	-0.01234	-0.86427	0.45541	0.07791	2.02528	-0.05496	1039.9728	-0.05864	-1.78317	0.74835	-0.1118	0.14265	0.35048
PMSS-DABK-S-SO38-0001	17.56072	0.04165	-0.78792	0.0686	-0.02983	-0.75131	0.15542	1209.9667	-0.03081	-1.55586	0.0988	0.36819	-0.28253	-0.06738
PMSS-DABK-S-SO39-0001	23.981502	0.01488	-0.78249	0.09116	-0.02374	2.02269	-0.06823	1202.9631	0.0071	-1.54055	0.19434	-0.02018	0.13841	0.38508
PMSS-DABK-S-SO40-0001	21.764647	0.11122	-0.70986	0.2859	0.06374	-0.96102	0.1077	1317.078	0.11957	-1.37968	0.46775	-0.00319	-0.2999	0.01237
SESB-BWBK-SB-SO03-0108	21.671294	-0.61758	2.30272	0.17934	-0.18453	3.78495	0.55526	6196.2316	-0.78218	5.22994	0.31614	-0.27235	0.86064	-1.57581
SESB-BWBK-SB-SO04-0108	21.279765	-0.38332	1.0799	-0.37865	-0.19569	4.54607	0.37896	4290.1935	-0.44185	2.61786	-0.50793	-0.29012	0.77698	-0.91801
SESB-BWBK-SB-SO05-0106	19.802546	-0.43634	1.01766	0.09962	-0.145	2.89283	0.22804	4082.3244	-0.51578	2.40646	0.24754	-0.42605	0.54401	-0.62763
SESB-BWBK-SB-SO06-0108	27.441675	-0.61927	1.34865	0.07933	-0.18596	7.2455	0.24239	4503.602	-0.80863	2.8469	0.16205	-0.20639	1.31929	-0.84977
SESB-BWBK-SB-SO07-0106	17.165063	-0.18182	1.49253	-0.44298	-0.13896	0.83646	0.52669	5068.8112	-0.15958	3.76589	-0.63165	-0.24871	0.21146	-1.20363
SESB-BWBK-SB-SO08-0107	26.920934	-0.46768	1.55726	0.0882	-0.11875	5.26638	0.24274	4851.4599	-0.5694	3.38678	0.17386	-0.33834	1.03121	-0.86043
SESB-BWBK-SB-SO09-0106	16.829586	-0.36711	0.97524	-0.02566	-0.16729	1.785	0.26807	3960.4142	-0.396	2.2342	0.05198	-0.4172	0.39642	-0.73529
SESB-BWBK-SB-SO11-0106	21.874543	-0.27983	1.34151	-0.08772	-0.12806	2.96915	-0.00508	4364.7141	-0.2351	2.83068	-0.0714	-0.50717	0.68564	-0.34395
SESB-BWBK-SB-SO12-0106	21.231762	-0.45036	1.0602	-0.37412	-0.20902	5.1541	0.30486	4224.7887	-0.54854	2.53529	-0.50487	-0.2506	0.87568	-0.77838
SESB-BWBK-SB-SO15-0103	15.28153	-0.2307	0.15096	-0.02712	-0.16087	1.04875	0.01988	2661.0255	-0.20537	0.52811	0.0888	-0.44798	0.13809	-0.00272
SESB-BWBK-SB-SO16-0105	11.449607	-0.34671	0.64779	-0.48583	-0.26824	1.80643	0.27341	3621.9477	-0.36816	1.80742	-0.62543	-0.30953	0.27035	-0.55104
SESB-BWBK-SB-SO17-0106	6.2253193	-0.19969	0.55817	-0.40632	-0.23487	-1.63518	0.29282	3446.6145	-0.1409	1.63178	-0.49609	-0.3736	-0.26121	-0.56225
SESB-BWBK-SB-SO18-0105	4.8617217	-0.07464	0.32289	-0.42331	-0.2194	-2.81044	0.18198	2988.4489	0.05816	1.03937	-0.51651	-0.42569	-0.44802	-0.31677
SESB-BWBK-SB-SO19-0104	12.851778	0.22611	0.31613	-0.56235	-0.10083	-2.42056	0.19172	2918.5204	0.52915	0.89812	-0.75093	-0.62127	-0.35556	-0.38898
SESB-BWBK-SB-SO20-0104	19.064481	-0.28445	0.57628	-0.59048	-0.21967	4.43411	0.03596	3383.0202	-0.28324	1.46168	-0.81686	-0.3071	0.70331	-0.12776
SESS-DABK-S-SO01-0001	17.727429	-0.27019	-0.36118	0.71522	-0.001	-0.63499	0.01075	1885.8679	-0.40129	-0.5181	1.19463	-0.22684	-0.22087	0.17065
SESS-DABK-S-SO02-0001	36.170656	0.33406	0.68171	0.57403	0.405	-1.28851	-0.27748	3168.6905	0.3791	1.26846	0.73088	0.01903	-0.04554	0.33811
SESS-DABK-S-SO03-0001	24.288136	-0.19785	-0.7289	0.77635	0.06964	0.77392	0.15301	1160.8317	-0.45887	-1.70231	1.14138	0.48458	0.0256	-0.18845
SESS-DABK-S-SO04-0001	27.307807	-0.12614	-0.24557	1.43373	0.24963	-2.12707	0.19816	2150.6174	-0.27073	-0.18786	2.25597	-0.28402	-0.45786	-0.19806
SESS-DABK-S-SO05-0001	22.755139	-0.21718	-0.61671	0.696	0.04747	0.63752	0.13294	1458.6145	-0.46116	-1.23512	1.05405	0.35551	-0.03818	-0.0796
SESS-DABK-S-SO06-0001	72.144906	-0.22717	-1.49171	0.61412	0.21773	19.7614	-0.49375	-372.7979	-0.42439	-4.17486	0.90074	-0.08762	2.97743	0.95569
SESS-DABK-S-SO07-0001	21.337516	0.05833	0.17785	0.76073	0.16519	-3.63684	0.28119	2606.1154	0.05281	0.39991	1.15981	-0.12898	-0.52286	-0.6079
SESS-DABK-S-SO08-0001	25.699709	-0.02651	-0.24049	0.51601	0.08512	0.38254	0.12017	1923.9142	-0.14596	-0.61486	0.73828	0.30931	0.03677	-0.22316
SESS-DABK-S-SO09-0001	23.330316	-0.34371	-0.66441	0.38417	-0.0621	3.43532	0.1767	1402.5154	-0.63319	-1.39226	0.58027	0.45554	0.38915	-0.1838

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-15.46862	-0.82784	-1.49171	-1.66528	-0.57159	-8.59809	-2.07379	-372.7979	-1.08897	-4.17486	-2.39579	-1.69186	-0.94388	-5.46962
MAXIMUM DOMAIN VALUE	231.75062	5.84521	2.47621	2.23763	4.75584	19.7614	2.04961	6196.2316	8.07748	5.22994	2.82311	13.4181	2.97743	2.71776
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	29.01124	-0.28223	-1.10337	0.33983	-0.05118	5.76395	-0.03753	1028.5425	-0.53787	-1.81327	0.59355	0.24726	0.52043	0.58158
SESS-DABK-S-SO11-0001	13.356766	0.09935	-0.8922	-0.36418	-0.07786	-1.43754	0.38354	1477.2278	0.09555	-1.13091	-0.4782	0.11947	-0.58021	-0.23737
SESS-DABK-S-SO12-0001	21.778639	0.09286	-0.59797	0.43333	0.07874	-1.35224	0.0543	1463.8257	0.13265	-1.14258	0.72417	-0.21413	-0.33561	0.09074
SESS-DABK-S-SO13-0001	18.05611	-0.16828	-0.25512	-0.09864	-0.04802	0.79607	0.3513	2248.1904	-0.22078	-0.12588	-0.0602	-0.25309	-0.03561	-0.48473
SESS-DABK-S-SO14-0001	10.556936	-0.35933	-0.45278	-0.16489	-0.22154	1.06262	0.31913	1811.3016	-0.60876	-0.78103	-0.2432	0.53624	0.02955	-0.46319
SESS-DABK-S-SO15-0001	23.893232	-0.15795	-0.8059	0.48276	0.04502	1.15905	0.34432	1587.7207	-0.38433	-1.04527	0.78319	0.26042	-0.15962	-0.21335
SESS-DABK-S-SO16-0001	12.321059	0.06897	-1.05843	-0.39285	-0.13412	-0.7391	0.17766	1183.2402	0.08872	-1.48034	-0.48169	0.01506	-0.50007	0.22398
SESS-DABK-S-SO17-0001	29.169511	0.18783	-1.38346	0.23215	0.05881	2.16452	0.0195	548.35292	0.16587	-2.45082	0.40982	0.16677	-0.05258	0.51814
SESS-DABK-S-SO18-0001	14.047064	0.02854	-0.46151	-0.07864	-0.05872	-1.71469	0.22684	1644.902	0.02922	-0.95255	-0.10328	0.11788	-0.33954	-0.33917
SESS-DABK-S-SO19-0001	23.513962	0.12393	0.10459	0.64556	0.17686	-2.85226	0.12339	2264.2406	-0.02911	-0.13496	0.80262	0.80243	-0.32972	-0.41212
SESS-DABK-S-SO20-0001	29.110801	-0.07324	0.08477	1.20092	0.21057	-0.94257	0.05697	2076.5714	-0.2464	-0.442	1.71889	0.36133	0.03548	-0.39177
SESD-SD01	52.540098	0.83273	0.77483	0.85854	0.76798	-2.55287	0.03244	3214.7907	1.06954	1.18096	1.07058	-0.1811	-0.14786	-0.43429
SESD-SD02	39.135604	0.6427	0.23007	-0.65788	0.45861	0.15334	0.16463	2665.1667	0.80953	0.40771	-1.211	0.08119	0.06253	-0.41165
SESD-SD03	105.51009	2.27298	1.40005	0.97109	1.8964	-2.04391	-0.48125	3832.6423	2.94856	2.05096	0.86661	-0.42072	0.11915	0.30413
SESD-SD04	102.70978	2.31037	0.98198	0.51787	1.79183	-1.02391	-0.49432	3312.7639	3.22579	1.3825	0.36718	-1.35186	0.16339	0.50861
SESD-SD05	38.645354	0.24732	0.69075	0.3702	0.42835	0.02119	0.21609	2798.8725	-0.23733	0.33238	-0.05527	2.46814	0.37173	-1.04356
SESD-SD06	95.339516	1.87859	0.7526	0.90621	1.66909	-0.83903	-0.36565	2876.7048	2.43558	0.69128	0.8881	-0.56839	0.20009	0.22319
SESD-SD07	68.33741	0.76337	1.33417	2.23763	1.22406	-4.24531	0.42263	3768.7784	0.54797	1.69068	2.82311	1.09	-0.15961	-1.62646
SESD-SD08	120.12473	2.07232	0.58103	0.90341	1.9002	5.71598	-0.56524	2589.0085	2.6798	0.17283	0.83206	-0.73411	1.18556	0.61432
SESD-SD09	28.610512	0.49408	-0.47823	-0.85763	0.21061	0.33902	0.13447	1630.9832	0.51277	-1.02762	-1.51997	0.75457	-0.05048	-0.14128
SESD-SD10	75.921786	1.18796	1.13241	1.21822	1.28236	-1.72925	0.0863	3222.3901	0.80952	0.84697	0.88021	2.95926	0.25825	-1.02936
SESD-SD11	208.4871	5.84521	0.22758	0.12825	3.69203	2.09817	-1.65024	1508.5841	8.07748	-1.17766	-0.8387	-1.69186	0.70381	2.71776
SESD-SD12	231.75062	5.07264	2.47621	1.89032	4.75584	-3.11179	2.04961	5614.1389	5.90459	3.30666	1.04495	1.05877	0.27842	-5.46962
SESD-SD13	133.71243	2.95983	1.44024	1.14612	2.58859	-2.76165	-0.14897	3343.4731	2.9238	0.89315	0.1743	3.70049	0.25752	-0.82398
SESD-SD14	44.540076	0.44318	-0.0242	0.88635	0.51741	-0.13409	-0.15967	1942.8099	0.35973	-0.59906	1.0837	0.68084	0.09634	0.12873
SESD-SD15	104.713	1.87316	1.1255	1.29791	1.91079	-1.03808	0.08919	3065.111	1.70927	0.53901	0.83969	2.60843	0.42461	-1.14346
SESD-SD16	82.705524	1.45711	1.06963	1.05948	1.44541	-1.75418	-0.11724	2656.8114	0.57329	-0.1189	0.04826	5.93156	0.41238	-0.89536
SESD-SD17	118.51139	2.98388	0.75863	0.08152	2.18234	-1.64907	-0.56155	2911.84	3.90934	0.77499	-0.60264	-0.36704	0.03357	0.67648
SESD-SD18	39.304415	0.51599	-0.02719	-0.77236	0.38861	2.23711	0.06064	2121.7879	0.60494	-0.39708	-1.40724	0.27394	0.40338	-0.24487
SESD-SD19	101.74219	2.31594	2.21991	1.5813	2.34489	-8.59809	-2.07379	3045.5064	0.0702	0.67171	-0.77446	13.4181	-0.14162	2.28993
SESD-SD20	20.49486	0.00101	-0.25487	-1.13511	-0.03795	3.33867	-0.0373	1933.6893	-0.04358	-0.56079	-1.80719	0.25636	0.45671	0.13459

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MANGANESE

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948

519.7528	**Mean**
1036.0008	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.1274	0.0519	0.5720	-0.0756	-0.2198	0.0605
AS	0.1428	-0.0900	-0.0314	-0.0327	-0.0148	-0.0714
BA	1.1741	-0.1155	0.1975	-0.2109	0.0564	0.0361
CR	-0.0494	0.1761	0.1265	-0.0468	-0.1429	0.1716
CO	0.8956	-0.1644	-0.1799	-0.0554	0.0350	0.0403
FE	-0.8534	-0.4159	-0.1153	0.1224	1.2928	0.2697
PB	-1.1101	-0.2921	-0.2750	1.4287	0.1589	-0.0776
MG	-0.1399	0.3289	0.0208	0.0626	-0.2543	0.1048
MN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NI	-0.7958	1.2745	0.0649	0.0991	-0.4426	-0.4167
V	-0.0114	-0.0557	0.2923	-0.0905	-0.0643	-0.1233
ZN	1.4779	-0.0515	-0.0103	-0.5689	-0.0816	-0.1379

NICKEL

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441

13.9560	**Mean**
7.0331	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0328	-0.0579	0.8050	-0.1146	-0.1053	-0.0188
AS	0.0367	0.1002	-0.0442	-0.0496	-0.0071	0.0222
BA	0.3020	0.1286	0.2780	-0.3197	0.0270	-0.0112
CR	-0.0127	-0.1962	0.1781	-0.0709	-0.0684	-0.0534
CO	0.2303	0.1832	-0.2532	-0.0840	0.0167	-0.0126
FE	-0.2195	0.4635	-0.1622	0.1856	0.6191	-0.0840
PB	-0.2855	0.3254	-0.3870	2.1661	0.0761	0.0242
MG	-0.0360	-0.3665	0.0293	0.0950	-0.1218	-0.0327
MN	0.2433	-0.0534	-0.1784	-0.1760	-0.0438	-0.0588
NI	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
V	-0.0029	0.0621	0.4114	-0.1372	-0.0308	0.0384
ZN	0.3801	0.0574	-0.0145	-0.8625	-0.0391	0.0430

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1704.0324	-3.47952	-2.32209	-1.92948	-0.57546	-1.211	-2.59198	3.7142949	-0.58868	-1.17905	-2.52998	-2.07283	-0.70743	-0.61072
MAXIMUM DOMAIN VALUE	13973.8972	14.2554	3.58695	2.23709	10.1213	4.4431	0.64649	57.094827	6.18224	4.71825	2.97673	14.4153	2.15653	0.27175
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	136.992091	-0.12037	-0.62962	-1.67245	-0.09135	-0.45046	0.11093	5.000757	-0.35574	-0.90525	-2.18284	0.09895	-0.44224	0.13596
BASS-BWBK-SS-BA102-0001	271.802309	0.08242	-0.88854	-1.92948	-0.08679	-0.39743	0.016	5.6882156	-0.33147	-0.75644	-2.52998	0.12625	-0.43659	0.18027
BASS-BWBK-SS-BA103-0001	276.837718	0.06865	-0.76861	-1.80484	-0.10342	-0.45417	0.01827	5.5921116	-0.31882	-0.78948	-2.36227	0.08917	-0.44899	0.16994
BASS-BWBK-SS-BA104-0001	165.676013	-0.1475	-0.36181	-1.56029	-0.08824	-0.64406	0.04193	4.7013565	-0.33297	-0.96023	-2.03679	0.08178	-0.49787	0.13656
BASS-BWBK-SS-BA105-0001	228.505028	-0.03842	-0.6906	-1.86728	-0.07015	-0.38832	-0.00377	5.9725333	-0.32293	-0.73572	-2.46147	0.12246	-0.39691	0.16315
BASS-BWBK-SS-BA106-0001	55.5702372	-0.32855	-0.19719	-1.56794	-0.0626	-0.68638	0.03066	4.4590354	-0.35277	-0.9933	-2.06092	0.10106	-0.49642	0.12504
BASS-BWBK-SS-BA107-0001	294.14328	0.11227	-0.8951	-1.88028	-0.09167	-0.41087	0.00722	5.7870449	-0.32262	-0.7494	-2.46159	0.118	-0.44323	0.18272
BASS-BWBK-SS-BA108-0001	264.140595	0.05012	-0.76984	-1.87808	-0.07356	-0.50002	0.00422	5.3710687	-0.32744	-0.80809	-2.46335	0.13726	-0.47379	0.17639
BASS-BWBK-SS-BA109-0001	73.4890188	-0.33935	-0.06409	-1.73879	-0.04449	-0.80574	-0.01292	3.7142949	-0.35076	-1.06974	-2.30195	0.12496	-0.54206	0.13346
BASS-BWBK-SS-BA110-0001	245.035441	-0.05424	-0.30815	-1.43045	-0.13582	-0.55965	0.11067	5.0708919	-0.29311	-0.94017	-1.86235	-0.00197	-0.44614	0.10674
BASS-BWBK-SS-BA111-0001	181.363356	-0.05333	-0.70487	-1.77568	-0.08251	-0.48213	0.06481	5.1349714	-0.34808	-0.86096	-2.32277	0.11935	-0.46276	0.15493
BASS-BWBK-SS-BA112-0001	213.320073	0.01054	-0.79553	-1.79537	-0.08764	-0.44639	0.08344	5.1336663	-0.34738	-0.86064	-2.34313	0.12311	-0.4605	0.15864
BASS-BWBK-SS-BA113-0001	578.610042	0.45729	-0.86916	-1.91073	-0.17847	-0.39408	-0.02641	6.1519171	-0.22355	-0.69724	-2.50868	-0.02119	-0.4229	0.18613
MASB-BWBK-SB-MA01-0105	46.2849917	-0.97519	1.457	-0.2884	-0.21308	0.24071	-0.06932	13.145505	0.26925	-0.08284	-0.72093	-0.70179	0.30266	-0.19487
MASB-BWBK-SB-MA02-0107	-96.995782	-1.23995	1.91657	-0.05958	-0.23547	0.20172	0.03916	12.582541	-0.0263	-0.21169	-0.21874	-0.5716	0.38155	-0.19192
MASB-BWBK-SB-MA03-0108	1308.58056	0.43	1.56909	-0.84804	-0.3616	0.58754	-0.24298	17.346395	0.55194	0.53861	-1.42161	-0.87106	0.60676	-0.1617
MASB-BWBK-SB-MA04-0106	62.7061115	-1.0885	2.4025	0.1072	-0.33578	-0.28716	-0.0235	10.168048	0.08402	-0.56051	-0.02801	-0.77564	0.16994	-0.20108
MASB-BWBK-SB-MA05-0108	102.365018	-0.88963	1.50322	-0.22763	-0.31523	0.11365	-0.16155	13.322282	-0.00841	-0.0269	-0.41398	-0.63987	0.30285	-0.09595
MASB-BWBK-SB-MA06-0105	-84.78444	-1.13252	1.70415	-0.09851	-0.25773	-0.03798	-0.04336	11.564942	-0.08689	-0.30976	-0.22303	-0.54101	0.2225	-0.12547
MASB-BWBK-SB-MA07-0108	-525.8773	-1.5732	0.9813	-0.38389	-0.14458	0.59519	0.03502	13.244654	-0.31356	-0.04188	-0.5641	-0.28663	0.45063	-0.09165
MASB-BWBK-SB-MA08-0108	-1704.0324	-3.34562	1.07184	0.35687	-0.09199	2.86669	0.37324	23.249549	-0.53222	1.10708	0.35666	-0.38041	1.71689	-0.32572
MASB-BWBK-SB-MA09-0108	-126.28595	-1.15938	0.64085	-0.45047	-0.22169	1.41104	-0.10746	19.456927	-0.07787	0.80903	-0.73255	-0.4978	0.90299	-0.10593
MASB-BWBK-SB-MA10-0104	-389.50217	-1.25198	0.15794	-0.82497	-0.07311	1.00932	0.09754	14.66391	-0.3352	0.21103	-1.13597	-0.10184	0.551	-0.04824
MASB-BWBK-SB-MA11-0108	-424.97143	-1.64888	1.40734	-0.07349	-0.06807	0.82665	0.02405	15.76449	-0.19209	0.20237	-0.20055	-0.27369	0.66346	-0.16342
MASB-BWBK-SB-MA12-0108	143.903805	-0.97704	1.48868	-0.41173	-0.28252	0.84953	-0.15329	17.223892	0.06158	0.48976	-0.72002	-0.65794	0.72707	-0.14943
MASB-BWBK-SB-MA13-0105	759.798696	0.50741	0.02788	-0.11739	-0.49196	-0.38315	0.02899	10.55324	-0.00287	-0.34673	-0.08124	-0.64887	-0.21806	0.04213
MASB-BWBK-SB-MA14-0104	302.033768	-0.31897	0.05649	0.25647	-0.41671	1.26355	0.23182	18.729914	-0.00603	0.61695	0.33313	-0.6878	0.70976	-0.12877
MASB-BWBK-SB-MA15-0105	394.844699	-0.04614	0.02945	0.50336	-0.52092	0.41806	0.10869	15.417826	-0.01115	0.20534	0.71744	-0.79065	0.24056	-0.04709
MASB-BWBK-SB-MA16-0104	491.993295	-0.00118	0.03844	-0.4095	-0.29424	0.32888	0.03076	13.4964	-0.00949	0.03084	-0.56671	-0.43956	0.17133	-0.01129
MASB-BWBK-SB-MA17-0104	682.293137	0.4594	-0.46024	0.02244	-0.49288	0.3468	0.17474	14.047531	0.01109	0.08722	0.0921	-0.66914	0.1091	-0.00392
MASB-BWBK-SB-MA18-0104	172.381633	-0.25293	0.42653	0.44711	-0.49934	-0.65244	0.03999	9.3024648	-0.15843	-0.57057	0.69309	-0.68932	-0.31532	0.01647
MASB-BWBK-SB-MA19-0103	649.348132	0.36393	-0.0614	-0.23253	-0.43192	-0.38678	-0.06139	10.714909	0.00372	-0.29846	-0.27685	-0.58925	-0.23471	0.06205
MASB-BWBK-SB-MA20-0103	186.966988	-0.75914	1.3395	-0.38332	-0.24769	0.14077	-0.12849	13.066614	-0.04537	-0.05813	-0.59057	-0.48609	0.28962	-0.07664
MASS-BWBK-SS-MA01-0001	959.766077	1.07883	-1.19858	-0.44528	-0.26523	-0.69976	-0.01572	9.638725	-0.08514	-0.38797	-0.43304	-0.13713	-0.57605	0.19141
MASS-BWBK-SS-MA02-0001	1390.71293	1.56948	-0.46739	0.61907	-0.57546	-1.18666	0.05052	9.649915	0.14361	-0.51697	1.01808	-0.68272	-0.70743	0.10716
MASS-BWBK-SS-MA03-0001	724.347657	0.63593	-0.73175	-0.24923	-0.25581	-0.4511	0.07136	10.312776	-0.11221	-0.36478	-0.19826	-0.18649	-0.37708	0.11246
MASS-BWBK-SS-MA04-0001	737.420882	0.53866	-0.15897	-0.03246	-0.26559	-0.77133	0.04755	9.3079264	-0.06243	-0.54031	0.07117	-0.25615	-0.46255	0.07553
MASS-BWBK-SS-MA05-0001	255.125111	-0.24256	0.44057	0.47951	-0.25439	-0.58209	0.06769	10.435856	-0.15647	-0.48191	0.74338	-0.31758	-0.26381	0.00231
MASS-BWBK-SS-MA06-0001	949.898862	0.72859	0.03081	1.01681	-0.44001	-0.31575	0.17078	13.517717	0.09274	-0.1502	1.49495	-0.59842	-0.15738	-0.02282
MASS-BWBK-SS-MA07-0001	394.916655	0.3837	-1.84955	-1.35351	0.09758	-0.23613	-0.12181	10.410498	-0.34147	-0.16637	-1.67526	0.46981	-0.42849	0.27175
MASS-BWBK-SS-MA08-0001	77.5692022	-0.42916	-1.14634	0.03674	0.52416	0.4246	0.00664	17.174422	-0.32711	0.39668	0.17345	0.95288	0.08474	0.10122
MASS-BWBK-SS-MA09-0001	657.407886	0.18603	0.06019	1.70996	0.11638	-0.49193	-0.00035	16.899231	0.01348	0.15795	2.44046	0.20101	-0.19247	-0.0035
MASS-BWBK-SS-MA10-0001	239.400483	-0.3101	-0.22217	1.0029	0.16797	-0.06342	0.01973	16.381763	-0.15087	0.18901	1.46064	0.30624	-0.03016	0.01512
MASS-BWBK-SS-MA11-0001	346.298042	-0.04931	-0.49346	1.21526	-0.23564	0.61875	0.24674	17.843323	-0.09539	0.36885	1.76299	-0.29712	0.27741	-0.04594
MASS-BWBK-SS-MA12-0001	182.428897	-0.25656	0.06864	0.00906	-0.19527	-0.5198	0.02664	9.786045	-0.22809	-0.48999	0.11362	-0.1781	-0.29602	0.05552
MASS-BWBK-SS-MA13-0001	1056.26926	1.12291	-0.80623	0.91005	-0.50478	-0.35086	0.15988	13.098929	0.03751	-0.14134	1.42117	-0.58189	-0.30872	0.07098
MASS-BWBK-SS-MA14-0001	914.293087	0.88898	-1.22846	0.22763	0.02391	-0.61284	-0.15638	13.158362	-0.08111	-0.05382	0.48777	0.26255	-0.49088	0.20532
MASS-BWBK-SS-MA15-0001	861.609763	0.89914	-1.05514	0.54077	-0.21859	-0.67826	-0.00112	12.139223	-0.0797	-0.20503	0.93101	-0.10431	-0.51492	0.15496
MASS-BWBK-SS-MA16-0001	311.35215	0.0718	-0.85368	0.13972	-0.14656	-0.1409	-0.00496	12.784651	-0.23763	-0.08742	0.34056	-0.0353	-0.2073	0.12348
MASS-BWBK-SS-MA17-0001	505.527458	0.35161	-0.82199	0.3491	-0.24676	-0.25787	0.02987	13.024278	-0.13991	-0.06589	0.61885	-0.20594	-0.25734	0.10298
MASS-BWBK-SS-MA18-0001	342.754466	0.15571	-1.10481	0.28955	-0.08287	-0.30507	-0.15219	13.606605	-0.24274	0.03161	0.56432	0.08082	-0.30942	0.18493
MASS-BWBK-SS-MA19-0001	555.960237	0.37967	-0.88538	0.40137	-0.16929	-0.19798	-0.03065	14.01068	-0.13087	0.046	0.69274	-0.08987	-0.22191	0.11911
MASS-BWBK-SS-MA20-0001	397.813192	-0.03658	-0.22563	0.0522	-0.12012	-0.10956	-0.06477	13.275239	-0.13306	-0.04557	0.15116	-0.09216	-0.08525	0.06784
MMSB-BWBK-SB-MM101-0110	297.978946	-0.24465	0.0865	-0.96151	0.05493	-0.11239	0.13742	9.5305142	-0.17168	-0.47995	-1.28977	0.16257	-0.10344	0.00583
MMSB-BWBK-SB-MM102-0109	-1.5540401	-0.88174	1.59815	-0.44114	-0.05059	-1.06768	-0.05543	5.9286204	-0.17811	-1.01152	-0.62528	-0.11304	-0.38765	-0.03725
MMSB-BWBK-SB-MM103-0107	888.35669	0.50901	0.32553	-0.9676	-0.11815	-0.5259	0.12082	8.8203504	0.05853	-0.54597	-1.31668	-0.12647	-0.27265	-0.00922
MMSB-BWBK-SB-MM104-0110	-185.45419	-0.85221	0.75576	-0.0679	-0.07676	-0.12388	0.64649	6.7318391	-0.29329	-1.0458	-0.05003	-0.06243	-0.08334	-0.1714
MMSB-BWBK-SB-MM105-0110	333.095304	-0.07843	-0.20933	-1.1763	-0.03646	-0.40953	-0.05379	8.6679934	-0.1993	-0.489	-1.55465	0.07545	-0.29321	0.10182
MMSB-BWBK-SB-MM106-0110	133.795638	-0.54848	1.41367	0.38951	-0.28238	-0.75201	0.40544	5.8960913	-0.10087	-1.17905	0.53494	-0.4578	-0.29862	-0.15821
MMSB-BWBK-SB-MM107-0110	357.709991	-0.04859	0.31044	-0.73599	-0.19366	-0.56252	0.27326	6.68887	-0.15139	-0.84784	-0.9553	-0.19234	-0.33481	-0.02235
MMSB-BWBK-SB-MM108-0110	252.335323	-0.1787	0.13133	-0.60428	-0.15423	-0.43312	0.18549	7.7075111	-0.19885	-0.72851	-0.76302	-0.12231	-0.28447	0.01294
MMSB-BWBK-SB-MM109-0110	475.86805	0.03937	0.43399	0.03989	-0.27758	-0.4586	0.1987	9.4536128	-0.06	-0.58399	0.10293	-0.36993	-0.22667	-0.03859
MMSB-BWBK-SB-MM110-0109	95.8463503	-0.39326	0.32701	-0.30677	-0.18302	-0.43831	0.26704	7.8809605	-0.22375	-0.7449	-0.35815	-0.18816	-0.25703	-0.0312
MMSB-BWBK-SB-MM111-0110	140.701082	-0.45075	0.52111	-0.2664	-0.10148	-0.27764	0.27166	8.6173433	-0.19132	-0.70074	-0.32512	-0.09911	-0.1426	-0.0589
MMSB-BWBK-SB-MM112-0110	-36.17347	-0.66699	0.69998	-0.00043	-0.2535	-0.37212	0.19541	8.2596121	-0.13073	-0.74849	-0.02892	-0.41393	-0.1787	-0.07295
MMSB-BWBK-SB-MM113-0110	38.4337454	-0.60675	1.14936	-0.37266	-0.19412	-0.90591	0.28769	5.00624	-0.19642	-1.13765	-0.4895	-0.26529	-0.40381	-0.0872
MMSB-BWBK-SB-MM114-0110	466.203431	0.08498	0.06706	-0.81269	-0.16579	-0.589	0.01283	8.0721826	-0.11253	-0.6193	-1.06822	-0.15327	-0.35538	0.05997

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1704.0324	-3.47952	-2.32209	-1.92948	-0.57546	-1.211	-2.59198	3.7142949	-0.58868	-1.17905	-2.52998	-2.07283	-0.70743	-0.61072
MAXIMUM DOMAIN VALUE	13973.8972	14.2554	3.58695	2.23709	10.1213	4.4431	0.64649	57.094827	6.18224	4.71825	2.97673	14.4153	2.15653	0.27175
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	937.062338	0.82995	0.02931	0.10943	-0.48947	-0.56309	0.37756	7.3706029	0.04105	-0.88135	0.2449	-0.61607	-0.38919	-0.02733
MMSB-BWBK-SB-MM116-0110	417.194466	-0.09537	0.55654	-0.68399	-0.12594	-0.57172	0.16655	7.2737026	-0.09937	-0.80283	-0.91573	-0.13649	-0.29415	-0.02286
MMSB-BWBK-SB-MM117-0110	512.391326	0.12986	-0.1383	-1.17675	-0.08161	-0.31054	0.03375	8.7026952	-0.12667	-0.50983	-1.56676	-0.0069	-0.23862	0.06651
MMSB-BWBK-SB-MM118-0110	94.8077466	-1.08179	2.23909	-0.80614	0.10799	-1.211	-0.50012	7.5213849	-0.02215	-0.75052	-1.25016	-0.02417	-0.32029	-0.00483
MMSB-BWBK-SB-MM119-0110	204.819307	-0.32176	0.41196	-0.76286	-0.10725	-0.49268	0.17565	6.7304938	-0.19372	-0.86294	-1.00943	-0.08169	-0.2887	-0.00441
MMSB-BWBK-SB-MM120-0110	455.395875	0.20832	-0.64653	-1.48485	-0.07863	-0.29189	0.03379	7.9059358	-0.20812	-0.54614	-1.95089	0.07208	-0.31752	0.12533
MMSS-BWBK-SS-MM101-0001	-298.67816	-0.63315	-0.51896	1.10952	-0.24456	-0.31618	0.23635	12.119829	-0.37338	-0.28291	1.67952	-0.21712	-0.26761	0.02702
MMSS-BWBK-SS-MM102-0001	-263.75684	-0.55642	-0.71709	0.11412	-0.26634	-0.28829	0.10671	10.420456	-0.39415	-0.34487	0.29665	-0.2204	-0.29649	0.09318
MMSS-BWBK-SS-MM103-0001	-509.73895	-0.91325	-0.65277	0.87392	-0.11214	-0.21937	0.18563	12.398819	-0.45917	-0.21411	1.3547	-0.00629	-0.23292	0.05072
MMSS-BWBK-SS-MM104-0001	-222.19113	-0.64654	-0.30225	0.83022	-0.12135	-0.31681	0.21944	11.825375	-0.34138	-0.32385	1.26881	-0.05626	-0.23892	0.0123
MMSS-BWBK-SS-MM105-0001	-37.084465	-0.23302	-1.12463	-0.14348	-0.13433	-0.26953	0.0225	11.314913	-0.3612	-0.1922	-0.04157	0.01654	-0.33152	0.14869
MMSS-BWBK-SS-MM106-0001	-168.15321	-0.48516	-0.2932	0.89013	-0.3373	-0.36612	0.31922	10.818131	-0.31348	-0.4351	1.35893	-0.37368	-0.27777	-0.00977
MMSS-BWBK-SS-MM107-0001	-326.41923	-0.69341	-0.19907	1.07616	-0.32694	-0.46887	0.28599	10.492914	-0.36545	-0.49867	1.62125	-0.35918	-0.32019	-0.00209
MMSS-BWBK-SS-MM108-0001	-346.78971	-0.58481	-0.74213	1.22987	-0.33248	-0.48628	0.16307	12.028949	-0.4047	-0.25377	1.87181	-0.31842	-0.38011	0.07299
MMSS-BWBK-SS-MM109-0001	-516.67701	-0.80494	-0.64834	0.85514	-0.33058	-0.43961	0.22356	10.470756	-0.46675	-0.41957	1.34591	-0.31152	-0.36739	0.05889
MMSS-BWBK-SS-MM110-0001	41.0760737	-0.05274	-1.51724	-0.34645	-0.0681	-0.23988	0.01562	11.351852	-0.38562	-0.15582	-0.29202	0.16877	-0.37533	0.19078
MMSS-BWBK-SS-MM111-0001	-57.68271	-0.17268	-1.27095	-0.12857	-0.13851	-0.39224	0.10034	10.379748	-0.39547	-0.30987	0.00423	0.04665	-0.43085	0.15246
MMSS-BWBK-SS-MM112-0001	35.2247157	-0.08151	-1.41833	-0.49245	-0.03515	-0.34534	0.0035	10.563908	-0.39058	-0.24572	-0.49846	0.21693	-0.42274	0.19283
MMSS-BWBK-SS-MM113-0001	-322.97702	-0.62209	-1.0106	0.69831	0.02618	-0.36725	0.10845	12.359917	-0.44756	-0.19729	1.1381	0.24979	-0.35956	0.11175
MMSS-BWBK-SS-MM114-0001	255.762837	0.24015	-1.44531	-0.72492	-0.20373	-0.34439	-0.00152	9.9294873	-0.31339	-0.27695	-0.82406	-0.03456	-0.4319	0.19915
MMSS-BWBK-SS-MM115-0001	103.984323	0.02554	-1.33533	-0.25293	-0.23232	-0.21007	0.06343	11.051822	-0.32845	-0.19999	-0.18088	-0.10724	-0.33942	0.1578
MMSS-BWBK-SS-MM116-0001	71.8635768	-0.0246	-1.39925	-0.40231	-0.11962	-0.25979	0.04048	10.772694	-0.36247	-0.22828	-0.37981	0.07905	-0.37712	0.17577
MMSS-BWBK-SS-MM117-0001	-124.31598	-0.41018	-0.72634	0.45624	-0.1467	-0.30658	0.17119	11.443835	-0.35682	-0.29285	0.78002	-0.03888	-0.29812	0.07089
MMSS-BWBK-SS-MM118-0001	147.076301	-0.15833	-0.28514	-0.49333	-0.20461	-0.51564	0.15795	7.8724576	-0.2652	-0.66537	-0.57106	-0.14629	-0.38185	0.06167
MMSS-BWBK-SS-MM119-0001	259.414982	-0.03444	-0.3512	-0.73809	-0.20474	-0.53589	0.01738	8.1933364	-0.22948	-0.57177	-0.91752	-0.14929	-0.38871	0.10338
MMSS-BWBK-SS-MM120-0001	-288.62337	-0.68255	-0.69849	-0.52804	-0.18915	0.30327	0.25745	11.104123	-0.40457	-0.22462	-0.61741	-0.11952	0.00762	0.03292
NESB-BWBK-SB-NE01-0108	-468.71526	-1.47475	1.69135	0.0852	-0.12858	-0.4464	0.27273	7.8158873	-0.27025	-0.85782	0.08206	-0.27537	-0.05499	-0.16891
NESB-BWBK-SB-NE02-0109	449.195766	-0.2529	1.25468	-0.0963	-0.2748	-0.28985	0.23577	9.4345883	0.07365	-0.62774	-0.20515	-0.51816	-0.0278	-0.15087
NESB-BWBK-SB-NE03-0105	-357.2433	-1.1539	0.76501	-0.2264	-0.13448	-0.00894	0.25101	9.8658967	-0.30029	-0.50917	-0.30232	-0.20184	0.05451	-0.0961
NESB-BWBK-SB-NE04-0110	-75.207887	-0.8144	0.93608	-0.27956	-0.1409	-0.37763	0.19499	8.4118499	-0.20288	-0.70201	-0.38455	-0.21888	-0.12388	-0.0811
NESB-BWBK-SB-NE05-0108	-441.14422	-1.37839	1.33644	-0.08776	-0.12922	-0.2911	0.21924	8.5828236	-0.28583	-0.71389	-0.1422	-0.24674	-0.01756	-0.12821
NESB-BWBK-SB-NE06-0109	-236.87442	-1.09362	1.09983	-0.34175	-0.11319	-0.28138	0.13328	8.9484798	-0.24273	-0.62069	-0.48466	-0.20037	-0.03755	-0.08444
NESB-BWBK-SB-NE07-0107	-404.1194	-1.37232	1.5481	0.08701	-0.14426	-0.40262	0.21996	8.6122269	-0.26358	-0.73555	0.09735	-0.28484	-0.03755	-0.14543
NESB-BWBK-SB-NE08-0104	-80.9702	-0.79373	0.83132	-0.33551	-0.17385	-0.47608	0.06227	8.7887633	-0.22137	-0.60089	-0.44666	-0.25157	-0.17028	-0.03286
NESB-BWBK-SB-NE09-0110	-192.1814	-0.96493	0.92258	-0.37661	-0.14587	-0.27085	0.19895	8.5437045	-0.24362	-0.66569	-0.51881	-0.22497	-0.06884	-0.08298
NESB-BWBK-SB-NE10-0107	-59.952681	-0.58105	0.42333	0.1719	-0.2998	-0.47094	0.20454	8.6717249	-0.24375	-0.67096	0.30226	-0.38598	-0.24592	-0.02885
NESB-BWBK-SB-NE101-0110	500.337158	0.15114	0.33292	0.27575	-0.3771	-0.51037	0.25907	9.0950066	-0.06848	-0.65068	0.45465	-0.49361	-0.2766	-0.03811
NESB-BWBK-SB-NE102-0110	812.661521	0.61932	0.07712	0.04925	-0.42094	-0.66402	0.18081	8.587027	0.00499	-0.6678	0.15778	-0.52566	-0.3948	0.01474
NESB-BWBK-SB-NE103-0110	644.513225	0.43616	-0.1831	-0.37534	-0.33342	-0.54524	0.12165	8.5013342	-0.08146	-0.60877	-0.42053	-0.36415	-0.37151	0.05581
NESB-BWBK-SB-NE104-0110	638.150317	0.44613	-0.37854	-0.726	-0.27433	-0.48948	0.0664	8.4481631	-0.11021	-0.56119	-0.89817	-0.25166	-0.36924	0.0903
NESB-BWBK-SB-NE105-0110	595.018214	0.29148	0.1759	0.07959	-0.38024	-0.41045	0.2529	9.0234682	-0.03712	-0.64132	0.17537	-0.49471	-0.2562	-0.02591
NESB-BWBK-SB-NE106-0110	638.6441	0.33016	0.21919	-0.13621	-0.34746	-0.58522	0.1555	8.5050287	-0.04188	-0.6655	-0.11672	-0.43439	-0.33371	0.00684
NESB-BWBK-SB-NE107-0510	455.022298	0.19803	-0.28786	-0.72173	-0.2218	-0.38596	0.19247	7.6543076	-0.1742	-0.70385	-0.8937	-0.17182	-0.3267	0.05336
NESB-BWBK-SB-NE108-0110	504.000905	0.26856	-0.10689	-0.05863	-0.36279	-0.49093	0.22017	8.6242219	-0.11658	-0.64336	0.02143	-0.41453	-0.33809	0.02034
NESB-BWBK-SB-NE109-0110	597.605543	0.37185	-0.08421	-0.12856	-0.34887	-0.49696	0.22883	8.5831469	-0.08546	-0.6488	-0.07949	-0.39675	-0.33826	0.0154
NESB-BWBK-SB-NE110-0110	421.265192	0.1569	-0.06356	-0.19532	-0.29704	-0.54647	0.25512	7.8851308	-0.14701	-0.73293	-0.17135	-0.31354	-0.37146	0.01215
NESS-BKG-SS03-NEB-0016	-424.41612	-1.22579	-0.54306	0.8728	1.02719	-0.32088	0.00917	16.397484	-0.46087	0.12548	1.31463	1.66347	-0.21434	0.0604
NESS-BKG-SS09-NEB-0018	-101.8625	-0.31969	-0.94194	0.4295	-0.09854	-0.46233	0.12007	11.492088	-0.35302	-0.25664	0.74832	0.04854	-0.40458	0.10294
NESS-BWBK-SS-NE01-0001	18.9656028	-0.46147	0.1703	1.45212	-0.2771	-0.27237	0.2244	14.0772	-0.16262	-0.10845	2.07876	-0.38843	-0.11036	-0.0632
NESS-BWBK-SS-NE02-0001	-67.767432	-0.70907	0.74523	0.98268	-0.33914	-0.463	0.07743	12.090939	-0.17825	-0.30134	1.40121	-0.51792	-0.13248	-0.05416
NESS-BWBK-SS-NE03-0001	-430.54345	-0.87131	-0.1304	1.17885	-0.32973	-0.31172	0.25891	12.164724	-0.36379	-0.27313	1.74353	-0.39817	-0.2004	-0.02225
NESS-BWBK-SS-NE04-0001	-324.55622	-0.88354	0.47749	1.1689	-0.30249	-0.52229	0.29986	10.86073	-0.28568	-0.48921	1.68914	-0.41636	-0.23451	-0.08091
NESS-BWBK-SS-NE05-0001	-253.95764	-0.74487	-0.0019	0.88201	-0.11939	-0.45761	0.22814	11.60089	-0.31879	-0.35657	1.3191	-0.08839	-0.26191	-0.01911
NESS-BWBK-SS-NE06-0001	-426.08194	-1.04732	0.64994	0.94793	-0.30024	-0.68606	0.19854	9.7211411	-0.33237	-0.59704	1.38484	-0.40977	-0.29798	-0.05282
NESS-BWBK-SS-NE07-0001	-339.472	-0.88681	-0.34631	0.99929	0.12995	-0.26979	0.11101	14.009366	-0.37712	-0.07217	1.496	0.30558	-0.18572	0.02836
NESS-BWBK-SS-NE08-0001	-381.78035	-0.89979	0.19369	1.02841	-0.30523	-0.47065	0.20038	11.232499	-0.33784	-0.39159	1.51741	-0.38547	-0.24006	-0.02576
NESS-BWBK-SS-NE09-0001	-132.79636	-0.42819	-0.39261	1.63774	-0.2701	-0.55512	0.22779	13.255608	-0.27259	-0.18428	2.39769	-0.29099	-0.34825	0.00437
NESS-BWBK-SS-NE10-0001	-302.52183	-0.9337	-0.2249	0.64362	0.32943	-0.3995	0.03304	13.206722	-0.3796	-0.16789	0.99008	0.60104	-0.24248	0.04805
NESS-BWBK-SS-NE101-0001	31.0523903	-0.10182	-0.67745	0.72271	-0.41051	-0.61916	0.17622	10.394254	-0.28437	-0.40831	1.15756	-0.43379	-0.4572	0.0744
NESS-BWBK-SS-NE102-0001	93.0141079	-0.07096	-1.07894	-0.07574	-0.08456	-0.46113	0.03466	10.67121	-0.33013	-0.30328	0.05903	0.09975	-0.43199	0.15089
NESS-BWBK-SS-NE103-0001	96.313434	-0.08294	-1.0604	-0.3657	-0.06653	-0.46658	0.0019	10.084569	-0.34176	-0.34289	-0.34362	0.13331	-0.43659	0.1643
NESS-BWBK-SS-NE104-0001	-437.33027	-0.91782	-0.93532	-0.15604	0.43376	-0.35307	0.04961	11.368404	-0.52057	-0.28184	-0.06654	0.86553	-0.35332	0.12934
NESS-BWBK-SS-NE105-0001	222.752205	0.17291	-1.28602	-0.42139	-0.20571	-0.41027	0.03065	10.033855	-0.30444	-0.31438	-0.41029	-0.05676	-0.44341	0.1748
NESS-BWBK-SS-NE106-0001	-189.44684	-0.53434	-1.33349	-0.33805	0.52078	-0.37461	0.03593	11.668691	-0.47794	-0.22167	-0.29749	1.03856	-0.42077	0.16884
NESS-BWBK-SS-NE107-0001	159.287307	0.11797	-1.43824	-0.12356	-0.12127	-0.4323	0.03198	10.858721	-0.32256	-0.24804	0.00762	0.0743	-0.47093	0.18105
NESS-BWBK-SS-NE108-0001	274.498179	0.18336	-1.22831	-0.12157	-0.06469	-0.45644	0.04778	10.751837	-0.28777	-0.29843	0.00476	0.1468	-0.45389	0.16151
NESS-BWBK-SS-NE109-0001	269.164665	0.26728	-1.37705	-0.38098	-0.22427	-0.40711	0.06436	9.933047	-0.29763	-0.3341	-0.34562	-0.07208	-0.45998	0.17537
NESS-BWBK-SS-NE110-0001	12.9711824	-0.16659	-1.54092	-0.38992	0.19174	-0.28499	-0.04489	11.820132	-0.41418	-0.12959	-0.35373	0.5622	-0.39706	0.20946

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1704.0324	-3.47952	-2.32209	-1.92948	-0.57546	-1.211	-2.59198	3.7142949	-0.58868	-1.17905	-2.52998	-2.07283	-0.70743	-0.61072
MAXIMUM DOMAIN VALUE	13973.8972	14.2554	3.58695	2.23709	10.1213	4.4431	0.64649	57.094827	6.18224	4.71825	2.97673	14.4153	2.15653	0.27175
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	684.607864	-0.04859	1.48689	0.26009	-0.41101	-0.59287	-0.19034	12.444836	0.21091	-0.17601	0.26352	-0.78701	-0.06436	-0.07858
PMSB-BWBK-SB-PM02-0104	-412.70161	-1.28943	0.30652	0.54207	-0.33798	1.78879	0.52182	19.591384	-0.15669	0.64992	0.67589	-0.64049	1.00009	-0.26129
PMSB-BWBK-SB-PM03-0106	-91.435893	-1.20184	1.31452	-0.23384	-0.25949	1.14414	0.11761	17.307647	-0.05769	0.44734	-0.43462	-0.57819	0.83678	-0.20525
PMSB-BWBK-SB-PM04-0105	-109.48916	-1.13707	1.33542	-0.10312	-0.15118	0.22801	-0.04742	13.683874	-0.08251	-0.02511	-0.2386	-0.38331	0.32767	-0.1187
PMSB-BWBK-SB-PM05-0105	158.446012	-0.67503	0.9699	-0.1338	-0.26818	0.42954	0.11453	13.821535	0.01343	-0.00858	-0.28085	-0.54355	0.36109	-0.14192
PMSB-BWBK-SB-PM06-0105	-143.93124	-1.03501	0.84527	-0.08877	-0.2923	0.80688	0.2083	14.230279	0.11547	0.02508	-0.3627	-0.72087	0.49614	-0.21477
PMSB-BWBK-SB-PM07-0105	766.247782	0.34879	-0.29886	-0.5369	-0.38519	1.04199	0.14717	17.148498	0.19763	0.52679	-0.82604	-0.66242	0.51653	-0.08387
PMSB-BWBK-SB-PM08-0106	598.324377	-0.0399	0.64075	-0.2816	-0.33666	0.27202	-0.01848	14.592863	0.13547	0.15893	-0.46692	-0.61719	0.25771	-0.07908
PMSB-BWBK-SB-PM09-0106	392.823883	-0.24964	0.5602	-0.7793	-0.27387	0.01032	-0.1092	12.076845	-0.0074	-0.08591	-1.11636	-0.45713	0.08825	-0.00991
PMSB-BWBK-SB-PM10-0105	369.275008	-0.1092	-0.05202	0.05478	-0.47246	0.6324	0.08557	15.633275	0.01325	0.28719	0.05633	-0.74656	0.3359	-0.04971
PMSB-BWBK-SB-PM11-0104	569.469613	-0.25267	0.82237	-0.4241	-0.3144	0.85551	-0.07613	17.180638	0.34257	0.48234	-0.83609	-0.77375	0.58906	-0.15641
PMSB-BWBK-SB-PM12-0105	353.364686	-0.06846	0.33478	-0.43153	-0.32044	-0.59645	0.0573	8.3113336	-0.09237	-0.61824	-0.56299	-0.43134	-0.31662	0.01457
PMSB-BWBK-SB-PM13-0106	68.6572402	-0.2952	-0.5296	0.16886	-0.4484	0.74953	0.33636	14.209713	-0.1324	0.07007	0.25772	-0.63819	0.27872	-0.06194
PMSB-BWBK-SB-PM14-0106	469.630672	0.13416	-0.12114	-0.38178	-0.35745	-0.20457	0.02533	10.671838	-0.0162	-0.30299	-0.51812	-0.5046	-0.16511	0.02899
PMSB-BWBK-SB-PM15-0105	152.775282	-0.44902	0.3564	-0.11174	-0.31035	0.24485	0.14554	12.551263	-0.10834	-0.13955	-0.15211	-0.47607	0.15999	-0.06126
PMSB-BWBK-SB-PM16-0106	128.339914	-0.39941	0.23953	-0.23872	-0.30527	-0.14065	0.04121	10.704191	-0.13345	-0.33431	-0.31641	-0.44048	-0.07442	-0.00134
PMSB-BWBK-SB-PM17-0105	743.387793	0.20375	0.4162	-0.23077	-0.2932	0.35563	0.13255	14.477521	0.12168	0.10305	-0.35226	-0.49549	0.25669	-0.08994
PMSB-BWBK-SB-PM18-0105	-699.39245	-1.89682	1.12745	-0.18058	-0.11875	1.19628	0.21422	15.73536	-0.31172	0.21404	-0.32282	-0.30967	0.79748	-0.19202
PMSB-BWBK-SB-PM19-0105	-29.53538	-0.8531	0.82381	-0.04294	-0.26926	0.37199	0.07831	13.401149	-0.11087	-0.0577	-0.10459	-0.48805	0.30875	-0.09909
PMSB-BWBK-SB-PM20-0106	130.407816	-0.56467	0.67815	-0.13363	-0.30118	0.05486	0.03101	12.150811	-0.09978	-0.1836	-0.19806	-0.49035	0.11693	-0.05255
PMSB-BWBK-SB-SO01-0107-PM	-119.45096	-1.27664	1.51836	-0.15652	-0.16257	0.50636	-0.16438	15.823084	-0.11267	0.26973	-0.29793	-0.40545	0.54484	-0.11105
PMSB-BWBK-SB-SO02-0109-PM	-741.64335	-1.93795	0.87918	-0.10448	-0.0908	1.36233	0.11352	17.732814	-0.34085	0.49475	-0.20212	-0.25386	0.88035	-0.15617
PMSB-BWBK-SB-SO13-0104-PM	93.1174203	-1.14987	1.43705	-0.54134	-0.09567	1.19756	-0.18191	19.436598	-0.02867	0.76564	-0.86051	-0.3418	0.93738	-0.14085
PMSB-BWBK-SB-SO14-0105-PM	-98.648767	-1.45539	1.79635	-0.322	-0.13863	1.17389	-0.14222	18.972043	-0.04763	0.66467	-0.583	-0.45052	0.96836	-0.18476
PMSS-DABK-S-SO21-0001	763.707641	0.32645	-1.14764	-0.13504	0.39617	0.62083	-0.25065	19.726276	-0.06912	0.7591	-0.09998	0.71222	0.23094	0.14542
PMSS-DABK-S-SO22-0001	1141.04948	0.8233	-1.17712	0.63252	0.22847	0.65431	-0.24609	22.031573	0.10904	0.96836	0.95084	0.42124	0.26974	0.12154
PMSS-DABK-S-SO23-0001	360.007019	-0.23825	-0.26766	0.66973	0.36935	-0.26597	-0.23105	16.495029	-0.14742	0.243	1.00276	0.62243	-0.12446	0.09687
PMSS-DABK-S-SO24-0001	521.153093	0.24172	-1.53464	0.51478	0.00561	1.23808	0.09837	21.326281	-0.11583	0.92499	0.82198	0.1385	0.48505	0.05757
PMSS-DABK-S-SO25-0001	-1050.1819	-1.86564	-2.26026	0.66764	0.45279	3.5741	0.53549	29.515826	-0.58868	1.87455	0.99268	0.76623	1.6179	-0.10388
PMSS-DABK-S-SO26-0001	675.328277	0.0581	-0.66641	0.78169	0.47121	0.5417	-0.28509	21.589599	-0.03477	0.84594	1.14029	0.75026	0.28409	0.09576
PMSS-DABK-S-SO27-0001	299.122088	-0.34361	-0.78691	0.35313	0.86516	-0.20132	-0.31225	17.636834	-0.24746	0.37931	0.59231	1.42759	-0.15819	0.16492
PMSS-DABK-S-SO28-0001	1579.64827	1.43811	-1.08322	0.31953	0.17352	0.11379	-0.22018	19.186857	0.23961	0.64065	0.52137	0.35819	-0.02308	0.13269
PMSS-DABK-S-SO29-0001	696.6567	0.40994	-0.86556	1.33691	0.04112	0.1667	0.00545	18.96675	-0.05207	0.50826	1.97736	0.17702	0.02485	0.06329
PMSS-DABK-S-SO30-0001	1583.23625	1.6312	-0.82984	1.11104	-0.34597	-0.21023	-0.02679	17.294119	0.27472	0.36152	1.64599	-0.41889	-0.17564	0.07597
PMSS-DABK-S-SO31-0001	593.159038	0.48873	-1.36186	0.03716	-0.12926	0.21737	0.0191	15.027467	-0.08584	0.21907	0.15353	-0.04095	-0.08619	0.11891
PMSS-DABK-S-SO32-0001	1626.59651	1.35692	-1.49533	0.34158	0.69616	0.77707	-0.10229	24.035441	0.26747	1.17246	0.52	1.1152	0.29995	0.07961
PMSS-DABK-S-SO33-0001	1470.25164	1.44299	-0.86734	0.64127	0.009	-0.66203	-0.1924	14.97637	0.15251	0.08621	1.02561	0.17318	-0.43533	0.16367
PMSS-DABK-S-SO34-0001	928.251332	0.79442	-1.24678	-0.09809	0.08218	0.09278	-0.03956	15.654965	0.02226	0.27185	-0.05093	0.25801	-0.11933	0.11978
PMSS-DABK-S-SO35-0001	515.752861	0.08214	-1.02248	0.13473	0.51495	0.16627	-0.07565	17.005599	-0.15657	0.34384	0.28648	0.91052	-0.03009	0.11227
PMSS-DABK-S-SO36-0001	68.3510616	-0.3699	-1.10129	0.27345	0.60405	-0.256	-0.05066	14.665047	-0.36679	0.04608	0.53433	1.11419	-0.28439	0.14947
PMSS-DABK-S-SO37-0001	339.93489	0.15629	-1.30387	0.53677	-0.16177	0.43244	0.08633	16.598154	-0.1676	0.36194	0.86226	-0.09325	0.05151	0.08565
PMSS-DABK-S-SO38-0001	452.88344	0.22661	-1.22548	0.03265	0.17669	-0.16695	-0.10846	14.385518	-0.16552	0.11147	0.15784	0.43172	-0.26097	0.15933
PMSS-DABK-S-SO39-0001	495.983696	0.28207	-1.16554	0.11404	-0.08834	0.42841	0.0907	15.70823	-0.11196	0.26518	0.25275	0.00113	0.056	0.07523
PMSS-DABK-S-SO40-0001	700.834975	0.57399	-1.08405	0.32956	-0.07445	-0.22229	-0.07204	14.250203	-0.04462	0.07193	0.55757	0.02794	-0.27193	0.13351
SESB-BWBK-SB-SO03-0108	-430.18211	-2.39444	3.58695	0.27694	-0.08355	0.80386	-0.44235	19.902689	0.04156	0.67995	0.1009	-0.60934	1.08536	-0.28541
SESB-BWBK-SB-SO04-0108	152.175855	-1.11462	1.74989	-0.40961	-0.18745	0.94693	-0.25272	18.639477	0.02729	0.65674	-0.69948	-0.51525	0.85135	-0.14384
SESB-BWBK-SB-SO05-0106	-204.44015	-1.39125	1.65586	0.18704	-0.27247	0.58	-0.1345	16.430673	-0.09308	0.31405	0.15797	-0.60786	0.60665	-0.14364
SESB-BWBK-SB-SO06-0108	-603.08276	-2.24265	2.13528	0.12621	-0.07968	1.56463	-0.14139	21.677823	-0.16005	0.95465	0.0093	-0.42731	1.25603	-0.24447
SESB-BWBK-SB-SO07-0106	346.51658	-1.01445	2.32245	-0.41351	-0.07861	0.1958	-0.52563	16.979128	0.30197	0.44323	-0.8683	-0.53105	0.52815	-0.14529
SESB-BWBK-SB-SO08-0107	-249.93116	-1.83124	2.4398	0.1701	-0.14089	1.14625	-0.19253	20.044374	0.02838	0.72219	0.0155	-0.58009	1.062	-0.25537
SESB-BWBK-SB-SO09-0106	114.930733	-0.95081	1.60109	0.02121	-0.27396	0.31803	-0.14353	15.272417	-0.0399	0.17996	-0.0397	-0.56634	0.45664	-0.11488
SESB-BWBK-SB-SO11-0106	-254.40428	-1.62696	2.10079	0.07765	-0.17045	0.68715	-0.11916	16.546055	0.15724	0.29163	-0.20231	-0.67899	0.69395	-0.2533
SESB-BWBK-SB-SO12-0106	-214.36219	-1.57189	1.70968	-0.3859	-0.13768	1.09922	-0.22062	18.639894	-0.05692	0.65255	-0.69227	-0.4639	0.91119	-0.15963
SESB-BWBK-SB-SO15-0103	111.948325	-0.5043	0.34635	0.05979	-0.32401	0.16568	0.03049	13.341788	-0.1019	-0.02873	0.07832	-0.51188	0.13604	-0.03613
SESB-BWBK-SB-SO16-0105	66.9750988	-0.88327	1.119	-0.50533	-0.22798	0.32092	-0.164	13.897179	-0.08434	0.08496	-0.7613	-0.45098	0.35948	-0.05817
SESB-BWBK-SB-SO17-0106	544.942952	-0.11628	0.98903	-0.42253	-0.29501	-0.46181	-0.15732	10.816107	0.00477	-0.30891	-0.588	-0.47352	-0.09143	-0.00326
SESB-BWBK-SB-SO18-0105	825.218128	0.39777	0.63124	-0.43271	-0.32984	-0.72219	-0.07217	9.5748592	0.07178	-0.45835	-0.57706	-0.47834	-0.2999	0.0168
SESB-BWBK-SB-SO19-0104	1835.31762	1.61234	0.60825	-0.60053	-0.44889	-0.62252	-0.09846	11.837701	0.44509	-0.15448	-0.84624	-0.70335	-0.21362	-0.00573
SESB-BWBK-SB-SO20-0104	94.4081968	-0.89939	0.98113	-0.61966	-0.18553	0.94081	-0.01099	15.987055	-0.01617	0.32686	-0.97106	-0.4391	0.66103	-0.12903
SESS-DABK-S-SO01-0001	-253.66563	-0.64257	-0.48945	0.86263	-0.25168	-0.20275	0.07972	13.185898	-0.36013	-0.0901	1.32976	-0.23958	-0.17719	0.05947
SESS-DABK-S-SO02-0001	1672.7087	1.18372	0.92075	0.55288	0.0254	-0.23779	0.24291	15.602839	0.4016	0.02425	0.74981	-0.03334	0.0506	-0.15789
SESS-DABK-S-SO03-0001	-311.23151	-0.77436	-1.17395	0.8172	0.25271	0.17848	-0.07017	16.416407	-0.45803	0.27004	1.29606	0.57205	-0.05384	0.14447
SESS-DABK-S-SO04-0001	107.567	-0.2227	-0.3746	1.67978	-0.30944	-0.50515	-0.09213	15.336143	-0.21154	0.10631	2.46338	-0.35701	-0.27273	0.08491
SESS-DABK-S-SO05-0001	-351.51789	-0.84018	-0.97916	0.75688	0.15846	0.1411	-0.06299	16.173315	-0.42057	0.27019	1.18046	0.38947	-0.04262	0.11652
SESS-DABK-S-SO06-0001	-375.80927	-1.06772	-2.32209	0.68406	-0.07336	4.4431	0.4338	35.540506	-0.28741	2.74517	0.97833	-0.10218	2.15653	-0.14052
SESS-DABK-S-SO07-0001	909.415212	0.53339	0.26081	0.84984	-0.13777	-0.83616	-0.16962	13.064823	0.04788	-0.18893	1.26481	-0.14436	-0.37043	0.06993
SESS-DABK-S-SO08-0001	419.607179	-0.08552	-0.41956	0.52994	0.1702	0.09451	-0.06309	16.532583	-0.1264	0.27045	0.81356	0.33392	0.02671	0.05696
SESS-DABK-S-SO09-0001	-614.47569	-1.27074	-1.03224	0.382	0.2284	0.75272	-0.08297	17.840082	-0.52183	0.51474	0.65344	0.48839	0.28043	0.11018

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1704.0324	-3.47952	-2.32209	-1.92948	-0.57546	-1.211	-2.59198	3.7142949	-0.58868	-1.17905	-2.52998	-2.07283	-0.70743	-0.61072
MAXIMUM DOMAIN VALUE	13973.8972	14.2554	3.58695	2.23709	10.1213	4.4431	0.64649	57.094827	6.18224	4.71825	2.97673	14.4153	2.15653	0.27175
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	-419.70646	-0.83129	-1.65925	0.36679	0.00401	1.25066	0.11238	20.012826	-0.46297	0.85032	0.65672	0.18792	0.46498	0.08298
SESS-DABK-S-SO11-0001	994.259986	0.98935	-1.30741	-0.47266	-0.09829	-0.38109	-0.23291	13.292292	-0.05526	0.09663	-0.49534	0.07716	-0.36928	0.22572
SESS-DABK-S-SO12-0001	920.557902	0.87628	-0.87441	0.49363	-0.24994	-0.35126	0.03812	13.366652	-0.03021	-0.06444	0.83826	-0.19241	-0.30814	0.10994
SESS-DABK-S-SO13-0001	330.489598	-0.1137	-0.30798	-0.11601	-0.27897	0.10678	-0.20432	14.230437	-0.16166	0.15227	-0.07498	-0.32681	0.03763	0.10773
SESS-DABK-S-SO14-0001	-505.85468	-1.18578	-0.67345	-0.26014	0.28593	0.20012	-0.19085	14.436056	-0.49975	0.15657	-0.2488	0.57538	0.02281	0.14144
SESS-DABK-S-SO15-0001	-51.140393	-0.41966	-1.2364	0.51657	0.0143	0.23742	-0.2257	17.811697	-0.32218	0.5798	0.85026	0.17794	0.0088	0.16842
SESS-DABK-S-SO16-0001	895.408197	0.98058	-1.52824	-0.47691	-0.17767	-0.24251	-0.04854	12.919444	-0.09837	0.06002	-0.48304	-0.0132	-0.34508	0.19416
SESS-DABK-S-SO17-0001	1015.46042	1.14815	-2.1054	0.22231	-0.06644	0.45631	0.0537	18.180451	-0.05165	0.619	0.49502	0.15293	-0.0252	0.166
SESS-DABK-S-SO18-0001	780.975908	0.5569	-0.67734	-0.14492	0.00417	-0.42696	-0.11044	12.253044	-0.09701	-0.1624	-0.06666	0.18157	-0.32593	0.14566
SESS-DABK-S-SO19-0001	722.308519	0.13957	-0.00015	0.59457	0.55716	-0.56927	-0.10145	15.162945	-0.02954	0.00287	0.88429	0.89211	-0.26283	0.04807
SESS-DABK-S-SO20-0001	165.686293	-0.49159	0.01987	1.3109	0.26993	-0.17281	-0.02058	16.711967	-0.18071	0.16559	1.89177	0.44828	-0.04313	0.0099
SESD-SD01	2167.60491	1.63364	0.908	1.01639	0.07913	-0.33744	-0.33012	19.090479	0.95384	0.42174	1.10123	-0.26848	0.00562	-0.11122
SESD-SD02	1793.5905	1.28258	0.15438	-0.80942	0.17554	0.2102	-0.378	16.683607	0.67154	0.36623	-1.36514	0.01799	0.14328	0.0015
SESD-SD03	4377.90475	3.87038	1.4081	1.26427	0.30054	0.22812	-0.56358	27.281643	2.51398	1.25226	0.79216	-0.64783	0.37151	-0.3646
SESD-SD04	5065.25629	5.059	0.95996	0.82031	-0.43023	0.32748	-0.4323	24.746149	2.62155	1.06602	0.28341	-1.61135	0.33096	-0.31762
SESD-SD05	393.283837	-1.03315	0.54076	0.00869	1.86571	0.2988	-0.36044	22.191373	-0.01445	0.74711	-0.11573	2.64481	0.33644	-0.02548
SESD-SD06	4055.86555	3.85675	0.58314	1.08951	0.00257	0.31467	-0.36381	24.811233	1.98365	1.03728	0.88244	-0.71655	0.29558	-0.23092
SESD-SD07	2190.23652	1.23889	1.49045	2.23709	0.89246	-0.64977	-0.51772	24.290238	0.69215	0.80776	2.97673	1.07912	0.0547	-0.06885
SESD-SD08	4665.45448	4.46369	0.27374	1.05619	-0.10853	1.81487	-0.22156	32.612511	2.2511	2.00333	0.77978	-0.96649	1.10368	-0.33755
SESD-SD09	1460.10919	1.12004	-0.91316	-1.14091	0.53717	0.2067	-0.24674	16.446337	0.31715	0.39535	-1.65169	0.79426	-0.01082	0.10357
SESD-SD10	1908.14415	0.45371	0.81646	0.92971	2.40315	0.22154	-0.62013	29.585587	0.88756	1.42987	0.8437	3.08203	0.39335	-0.13077
SESD-SD11	12582.3943	14.1324	-0.92725	0.48666	-0.14859	1.74563	-0.49912	44.218967	6.18224	3.21194	-1.07347	-2.07283	0.84221	-0.61072
SESD-SD12	13973.8972	14.2554	2.09831	1.11977	1.08591	0.36474	-2.59198	57.094827	5.25025	4.71825	0.71118	0.4895	1.14687	0.01854
SESD-SD13	5672.32268	4.59676	0.70277	0.61902	3.14631	0.43203	-0.90946	39.496657	2.55829	2.44439	0.00358	3.76933	0.55852	-0.24295
SESD-SD14	1085.67473	0.54881	-0.31351	0.904	0.55115	0.15076	-0.01898	19.833048	0.2843	0.53538	1.17601	0.73171	0.08336	-0.04063
SESD-SD15	3760.51667	2.68747	0.65689	0.93671	2.19057	0.4764	-0.71319	33.635893	1.57616	1.89508	0.78242	2.6767	0.54793	-0.1465
SESD-SD16	1471.39568	-0.63227	0.21582	0.33979	4.58255	0.52093	-0.6623	35.422471	0.7006	1.93305	-0.06008	6.31967	0.49534	-0.13197
SESD-SD17	5773.86157	5.7455	0.3016	0.22956	0.39261	0.45236	-0.70757	28.768663	3.11475	1.54262	-0.78769	-0.59268	0.30191	-0.29818
SESD-SD18	1692.2114	1.21674	-0.221	-1.02957	0.25882	0.63109	-0.18615	17.45134	0.46895	0.47114	-1.55301	0.27913	0.31816	0.00605
SESD-SD19	305.13988	-3.47952	0.536	-0.1072	10.1213	-0.13062	0.35279	41.393038	0.38476	1.7765	-0.98285	14.4153	0.15783	-0.56487
SESD-SD20	632.809223	0.09508	-0.40266	-1.43423	0.14413	0.74325	0.0611	13.769955	-0.07214	0.10409	-1.96232	0.28895	0.31124	0.02438

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
19.6308	Mean					
7.2755	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0492	0.0448	1.5579	-0.0788	-0.2400	-0.0517
AS	0.0552	-0.0775	-0.0856	-0.0341	-0.0161	0.0610
BA	0.4538	-0.0995	0.5380	-0.2198	0.0615	-0.0308
CR	-0.0191	0.1518	0.3447	-0.0488	-0.1560	-0.1466
CO	0.3461	-0.1417	-0.4901	-0.0577	0.0382	-0.0344
FE	-0.3298	-0.3585	-0.3140	0.1276	1.4115	-0.2304
PB	-0.4290	-0.2517	-0.7489	1.4891	0.1735	0.0663
MG	-0.0541	0.2835	0.0566	0.0653	-0.2777	-0.0896
MN	0.3656	0.0413	-0.3452	-0.1210	-0.0999	-0.1614
NI	-0.3076	1.0984	0.1768	0.1033	-0.4832	0.3560
V	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ZN	0.5712	-0.0444	-0.0280	-0.5929	-0.0891	0.1178

ZINC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0496	0.0484	0.7074	-0.0926	-0.3068	-0.1931
AS	0.0556	-0.0837	-0.0389	-0.0401	-0.0206	0.2279
BA	0.4571	-0.1075	0.2443	-0.2583	0.0787	-0.1152
CR	-0.0192	0.1639	0.1565	-0.0573	-0.1995	-0.5477
CO	0.3487	-0.1530	-0.2225	-0.0679	0.0488	-0.1287
FE	-0.3323	-0.3872	-0.1426	0.1499	1.8043	-0.8609
PB	-0.4322	-0.2719	-0.3400	1.7502	0.2218	0.2477
MG	-0.0545	0.3062	0.0257	0.0767	-0.3550	-0.3346
MN	0.3683	0.0446	-0.1568	-0.1422	-0.1277	-0.6029
NI	-0.3098	1.1865	0.0803	0.1214	-0.6177	1.3301
V	-0.0044	-0.0519	0.3615	-0.1108	-0.0898	0.3935
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403
ZN	0.5754	-0.0480	-0.0127	-0.6969	-0.1139	0.4403

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1391	0.1895	0.8492	0.1680	0.1680	-0.0499
AS	0.1933	0.3486	0.2334	0.1213	0.7411	0.0439
BA	0.8553	0.0947	0.3218	0.2330	0.1155	0.0419
CR	0.3060	0.3765	0.3011	0.6698	0.1946	-0.1666
CO	0.5492	0.6295	0.0853	0.1961	0.4127	0.0623
FE	0.1719	0.5641	0.2648	0.1163	0.7518	-0.0581
PB	0.5392	0.0583	0.1962	0.8088	0.0845	0.0780
MG	0.0538	0.8588	0.0180	0.0528	0.1471	-0.1480
MN	0.8168	0.2379	0.0057	0.2565	0.1484	-0.1948
NI	0.3112	0.8251	0.1318	0.1712	0.3719	0.1441
V	0.3174	-0.0628	0.6763	0.2921	0.3558	0.1387
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
ZN	0.7583	0.3171	0.1643	0.3924	0.2022	0.1781
50.6107	Mean					
54.9603	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-1.0816	0.0450	0.6940	-0.0440	-0.2267	-0.0476
AS	1.2125	-0.0780	-0.0381	-0.0191	-0.0152	0.0561
BA	9.9722	-0.1001	0.2397	-0.1229	0.0581	-0.0284
CR	-0.4197	0.1526	0.1536	-0.0273	-0.1474	-0.1349
CO	7.6065	-0.1425	-0.2183	-0.0323	0.0361	-0.0317
FE	-7.2483	-0.3605	-0.1399	0.0713	1.3334	-0.2120
PB	-9.4285	-0.2531	-0.3336	0.8325	0.1639	0.0610
MG	-1.1879	0.2851	0.0252	0.0365	-0.2623	-0.0824
MN	8.0335	0.0415	-0.1538	-0.0677	-0.0944	-0.1485
NI	-6.7591	1.1046	0.0788	0.0577	-0.4565	0.3275
V	-0.0966	-0.0483	0.3547	-0.0527	-0.0664	0.0969
ZN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.7326106	-1.29481	-1.91229	-3.57901	-1.14034	-1.39679	-1.11214	-1611.827	-43.2522	-2.01	-2.28673	-0.42983	-1.28103	-1.4012
MAXIMUM DOMAIN VALUE	40.930912	8.71986	3.08248	4.42212	10.221	5.00405	1.52256	5760.8929	136.854	3.12534	2.72936	6.79899	4.61193	0.7485
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	3.0569842	-0.19034	-0.64594	-2.96821	-0.22306	-0.58345	0.15815	122.33238	2.61984	-0.58467	-1.97881	-0.20306	-0.47403	0.02517
BASS-BWBK-SS-BA102-0001	0.7373731	-0.12392	-0.87762	-3.53725	-0.22883	-0.53309	0.26017	211.39433	4.89342	-0.81319	-2.28673	-0.21943	-0.42179	0.11128
BASS-BWBK-SS-BA103-0001	1.736911	-0.12629	-0.7687	-3.28765	-0.23661	-0.58798	0.24556	205.42826	4.69374	-0.70848	-2.1364	-0.22596	-0.48002	0.10731
BASS-BWBK-SS-BA104-0001	2.978294	-0.20738	-0.4028	-2.87425	-0.19132	-0.7734	0.19158	119.65556	2.47005	-0.35434	-1.83969	-0.20645	-0.6734	0.08473
BASS-BWBK-SS-BA105-0001	0.982923	-0.16302	-0.70029	-3.47299	-0.20215	-0.51638	0.26092	151.00816	3.33701	-0.63841	-2.21354	-0.19294	-0.40961	0.11803
BASS-BWBK-SS-BA106-0001	2.8409626	-0.27028	-0.26372	-2.84189	-0.17418	-0.82694	0.20589	44.899835	0.61552	-0.20912	-1.85161	-0.18022	-0.71574	0.08643
BASS-BWBK-SS-BA107-0001	1.025859	-0.1102	-0.87845	-3.4815	-0.22542	-0.54148	0.25676	222.90929	5.16289	-0.81859	-2.22774	-0.22199	-0.43595	0.11726
BASS-BWBK-SS-BA108-0001	0.9450726	-0.13517	-0.77322	-3.43107	-0.2115	-0.64248	0.26542	201.41674	4.6195	-0.71011	-2.22478	-0.21131	-0.52771	0.1199
BASS-BWBK-SS-BA109-0001	1.0926227	-0.28356	-0.16082	-3.119	-0.174	-0.97097	0.2706	61.205356	1.03066	-0.09713	-2.05619	-0.18625	-0.84136	0.1299
BASS-BWBK-SS-BA110-0001	5.0785587	-0.16529	-0.35914	-2.47187	-0.2495	-0.68779	0.13728	165.16476	3.51588	-0.30752	-1.68493	-0.23837	-0.58874	0.0291
BASS-BWBK-SS-BA111-0001	1.9075492	-0.17026	-0.71341	-3.2112	-0.21586	-0.61938	0.20439	164.1107	3.68183	-0.65272	-2.10229	-0.21315	-0.50937	0.06904
BASS-BWBK-SS-BA112-0001	1.9177903	-0.14746	-0.79307	-3.24129	-0.22321	-0.58181	0.19215	187.48986	4.27684	-0.73182	-2.12554	-0.21822	-0.47267	0.0559
BASS-BWBK-SS-BA113-0001	0.7326106	0.02128	-0.85533	-3.57901	-0.3133	-0.52117	0.28419	182.85169	4.15619	-0.78248	-2.25999	-0.16938	-0.392	0.11086
MASB-BWBK-SB-MA01-0105	14.017207	0.05568	1.28804	-0.91854	-0.3986	0.11977	-0.09577	92.70441	0.66586	1.31416	-0.53199	-0.18889	0.1402	-0.12692
MASB-BWBK-SB-MA02-0107	18.362479	-0.45868	1.63495	0.13738	-0.2908	0.18585	-0.00088	-385.6898	-11.1347	1.66745	-0.0806	-0.11245	0.20964	-0.04929
MASB-BWBK-SB-MA03-0108	10.53366	0.3264	1.34277	-2.00054	-0.48561	0.55619	0.19701	250.27468	4.35358	1.3886	-1.09461	-0.1649	0.5833	0.10006
MASB-BWBK-SB-MA04-0106	17.667197	-0.33536	2.07478	0.30183	-0.38915	-0.345	-0.00579	-329.1087	-9.8457	2.10077	0.09643	-0.14586	-0.30165	-0.03787
MASB-BWBK-SB-MA05-0108	16.13225	-0.37009	1.27865	-0.36323	-0.34791	0.11034	0.17989	-293.2591	-8.71872	1.30214	-0.26509	-0.16284	0.12779	0.13182
MASB-BWBK-SB-MA06-0105	17.059417	-0.47472	1.45256	-0.03405	-0.28047	-0.04934	0.0794	-386.5918	-11.0221	1.47504	-0.10382	-0.12731	-0.02579	0.04336
MASB-BWBK-SB-MA07-0108	16.425456	-0.69859	0.80917	-0.52126	-0.17376	0.63501	0.06734	-555.8806	-14.9419	0.83918	-0.42908	-0.07734	0.63426	0.01135
MASB-BWBK-SB-MA08-0108	25.881945	-1.29481	0.95894	0.38368	-0.02397	3.18367	-0.39513	-1284.157	-33.2739	0.94525	0.43986	0.07271	2.98997	-0.33235
MASB-BWBK-SB-MA09-0108	17.111952	-0.44841	0.53639	-0.96202	-0.26295	1.51685	0.1265	-428.7461	-11.989	0.56324	-0.54491	-0.07216	1.46965	0.06528
MASB-BWBK-SB-MA10-0104	12.60302	-0.58698	0.09619	-1.67817	-0.09907	1.08765	0.02372	-420.9111	-11.4002	0.12034	-0.96017	-0.06206	1.05731	-0.02341
MASB-BWBK-SB-MA11-0108	18.79293	-0.6709	1.21086	-0.19774	-0.05627	0.9144	-0.00953	-637.6997	-17.2567	1.22478	-0.07246	0.03287	0.8782	-0.02686
MASB-BWBK-SB-MA12-0108	16.013738	-0.37472	1.26418	-0.80511	-0.334	0.89798	0.17133	-355.5698	-10.3857	1.29851	-0.49937	-0.10765	0.88973	0.09967
MASB-BWBK-SB-MA13-0105	16.70999	0.06827	0.01134	-0.22833	-0.46689	-0.38076	0.02784	291.47073	6.08966	-0.00672	-0.09316	-0.38425	-0.39297	0.06886
MASB-BWBK-SB-MA14-0104	24.381545	-0.15414	0.05773	0.51876	-0.39885	1.40688	-0.21171	-20.46776	-1.96016	0.04015	0.32322	-0.27525	1.3018	-0.15666
MASB-BWBK-SB-MA15-0105	24.472592	-0.0644	0.04604	0.98286	-0.47529	0.50815	-0.12871	128.51997	1.82341	0.00825	0.62809	-0.38138	0.42176	-0.03712
MASB-BWBK-SB-MA16-0104	14.766735	-0.02963	0.02637	-1.03005	-0.30401	0.36185	-0.00586	143.90798	2.37318	0.01931	-0.48775	-0.24578	0.32643	0.0136
MASB-BWBK-SB-MA17-0104	21.061073	0.11033	-0.41098	0.23684	-0.50502	0.38689	-0.10497	257.26737	5.22692	-0.41636	0.05248	-0.34851	0.35618	-0.08622
MASB-BWBK-SB-MA18-0104	19.789842	-0.21022	0.39322	0.68505	-0.40596	-0.62399	-0.06793	13.989388	-0.78961	0.34257	0.58744	-0.37268	-0.66923	0.04943
MASB-BWBK-SB-MA19-0103	15.612901	0.08613	-0.06581	-0.46965	-0.44569	-0.41753	0.09117	301.7227	6.38527	-0.07528	-0.26393	-0.35997	-0.41508	0.10882
MASB-BWBK-SB-MA20-0103	14.820704	-0.37771	1.12903	-0.69982	-0.26224	0.15286	0.18154	-262.3037	-7.90013	1.15018	-0.43063	-0.1387	0.16411	0.13782
MASS-BWBK-SS-MA01-0001	16.28133	0.24696	-1.09157	-0.39572	-0.29954	-0.7768	0.17418	531.22202	12.4067	-1.08221	-0.47718	-0.30596	-0.72511	0.13951
MASS-BWBK-SS-MA02-0001	28.250923	0.44239	-0.45684	2.43254	-0.6169	-1.30411	0.1065	632.53655	14.5009	-0.4401	0.81419	-0.42983	-1.21402	0.0663
MASS-BWBK-SS-MA03-0001	18.322889	0.08893	-0.67992	-0.00477	-0.27827	-0.49711	0.07692	348.41868	7.73043	-0.67199	-0.24333	-0.2714	-0.46387	0.05576
MASS-BWBK-SS-MA04-0001	20.411172	0.06261	-0.19088	0.67299	-0.30405	-0.85867	0.10508	283.33343	5.9764	-0.17002	0.0159	-0.24793	-0.78926	0.05942
MASS-BWBK-SS-MA05-0001	23.854918	-0.23253	0.36578	1.40783	-0.21565	-0.59499	-0.0004	-79.43812	-3.1697	0.35912	0.63835	-0.17384	-0.57757	0.02001
MASS-BWBK-SS-MA06-0001	31.726586	0.16882	0.0221	2.73786	-0.40457	-0.30148	-0.11417	330.01822	6.68742	0.00315	1.27857	-0.31444	-0.31646	-0.06227
MASS-BWBK-SS-MA07-0001	6.985655	-0.03011	-1.66661	-2.64384	0.05507	-0.28794	0.29695	362.37176	8.60567	-1.65525	-1.57843	-0.15293	-0.26022	0.24535
MASS-BWBK-SS-MA08-0001	21.862595	-0.2952	-0.98644	-0.0466	0.62164	0.52318	0.01633	-82.3835	-3.04599	-1.02072	0.09617	0.2379	0.44841	0.07791
MASS-BWBK-SS-MA09-0001	37.014672	-0.01944	0.10601	3.66931	0.28144	-0.41524	-0.09963	-23.34387	-2.20023	0.04695	2.11741	0.12918	-0.47127	0.02561
MASS-BWBK-SS-MA10-0001	29.494149	-0.2064	-0.14986	1.95668	0.30729	0.03168	-0.09048	-138.2802	-4.7748	-0.20244	1.25546	0.11832	-0.04094	0.02041
MASS-BWBK-SS-MA11-0001	32.024232	-0.09503	-0.36353	2.20937	-0.0787	0.8021	-0.33031	18.413949	-0.97282	-0.44151	1.50802	-0.15527	0.65105	-0.14958
MASS-BWBK-SS-MA12-0001	20.229728	-0.25091	0.01568	0.60682	-0.20634	-0.56566	0.10151	-54.95791	-2.35185	0.03146	0.07072	-0.16823	-0.51846	0.06655
MASS-BWBK-SS-MA13-0001	29.182027	0.28905	-0.68072	2.1073	-0.41668	-0.29763	-0.13897	486.54751	10.8146	-0.73162	1.1619	-0.38626	-0.35411	-0.02658
MASS-BWBK-SS-MA14-0001	20.867974	0.19369	-1.04713	0.28589	0.13205	-0.58527	0.13769	431.02673	9.68225	-1.1015	0.33492	-0.10265	-0.62953	0.23223
MASS-BWBK-SS-MA15-0001	25.048008	0.18604	-0.91016	1.3348	-0.13925	-0.67023	0.03431	436.46507	9.78793	-0.95338	0.71906	-0.24863	-0.69597	0.11664
MASS-BWBK-SS-MA16-0001	20.050814	-0.12509	-0.72969	0.13633	-0.05518	-0.07703	0.02098	128.52296	2.25347	-0.77543	0.22972	-0.19006	-0.1392	0.11046
MASS-BWBK-SS-MA17-0001	22.754497	0.00821	-0.70411	0.75907	-0.17715	-0.21849	-0.00993	226.209	4.5984	-0.74295	0.4736	-0.2375	-0.26247	0.06757
MASS-BWBK-SS-MA18-0001	20.702533	-0.09614	-0.92888	0.25377	0.0479	-0.22881	0.10995	153.38114	2.89945	-0.99382	0.41363	-0.15321	-0.30752	0.22866
MASS-BWBK-SS-MA19-0001	22.76849	0.01445	-0.74424	0.65539	-0.06462	-0.12925	0.01112	228.71332	4.61352	-0.79824	0.53964	-0.18884	-0.19853	0.11678
MASS-BWBK-SS-MA20-0001	19.628995	-0.13102	-0.19807	0.09262	-0.06716	-0.07326	0.08605	63.155902	0.43818	-0.2208	0.10957	-0.13631	-0.105	0.12756
MMSB-BWBK-SB-MM101-0110	10.767417	-0.17758	0.00979	-1.6172	-0.02688	-0.18331	0.03976	87.229934	1.19156	0.0484	-1.13886	-0.08512	-0.12924	-0.03336
MMSB-BWBK-SB-MM102-0109	12.834361	-0.43527	1.32467	-0.41221	-0.10609	-1.20307	0.18045	-141.3827	-4.72693	1.35786	-0.50189	-0.13822	-1.10975	0.12141
MMSB-BWBK-SB-MM103-0107	9.7552129	0.12455	0.21604	-1.62773	-0.21285	-0.63924	0.05128	365.33128	7.94721	0.25639	-1.15098	-0.19101	-0.55934	-0.02376
MMSB-BWBK-SB-MM104-0110	18.885941	-0.397	0.61738	0.31776	-0.11067	-0.15637	-0.46522	-196.8365	-5.99614	0.63807	-0.05762	-0.10329	-0.12889	-0.45858
MMSB-BWBK-SB-MM105-0110	8.0373579	-0.14549	-0.25697	-2.03579	-0.12794	-0.51123	0.23509	161.23405	3.21507	-0.21619	-1.38757	-0.16693	-0.43635	0.14094
MMSB-BWBK-SB-MM106-0110	21.125433	-0.23698	1.21141	1.15322	-0.29435	-0.82044	-0.32641	-82.21018	-3.41545	1.21604	0.48121	-0.20709	-0.78127	-0.29328
MMSB-BWBK-SB-MM107-0110	11.389685	-0.1201	0.20888	-1.12177	-0.26348	-0.65751	-0.08599	148.13579	2.73499	0.23926	-0.85751	-0.23428	-0.5906	-0.12983
MMSB-BWBK-SB-MM108-0110	13.175977	-0.17334	0.06038	-0.86366	-0.2089	-0.50608	-0.0232	89.033874	1.27829	0.0846	-0.69594	-0.20341	-0.45437	-0.06178
MMSB-BWBK-SB-MM109-0110	19.763301	-0.06763	0.34553	0.50597	-0.30046	-0.50686	-0.09155	163.44411	2.82606	0.35171	0.07826	-0.25958	-0.48076	-0.08635
MMSB-BWBK-SB-MM110-0109	16.010321	-0.25362	0.2388	-0.21365	-0.22069	-0.49824	-0.11464	17.036427	-0.57374	0.25464	-0.33561	-0.2187	-0.45973	-0.12718
MMSB-BWBK-SB-MM111-0110	17.195207	-0.26197	0.40503	-0.07326	-0.14556	-0.33052	-0.11903	-9.672985	-1.36853	0.42665	-0.29196	-0.15752	-0.2935	-0.14187
MMSB-BWBK-SB-MM112-0110	17.340873	-0.20566	0.60145	0.07814	-0.29701	-0.43214	-0.17319	51.913123	0.07784	0.59635	-0.02732	-0.27847	-0.4282	-0.13549
MMSB-BWBK-SB-MM113-0110	13.960019	-0.32716	0.93874	-0.23831	-0.25497	-1.02597	-0.11494	-62.31627	-2.62663	0.97008	-0.41927	-0.21494	-0.94152	-0.15138
MMSB-BWBK-SB-MM114-0110	11.626394	-0.05404	-0.011	-1.14834	-0.26289	-0.70804	0.15572	242.59527	5.0785	0.027	-0.95797	-0.24383	-0.62773	0.07606

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.7326106	-1.29481	-1.91229	-3.57901	-1.14034	-1.39679	-1.11214	-1611.827	-43.2522	-2.01	-2.28673	-0.42983	-1.28103	-1.4012
MAXIMUM DOMAIN VALUE	40.930912	8.71986	3.08248	4.42212	10.221	5.00405	1.52256	5760.8929	136.854	3.12534	2.72936	6.79899	4.61193	0.7485
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	20.606824	0.24604	-0.00232	0.6877	-0.524	-0.62317	-0.24795	444.71977	9.83323	0.0015	0.1591	-0.38756	-0.5914	-0.22925
MMSB-BWBK-SB-MM116-0110	12.730278	-0.11271	0.41504	-0.85721	-0.21909	-0.68777	0.01312	123.67679	2.00182	0.45878	-0.80456	-0.17556	-0.60074	-0.06452
MMSB-BWBK-SB-MM117-0110	8.4284609	-0.04971	-0.19664	-2.00789	-0.18533	-0.41126	0.15922	232.13372	4.89132	-0.15132	-1.39422	-0.18466	-0.33535	0.06207
MMSB-BWBK-SB-MM118-0110	7.9800763	-0.41586	1.8808	-1.37797	0.0127	-1.39679	0.53332	-125.0914	-4.53707	1.9253	-0.98549	-0.05721	-1.28103	0.42923
MMSB-BWBK-SB-MM119-0110	10.932498	-0.20532	0.30128	-1.25773	-0.17489	-0.58288	-0.01727	55.672696	0.42296	0.33107	-0.89814	-0.17619	-0.52083	-0.06502
MMSB-BWBK-SB-MM120-0110	5.1721878	-0.04145	-0.64302	-2.72826	-0.18676	-0.3937	0.18172	288.72429	6.5236	-0.59935	-1.76044	-0.21693	-0.3202	0.08321
MMSS-BWBK-SS-MM101-0001	31.996232	-0.36935	-0.44783	2.91448	-0.1864	-0.29084	-0.17633	-88.81623	-3.20834	-0.48163	1.39432	-0.24953	-0.32674	-0.09203
MMSS-BWBK-SS-MM102-0001	21.454196	-0.34236	-0.65154	0.75013	-0.27402	-0.30877	0.00667	-4.824131	-0.8588	-0.65931	0.18469	-0.30692	-0.30941	0.02432
MMSS-BWBK-SS-MM103-0001	29.014542	-0.48047	-0.56021	2.22105	-0.04086	-0.17944	-0.13883	-165.0844	-4.99472	-0.60031	1.10913	-0.18928	-0.23051	-0.04515
MMSS-BWBK-SS-MM104-0001	28.953406	-0.36566	-0.26724	2.26513	-0.07539	-0.30476	-0.15016	-76.50488	-2.95282	-0.2933	1.05126	-0.18373	-0.33092	-0.08123
MMSS-BWBK-SS-MM105-0001	18.911057	-0.22725	-1.00389	0.05783	-0.13317	-0.28558	0.08299	112.07981	2.10472	-1.01518	-0.12415	-0.23963	-0.29042	0.09828
MMSS-BWBK-SS-MM106-0001	28.935978	-0.30157	-0.25598	2.37226	-0.29446	-0.35416	-0.24326	-19.48311	-1.50547	-0.28545	1.12331	-0.31103	-0.38246	-0.15983
MMSS-BWBK-SS-MM107-0001	31.346025	-0.38883	-0.18019	2.96158	-0.29063	-0.47136	-0.20193	-108.4528	-3.71068	-0.20354	1.35201	-0.29597	-0.4848	-0.13369
MMSS-BWBK-SS-MM108-0001	32.700717	-0.3677	-0.63556	3.14952	-0.25923	-0.46209	-0.1204	-45.31133	-2.04356	-0.68111	1.54664	-0.32765	-0.50529	-0.0174
MMSS-BWBK-SS-MM109-0001	28.713396	-0.44929	-0.57001	2.38684	-0.29	-0.43565	-0.13952	-104.4926	-3.39353	-0.60073	1.08946	-0.33832	-0.46119	-0.0634
MMSS-BWBK-SS-MM110-0001	17.576345	-0.17739	-1.35428	-0.313	-0.07732	-0.26252	0.11892	195.00567	4.27089	-1.36132	-0.36353	-0.22528	-0.26199	0.12044
MMSS-BWBK-SS-MM111-0001	20.262968	-0.2192	-1.15	0.41771	-0.16932	-0.44289	0.06301	148.9366	3.09517	-1.14629	-0.10112	-0.26006	-0.41869	0.04932
MMSS-BWBK-SS-MM112-0001	16.54859	-0.19066	-1.28496	-0.44734	-0.07385	-0.40066	0.16434	168.37487	3.64554	-1.27439	-0.54002	-0.1963	-0.36815	0.1271
MMSS-BWBK-SS-MM113-0001	27.419315	-0.38036	-0.87457	1.83068	0.09821	-0.34439	-0.05745	-51.42687	-2.1003	-0.91423	0.90041	-0.12456	-0.38454	0.02631
MMSS-BWBK-SS-MM114-0001	14.348435	-0.06275	-1.32086	-0.86617	-0.27707	-0.42023	0.19546	291.85815	6.73422	-1.29811	-0.82436	-0.30205	-0.37008	0.13126
MMSS-BWBK-SS-MM115-0001	19.273215	-0.12748	-1.20639	0.10827	-0.27736	-0.25204	0.09356	212.13696	4.63643	-1.19864	-0.25799	-0.30489	-0.23153	0.06795
MMSS-BWBK-SS-MM116-0001	17.020603	-0.15626	-1.25732	-0.37685	-0.14626	-0.29591	0.10595	201.69775	4.42743	-1.25671	-0.43553	-0.24886	-0.28318	0.09375
MMSS-BWBK-SS-MM117-0001	25.817802	-0.29435	-0.65329	1.57028	-0.13204	-0.31561	-0.06029	22.437268	-0.32084	-0.66658	0.60418	-0.22225	-0.32253	-0.02697
MMSS-BWBK-SS-MM118-0001	14.936049	-0.18598	-0.3051	-0.4713	-0.26317	-0.59697	0.01862	142.88092	2.74502	-0.2848	-0.55457	-0.27488	-0.54595	-0.01697
MMSS-BWBK-SS-MM119-0001	12.603284	-0.13759	-0.37177	-0.97515	-0.28321	-0.63395	0.15981	201.11332	4.21653	-0.34327	-0.85254	-0.28547	-0.5698	0.0963
MMSS-BWBK-SS-MM120-0001	15.585555	-0.39002	-0.6504	-0.74957	-0.2242	0.31424	-0.08991	-77.40406	-2.60659	-0.64031	-0.59481	-0.2431	0.30502	-0.10147
NESB-BWBK-SB-NE01-0108	20.026907	-0.63004	1.41476	0.89093	-0.18693	-0.5253	-0.12791	-423.3344	-11.7826	1.45231	0.12527	-0.11696	-0.45914	-0.17416
NESB-BWBK-SB-NE02-0109	19.448978	-0.0618	1.03817	0.49096	-0.39349	-0.3973	-0.11456	99.71925	1.00144	1.08392	-0.13607	-0.22735	-0.32455	-0.18215
NESB-BWBK-SB-NE03-0105	18.483884	-0.52729	0.60551	0.2038	-0.20315	-0.05462	-0.08149	-273.054	-7.86291	0.64131	-0.24585	-0.16003	-0.01367	-0.13457
NESB-BWBK-SB-NE04-0110	16.884394	-0.38084	0.75532	0.03373	-0.21357	-0.46035	-0.04178	-152.2972	-4.92004	0.79227	-0.31647	-0.15934	-0.39603	-0.09906
NESB-BWBK-SB-NE05-0108	18.393581	-0.59874	1.10887	0.41455	-0.18431	-0.35313	-0.08101	-386.5925	-10.7762	1.14291	-0.0824	-0.12466	-0.29955	-0.12691
NESB-BWBK-SB-NE06-0109	15.960424	-0.49734	0.89809	-0.17111	-0.17658	-0.34899	0.00905	-263.8207	-7.69094	0.93391	-0.38802	-0.13613	-0.2931	-0.04875
NESB-BWBK-SB-NE07-0107	20.672931	-0.61158	1.28565	0.97023	-0.20285	-0.47664	-0.06639	-404.5047	-11.3017	1.32556	0.13615	-0.12405	-0.40907	-0.12363
NESB-BWBK-SB-NE08-0104	15.638871	-0.40372	0.66743	-0.1875	-0.22584	-0.55057	0.07245	-147.9408	-4.74949	0.69547	-0.37183	-0.19082	-0.49407	0.02393
NESB-BWBK-SB-NE09-0110	15.924287	-0.44661	0.74087	-0.19076	-0.22018	-0.34464	-0.03755	-217.0979	-6.47557	0.78013	-0.43099	-0.15785	-0.28322	-0.10016
NESB-BWBK-SB-NE10-0107	20.051304	-0.32079	0.34659	0.68219	-0.2955	-0.49901	-0.11621	-82.47737	-3.10386	0.34205	0.24486	-0.2608	-0.48746	-0.08803
NESB-BWBK-SB-NE101-0110	22.81581	-0.04113	0.25523	1.18593	-0.4013	-0.56079	-0.13292	204.59065	3.84486	0.26069	0.37099	-0.32596	-0.5328	-0.12332
NESB-BWBK-SB-NE102-0110	20.810173	0.13373	0.02167	0.78161	-0.46998	-0.74554	-0.03636	381.23284	8.28367	0.0364	0.09767	-0.36567	-0.69382	-0.05487
NESB-BWBK-SB-NE103-0110	16.505457	0.05312	-0.21448	-0.18597	-0.39722	-0.62938	0.04197	334.16694	7.29927	-0.19284	-0.41457	-0.33324	-0.57417	0.00182
NESB-BWBK-SB-NE104-0110	12.897636	0.04633	-0.39228	-0.99494	-0.34857	-0.57787	0.11163	342.9997	7.63499	-0.36502	-0.83636	-0.30935	-0.51725	0.05331
NESB-BWBK-SB-NE105-0110	20.687048	0.0408	0.12107	0.65814	-0.41768	-0.46221	-0.13561	273.26367	5.58086	0.12802	0.12131	-0.33114	-0.43647	-0.13039
NESB-BWBK-SB-NE106-0110	18.491326	0.0282	0.14352	0.29235	-0.39808	-0.66318	-0.01465	280.18506	5.80741	0.16082	-0.12988	-0.3198	-0.61312	-0.03894
NESB-BWBK-SB-NE107-0510	12.911741	-0.04102	-0.31251	-1.00226	-0.29533	-0.46619	-0.00127	240.74947	5.12015	-0.28335	-0.83416	-0.26462	-0.40867	-0.05435
NESB-BWBK-SB-NE108-0110	19.037765	-0.00876	-0.12855	0.34188	-0.38865	-0.54092	-0.08683	258.82364	5.38522	-0.12485	-0.03022	-0.33698	-0.51498	-0.08048
NESB-BWBK-SB-NE109-0110	19.183983	0.03243	-0.12192	0.36795	-0.40088	-0.56749	-0.06636	298.16925	6.3396	-0.10499	-0.11613	-0.32993	-0.52198	-0.08809
NESB-BWBK-SB-NE110-0110	17.900274	-0.0468	-0.10205	0.15526	-0.34485	-0.62014	-0.09408	224.42058	4.58393	-0.08663	-0.19868	-0.30011	-0.57393	-0.11037
NESS-BKG-SS03-NEB-0016	30.539334	-0.58308	-0.45773	2.10285	1.15246	-0.28641	-0.00888	-376.741	-10.5046	-0.49169	1.10358	0.55696	-0.31801	0.05838
NESS-BKG-SS09-NEB-0018	24.721854	-0.24424	-0.8302	1.3634	-0.07237	-0.47899	-0.03893	52.887369	0.51443	-0.8509	0.5659	-0.19022	-0.48522	0.00517
NESS-BWBK-SS-NE01-0001	35.688447	-0.25739	0.15985	3.66306	-0.2183	-0.24271	-0.20471	-224.4509	-6.88613	0.1426	1.79727	-0.11516	-0.25206	-0.1537
NESS-BWBK-SS-NE02-0001	30.209338	-0.37913	0.63019	2.77917	-0.31909	-0.47711	-0.01933	-440.8059	-12.1657	0.64757	1.24039	-0.07691	-0.42471	-0.05131
NESS-BWBK-SS-NE03-0001	33.42571	-0.45249	-0.12631	3.33444	-0.30707	-0.31002	-0.16826	-217.4969	-6.44502	-0.1386	1.47558	-0.26306	-0.31513	-0.12634
NESS-BWBK-SS-NE04-0001	31.828084	-0.43502	0.40728	3.16663	-0.27155	-0.53518	-0.22867	-192.8853	-6.00739	0.39044	1.45438	-0.25298	-0.53833	-0.16668
NESS-BWBK-SS-NE05-0001	29.515516	-0.39791	-0.01427	2.50963	-0.08842	-0.46987	-0.14592	-208.0555	-6.22913	-0.02309	1.11399	-0.11561	-0.46047	-0.11293
NESS-BWBK-SS-NE06-0001	28.937792	-0.52334	0.54589	2.70814	-0.2754	-0.71797	-0.11544	-254.987	-7.47668	0.53551	1.19605	-0.25923	-0.70404	-0.0732
NESS-BWBK-SS-NE07-0001	30.619424	-0.46165	-0.28989	2.46731	0.21915	-0.229	-0.09023	-267.7834	-7.72071	-0.32266	1.26095	0.0329	-0.26362	-0.01682
NESS-BWBK-SS-NE08-0001	31.123287	-0.46621	0.15008	2.97078	-0.28591	-0.48673	-0.11137	-207.9396	-6.26159	0.14029	1.29359	-0.261	-0.48164	-0.07519
NESS-BWBK-SS-NE09-0001	38.801962	-0.27085	-0.34198	4.42212	-0.22993	-0.56485	-0.16615	-34.95846	-2.03815	-0.3663	2.02794	-0.24154	-0.57155	-0.102
NESS-BWBK-SS-NE10-0001	26.634818	-0.47504	-0.19452	1.65737	0.40576	-0.38664	-0.00439	-255.3529	-7.4011	-0.21891	0.82641	0.13242	-0.40285	0.04731
NESS-BWBK-SS-NE101-0001	28.411907	-0.17265	-0.61413	2.34811	-0.41441	-0.66249	-0.0586	157.11097	2.9997	-0.62617	0.92568	-0.39337	-0.64996	-0.02654
NESS-BWBK-SS-NE102-0001	19.967673	-0.16798	-0.97077	0.3435	-0.09203	-0.5027	0.08687	170.41313	3.51046	-0.97623	-0.04086	-0.21252	-0.48793	0.09066
NESS-BWBK-SS-NE103-0001	16.554149	-0.18156	-0.96102	-0.35073	-0.0808	-0.51405	0.13018	176.66751	3.7251	-0.96291	-0.38963	-0.21371	-0.49472	0.12419
NESS-BWBK-SS-NE104-0001	19.713048	-0.49376	-0.84943	0.16688	0.44244	-0.38905	0.0791	-126.3313	-3.82607	-0.85091	-0.13886	0.09399	-0.37569	0.07661
NESS-BWBK-SS-NE105-0001	17.184041	-0.07889	-1.17137	-0.23382	-0.26002	-0.47816	0.13947	266.66801	6.0144	-1.15784	-0.45943	-0.29579	-0.43802	0.09944
NESS-BWBK-SS-NE106-0001	18.372999	-0.34715	-1.19864	-0.22937	0.52182	-0.42098	0.1043	22.958503	-0.06703	-1.19797	-0.35979	0.13103	-0.40116	0.09233
NESS-BWBK-SS-NE107-0001	20.087738	-0.08286	-1.28559	0.3107	-0.14745	-0.48435	0.09803	255.82784	5.71405	-1.28732	-0.10455	-0.2447	-0.46361	0.09036
NESS-BWBK-SS-NE108-0001	19.93486	-0.06963	-1.10276	0.27306	-0.07791	-0.50251	0.08275	255.38851	5.60976	-1.1054	-0.09655	-0.1992	-0.48272	0.07961
NESS-BWBK-SS-NE109-0001	17.784513	-0.04242	-1.24982	-0.12374	-0.27936	-0.47471	0.11067	303.37153	6.93011	-1.23714	-0.41051	-0.30962	-0.43552	0.07393
NESS-BWBK-SS-NE110-0001	16.342496	-0.21903	-1.36071	-0.66225	0.22036	-0.2918	0.13974	153.38641	3.21378	-1.38132	-0.41661	-0.07106	-0.30804	0.16657

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.7326106	-1.29481	-1.91229	-3.57901	-1.14034	-1.39679	-1.11214	-1611.827	-43.2522	-2.01	-2.28673	-0.42983	-1.28103	-1.4012
MAXIMUM DOMAIN VALUE	40.930912	8.71986	3.08248	4.42212	10.221	5.00405	1.52256	5760.8929	136.854	3.12534	2.72936	6.79899	4.61193	0.7485
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	20.521302	-0.00485	1.2763	0.80748	-0.44656	-0.66124	0.17112	165.53056	2.44471	1.28126	0.30694	-0.30919	-0.63229	0.16562
PMSB-BWBK-SB-PM02-0104	25.783291	-0.44748	0.31543	0.66968	-0.27738	2.00761	-0.56733	-294.8182	-8.80445	0.26696	0.63699	-0.23519	1.82546	-0.41943
PMSB-BWBK-SB-PM03-0106	17.076432	-0.49905	1.13598	-0.72069	-0.24494	1.26916	-0.10042	-399.9461	-11.4582	1.13695	-0.26845	-0.13208	1.1924	-0.08227
PMSB-BWBK-SB-PM04-0105	17.230058	-0.44099	1.14858	-0.24343	-0.16142	0.24612	0.04589	-294.4221	-8.74773	1.15387	-0.1255	-0.11264	0.22923	0.04592
PMSB-BWBK-SB-PM05-0105	17.188676	-0.21354	0.84105	-0.4058	-0.29559	0.45575	-0.11832	-79.0907	-3.41078	0.8414	-0.18355	-0.19887	0.42222	-0.09819
PMSB-BWBK-SB-PM06-0105	17.757382	-0.04781	0.76024	-0.44042	-0.43745	0.77267	-0.31596	86.400248	0.61248	0.7668	-0.25784	-0.27913	0.7301	-0.29285
PMSB-BWBK-SB-PM07-0105	14.299631	0.25138	-0.24395	-1.58001	-0.43916	1.10651	-0.17819	438.11474	9.49963	-0.25992	-0.70445	-0.35102	1.01799	-0.12867
PMSB-BWBK-SB-PM08-0106	15.700825	0.01334	0.55266	-0.74729	-0.36609	0.28492	0.00922	166.85395	2.69939	0.55008	-0.35629	-0.26493	0.25698	0.02347
PMSB-BWBK-SB-PM09-0106	10.613262	-0.12942	0.45014	-1.60915	-0.33286	-0.02325	0.1708	90.87946	1.07693	0.46833	-0.93671	-0.25597	-0.00746	0.13148
PMSB-BWBK-SB-PM10-0105	16.449693	-0.02476	0.01506	-0.83288	-0.38147	0.77282	-0.20685	135.93308	2.0812	-0.05347	0.05865	-0.34997	0.63077	-0.04848
PMSB-BWBK-SB-PM11-0104	14.32805	0.20187	0.73716	-1.34757	-0.43778	0.84408	-0.05537	343.96763	6.82484	0.73835	-0.64319	-0.30151	0.78902	-0.04147
PMSB-BWBK-SB-PM12-0105	13.125972	-0.0859	0.26006	-0.75663	-0.35814	-0.66769	0.02462	155.80825	2.84091	0.26695	-0.50412	-0.29978	-0.6318	0.01875
PMSB-BWBK-SB-PM13-0106	21.269739	-0.08564	-0.43643	0.15333	-0.44296	0.83583	-0.33646	145.66449	2.49434	-0.47162	0.18918	-0.38271	0.73657	-0.23722
PMSB-BWBK-SB-PM14-0106	14.082261	0.06889	-0.11378	-0.86754	-0.40098	-0.24501	-0.00457	297.41448	6.31259	-0.11992	-0.47561	-0.33774	-0.24771	0.01399
PMSB-BWBK-SB-PM15-0105	18.124102	-0.21777	0.29608	-0.16124	-0.32107	0.27029	-0.09159	-28.54554	-1.916	0.29375	-0.12005	-0.2482	0.24465	-0.07198
PMSB-BWBK-SB-PM16-0106	16.171826	-0.18639	0.1876	-0.36623	-0.33825	-0.16771	0.01204	39.096737	-0.11146	0.19005	-0.28072	-0.27661	-0.1637	0.01418
PMSB-BWBK-SB-PM17-0105	15.734418	0.06203	0.37163	-0.85984	-0.27019	0.41514	-0.13812	196.34194	3.4481	0.35113	-0.27451	-0.22334	0.35729	-0.07857
PMSB-BWBK-SB-PM18-0105	19.750351	-0.78707	0.94579	-0.11093	-0.1458	1.29112	-0.11614	-645.934	-17.3449	0.97152	-0.19709	-0.0572	1.24794	-0.14798
PMSB-BWBK-SB-PM19-0105	19.271312	-0.3532	0.69668	0.08276	-0.29433	0.39655	-0.03336	-199.3374	-6.27591	0.7062	-0.0441	-0.19139	0.37967	-0.03977
PMSB-BWBK-SB-PM20-0106	17.55271	-0.2731	0.56793	-0.14006	-0.31655	0.05936	0.02018	-96.84769	-3.64842	0.57331	-0.14178	-0.2271	0.05485	0.01765
PMSB-BWBK-SB-SO01-0107-PM	18.543171	-0.59242	1.28282	-0.08997	-0.16603	0.55801	0.21585	-518.4559	-14.334	1.3096	-0.1475	-0.04114	0.55651	0.15725
PMSB-BWBK-SB-SO02-0109-PM	20.513163	-0.82958	0.74253	-0.10715	-0.08021	1.50032	-0.04819	-729.6185	-19.3803	0.757	-0.09196	-0.0074	1.43361	-0.06677
PMSB-BWBK-SB-SO13-0104-PM	14.837518	-0.55263	1.22281	-1.31452	-0.07087	1.3319	0.21073	-435.3142	-12.4087	1.23415	-0.6112	-0.0286	1.26489	0.18446
PMSB-BWBK-SB-SO14-0105-PM	18.119439	-0.64798	1.52132	-0.5099	-0.15081	1.27922	0.19664	-605.0687	-16.6689	1.55607	-0.35296	-0.00018	1.24898	0.12458
PMSS-DABK-S-SO21-0001	17.894063	0.0171	-0.94936	-1.13244	0.55391	0.7859	0.14905	-76.38696	-3.01644	-0.99587	-0.11268	0.3387	0.69179	0.21488
PMSS-DABK-S-SO22-0001	24.534981	0.24988	-0.92248	0.12498	0.46171	0.88302	0.02343	-130.5259	-4.55256	-0.99396	0.80991	0.40735	0.76092	0.13993
PMSS-DABK-S-SO23-0001	23.840334	-0.19947	-0.17248	0.75315	0.56225	-0.1553	0.09177	-66.07561	-2.97081	-0.25045	0.85901	0.19521	-0.25537	0.2413
PMSS-DABK-S-SO24-0001	25.518813	0.00575	-1.25892	0.25804	0.18319	1.48641	-0.20548	-1.846718	-1.20842	-1.33654	0.66555	0.05205	1.30935	-0.04918
PMSS-DABK-S-SO25-0001	30.426027	-0.73467	-1.84391	0.071	0.68925	4.06485	-0.68129	-585.0894	-15.6259	-1.96415	0.81921	0.2488	3.68759	-0.40508
PMSS-DABK-S-SO26-0001	25.822856	-0.06227	-0.48223	0.51412	0.72409	0.76749	0.05973	-317.7772	-9.29215	-0.56079	0.99577	0.49577	0.6348	0.19566
PMSS-DABK-S-SO27-0001	21.165858	-0.25365	-0.62216	-0.08558	1.08216	-0.08201	0.16852	-145.4461	-4.79978	-0.69971	0.48113	0.50348	-0.18093	0.30505
PMSS-DABK-S-SO28-0001	20.859185	0.49215	-0.86324	-0.36177	0.35815	0.25819	0.04756	301.54697	6.1151	-0.93068	0.42203	0.23417	0.16613	0.16261
PMSS-DABK-S-SO29-0001	32.264285	0.03335	-0.66757	2.21695	0.27076	0.35533	-0.15079	9.6968725	-1.14288	-0.75933	1.6801	0.09326	0.21776	0.03542
PMSS-DABK-S-SO30-0001	30.755222	0.54327	-0.66515	2.11028	-0.21105	-0.11568	-0.06892	418.40705	8.91873	-0.71942	1.39001	-0.1079	-0.17347	0.03369
PMSS-DABK-S-SO31-0001	17.863344	0.15779	-1.12908	-0.67169	-0.02743	0.3182	-0.10731	313.70923	6.82079	-1.19659	0.05662	-0.15987	0.21023	0.02923
PMSS-DABK-S-SO32-0001	22.632785	0.51809	-1.19495	-0.6389	0.91813	0.99226	-0.11542	320.13159	6.39949	-1.28061	0.42558	0.53502	0.83755	0.04512
PMSS-DABK-S-SO33-0001	23.127631	0.4308	-0.6889	0.6505	0.1984	-0.57847	0.06168	430.58521	9.36685	-0.76705	0.83428	0.02871	-0.64867	0.20592
PMSS-DABK-S-SO34-0001	16.674998	0.28057	-1.03265	-0.99004	0.18483	0.17599	-0.05214	476.12089	10.6904	-1.10044	-0.11074	-0.06834	0.07263	0.08339
PMSS-DABK-S-SO35-0001	18.796042	-0.05386	-0.82349	-0.67563	0.70087	0.30626	-0.04422	106.19703	1.46827	-0.9065	0.19935	0.24341	0.17649	0.12084
PMSS-DABK-S-SO36-0001	20.431596	-0.28561	-0.90994	-0.04253	0.78827	-0.15737	-0.0141	-2.914487	-1.04209	-0.99026	0.38864	0.23813	-0.26178	0.14601
PMSS-DABK-S-SO37-0001	22.920682	-0.00645	-1.05768	0.29828	0.00185	0.60109	-0.20439	162.93973	2.99989	-1.1501	0.67902	-0.16754	0.44297	-0.00952
PMSS-DABK-S-SO38-0001	16.52849	0.03028	-1.00406	-0.83343	0.32118	-0.07854	-0.00949	288.80992	6.18992	-1.08929	0.06039	-0.03447	-0.19387	0.15947
PMSS-DABK-S-SO39-0001	19.778018	0.06114	-0.96766	-0.34849	0.00892	0.54436	-0.14829	295.83136	6.26187	-1.03382	0.15517	-0.17403	0.42167	-0.00704
PMSS-DABK-S-SO40-0001	19.727121	0.18595	-0.87714	-0.0885	0.0576	-0.14089	-0.05575	379.71995	8.32663	-0.95976	0.41302	-0.15095	-0.24783	0.1112
SESB-BWBK-SB-SO03-0108	22.830986	-0.95026	3.08248	0.87909	-0.09112	0.87533	0.40213	-974.0382	-26.3259	3.12534	0.35167	0.09988	0.872	0.31043
SESB-BWBK-SB-SO04-0108	16.387785	-0.52197	1.4839	-0.79758	-0.19323	1.03789	0.28645	-494.8256	-13.9292	1.5152	-0.45672	-0.02691	1.01659	0.21367
SESB-BWBK-SB-SO05-0106	21.999345	-0.60575	1.41527	0.6424	-0.26976	0.64566	0.15392	-546.545	-15.1279	1.43388	0.25724	-0.09806	0.62794	0.11744
SESB-BWBK-SB-SO06-0108	22.478539	-0.95874	1.83979	0.26522	-0.0326	1.74838	0.13981	-952.5531	-25.4029	1.85537	0.19651	0.08469	1.66674	0.1116
SESB-BWBK-SB-SO07-0106	12.236658	-0.20839	2.02342	-1.31819	-0.14051	0.16526	0.3656	-203.2742	-6.93175	2.042	-0.57664	-0.01772	0.17034	0.31831
SESB-BWBK-SB-SO08-0107	21.64943	-0.70184	2.11297	0.29778	-0.12947	1.26433	0.14101	-742.9451	-20.3507	2.13252	0.20917	0.04657	1.21392	0.10691
SESB-BWBK-SB-SO09-0106	19.954639	-0.48247	1.35885	0.30036	-0.26367	0.36657	0.19088	-397.0594	-11.4058	1.37755	0.07462	-0.11684	0.36302	0.15214
SESB-BWBK-SB-SO11-0106	18.910879	-0.34297	1.84197	-0.04421	-0.274	0.67088	-0.02251	-318.6504	-9.74818	1.86103	-0.02387	-0.0938	0.6498	-0.04156
SESB-BWBK-SB-SO12-0106	16.023624	-0.63911	1.46316	-0.90905	-0.14661	1.19868	0.21709	-621.8405	-17.009	1.4888	-0.45226	0.00415	1.16175	0.16027
SESB-BWBK-SB-SO15-0103	19.078986	-0.22863	0.30297	0.05653	-0.30983	0.20258	-0.0292	-42.04064	-2.27521	0.28641	0.08431	-0.25545	0.16124	0.01393
SESB-BWBK-SB-SO16-0105	13.3455	-0.41397	0.94489	-1.11943	-0.23637	0.35323	0.19676	-264.379	-7.88408	0.95743	-0.58425	-0.15103	0.34149	0.16824
SESB-BWBK-SB-SO17-0106	13.766485	-0.1629	0.81796	-0.68775	-0.31095	-0.50372	0.23239	12.285977	-0.9765	0.83487	-0.46644	-0.21804	-0.46357	0.19288
SESB-BWBK-SB-SO18-0105	13.709908	0.05535	0.50593	-0.63597	-0.36558	-0.8022	0.16379	252.50379	5.04191	0.52276	-0.48846	-0.27402	-0.74544	0.12824
SESB-BWBK-SB-SO19-0104	10.959008	0.55693	0.50934	-1.45005	-0.46082	-0.6727	0.12943	631.56934	14.1746	0.51287	-0.70301	-0.30015	-0.63806	0.1206
SESB-BWBK-SB-SO20-0104	13.700967	-0.334	0.82927	-1.40336	-0.23382	0.99668	0.04219	-284.1739	-8.44292	0.85609	-0.75717	-0.08084	0.9741	-0.0074
SESS-DABK-S-SO01-0001	28.307686	-0.39646	-0.41329	2.06823	-0.16236	-0.14291	-0.05771	-262.2946	-7.43657	-0.446	1.10868	-0.15385	-0.1792	0.0099
SESS-DABK-S-SO02-0001	27.611105	0.3781	0.7798	1.66046	0.04314	-0.24512	-0.1621	122.55248	1.21822	0.81428	0.71115	0.21691	-0.17726	-0.22019
SESS-DABK-S-SO03-0001	24.838282	-0.44965	-0.93359	0.78169	0.50493	0.37902	-0.08071	-272.6722	-7.69686	-1.04396	1.05617	0.11392	0.20922	0.14033
SESS-DABK-S-SO04-0001	35.327118	-0.23897	-0.26978	3.54727	-0.13015	-0.40401	-0.00683	-208.6257	-6.37412	-0.33928	2.10626	-0.12493	-0.47331	0.1287
SESS-DABK-S-SO05-0001	25.791352	-0.44429	-0.79293	1.10002	0.33464	0.28365	-0.03364	-293.1062	-8.20203	-0.86888	0.96952	0.07087	0.16658	0.11511
SESS-DABK-S-SO06-0001	33.785405	-0.45577	-1.91229	0.33954	0.12693	5.00405	-0.5558	-451.482	-12.5564	-2.01	0.85416	0.02889	4.61193	-0.34024
SESS-DABK-S-SO07-0001	27.244866	0.05745	0.23749	1.96317	-0.03488	-0.82794	0.14634	94.733954	0.93076	0.2098	1.09516	-0.04507	-0.82154	0.19248
SESS-DABK-S-SO08-0001	25.193747	-0.1404	-0.33735	0.93848	0.28624	0.18721	0.02215	-30.44478	-2.03774	-0.38019	0.68848	0.09005	0.11853	0.10424
SESS-DABK-S-SO09-0001	21.758443	-0.63504	-0.83294	-0.03961	0.43271	0.97085	-0.02431	-421.0138	-11.3376	-0.92157	0.52414	0.08793	0.79672	0.15029

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.7326106	-1.29481	-1.91229	-3.57901	-1.14034	-1.39679	-1.11214	-1611.827	-43.2522	-2.01	-2.28673	-0.42983	-1.28103	-1.4012
MAXIMUM DOMAIN VALUE	40.930912	8.71986	3.08248	4.42212	10.221	5.00405	1.52256	5760.8929	136.854	3.12534	2.72936	6.79899	4.61193	0.7485
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	26.813881	-0.47253	-1.42443	0.76417	0.09992	1.44091	-0.07855	-243.3251	-6.86478	-1.46812	0.50602	-0.06343	1.30564	0.00474
SESS-DABK-S-SO11-0001	15.147219	0.21578	-1.15657	-0.9471	-0.06941	-0.38708	0.29642	441.04183	10.0879	-1.17084	-0.50916	-0.16721	-0.38605	0.2963
SESS-DABK-S-SO12-0001	25.158242	0.18601	-0.75407	1.20899	-0.17615	-0.31658	-0.00169	321.64616	6.86508	-0.78534	0.66105	-0.19134	-0.34136	0.05695
SESS-DABK-S-SO13-0001	18.067791	-0.19611	-0.27564	-0.28868	-0.22632	0.16866	0.22655	-136.0642	-4.36696	-0.28412	-0.07643	-0.13313	0.14986	0.22229
SESS-DABK-S-SO14-0001	15.045361	-0.61453	-0.56756	-1.06936	0.41119	0.30704	0.16568	-341.1785	-9.24754	-0.6171	-0.25304	0.08199	0.21849	0.25191
SESS-DABK-S-SO15-0001	23.271643	-0.30088	-1.01744	0.4744	0.18939	0.39306	0.11523	-94.3165	-3.2677	-1.10033	0.68417	-0.05664	0.2589	0.26613
SESS-DABK-S-SO16-0001	17.210743	0.20983	-1.37297	-0.52622	-0.20329	-0.27386	0.19617	488.87934	11.3571	-1.36704	-0.51558	-0.24901	-0.25211	0.16309
SESS-DABK-S-SO17-0001	24.776156	0.3026	-1.81237	0.43732	0.01393	0.56398	-0.02292	569.9146	13.1245	-1.86407	0.32335	-0.18423	0.46384	0.07203
SESS-DABK-S-SO18-0001	16.627707	0.05951	-0.58326	-0.54915	0.09235	-0.39643	0.12375	240.79296	4.95051	-0.618	-0.11329	-0.0656	-0.42444	0.18251
SESS-DABK-S-SO19-0001	25.699548	-0.03937	0.01721	1.24278	0.66779	-0.55414	0.0672	-15.2852	-1.81014	-0.00786	0.76266	0.36585	-0.55646	0.11101
SESS-DABK-S-SO20-0001	31.874643	-0.30185	0.07613	2.48199	0.46275	-0.0504	-0.08893	-233.758	-7.25597	0.00546	1.64095	0.19181	-0.14446	0.06017
SESD-SD01	26.678877	1.11405	0.90414	1.19457	0.05785	-0.39946	-0.07695	545.74688	11.2383	0.88769	1.04587	0.30404	-0.3831	-0.04722
SESD-SD02	10.210331	0.87962	0.16773	-2.42235	0.03835	0.11154	0.1724	268.20248	5.09855	0.2282	-1.12981	0.40735	0.2131	0.01782
SESD-SD03	27.528681	3.12388	1.48675	0.41793	-0.0458	-0.0615	-0.4314	1430.5734	31.95	1.53429	0.88895	0.83963	0.06221	-0.53021
SESD-SD04	24.540461	3.43552	1.05053	-0.09653	-0.82568	0.03728	-0.40587	1770.2635	40.579	1.12338	0.40942	0.39536	0.19055	-0.55985
SESD-SD05	20.049033	-0.31244	0.52138	-0.81711	2.00754	0.37095	0.17057	-749.9052	-20.2938	0.5255	-0.01096	1.42396	0.37633	0.13457
SESD-SD06	28.012671	2.58828	0.70476	0.62782	-0.20318	0.1612	-0.34382	1046.193	23.0576	0.74904	0.89674	0.68858	0.26895	-0.44762
SESD-SD07	40.930912	0.51631	1.4146	3.96004	1.17139	-0.53046	0.15196	-495.694	-14.8065	1.38679	2.72936	1.19908	-0.50313	0.17279
SESD-SD08	31.313335	2.8554	0.45027	0.36482	-0.31263	1.80305	-0.49819	1036.8988	22.5156	0.50725	0.84932	0.78683	1.85101	-0.62755
SESD-SD09	8.9258413	0.6035	-0.79339	-2.84074	0.45166	0.14046	0.19135	337.84525	7.2189	-0.75006	-1.45107	0.44195	0.20944	0.07104
SESD-SD10	27.905706	0.81679	0.88107	0.17708	2.50389	0.22443	0.01833	-286.7667	-9.75965	0.87719	0.88969	2.00942	0.24991	-0.00659
SESD-SD11	26.80172	8.71986	-0.38491	-2.5207	-1.14034	1.08527	-1.11214	5760.8929	136.854	-0.23947	-0.72386	0.75501	1.32755	-1.4012
SESD-SD12	37.338841	6.34908	2.05096	-0.20535	1.15161	0.39101	1.52256	1392.7494	28.8227	2.30513	1.12118	3.3952	0.90372	0.7485
SESD-SD13	27.97718	3.11204	0.84908	-1.11771	3.02369	0.24599	-0.01383	757.16903	14.8968	0.94946	0.24594	2.99528	0.46074	-0.28437
SESD-SD14	29.250978	0.38645	-0.1978	1.41914	0.62293	0.19622	-0.17542	115.7764	1.17065	-0.22679	1.03279	0.48029	0.16016	-0.11622
SESD-SD15	30.086783	1.78579	0.75353	0.12901	2.24338	0.47089	0.05545	-39.29233	-3.99171	0.80618	0.86911	2.27606	0.58966	-0.11056
SESD-SD16	25.312272	0.56517	0.36869	-1.35985	4.69211	0.48477	0.00999	-633.8344	-18.4586	0.38725	0.10582	3.3324	0.53645	-0.06984
SESD-SD17	18.423785	4.21518	0.53209	-2.03891	-0.15675	0.01935	-0.37784	2185.4476	50.651	0.63651	-0.51708	0.96643	0.23388	-0.61386
SESD-SD18	11.234515	0.64733	-0.20267	-2.43471	0.14624	0.59225	0.15095	18.856856	-0.87172	-0.11714	-1.30992	0.51788	0.70619	-0.05775
SESD-SD19	26.018345	0.02666	0.67938	-2.62899	10.221	-0.42335	-1.04283	-1611.827	-43.2522	0.7752	-0.66112	6.79899	-0.19397	-1.20945
SESD-SD20	7.8955092	-0.03714	-0.41501	-2.84265	0.0545	0.74203	0.11017	-292.122	-8.06934	-0.3305	-1.70417	0.29137	0.83374	-0.08395

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SUMMARY OF FACTOR ANALYSIS ANALYTE BACK-PREDICTION ERRORS (BEFORE REGRESSIONS)

Extent of Severe Overprediction or Underprediction Errors from Analyte Back-Prediction
No. of Samples With % Prediction Errors (OBSERVED - PREDICTED) / (OBSERVED)*100 > 100 or < -50

ALL SOIL TYPES:

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples)											
148 / 270	45 / 270	73 / 270	1 / 270	64 / 270	2 / 270	79 / 270	9 / 270	152 / 270	56 / 270	13 / 270	223 / 270

SOIL TYPE: BASS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type BASS)											
13 / 13	12 / 13	13 / 13	0 / 13	13 / 13	0 / 13	13 / 13	0 / 13	9 / 13	0 / 13	0 / 13	13 / 13

SOIL TYPE: MASB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASB)											
14 / 20	1 / 20	5 / 20	0 / 20	0 / 20	0 / 20	13 / 20	0 / 20	10 / 20	0 / 20	0 / 20	19 / 20

SOIL TYPE: MASS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASS)											
15 / 20	1 / 20	1 / 20	0 / 20	14 / 20	1 / 20	4 / 20	0 / 20	17 / 20	8 / 20	2 / 20	19 / 20

SOIL TYPE: MMSB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSB)											
11 / 20	5 / 20	4 / 20	1 / 20	1 / 20	1 / 20	10 / 20	1 / 20	10 / 20	0 / 20	0 / 20	19 / 20

SOIL TYPE: MMSS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSS)											
10 / 20	2 / 20	8 / 20	0 / 20	7 / 20	0 / 20	2 / 20	0 / 20	14 / 20	8 / 20	1 / 20	19 / 20

SOIL TYPE: NESB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESB)											
10 / 20	17 / 20	2 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	19 / 20	0 / 20	2 / 20	20 / 20

SOIL TYPE: NESS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESS)											
3 / 22	1 / 22	5 / 22	0 / 22	8 / 22	0 / 22	0 / 22	0 / 22	16 / 22	10 / 22	8 / 22	21 / 22

SOIL TYPE: PMSB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSB)											
15 / 24	0 / 24	10 / 24	0 / 24	0 / 24	0 / 24	19 / 24	0 / 24	10 / 24	0 / 24	0 / 24	23 / 24

SOIL TYPE: PMSS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSS)											
18 / 20	3 / 20	3 / 20	0 / 20	3 / 20	0 / 20	2 / 20	1 / 20	15 / 20	18 / 20	0 / 20	19 / 20

SOIL TYPE: SESB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESB)											
11 / 15	1 / 15	7 / 15	0 / 15	0 / 15	0 / 15	12 / 15	2 / 15	9 / 15	0 / 15	0 / 15	14 / 15

SOIL TYPE: SESS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESS)											
12 / 20	1 / 20	2 / 20	0 / 20	12 / 20	0 / 20	1 / 20	4 / 20	19 / 20	10 / 20	0 / 20	19 / 20

SOIL TYPE: SE-SED

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SE-SED)											
16 / 20	1 / 20	13 / 20	0 / 20	6 / 20	0 / 20	3 / 20	1 / 20	4 / 20	2 / 20	0 / 20	18 / 20

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
BASS-BWBK-SS-BA101-0001	-465	105	-296	0	-108	-6	438	32	-2	15	52	-466
BASS-BWBK-SS-BA102-0001	-675	175	-446	7	-211	-1	508	15	-164	-9	86	-1068
BASS-BWBK-SS-BA103-0001	-555	161	-321	0	-177	-8	477	17	-152	2	71	-999
BASS-BWBK-SS-BA104-0001	-365	156	-217	-3	-86	-24	428	24	-47	34	64	-484
BASS-BWBK-SS-BA105-0001	-617	100	-429	9	-139	-3	390	8	-86	7	84	-616
BASS-BWBK-SS-BA106-0001	-377	172	-266	7	-96	-29	419	14	59	43	63	-99
BASS-BWBK-SS-BA107-0001	-622	176	-384	5	-219	-3	446	16	-172	-11	83	-1125
BASS-BWBK-SS-BA108-0001	-623	222	-420	6	-191	-12	478	13	-149	4	83	-1007
BASS-BWBK-SS-BA109-0001	-494	297	-268	2	-137	-43	673	7	34	55	82	-212
BASS-BWBK-SS-BA110-0001	-298	65	-62	1	-77	-18	395	25	-87	32	35	-726
BASS-BWBK-SS-BA111-0001	-532	170	-374	12	-138	-10	479	21	-52	10	68	-768
BASS-BWBK-SS-BA112-0001	-549	175	-349	6	-147	-5	497	29	-87	1	67	-914
BASS-BWBK-SS-BA113-0001	-654	135	-571	25	-222	1	214	12	-465	-10	88	-419
MASB-BWBK-SB-MA01-0105	-162	-5	-130	1	26	4	-88	-24	97	40	18	-74
MASB-BWBK-SB-MA02-0107	-65	-42	78	-4	33	2	-55	-16	117	47	-10	796
MASB-BWBK-SB-MA03-0108	-306	-2	-130	-8	34	13	-181	-41	-33	32	32	-296
MASB-BWBK-SB-MA04-0106	-10	-1	56	-8	25	-10	-45	-4	92	59	6	635
MASB-BWBK-SB-MA05-0108	-67	53	41	4	4	3	-63	-11	77	40	8	650
MASB-BWBK-SB-MA06-0105	-25	-41	68	-4	19	-4	-24	-20	120	47	4	825
MASB-BWBK-SB-MA07-0108	-106	8	124	-11	10	15	-34	-2	295	31	-5	1233
MASB-BWBK-SB-MA08-0108	-72	17	319	10	49	38	-200	29	437	8	-3	1899
MASB-BWBK-SB-MA09-0108	-191	48	33	-3	7	30	-144	5	124	10	1	813
MASB-BWBK-SB-MA10-0104	-194	-24	53	5	22	28	-46	-1	266	7	18	1050
MASB-BWBK-SB-MA11-0108	-56	-21	118	-3	24	15	-44	-10	200	31	6	1135
MASB-BWBK-SB-MA12-0108	-173	49	31	1	20	18	-135	-7	73	30	4	691
MASB-BWBK-SB-MA13-0105	137	-6	11	26	-11	-13	-80	-15	-384	14	16	-856
MASB-BWBK-SB-MA14-0104	36	-9	76	22	24	27	-213	-1	30	-8	-13	146
MASB-BWBK-SB-MA15-0105	122	-4	47	18	9	11	-193	-10	-4	-2	-4	-255
MASB-BWBK-SB-MA16-0104	-10	-38	4	14	7	12	-82	-9	-12	6	23	-285
MASB-BWBK-SB-MA17-0104	26	-38	-8	18	17	14	-170	3	-106	-19	-13	-570
MASB-BWBK-SB-MA18-0104	220	27	8	25	11	-24	-37	-4	10	31	22	58
MASB-BWBK-SB-MA19-0103	67	24	-24	14	-31	-14	-55	-21	-77	11	16	-873
MASB-BWBK-SB-MA20-0103	-62	-77	50	-8	12	1	-39	-37	34	38	14	635
MASS-BWBK-SS-MA01-0001	27	95	-33	7	-203	-50	35	-16	-1887	-82	-20	-2504
MASS-BWBK-SS-MA02-0001	130	88	18	6	-140	-96	-32	-40	-2083	-11	-99	-2009
MASS-BWBK-SS-MA03-0001	55	35	23	13	-115	-19	13	0	-768	-29	-24	-1261
MASS-BWBK-SS-MA04-0001	51	23	29	1	-72	-41	30	-11	-530	10	-47	-820
MASS-BWBK-SS-MA05-0001	109	-38	53	-1	-5	-24	10	-3	-103	25	-20	289
MASS-BWBK-SS-MA06-0001	175	55	84	10	-64	-12	-67	22	-380	-2	-52	-780
MASS-BWBK-SS-MA07-0001	-239	92	-164	-1	-605	7	101	-43	-1316	-272	40	-3351
MASS-BWBK-SS-MA08-0001	30	-11	75	-23	-38	15	29	20	48	-81	1	333
MASS-BWBK-SS-MA09-0001	181	6	62	-7	0	-24	1	-4	-169	-13	-26	140
MASS-BWBK-SS-MA10-0001	133	7	54	-5	6	-6	6	8	8	-21	-7	370
MASS-BWBK-SS-MA11-0001	200	-26	79	9	13	14	-71	32	-21	-37	-5	59
MASS-BWBK-SS-MA12-0001	60	-52	55	-1	-107	-23	35	-16	-89	17	-30	249
MASS-BWBK-SS-MA13-0001	245	-33	52	15	-84	-16	-76	15	-946	-51	-20	-1480
MASS-BWBK-SS-MA14-0001	203	16	18	-7	-207	-43	24	-18	-945	-94	13	-1520
MASS-BWBK-SS-MA15-0001	195	20	25	5	-150	-43	4	-8	-1396	-73	-12	-1612
MASS-BWBK-SS-MA16-0001	169	2	37	10	-111	-4	1	2	-287	-47	14	-351
MASS-BWBK-SS-MA17-0001	133	2	0	12	-30	-9	-16	-6	-230	-45	-1	-627
MASS-BWBK-SS-MA18-0001	190	30	5	-3	-158	-13	12	-14	-419	-72	20	-442
MASS-BWBK-SS-MA19-0001	170	3	17	8	-52	-8	-11	-7	-309	-52	8	-626
MASS-BWBK-SS-MA20-0001	106	-13	49	0	-60	-5	0	-18	-114	-7	7	-75
MMSB-BWBK-SB-MM101-0110	-203	-44	22	-10	23	1	76	17	0	21	3	-203
MMSB-BWBK-SB-MM102-0109	-48	27	76	-22	17	-47	195	-7	101	67	3	574
MMSB-BWBK-SB-MM103-0107	-232	28	-114	12	54	-16	79	8	-169	32	11	-1191
MMSB-BWBK-SB-MM104-0110	-38	-39	91	3	100	2	47	56	155	48	-21	606
MMSB-BWBK-SB-MM105-0110	-251	38	-78	-14	-23	-13	133	-10	-59	16	19	-598
MMSB-BWBK-SB-MM106-0110	78	-67	72	-2	69	-23	33	36	70	63	-11	292
MMSB-BWBK-SB-MM107-0110	-60	13	-7	38	49	-18	105	10	-46	41	8	-439
MMSB-BWBK-SB-MM108-0110	-87	-21	-11	-6	35	-11	87	26	-7	30	1	-210
MMSB-BWBK-SB-MM109-0110	40	-80	41	3	33	-16	2	12	-64	30	-18	-412
MMSB-BWBK-SB-MM110-0109	-2	-22	35	21	46	-13	65	16	60	34	-8	41
MMSB-BWBK-SB-MM111-0110	-28	-83	77	-9	39	-8	48	27	50	35	-19	131
MMSB-BWBK-SB-MM112-0110	39	-112	39	-7	32	-12	10	20	105	42	6	-70
MMSB-BWBK-SB-MM113-0110	14	7	52	33	60	-35	157	3	86	66	-5	301
MMSB-BWBK-SB-MM114-0110	-143	47	-26	-12	-9	-24	111	-1	-61	28	-10	-924

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% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
MMSB-BWBK-SB-MM115-0110	80	-64	35	-13	31	-17	-86	52	-199	24	-23	-1316
MMSB-BWBK-SB-MM116-0110	-112	-16	22	2	26	-20	95	13	-31	44	-15	-293
MMSB-BWBK-SB-MM117-0110	-278	-5	-71	-29	11	-6	112	11	-102	18	11	-829
MMSB-BWBK-SB-MM118-0110	-164	33	53	-73	-28	-64	203	-56	82	67	34	505
MMSB-BWBK-SB-MM119-0110	-107	-5	15	-6	28	-14	122	27	32	43	15	-89
MMSB-BWBK-SB-MM120-0110	-369	20	-140	-7	-19	0	174	13	-136	-4	40	-1444
MMSS-BWBK-SS-MM101-0001	118	-30	54	-7	23	-12	-12	13	283	-26	-47	406
MMSS-BWBK-SS-MM102-0001	35	-32	-25	0	-36	-8	21	-13	261	-27	-29	122
MMSS-BWBK-SS-MM103-0001	109	-24	48	-2	22	-8	12	6	431	-35	-31	733
MMSS-BWBK-SS-MM104-0001	99	-25	67	-7	26	-13	10	14	217	-12	-41	370
MMSS-BWBK-SS-MM105-0001	7	10	-73	-2	-59	-7	39	-23	127	-69	-13	-469
MMSS-BWBK-SS-MM106-0001	126	-31	41	18	56	-13	-23	12	187	-7	-37	169
MMSS-BWBK-SS-MM107-0001	114	-46	56	-4	43	-18	-13	16	286	-2	-54	469
MMSS-BWBK-SS-MM108-0001	137	-27	20	-3	9	-21	-15	-13	407	-42	-44	289
MMSS-BWBK-SS-MM109-0001	99	-17	-4	2	47	-16	0	4	507	-28	-41	571
MMSS-BWBK-SS-MM110-0001	-16	-6	-74	-5	-187	-4	51	-34	50	-142	-16	-1191
MMSS-BWBK-SS-MM111-0001	-20	5	-82	-4	-63	-14	56	-17	159	-96	-46	-814
MMSS-BWBK-SS-MM112-0001	-70	37	-104	-16	-228	-11	72	-31	56	-120	-29	-908
MMSS-BWBK-SS-MM113-0001	100	-34	28	-15	-30	-16	34	5	369	-69	-28	323
MMSS-BWBK-SS-MM114-0001	-115	46	-157	-5	-218	-8	72	-50	-172	-121	-33	-1771
MMSS-BWBK-SS-MM115-0001	-23	-28	-56	-6	-198	-2	19	-32	26	-101	-43	-1053
MMSS-BWBK-SS-MM116-0001	-36	7	-89	-5	-133	-4	51	-16	36	-116	-19	-1122
MMSS-BWBK-SS-MM117-0001	64	-52	35	-9	-12	-12	18	4	190	-36	-45	6
MMSS-BWBK-SS-MM118-0001	-65	34	-36	1	22	-17	102	18	17	13	-18	-577
MMSS-BWBK-SS-MM119-0001	-114	36	-56	-14	-29	-21	128	-5	-43	10	-13	-937
MMSS-BWBK-SS-MM120-0001	-51	-132	-7	35	24	18	1	-8	269	-25	-8	412
NESB-BWBK-SB-NE01-0108	-51	-71	100	-7	69	-14	85	9	231	59	-42	1110
NESB-BWBK-SB-NE02-0109	-56	-61	61	-6	35	-10	-28	8	29	47	-57	-145
NESB-BWBK-SB-NE03-0105	-90	-79	77	-5	53	1	39	6	219	37	-44	887
NESB-BWBK-SB-NE04-0110	-88	-57	37	-12	50	-11	73	10	122	46	-31	524
NESB-BWBK-SB-NE05-0108	-68	-82	75	-8	60	-9	74	6	229	52	-30	1055
NESB-BWBK-SB-NE06-0109	-102	-67	48	-14	47	-8	82	2	174	47	-20	817
NESB-BWBK-SB-NE07-0107	-48	-74	101	-7	58	-13	69	0	235	54	-52	1072
NESB-BWBK-SB-NE08-0104	-81	-38	-14	-8	41	-16	94	-9	132	43	-13	550
NESB-BWBK-SB-NE09-0110	-105	-72	32	-4	52	-7	79	6	160	46	-26	696
NESB-BWBK-SB-NE10-0107	58	-63	20	7	44	-15	21	13	124	33	-8	347
NESB-BWBK-SB-NE101-0110	61	-96	51	-8	33	-18	-30	22	-106	27	-38	-582
NESB-BWBK-SB-NE102-0110	49	-58	33	-13	1	-28	-27	19	-255	22	-43	-1286
NESB-BWBK-SB-NE103-0110	-19	-47	9	-13	-11	-22	22	14	-216	14	-28	-1284
NESB-BWBK-SB-NE104-0110	-89	-29	-25	-13	-20	-18	62	9	-263	6	-10	-1452
NESB-BWBK-SB-NE105-0110	57	-71	48	-7	16	-14	-43	28	-85	23	-28	-802
NESB-BWBK-SB-NE106-0110	16	-76	31	-14	10	-23	4	16	-159	28	-28	-894
NESB-BWBK-SB-NE107-0510	-98	-91	-4	-18	6	-9	74	33	-128	13	-9	-875
NESB-BWBK-SB-NE108-0110	30	-111	10	-9	29	-16	-9	28	-144	15	-19	-880
NESB-BWBK-SB-NE109-0110	8	-108	23	-11	20	-17	-5	25	-179	16	-37	-1034
NESB-BWBK-SB-NE110-0110	-13	-58	-4	-4	43	-18	35	30	-88	20	-26	-752
NESS-BKG-SS03-NEB-0016	37	-30	102	-50	26	-20	57	10	308	-43	-32	1035
NESS-BKG-SS09-NEB-0018	47	61	-54	7	20	-16	32	11	157	-55	-31	-112
NESS-BWBK-SS-NE01-0001	99	26	31	8	40	-10	-29	7	94	2	-55	502
NESS-BWBK-SS-NE02-0001	57	45	2	8	14	-14	-16	-6	131	27	-54	754
NESS-BWBK-SS-NE03-0001	85	1	43	6	47	-11	-26	-8	324	-3	-71	716
NESS-BWBK-SS-NE04-0001	84	-21	43	4	75	-18	-9	5	228	23	-55	651
NESS-BWBK-SS-NE05-0001	83	23	40	17	44	-17	18	-5	222	4	-51	625
NESS-BWBK-SS-NE06-0001	85	-17	51	2	60	-26	22	-9	332	33	-48	873
NESS-BWBK-SS-NE07-0001	94	26	59	-3	17	-11	24	4	292	-21	-33	773
NESS-BWBK-SS-NE08-0001	86	-18	56	1	39	-19	-6	-14	306	14	-63	726
NESS-BWBK-SS-NE09-0001	109	13	43	-5	36	-25	-16	-12	161	-23	-86	205
NESS-BWBK-SS-NE10-0001	68	14	70	-17	1	-18	47	1	257	-12	-24	786
NESS-BWBK-SS-NE101-0001	76	-21	-14	-5	17	-28	-18	-11	79	-28	-64	-648
NESS-BWBK-SS-NE102-0001	13	-10	-37	-16	-85	-21	51	-12	27	-67	-26	-783
NESS-BWBK-SS-NE103-0001	-5	28	-48	-2	-128	-21	71	-22	7	-60	-10	-933
NESS-BWBK-SS-NE104-0001	-43	-56	35	-43	-36	-16	83	5	429	-56	-28	729
NESS-BWBK-SS-NE105-0001	-50	20	-92	-10	-165	-16	54	-27	-87	-93	-38	-1460
NESS-BWBK-SS-NE106-0001	-69	-9	8	-45	-77	-19	82	12	246	-116	-27	-29
NESS-BWBK-SS-NE107-0001	-7	15	-78	-22	-178	-19	44	-16	3	-131	-36	-1329
NESS-BWBK-SS-NE108-0001	10	0	-23	-26	-127	-21	46	5	-113	-92	-30	-1203
NESS-BWBK-SS-NE109-0001	-42	2	-82	-12	-183	-15	46	-11	-126	-116	-42	-1728
NESS-BWBK-SS-NE110-0001	-10	14	-49	-28	-171	-9	67	-3	85	-152	6	-883

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% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
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SAMPLE	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
PMSB-BWBK-SB-PM01-0105	-2	14	-13	-14	27	-24	**-61**	**-45**	-22	**42**	-10	**-319**
PMSB-BWBK-SB-PM02-0104	**42**	-25	**88**	**34**	**70**	**31**	**-239**	22	**163**	-4	3	**745**
PMSB-BWBK-SB-PM03-0106	**-123**	-21	23	3	**56**	22	**-191**	-3	**122**	26	18	**859**
PMSB-BWBK-SB-PM04-0105	**-58**	**35**	**48**	-3	30	5	-28	-4	**121**	**36**	11	**733**
PMSB-BWBK-SB-PM05-0105	**-61**	-3	5	6	**45**	11	**-102**	4	**76**	28	12	**276**
PMSB-BWBK-SB-PM06-0105	**-101**	-4	-10	5	**38**	18	**-221**	11	**110**	25	4	**-99**
PMSB-BWBK-SB-PM07-0105	**-131**	1	**-69**	24	**43**	**30**	**-284**	8	10	-14	27	**-1220**
PMSB-BWBK-SB-PM08-0106	**-92**	29	**-68**	7	**41**	9	**-121**	-6	1	20	18	**-316**
PMSB-BWBK-SB-PM09-0106	**-167**	**38**	**-96**	6	23	4	**-36**	-22	10	27	**30**	**-170**
PMSB-BWBK-SB-PM10-0105	**113**	-1	**-62**	**35**	**41**	19	**-200**	2	**33**	-4	**42**	**-252**
PMSB-BWBK-SB-PM11-0104	**-144**	-26	-29	1	23	18	**-233**	**-37**	**58**	19	24	**-756**
PMSB-BWBK-SB-PM12-0105	4	27	**-63**	27	22	-22	**48**	-12	1	**35**	20	**-418**
PMSB-BWBK-SB-PM13-0106	**98**	**-42**	**38**	**34**	24	23	**-223**	21	**89**	-25	4	**-365**
PMSB-BWBK-SB-PM14-0106	-4	12	**-67**	17	5	-3	**-52**	-6	18	10	21	**-901**
PMSB-BWBK-SB-PM15-0105	8	-23	**33**	15	27	8	**-80**	0	**61**	17	3	**175**
PMSB-BWBK-SB-PM16-0106	-5	-3	-8	6	5	-3	-27	-6	**70**	21	7	-17
PMSB-BWBK-SB-PM17-0105	**-65**	-16	**-83**	7	**58**	12	**-100**	16	**-59**	14	28	**-375**
PMSB-BWBK-SB-PM18-0105	**-93**	-24	**175**	0	**33**	23	**-100**	1	**288**	26	-19	**1367**
PMSB-BWBK-SB-PM19-0105	-14	-22	**71**	1	15	9	**-80**	-8	**107**	26	-7	**551**
PMSB-BWBK-SB-PM20-0106	-10	-4	29	4	18	2	**-53**	-10	**65**	28	3	**340**
PMSB-BWBK-SB-SO01-0107-PM	**-94**	-29	**78**	-24	19	8	**-48**	**-40**	**149**	**33**	-7	**1018**
PMSB-BWBK-SB-SO02-0109-PM	**-91**	-9	**158**	-2	29	26	**-89**	-6	**353**	16	-10	**1410**
PMSB-BWBK-SB-SO13-0104-PM	**-155**	-16	**96**	-11	27	21	**-95**	**-44**	**57**	24	22	**940**
PMSB-BWBK-SB-SO14-0105-PM	**-151**	3	**123**	-17	22	19	**-104**	**-32**	**135**	30	-7	**1086**
PMSS-DABK-S-SO21-0001	**92**	3	14	-1	**-86**	20	5	-4	**-288**	**-75**	**35**	**218**
PMSS-DABK-S-SO22-0001	**162**	-16	**-38**	5	**-45**	18	-16	12	**-280**	**-81**	30	**239**
PMSS-DABK-S-SO23-0001	**179**	-1	**52**	-18	-26	-16	27	-12	-83	-21	22	**251**
PMSS-DABK-S-SO24-0001	**158**	**-51**	**33**	18	-18	**33**	**-50**	**33**	**-107**	**-113**	17	**103**
PMSS-DABK-S-SO25-0001	**105**	**-66**	**167**	15	**32**	**56**	**-75**	**104**	**332**	**-175**	15	**1334**
PMSS-DABK-S-SO26-0001	**191**	-4	**41**	-10	**-73**	11	1	8	**-167**	**-50**	27	**477**
PMSS-DABK-S-SO27-0001	**150**	-1	**60**	**-34**	**-67**	-15	**45**	-3	**-88**	**-55**	**30**	**412**
PMSS-DABK-S-SO28-0001	**149**	-4	**-46**	6	-15	4	-7	12	**-395**	**-73**	**34**	**-328**
PMSS-DABK-S-SO29-0001	**220**	-20	**39**	4	-10	2	-18	17	**-394**	**-64**	5	**83**
PMSS-DABK-S-SO30-0001	**189**	-11	-11	11	-17	-10	**-48**	-1	**-516**	**-56**	-7	**-561**
PMSS-DABK-S-SO31-0001	**122**	**-46**	**-83**	20	2	15	-27	24	**-42**	**-100**	**34**	**-784**
PMSS-DABK-S-SO32-0001	**77**	-18	-25	1	23	21	0	**46**	**-241**	**-109**	**34**	**-347**
PMSS-DABK-S-SO33-0001	**252**	3	-8	1	**-42**	**-37**	6	8	**-943**	**-58**	25	**-754**
PMSS-DABK-S-SO34-0001	**120**	**-31**	**-32**	14	2	7	-1	15	**-114**	**-86**	**37**	**-1466**
PMSS-DABK-S-SO35-0001	**163**	-28	**37**	0	-8	5	26	25	**-99**	**-71**	**37**	**-177**
PMSS-DABK-S-SO36-0001	**162**	-3	**53**	-7	-17	-13	**50**	26	**32**	**-83**	27	**111**
PMSS-DABK-S-SO37-0001	**191**	-7	-18	23	10	18	**-43**	**33**	-9	**-95**	26	**-350**
PMSS-DABK-S-SO38-0001	**155**	-4	**-53**	4	-4	-4	25	15	**-32**	**-87**	**42**	**-1015**
PMSS-DABK-S-SO39-0001	**148**	**-53**	19	16	-9	18	**-34**	23	**-33**	**-79**	24	**-931**
PMSS-DABK-S-SO40-0001	**200**	2	**-32**	10	-20	-8	-5	15	**-74**	**-72**	**32**	**-1106**
SESB-BWBK-SB-SO03-0108	**-100**	-2	**176**	**-42**	17	6	**-68**	**-61**	**195**	**46**	-22	**1407**
SESB-BWBK-SB-SO04-0108	**-145**	11	**87**	-12	15	16	**-97**	**-46**	**43**	**30**	6	**905**
SESB-BWBK-SB-SO05-0106	-26	12	**109**	-8	8	9	**-90**	**-36**	**162**	**33**	-16	**1033**
SESB-BWBK-SB-SO06-0108	**-107**	13	**175**	-16	**32**	22	**-105**	-26	**335**	29	-6	**1471**
SESB-BWBK-SB-SO07-0106	**-178**	-1	**-86**	-25	20	-1	**-32**	**-79**	**67**	**42**	**38**	**434**
SESB-BWBK-SB-SO08-0107	**-86**	0	**121**	-16	27	15	**-99**	**-35**	**147**	**35**	-3	**1130**
SESB-BWBK-SB-SO09-0106	**-30**	22	**92**	-8	12	5	**-68**	-28	**41**	**35**	-8	**833**
SESB-BWBK-SB-SO11-0106	**-120**	16	15	-14	**30**	10	**-104**	-20	**119**	**39**	3	**628**
SESB-BWBK-SB-SO12-0106	**-152**	4	**83**	-10	18	19	**-92**	**-42**	**150**	30	14	**1077**
SESB-BWBK-SB-SO15-0103	24	-10	0	6	24	6	**-78**	-10	**74**	15	9	**209**
SESB-BWBK-SB-SO16-0105	**-81**	**-40**	**36**	-4	10	7	**-51**	**-44**	**79**	**32**	25	**682**
SESB-BWBK-SB-SO17-0106	**-34**	**-32**	-11	0	12	-18	17	**-42**	**-185**	**39**	16	**69**
SESB-BWBK-SB-SO18-0105	**-52**	10	**-79**	6	29	-30	**32**	-26	**-233**	**37**	12	**-641**
SESB-BWBK-SB-SO19-0104	**-120**	-13	**-210**	11	**51**	-21	**-61**	-15	**-450**	28	**41**	**-1397**
SESB-BWBK-SB-SO20-0104	**-164**	**-76**	26	1	23	20	**-103**	-26	**83**	24	19	**611**
SESS-DABK-S-SO01-0001	**100**	-4	**-34**	3	12	-6	-12	-7	**372**	-23	-21	**686**
SESS-DABK-S-SO02-0001	**103**	24	**60**	**39**	20	-11	-8	-14	**-465**	18	**-46**	**-50**
SESS-DABK-S-SO03-0001	**227**	-18	**44**	-12	**-57**	6	15	**33**	**553**	**-89**	27	**778**
SESS-DABK-S-SO04-0001	**187**	-5	-10	-6	-22	-23	-23	**-35**	-58	-25	-16	**480**
SESS-DABK-S-SO05-0001	**141**	-5	5	-10	**-31**	5	12	7	**314**	**-65**	13	**779**
SESS-DABK-S-SO06-0001	6	**38**	**124**	28	19	**59**	**-182**	**116**	**201**	**-142**	1	**841**
SESS-DABK-S-SO07-0001	**167**	**42**	**43**	-16	**-59**	**-41**	8	-11	**-904**	9	-13	**-83**
SESS-DABK-S-SO08-0001	**115**	16	**64**	-15	**-36**	1	5	8	**-104**	-28	0	**167**
SESS-DABK-S-SO09-0001	**153**	-12	**79**	-12	**-59**	22	3	15	**762**	**-67**	29	**1194**

APPENDIX F, TABLE F4-1
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, INCLUDING SE-SED, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
SESS-DABK-S-SO10-0001	**54**	**-48**	**66**	7	**-52**	**36**	**-47**	**-49**	593	-125	-16	795
SESS-DABK-S-SO11-0001	**40**	-4	**-49**	-1	-140	-22	21	-145	-1869	-87	16	-1516
SESS-DABK-S-SO12-0001	143	5	17	-1	-53	-15	-19	13	-1013	-54	-13	-740
SESS-DABK-S-SO13-0001	**59**	22	-3	-2	-114	6	**-31**	**-35**	-281	-10	13	368
SESS-DABK-S-SO14-0001	**46**	20	24	-19	-59	10	**49**	-8	833	**-32**	**38**	1176
SESS-DABK-S-SO15-0001	163	10	-24	10	-68	9	-5	-139	147	-80	21	366
SESS-DABK-S-SO16-0001	-29	18	-53	12	-92	-6	8	-117	-1691	-127	-23	-2185
SESS-DABK-S-SO17-0001	112	-65	23	2	-64	23	**-36**	-14	-783	-243	-11	-2479
SESS-DABK-S-SO18-0001	113	21	4	-13	-52	-18	28	14	-960	**-32**	26	-598
SESS-DABK-S-SO19-0001	**85**	22	**54**	-22	-7	-29	**38**	8	-191	-9	-8	128
SESS-DABK-S-SO20-0001	169	**49**	**86**	-12	-7	-8	12	29	10	-13	-4	544
SESD-SD01	76	12	**-43**	-11	-17	-17	-25	-5	-16	11	11	-405
SESD-SD02	-240	**-35**	-158	-5	-67	6	-11	-19	-11	1	**44**	-137
SESD-SD03	-66	-1	-134	3	-27	-6	**-43**	-11	14	6	17	-580
SESD-SD04	-72	-11	-131	12	**-41**	0	-84	-3	-8	3	13	-772
SESD-SD05	-113	4	**58**	**-43**	1	-1	**47**	13	**48**	-7	25	788
SESD-SD06	-1	-3	-114	12	**-43**	0	**-49**	8	-12	-7	11	-428
SESD-SD07	151	6	24	-24	-19	-28	10	-4	-269	7	-5	402
SESD-SD08	**-45**	-24	-87	19	-27	23	-76	17	-26	-25	5	-359
SESD-SD09	-320	5	-138	-2	-51	13	22	-6	**-45**	**-50**	**43**	-337
SESD-SD10	-69	-5	-21	**-34**	-7	-9	28	4	17	-14	22	268
SESD-SD11	-310	-8	-81	21	-50	19	-93	**44**	-29	-63	0	-1887
SESD-SD12	-66	3	-61	**-46**	-100	-13	-27	-79	-389	-15	12	-161
SESD-SD13	-193	4	**-48**	-8	**-39**	-10	15	-4	**-33**	-28	17	-167
SESD-SD14	67	18	10	1	-1	-1	4	20	-9	**-32**	-6	**-41**
SESD-SD15	-92	1	-53	-20	-27	-3	13	10	**-44**	-22	15	116
SESD-SD16	-230	-9	29	**-45**	-2	-8	**47**	19	**47**	**-40**	25	443
SESD-SD17	-262	8	-175	8	-60	1	**-45**	-12	6	-17	**31**	-834
SESD-SD18	-324	-23	-128	-2	-51	21	-8	11	-64	-15	24	**84**
SESD-SD19	-382	-1	145	**34**	**74**	**-40**	**66**	3	**93**	-55	11	766
SESD-SD20	-401	-57	-103	30	**-49**	30	9	7	-94	-13	25	452

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

FACTOR PATTERN MATRIX (FPM) after Varimax rotation: USED TO PREDICT CASE VALUES
(PREDICT each sample and metal from SUMPRODUCT of (FACTOR SCORES ON ONE SAMPLE) X (FACTOR PATTERN MATRIX)

	D1	D2	D3	D4	D5	D6
AL	0.18053675	0.55605	0.17085	0.57516	0.00719	0.1091988
AS	0.48568986	0.21835	0.79247	0.0495	0.0456	0.0349177
BA	0.06965996	0.70056	0.01316	0.17819	0.00422	0.5318601
CR	0.67055437	0.42231	0.15915	0.41544	0.02393	0.1604026
CO	0.93602874	0.08152	0.20506	-0.0851	-0.10789	0.0476944
FE	0.74871167	0.19193	0.56221	0.19313	-0.04434	-0.067763
PB	-0.1047027	0.86934	0.06761	-0.0455	0.23038	0.0300854
MG	0.77694501	-0.29182	0.05428	0.24907	0.0502	0.0709998
MN	0.66658514	-0.04489	0.10272	-0.0832	-0.24675	0.0378669
NI	0.91736262	-0.04507	0.23495	0.14775	0.07554	-0.017335
V	0.10966077	0.94068	0.18347	0.13407	-0.11225	-0.018143
ZN	0.73210768	0.46609	0.26291	0.02535	0.39082	0.0169298

FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.0320974	0.03771	-0.03334	0.33612	0.07197	0.0381589
AS	-0.272385	-0.11194	0.96598	-0.2906	0.09547	0.4335146
BA	-0.0325977	0.04281	0.01794	0.04073	-0.04594	0.9316274
CR	0.0619438	-0.06819	-0.13337	0.63111	-0.04911	0.1926371
CO	0.54559914	0.1491	-0.31636	-1.0844	-0.74633	0.3428906
FE	0.04032374	-0.17983	0.59466	0.58466	-0.39949	-0.502846
PB	-0.0829141	0.13573	0.03174	-0.0753	0.14056	-0.023511
MG	0.11300478	-0.05676	-0.14125	0.12705	-0.00785	0.0957089
MN	0.05927744	1.2E-05	-0.04249	-0.0866	-0.12108	0.0426197
NI	0.1858182	-0.14137	-0.15925	0.6338	0.07634	-0.300341
V	0.0015702	0.77623	-0.20249	-0.0588	-0.73329	-0.700595
ZN	0.29063863	0.25587	-0.22506	-0.52	1.52136	-0.131878

TRANSPOSE FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
D1	-0.0321	-0.2724	-0.0326	0.0619	0.5456	0.0403	-0.0829	0.1130	0.0593	0.1858	0.0016	0.2906
D2	0.0377	-0.1119	0.0428	-0.0682	0.1491	-0.1798	0.1357	-0.0568	0.0000	-0.1414	0.7762	0.2559
D3	-0.0333	0.9660	0.0179	-0.1334	-0.3164	0.5947	0.0317	-0.1412	-0.0425	-0.1592	-0.2025	-0.2251
D4	0.3361	-0.2906	0.0407	0.6311	-1.0844	0.5847	-0.0753	0.1271	-0.0866	0.6338	-0.0588	-0.5200
D5	0.0720	0.0955	-0.0459	-0.0491	-0.7463	-0.3995	0.1406	-0.0079	-0.1211	0.0763	-0.7333	1.5214
D6	0.0382	0.4335	0.9316	0.1926	0.3429	-0.5028	-0.0235	0.0957	0.0426	-0.3003	-0.7006	-0.1319

FACTOR PATTERN COEFFICIENT MATRIX (FPC) IS MULTIPLIED BY STANDARDIZED CONCENTRATIONS FOR EACH CASE (SAMPLE), WHERE CONCENTRATIONS ARE NORMALIZED FROM RAW CONCENTRATIONS AS (VALUE - MEAN)/(STANDARD DEVIATION), YIELDING FACTOR SCORES FOR THAT CASE (ONE SAMPLE). FACTOR SCORES FOR EACH CASE (SAMPLE) ARE THEN MULTIPLIED BY THE FACTOR PATTERN MATRIX, WHICH YIELDS PREDICTED CASE VALUES FOR EACH METAL

STANDARDIZATION OF VARIABLES FOR THE ENTIRE DATA SET:

Variable	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
Mean	10708.224	8.928	27.709	12.147	6.881	19243.785	13.440	2246.451	285.837	13.016	18.794	37.257
Std. deviation	2684.688	8.501	10.480	3.425	4.038	8334.798	9.259	809.651	239.043	6.131	6.601	15.323

ADJUSTED FACTOR PATTERN COEFFICIENTS (FPC) MATRICES ELIMINATE THE INFLUENCE OF THE METAL TO BE PREDICTED FROM THE PREDICTION EQUATION FOR THAT METAL:

IN EACH FPC MATRIX, EACH "D" LOADING COEFFICIENT COLUMN VALUE IS MULTIPLIED BY THE SUM OF ENTIRE COLUMN VALUES, THEN DIVIDED BY AN ADJUSTED SUM OF THE VALUES IN THAT "D" COLUMN, LESS THE METAL IN QUESTION.
THE ADJUSTED FACTOR PATTERN COEFFICIENT (FPC) MATRIX ALSO ZEROES OUT THE ROW FOR THE METAL TO BE PREDICTED.

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
BASS	BASS-BWBK-SS-BA101-0001	-2.2156111	-0.90908	-1.92823	-1.9115	-1.23362	-1.213441	-1.12749	-0.094425	-0.631	-1.16072	-1.8927	-1.02177	BASS
BASS	BASS-BWBK-SS-BA102-0001	-2.5992683	-0.94555	-2.03319	-2.1451	-1.30792	-1.421004	-1.17069	-0.724326	-0.76487	-1.2749	-2.05934	-1.25018	BASS
BASS	BASS-BWBK-SS-BA103-0001	-2.4502752	-0.93731	-1.88053	-2.0867	-1.25839	-1.375412	-1.15989	-0.551412	-0.73559	-1.19334	-1.93814	-1.21103	BASS
BASS	BASS-BWBK-SS-BA104-0001	-2.2044366	-0.89732	-1.79465	-1.678	-1.10979	-1.253034	-1.08429	0.066138	-0.72304	-0.96498	-1.58971	-1.09356	BASS
BASS	BASS-BWBK-SS-BA105-0001	-2.5284966	-0.90908	-2.04273	-1.8823	-1.15932	-1.295027	-1.08429	-0.600816	-0.6812	-1.07916	-1.92299	-1.0544	BASS
BASS	BASS-BWBK-SS-BA106-0001	-2.2007117	-0.91732	-1.9664	-1.3714	-1.14694	-1.232038	-1.04109	0.047612	-0.63519	-0.84264	-1.67303	-0.95651	BASS
BASS	BASS-BWBK-SS-BA107-0001	-2.5694697	-0.94673	-1.94732	-2.1451	-1.30792	-1.422204	-1.13829	-0.711975	-0.74395	-1.2749	-1.95329	-1.24366	BASS
BASS	BASS-BWBK-SS-BA108-0001	-2.5471207	-0.94202	-2.01411	-2.0283	-1.28315	-1.4474	-1.12749	-0.625518	-0.75232	-1.20965	-2.01389	-1.24366	BASS
BASS	BASS-BWBK-SS-BA109-0001	-2.4391007	-0.93967	-2.02365	-1.5028	-1.20885	-1.365814	-1.15989	0.053787	-0.7314	-0.78555	-1.92299	-1.15229	BASS
BASS	BASS-BWBK-SS-BA110-0001	-2.0181952	-0.92085	-1.26032	-1.5028	-1.08502	-1.118658	-1.12749	0.152596	-0.64774	-0.89973	-1.66546	-1.12619	BASS
BASS	BASS-BWBK-SS-BA111-0001	-2.4055773	-0.93614	-2.00457	-1.8239	-1.25839	-1.344218	-1.13829	-0.415551	-0.69794	-1.19334	-1.93814	-1.19797	BASS
BASS	BASS-BWBK-SS-BA112-0001	-2.4130269	-0.95261	-1.95686	-2.0283	-1.28315	-1.349017	-1.15989	-0.378498	-0.71885	-1.2749	-1.96844	-1.22408	BASS
BASS	BASS-BWBK-SS-BA113-0001	-2.606718	-0.9279	-1.97594	-1.8385	-1.22124	-1.366414	-0.93849	-0.730501	-0.76717	-1.20965	-1.93057	-0.13098	BASS
MASB	MASB-BWBK-SB-MA01-0105	-0.0403117	0.44376	-0.62103	0.74522	1.31729	0.9305822	-0.46869	0.980113	6.125098	1.44914	-0.25658	1.04044	MASB
MASB	MASB-BWBK-SB-MA02-0107	0.25767453	0.18496	-0.17257	1.09556	1.26776	1.17054	-0.54429	1.597663	1.243135	1.71013	-0.31718	1.18401	MASB
MASB	MASB-BWBK-SB-MA03-0108	-0.4910158	0.86726	-0.05807	0.36569	3.22429	1.2065337	-0.54429	0.794848	2.908106	2.02005	-0.51412	1.69303	MASB
MASB	MASB-BWBK-SB-MA04-0106	0.25767453	0.38495	0.05642	1.21234	1.1687	1.0265654	-0.61989	2.412829	1.996137	1.87325	0.00096	1.58209	MASB
MASB	MASB-BWBK-SB-MA05-0108	-0.07756	2.34951	-0.26799	0.97878	0.8715	0.954578	-0.57669	1.350643	0.682566	1.48177	-0.19598	1.04696	MASB
MASB	MASB-BWBK-SB-MA06-0105	-0.0030634	-0.02679	-0.36341	0.862	0.82197	0.7866075	-0.56589	1.288888	0.552883	1.43283	-0.15054	1.04696	MASB
MASB	MASB-BWBK-SB-MA07-0108	-0.1520565	0.9202	-0.90728	0.05914	0.30188	1.0505611	-0.58749	1.060394	-0.06625	0.99242	-0.48382	0.76961	MASB
MASB	MASB-BWBK-SB-MA08-0108	1.28200214	4.08468	-0.9693	1.91301	1.50304	3.8940613	-0.13389	2.283144	0.918925	2.0119	0.94778	2.22816	MASB
MASB	MASB-BWBK-SB-MA09-0108	0.10868142	3.96116	-0.58286	0.24891	1.19346	1.8904135	-0.31749	0.967762	0.992134	1.3839	-0.24143	1.49073	MASB
MASB	MASB-BWBK-SB-MA10-0104	-0.7741027	0.45553	-1.34619	-0.1598	0.42571	0.9185843	-0.51189	0.226702	-0.21267	0.45413	-0.52927	0.45962	MASB
MASB	MASB-BWBK-SB-MA11-0108	0.22042625	0.79668	-0.4302	1.06636	1.06963	1.5904662	-0.00429	1.301239	0.577983	1.57964	0.1676	1.58862	MASB
MASB	MASB-BWBK-SB-MA12-0108	0.07143314	3.50237	-0.36341	0.92039	1.73832	1.722443	-0.50109	1.498855	1.033967	1.88956	-0.31718	1.49725	MASB
MASB	MASB-BWBK-SB-MA13-0105	-0.6362841	-0.37971	0.63846	0.59924	-0.09438	-0.413182	-0.76029	-0.217935	-0.53897	-0.11677	0.1676	-0.44096	MASB
MASB	MASB-BWBK-SB-MA14-0104	0.44391591	1.18489	1.28252	1.24153	0.90865	1.4524905	-0.36609	0.109367	0.5989	0.69881	0.41756	0.45636	MASB
MASB	MASB-BWBK-SB-MA15-0105	0.48116419	0.53788	1.14417	0.89119	0.35141	0.6186371	-0.55509	-0.106776	0.398099	0.33995	0.72812	-0.06898	MASB
MASB	MASB-BWBK-SB-MA16-0104	-0.703331	-0.09737	0.19001	0.16132	0.42571	0.2467024	-0.49029	-0.069723	0.63655	0.20946	0.0464	0.00933	MASB
MASB	MASB-BWBK-SB-MA17-0104	0.07143314	-0.09737	0.6003	0.07374	0.27711	0.186713	-0.59829	-0.4032	0.188932	-0.19833	-0.02934	0.07459	MASB
MASB	MASB-BWBK-SB-MA18-0104	-0.0030634	-0.15619	-0.01991	1.32911	-0.19344	-0.245211	-0.69549	0.362563	-0.39674	0.06266	1.01595	-0.24518	MASB
MASB	MASB-BWBK-SB-MA19-0103	-0.6362841	-0.20325	0.24726	-0.043	-0.24297	-0.497167	-0.71709	-0.378498	0.339532	-0.1494	-0.02934	-0.40833	MASB
MASB	MASB-BWBK-SB-MA20-0103	-0.4090696	-0.21501	-0.26799	0.39488	0.97057	0.6426328	-0.57669	0.634285	-0.0035	1.30234	-0.24143	0.76634	MASB
MASS	MASS-BWBK-SS-MA01-0001	-0.7927269	-0.76791	0.45717	-1.1816	-1.18409	-1.458198	-0.28509	-1.403631	-0.9937	-1.25859	-0.7868	-1.10008	MASS
MASS	MASS-BWBK-SS-MA02-0001	0.74190213	-0.76791	2.20329	-0.1306	-0.98596	-1.298626	-0.26349	-1.008399	-0.92928	-0.70399	-0.69591	-0.47359	MASS
MASS	MASS-BWBK-SS-MA03-0001	-0.5357138	-0.39147	0.76251	-0.4518	-0.98596	-0.893097	-0.24189	-0.761379	-0.84645	-0.81817	-0.60501	-0.76073	MASS
MASS	MASS-BWBK-SS-MA04-0001	-0.1148082	-0.63851	0.877	-0.2766	-0.78783	-0.881099	-0.19869	-0.353796	-0.7063	-0.44301	-0.74136	-0.42138	MASS
MASS	MASS-BWBK-SS-MA05-0001	0.55566074	-0.49735	0.55259	0.48246	-0.31727	-0.185222	-0.00429	0.399616	-0.66865	0.14421	0.1676	0.31605	MASS
MASS	MASS-BWBK-SS-MA06-0001	1.15163317	1.59662	3.17654	1.06636	-0.54017	0.1387214	0.21171	0.560179	-0.36745	0.04634	0.31909	0.01586	MASS
MASS	MASS-BWBK-SS-MA07-0001	-1.9511483	-0.62675	-1.21261	-2.1451	-1.49366	-1.596174	-0.14469	-2.089112	-1.07904	-1.66638	-1.08979	-1.74615	MASS
MASS	MASS-BWBK-SS-MA08-0001	0.10868142	0.11438	0.65755	-0.5102	-0.5154	-0.041247	1.87492	-0.823134	-0.57244	-0.5735	0.50088	-0.12119	MASS
MASS	MASS-BWBK-SS-MA09-0001	2.26908147	0.22025	2.48	1.53348	0.15328	0.186713	2.24212	0.066138	-0.17502	0.32364	1.62192	1.34063	MASS
MASS	MASS-BWBK-SS-MA10-0001	1.33787455	0.36142	1.16325	0.92039	0.05422	0.2826961	1.71292	0.004383	-0.1039	0.09528	1.31894	0.90992	MASS
MASS	MASS-BWBK-SS-MA11-0001	1.33787455	0.47906	2.15558	1.12475	0.12852	0.8825907	0.79491	0.189649	0.000681	-0.00259	1.75826	0.51183	MASS
MASS	MASS-BWBK-SS-MA12-0001	-0.07756	-0.66204	0.23772	-0.1014	-0.96119	-0.521163	-0.14469	-0.205584	-0.79164	-0.19833	-0.48382	-0.01677	MASS
MASS	MASS-BWBK-SS-MA13-0001	0.66740557	-0.42676	2.63266	0.42408	-0.78783	-0.473171	0.08211	-0.625518	-0.77324	-0.70399	0.83416	-0.42138	MASS
MASS	MASS-BWBK-SS-MA14-0001	-0.271251	-0.6738	1.42088	-0.5977	-1.06026	-1.176247	1.03251	-1.39128	-0.82971	-1.01391	0.78871	-0.69547	MASS
MASS	MASS-BWBK-SS-MA15-0001	0.2949228	-0.61498	1.57354	-0.2182	-1.06026	-1.04907	0.48171	-1.168962	-0.95479	-0.98129	0.53118	-0.76726	MASS
MASS	MASS-BWBK-SS-MA16-0001	-0.2861503	-0.2503	0.57167	-0.1306	-0.93643	-0.509165	0.23331	-0.823134	-0.859	-0.70399	0.66752	-0.57148	MASS
MASS	MASS-BWBK-SS-MA17-0001	0.22042625	-0.29736	0.58121	0.01535	-0.54017	-0.521163	0.17931	-0.909591	-0.5557	-0.65506	0.56148	-0.4018	MASS
MASS	MASS-BWBK-SS-MA18-0001	-0.1148082	-0.16796	0.39992	-0.5102	-1.01072	-0.749123	0.56811	-1.230717	-0.91965	-0.83449	1.07655	-0.58453	MASS
MASS	MASS-BWBK-SS-MA19-0001	0.1459297	-0.21501	0.90563	0.01535	-0.56493	-0.485169	0.48171	-0.958995	-0.62682	-0.62243	0.90991	-0.3757	MASS
MASS	MASS-BWBK-SS-MA20-0001	-0.2265531	-0.19148	0.74342	0.01535	-0.46587	-0.221215	0.26571	-0.452604	-0.41765	-0.10046	0.34939	-0.08203	MASS
MMSB	MMSB-BWBK-SB-MM101-0110	-1.1074748	-0.52676	-0.45882	-0.7437	0.02945	-0.293203	-0.30669	0.492248	0.055065	-0.16571	-1.15796	-0.5519	MMSB
MMSB	MMSB-BWBK-SB-MM102-0109	-0.5804117	-0.59146	-0.52561	-0.0138	0.07899	-0.413182	-0.64149	1.461802	-0.09554	0.76406	-0.8474	-0.48664	MMSB
MMSB	MMSB-BWBK-SB-MM103-0107	-0.9901427	-0.42676	-0.64966	-0.1014	1.0944	-0.521163	-0.56589	0.510775	0.184748	-0.00259	-1.18068	-0.58453	MMSB
MMSB	MMSB-BWBK-SB-MM104-0110	0.22042625	-0.26207	-0.32524	0.45327	0.47524	0.5706455	-0.46869	2.882168	0.205665	-0.0189	-0.48382	0.10722	MMSB
MMSB	MMSB-BWBK-SB-MM105-0110	-1.4706455	-0.52087	-1.06949	-1.2984	-0.4411	-0.869101	-0.61989	-0.353796	-0.31725	-0.44301	-1.34732	-0.92388	MMSB
MMSB	MMSB-BWBK-SB-MM106-0110	0.48116419	-0.57969	0.46671	0.862	0.40095	0.2826961	-0.55509	2.795711	0.68675	0.47045	0.03125	0.36173	MMSB
MMSB	MMSB-BWBK-SB-MM107-0110	-1.1391359	-0.57969	-0.57332	1.12475	-0.06961	-0.545158	-0.71709	0.498424	-0.17084	-0.26358	-0.96859	-0.63674	MMSB
MMSB	MMSB-BWBK-SB-MM108-0110	-0.7200927	-0.62087	-0.62103	-0.6707	-0.13153	-0.443176	-0.67929	0.757795	-0.21267	-0.32882	-0.82468	-0.55843	MMSB
MMSB	MMSB-BWBK-SB-MM109-0110	0.03418487	-0.62675	0.59076	0.24891	0.15328	-0.173224	-0.47949	0.733093	0.017415	0.06266	-0.31718	-0.3496	MMSB
MMSB	MMSB-BWBK-SB-MM110-0109	-0.4537676	-0.53264	-0.37295	0.62844	-0.16868	-0.281205	-0.58749	0.683689	-0.19175	-0.16571	-0.60501	-0.53885	MMSB
MMSB	MMSB-BWBK-SB-MM111-0110	-0.2638013	-0.57969	0.18047	-0.1598	-0.02008	-0.005253	-0.43629	1.264186	-0.02442	0.04634	-0.66561	-0.36265	MMSB
MMSB	MMSB-BWBK-SB-MM112-0110	-0.1334324	-0.65616	-0.00082	-0.0284	-0.06961	0.0367393	-0.75489	1.270361	1.604994	0.18499	-0.05207	-0.4377	MMSB
MMSB	MMSB-BWBK-SB-MM113-0110	-0.6772572	-0.66204	-0.58286	1.94221	-0.02008	-0.377188	-0.73869	1.202431	-0.07462	0.25839	-0.83225	-0.40833	MMSB
MMSB	MMSB-BWBK-SB-MM114-0110	-0.9938676	-0.43853	-0.43974	-0.9773	-0.34204	-0.785116	-0.74949	0.066138	0.013231	-0.2962	-1.24128	-0.88473	MMSB

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
MMSB	MMSB-BWBK-SB-MM115-0110	-0.0030634	-0.69733	1.4495	-0.6853	-0.19344	-0.353192	-0.83589	1.486504	0.113632	-0.54088	-0.31718	-0.38223	MMSB
MMSB	MMSB-BWBK-SB-MM116-0110	-0.8318376	-0.62675	-0.18689	-0.1452	-0.03246	-0.437177	-0.58749	0.899831	0.140823	-0.00259	-1.17311	-0.3757	MMSB
MMSB	MMSB-BWBK-SB-MM117-0110	-1.3551759	-0.62675	-0.84049	-1.532	-0.04485	-0.689133	-0.72789	0.09084	-0.13319	-0.39407	-1.40792	-0.79989	MMSB
MMSB	MMSB-BWBK-SB-MM118-0110	-1.04974	-0.61498	-0.61149	-0.7729	0.37618	-0.521163	-0.45789	0.992464	1.059067	1.56333	-1.01404	-0.41486	MMSB
MMSB	MMSB-BWBK-SB-MM119-0110	-1.0311158	-0.57969	-0.60195	-0.5685	-0.19344	-0.413182	-0.70629	1.140676	0.067615	-0.18202	-0.908	-0.51275	MMSB
MMSB	MMSB-BWBK-SB-MM120-0110	-1.9325241	-0.75615	-1.25078	-1.7363	-0.56493	-1.037072	-0.87909	-0.452604	-0.38837	-0.88342	-1.54426	-1.21103	MMSB
MMSS	MMSS-BWBK-SS-MM101-0001	1.67310905	-0.36794	0.31405	-0.0138	-0.86213	-0.173224	0.06051	-0.341445	-0.51387	-0.55719	0.44028	-0.53885	MMSS
MMSS	MMSS-BWBK-SS-MM102-0001	0.25767453	-0.61498	-0.83095	-0.7437	-1.06026	-0.617146	-0.60909	-0.921942	-0.50969	-0.78555	-0.31718	-1.02177	MMSS
MMSS	MMSS-BWBK-SS-MM103-0001	1.30062628	-0.34442	-0.25845	0.01535	-0.91166	-0.221215	0.19011	-0.600816	-0.55152	-0.62243	0.51603	-0.7281	MMSS
MMSS	MMSS-BWBK-SS-MM104-0001	1.263378	-0.34442	0.38084	0.07374	-0.664	-0.149228	0.19011	-0.069723	-0.40092	-0.39407	0.27364	-0.58453	MMSS
MMSS	MMSS-BWBK-SS-MM105-0001	-0.1148082	-0.5444	-0.87865	-1.0649	-1.03549	-0.869101	-0.25269	-1.378929	-0.62682	-1.03023	-0.31718	-1.14577	MMSS
MMSS	MMSS-BWBK-SS-MM106-0001	1.22612972	-0.415	0.18047	0.862	-0.56493	-0.161226	-0.26349	-0.131478	-0.38419	-0.47563	0.34939	-0.59758	MMSS
MMSS	MMSS-BWBK-SS-MM107-0001	1.63586077	-0.50911	0.19001	0.13213	-0.8126	-0.173224	-0.26349	0.053787	-0.45949	-0.44301	0.24334	-0.51275	MMSS
MMSS	MMSS-BWBK-SS-MM108-0001	1.78485388	-0.52087	-0.01991	-0.0722	-1.03549	-0.461173	-0.11229	-0.958995	-0.72304	-0.73662	0.59177	-0.86515	MMSS
MMSS	MMSS-BWBK-SS-MM109-0001	1.33787455	-0.52087	-0.71645	-0.189	-1.01072	-0.449175	-0.47949	-0.65022	-0.66447	-0.78555	0.22819	-0.98262	MMSS
MMSS	MMSS-BWBK-SS-MM110-0001	-0.4090696	-0.73262	-0.84049	-1.4736	-1.33268	-1.123457	-0.16629	-1.797628	-0.85105	-1.35646	-0.54442	-1.44596	MMSS
MMSS	MMSS-BWBK-SS-MM111-0001	0.07143314	-0.74439	-0.94545	-1.2692	-1.23362	-1.061068	-0.33909	-1.490088	-0.78788	-1.25859	-0.74136	-1.36765	MMSS
MMSS	MMSS-BWBK-SS-MM112-0001	-0.4761165	-0.69733	-1.06949	-1.678	-1.38222	-1.214641	-0.18789	-1.69388	-0.85941	-1.34015	-0.908	-1.34154	MMSS
MMSS	MMSS-BWBK-SS-MM113-0001	1.03988834	-0.59146	-0.19166	-0.5685	-1.13456	-0.617146	0.53571	-0.983697	-0.69375	-0.93236	0.40998	-0.92388	MMSS
MMSS	MMSS-BWBK-SS-MM114-0001	-0.8076262	-0.76791	-1.1172	-1.8531	-1.33268	-1.320222	-0.67389	-1.827271	-0.80252	-1.38908	-1.21098	-1.41333	MMSS
MMSS	MMSS-BWBK-SS-MM115-0001	-0.1893048	-0.72086	-0.61149	-1.4736	-1.33268	-0.98908	-0.51189	-1.64077	-0.6059	-1.22596	-0.80195	-1.2306	MMSS
MMSS	MMSS-BWBK-SS-MM116-0001	-0.4425931	-0.69733	-0.90728	-1.5028	-1.25839	-1.085063	-0.33909	-1.580251	-0.72304	-1.30752	-0.68076	-1.3546	MMSS
MMSS	MMSS-BWBK-SS-MM117-0001	0.7791504	-0.60322	-0.00082	-0.5394	-0.96119	-0.509165	-0.03669	-0.711975	-0.61845	-0.75293	-0.15054	-0.8782	MMSS
MMSS	MMSS-BWBK-SS-MM118-0001	-0.5431634	-0.52087	-0.79278	-0.8021	-0.56493	-0.737125	-0.79269	0.016734	-0.45112	-0.65506	-0.92315	-1.0544	MMSS
MMSS	MMSS-BWBK-SS-MM119-0001	-0.8970221	-0.65028	-0.83095	-1.3276	-0.71353	-0.941089	-0.87909	-0.440253	-0.43439	-0.63875	-1.15038	-1.16534	MMSS
MMSS	MMSS-BWBK-SS-MM120-0001	-0.6735324	-0.62675	-1.15536	0.19052	-0.664	-0.19722	-0.69549	-0.847836	-0.4804	-0.67137	-0.66561	-0.81294	MMSS
NESB	NESB-BWBK-SB-NE01-0108	0.59290902	-0.43853	-0.87865	0.80361	0.67337	0.5346518	-0.65229	2.029948	0.306065	0.97611	-0.71106	0.303	NESB
NESB	NESB-BWBK-SB-NE02-0109	0.1459297	-0.36794	0.84838	0.42408	0.59907	0.3546835	-0.64149	1.535908	1.456485	0.78037	-0.96859	0.22469	NESB
NESB	NESB-BWBK-SB-NE03-0105	0.1459297	-0.40323	-0.8214	0.07374	0.25235	0.3666813	-0.70629	0.955411	0.063431	0.42151	-0.908	-0.16687	NESB
NESB	NESB-BWBK-SB-NE04-0110	-0.0030634	-0.50911	-0.69736	-0.0722	0.35141	0.0907298	-0.66309	1.251835	0.243315	0.42151	-0.89285	-0.08856	NESB
NESB	NESB-BWBK-SB-NE05-0108	0.31354694	-0.46794	-1.0504	0.42408	0.51239	0.4386687	-0.67389	1.572961	0.234949	0.77221	-0.69591	0.21164	NESB
NESB	NESB-BWBK-SB-NE06-0109	-0.07756	-0.47382	-0.98361	-0.043	0.45048	0.2227066	-0.69549	1.202431	0.138732	0.63356	-0.83225	-0.02982	NESB
NESB	NESB-BWBK-SB-NE07-0107	0.59290902	-0.43853	-0.71645	0.71602	0.52478	0.4626645	-0.60909	1.610014	0.059248	0.94348	-0.7868	0.28342	NESB
NESB	NESB-BWBK-SB-NE08-0104	-0.1520565	-0.53264	-1.07903	-0.1014	0.32665	-0.125232	-0.74949	0.671338	-0.129	0.4052	-0.7565	-0.28434	NESB
NESB	NESB-BWBK-SB-NE09-0110	-0.1334324	-0.52087	-0.99792	0.07374	0.33903	0.1507193	-0.74949	1.122149	0.155465	0.43782	-0.9383	-0.05593	NESB
NESB	NESB-BWBK-SB-NE10-0107	0.22042625	-0.60322	-0.43974	0.36569	-0.11914	-0.125232	-0.64149	0.720742	-0.1541	-0.0189	-0.04449	-0.25171	NESB
NESB	NESB-BWBK-SB-NE101-0110	0.40666763	-0.6738	0.93425	-0.1306	-0.04485	-0.19722	-0.65229	0.856603	-0.1792	-0.08415	-0.34748	-0.47359	NESB
NESB	NESB-BWBK-SB-NE102-0110	0.03418487	-0.74439	1.13463	-0.6269	-0.31727	-0.581152	-0.73869	0.473722	-0.23777	-0.32882	-0.63531	-0.63674	NESB
NESB	NESB-BWBK-SB-NE103-0110	-0.50964	-0.7738	0.34744	-1.0065	-0.47825	-0.737125	-0.81969	0.059963	-0.34235	-0.51641	-0.88527	-0.85536	NESB
NESB	NESB-BWBK-SB-NE104-0110	-0.9752434	-0.80321	-0.14395	-1.2984	-0.5154	-0.893097	-0.85749	-0.242637	-0.45949	-0.65506	-1.07464	-0.98914	NESB
NESB	NESB-BWBK-SB-NE105-0110	0.03418487	-0.61498	1.04875	-0.335	-0.21821	-0.233213	-0.68469	0.844252	0.151282	-0.21464	-0.39292	-0.45401	NESB
NESB	NESB-BWBK-SB-NE106-0110	-0.1893048	-0.74439	0.66709	-0.6269	-0.19344	-0.485169	-0.74949	0.584881	-0.16247	-0.19833	-0.66561	-0.59106	NESB
NESB	NESB-BWBK-SB-NE107-0510	-0.9268207	-0.82673	-0.25845	-1.3276	-0.5154	-0.677135	-0.83589	0.399616	-0.35909	-0.68768	-1.05949	-0.81947	NESB
NESB	NESB-BWBK-SB-NE108-0110	-0.07756	-0.79144	0.28542	-0.6853	-0.21821	-0.485169	-0.78189	0.473722	-0.3298	-0.47563	-0.42322	-0.70853	NESB
NESB	NESB-BWBK-SB-NE109-0110	-0.1148082	-0.79144	0.54305	-0.7437	-0.29251	-0.521163	-0.76029	0.436669	-0.30052	-0.45932	-0.72621	-0.71505	NESB
NESB	NESB-BWBK-SB-NE110-0110	-0.1520565	-0.75615	-0.06762	-0.6123	-0.19344	-0.53316	-0.75489	0.578705	-0.25659	-0.50825	-0.68833	-0.71179	NESB
NESS	NESS-BKG-SS03-NEB-0016	1.71035732	-0.32089	0.46671	-0.043	-0.36681	-0.185222	3.30052	-0.304392	-0.34235	-0.24727	0.65237	0.19858	NESS
NESS	NESS-BKG-SS09-NEB-0018	0.81639868	0.22025	-0.63057	-0.2182	-0.8126	-0.665137	0.19011	-0.835485	-0.44694	-0.91604	0.0161	-0.80641	NESS
NESS	NESS-BWBK-SS-NE01-0001	2.3808263	0.65551	0.65755	1.44589	0.02945	0.4506666	0.67611	0.32551	0.017415	0.20946	0.63722	1.21011	NESS
NESS	NESS-BWBK-SS-NE02-0001	1.78485388	0.96138	-0.23937	1.4167	-0.09438	0.402675	0.33051	0.658987	-0.26705	0.56832	0.12215	1.96712	NESS
NESS	NESS-BWBK-SS-NE03-0001	2.00834354	-0.03855	-0.0867	0.68683	-0.5897	0.0547362	-0.12309	-0.304392	-0.39255	-0.19833	0.107	-0.12771	NESS
NESS	NESS-BWBK-SS-NE04-0001	1.97109526	-0.26207	-0.06762	1.03717	0.12852	0.186713	-0.19869	0.560179	-0.13737	0.17684	0.27364	-0.14729	NESS
NESS	NESS-BWBK-SS-NE05-0001	1.44961938	0.05556	-0.07716	1.32911	-0.46587	-0.077241	0.42771	-0.106776	-0.32562	-0.1494	0.12215	0.1529	NESS
NESS	NESS-BWBK-SS-NE06-0001	1.56136421	-0.39147	-0.39203	0.89119	-0.14391	-0.017251	-0.39309	0.44902	-0.42602	0.24208	0.107	-0.27781	NESS
NESS	NESS-BWBK-SS-NE07-0001	1.59861249	0.32613	0.15184	0.65763	-0.56493	-0.005253	1.16211	-0.267339	-0.4553	-0.23095	0.63722	0.16595	NESS
NESS	NESS-BWBK-SS-NE08-0001	1.71035732	-0.29736	-0.04853	0.59924	-0.49064	-0.029249	-0.23109	-0.082074	-0.42184	-0.00259	0.0464	-0.26476	NESS
NESS	NESS-BWBK-SS-NE09-0001	2.67881252	-0.07385	0.81976	0.51166	-0.664	-0.185222	0.42771	-0.613167	-0.2796	-0.36145	0.31909	-0.25171	NESS
NESS	NESS-BWBK-SS-NE10-0001	1.07713662	-0.08561	0.06597	0.19052	-0.5897	-0.221215	1.38892	-0.168531	-0.38837	-0.19833	0.40998	-0.00372	NESS
NESS	NESS-BWBK-SS-NE101-0001	1.22612972	-0.68557	-0.06762	-0.5394	-0.86213	-0.725127	-0.56589	-0.884889	-0.58499	-0.80186	-0.22628	-1.06093	NESS
NESS	NESS-BWBK-SS-NE102-0001	-0.0030634	-0.76791	-0.49699	-1.24	-1.13456	-1.025074	-0.07989	-1.243068	-0.66029	-1.07916	-0.45352	-1.17187	NESS
NESS	NESS-BWBK-SS-NE103-0001	-0.5133648	-0.72086	-0.71645	-1.1232	-1.20885	-1.124657	-0.19869	-1.317174	-0.76069	-1.09547	-0.57471	-1.31544	NESS
NESS	NESS-BWBK-SS-NE104-0001	0.10868142	-0.76791	-0.90728	-1.24	-1.13456	-0.833108	0.91371	-0.884889	-0.63937	-0.93236	-0.51412	-1.11966	NESS
NESS	NESS-BWBK-SS-NE105-0001	-0.4202441	-0.79144	-0.7737	-1.6196	-1.28315	-1.205042	-0.53349	-1.5679	-0.69794	-1.2749	-0.95344	-1.31544	NESS
NESS	NESS-BWBK-SS-NE106-0001	-0.1520565	-0.77968	-0.73553	-1.4736	-1.23362	-1.097061	1.18371	-1.230717	-0.65192	-1.24228	-0.65046	-1.26976	NESS
NESS	NESS-BWBK-SS-NE107-0001	-0.0030634	-0.77968	-0.59241	-1.6196	-1.33268	-1.190645	-0.13389	-1.623479	-0.50969	-1.35646	-0.60501	-1.26323	NESS
NESS	NESS-BWBK-SS-NE108-0001	-0.07756	-0.76791	-0.15349	-1.4736	-1.20885	-1.097061	0.03891	-1.218366	-0.6561	-1.20965	-0.52927	-1.15229	NESS
NESS	NESS-BWBK-SS-NE109-0001	-0.3680965	-0.85026	-0.64011	-1.7071	-1.33268	-1.226639	-0.54429	-1.540727	-0.69794	-1.37277	-0.95344	-1.34807	NESS
NESS	NESS-BWBK-SS-NE110-0001	-0.5394386	-0.69733	-0.7737	-1.6196	-1.28315	-1.15945	0.47091	-1.588896	-0.83808	-1.35646	-0.22628	-1.41333	NESS

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
PMSB	PMSB-BWBK-SB-PM01-0105	0.59290902	0.11438	0.44763	0.51166	1.46589	0.2107088	-0.63069	0.584881	1.151101	1.35127	-0.02934	0.14638	PMSB
PMSB	PMSB-BWBK-SB-PM02-0104	0.92814351	1.36135	0.28542	2.67208	1.78785	2.3343355	-0.36069	0.918358	1.531785	0.9598	1.18259	0.55099	PMSB
PMSB	PMSB-BWBK-SB-PM03-0106	0.25767453	1.02019	-0.85003	1.03717	2.53083	1.9024114	-0.67389	1.375345	0.561249	1.69382	0.28879	1.00781	PMSB
PMSB	PMSB-BWBK-SB-PM04-0105	0.1459297	1.51428	-0.42066	0.8328	1.14393	1.0145675	-0.33909	1.362994	0.962851	1.33496	0.0767	0.60319	PMSB
PMSB	PMSB-BWBK-SB-PM05-0105	0.07143314	0.6261	-0.22505	0.78901	1.44112	1.0145675	-0.55509	1.171553	1.540152	1.02504	0.12215	0.50531	PMSB
PMSB	PMSB-BWBK-SB-PM06-0105	0.18317797	0.86726	-0.01037	0.57005	1.0201	1.3265126	-0.73869	1.239484	5.162929	0.97611	-0.05964	0.40089	PMSB
PMSB	PMSB-BWBK-SB-PM07-0105	-0.5319889	0.89079	0.16138	0.24891	1.71355	0.8825907	-0.74949	-0.082074	2.360088	0.32364	0.1373	-0.26476	PMSB
PMSB	PMSB-BWBK-SB-PM08-0106	-0.07756	1.06725	-0.23937	0.45327	1.71355	0.6666286	-0.61989	0.597232	1.322618	0.86193	0.06155	0.18553	PMSB
PMSB	PMSB-BWBK-SB-PM09-0106	-0.8634986	0.67904	-0.90728	-0.0722	0.92103	0.1267235	-0.88989	0.214351	0.619816	0.58463	-0.54442	-0.23213	PMSB
PMSB	PMSB-BWBK-SB-PM10-0105	-0.3271234	0.64375	-0.2012	1.47509	1.24299	0.7746096	-0.59829	0.053787	1.121818	0.33995	1.47043	0.08764	PMSB
PMSB	PMSB-BWBK-SB-PM11-0104	-0.3755462	0.5614	0.52396	0.33649	1.78785	1.1225485	-0.66309	0.226702	4.535427	1.31865	0.00096	0.19206	PMSB
PMSB	PMSB-BWBK-SB-PM12-0105	-0.7778276	-0.42676	-0.64966	0.65763	0.00469	-0.521163	-0.79269	0.103191	0.297699	-0.05153	-0.37777	-0.46706	PMSB
PMSB	PMSB-BWBK-SB-PM13-0106	-0.0403117	0.12614	0.54305	0.92039	-0.09438	0.6066392	-0.69549	-0.168531	1.297518	-0.26358	0.51603	-0.38875	PMSB
PMSB	PMSB-BWBK-SB-PM14-0106	-0.6884317	-0.21501	-0.26799	-0.0722	0.00469	-0.341194	-0.74949	-0.205584	1.192935	-0.19833	-0.13539	-0.49317	PMSB
PMSB	PMSB-BWBK-SB-PM15-0105	-0.1520565	0.06732	0.00872	0.59924	0.40095	0.4506666	-0.58749	0.411967	0.460849	0.35626	-0.01419	0.05501	PMSB
PMSB	PMSB-BWBK-SB-PM16-0106	-0.3606469	-0.15619	-0.38249	-0.043	-0.06961	-0.065243	-0.71709	0.152596	0.615633	0.09528	-0.22628	-0.25823	PMSB
PMSB	PMSB-BWBK-SB-PM17-0105	-0.0589358	0.27319	-0.25368	0.43867	2.15934	0.7146202	-0.43629	0.899831	0.764142	0.6091	0.47058	0.26711	PMSB
PMSB	PMSB-BWBK-SB-PM18-0105	0.22042625	0.93785	-0.41111	0.8328	0.7972	1.7824325	-0.49029	1.276537	0.360449	1.33496	-0.33233	0.89686	PMSB
PMSB	PMSB-BWBK-SB-PM19-0105	0.07143314	0.29083	0.13276	0.51166	0.47524	0.7986054	-0.52269	0.720742	0.71185	0.84561	-0.12024	0.4531	PMSB
PMSB	PMSB-BWBK-SB-PM20-0106	-0.1148082	0.17908	-0.1678	0.38028	0.45048	0.3966761	-0.61449	0.535477	0.339532	0.6091	-0.11266	0.20511	PMSB
PMSB	PMSB-BWBK-SB-SO01-0107-PM	0.2949228	0.46729	-0.50653	0.2781	1.34206	1.2065337	-0.30669	0.745444	-0.1792	1.72644	-0.21113	1.25579	PMSB
PMSB	PMSB-BWBK-SB-SO02-0109-PM	0.40666763	1.34958	-0.75461	0.71602	0.92103	1.8784156	-0.23109	0.881305	0.029965	1.33496	-0.01419	1.20358	PMSB
PMSB	PMSB-BWBK-SB-SO13-0104-PM	-0.2973248	1.16136	-0.18212	0.65763	2.23364	1.7584367	-0.28509	0.646636	-0.30052	2.05268	0.0464	0.94907	PMSB
PMSB	PMSB-BWBK-SB-SO14-0105-PM	0.22042625	1.71426	-0.0867	0.74522	1.98598	2.0223903	-0.28509	1.177729	-0.01605	2.29735	-0.27173	1.57556	PMSB
PMSS	PMSS-DABK-S-SO21-0001	-0.5282641	0.51435	0.92471	0.10293	-0.19344	0.1387214	2.41492	-1.057803	-0.37164	-0.27989	1.33409	1.8105	PMSS
PMSS	PMSS-DABK-S-SO22-0001	0.51841247	0.46729	1.24913	0.8328	0.37618	0.510656	3.09532	-0.872538	0.059248	-0.13308	2.43998	3.68345	PMSS
PMSS	PMSS-DABK-S-SO23-0001	0.51841247	-0.01503	1.11555	0.42408	0.00469	-0.125232	2.03692	-0.353796	-0.37164	0.09528	1.75826	0.42699	PMSS
PMSS	PMSS-DABK-S-SO24-0001	0.36941936	0.34965	1.35409	0.59924	0.05422	0.7746096	1.55092	-1.094856	-0.14155	-0.49194	1.83401	1.21011	PMSS
PMSS	PMSS-DABK-S-SO25-0001	0.87227109	1.45546	1.25867	0.71602	0.22758	2.8862385	2.03152	-0.693448	0.701392	-0.3696	2.57632	0.66193	PMSS
PMSS	PMSS-DABK-S-SO26-0001	0.6301573	0.71433	1.6785	0.89119	0.02945	0.6426328	3.35452	-0.353796	-0.13737	0.22577	2.48543	3.07654	PMSS
PMSS	PMSS-DABK-S-SO27-0001	0.10868142	-0.13267	0.97242	-0.043	-0.36681	-0.389186	3.25732	-0.699624	-0.5306	-0.26358	1.74311	0.60972	PMSS
PMSS	PMSS-DABK-S-SO28-0001	0.03418487	0.10261	1.54492	0.54085	0.72291	-0.113234	2.49052	-0.810783	0.138732	-0.31251	1.9249	2.16943	PMSS
PMSS	PMSS-DABK-S-SO29-0001	1.44961938	0.19672	1.98383	1.12475	0.07899	0.3066919	2.09092	-0.539061	-0.6059	-0.23095	2.27334	1.35368	PMSS
PMSS	PMSS-DABK-S-SO30-0001	1.22612972	-0.06208	2.42275	0.89119	0.30188	-0.149228	1.41052	-0.810783	-0.12064	-0.31251	1.51588	1.69956	PMSS
PMSS	PMSS-DABK-S-SO31-0001	-0.3457476	-0.37971	0.04688	-0.1598	-0.06961	-0.329196	0.52491	-1.070154	0.557066	-0.89973	1.24319	-0.11466	PMSS
PMSS	PMSS-DABK-S-SO32-0001	0.36941936	0.47906	2.00292	0.862	1.71355	0.4746624	3.89452	-0.724326	0.7997	-0.24727	2.31878	2.24121	PMSS
PMSS	PMSS-DABK-S-SO33-0001	0.18317797	-0.49735	1.97429	0.36569	-0.04485	-0.785116	1.82092	-0.699624	-0.6059	-0.5735	1.81886	0.85771	PMSS
PMSS	PMSS-DABK-S-SO34-0001	-0.595311	-0.35618	0.8293	-0.043	0.20282	-0.461173	1.03251	-1.033101	0.615633	-0.75293	1.16744	-0.44749	PMSS
PMSS	PMSS-DABK-S-SO35-0001	-0.325261	-0.16796	1.00105	0.35109	0.04184	-0.167225	2.21512	-0.563763	-0.11018	-0.5001	1.69009	0.07459	PMSS
PMSS	PMSS-DABK-S-SO36-0001	-0.0403117	-0.36794	0.41901	0.07374	-0.5897	-0.605148	2.13412	-0.699624	-0.77324	-0.81817	1.40983	-0.65632	PMSS
PMSS	PMSS-DABK-S-SO37-0001	0.25767453	0.19672	0.45717	0.51166	-0.06961	0.1027277	0.66531	-0.860187	0.105265	-0.73662	1.83401	-0.06898	PMSS
PMSS	PMSS-DABK-S-SO38-0001	-0.4761165	-0.415	0.03734	-0.2766	-0.16868	-0.665137	1.07571	-1.008399	0.234949	-0.86711	1.48558	-0.74116	PMSS
PMSS	PMSS-DABK-S-SO39-0001	-0.3047745	-0.22678	0.90563	0.04454	-0.19344	-0.053245	0.48171	-0.847836	0.364632	-0.68768	1.10685	-0.55843	PMSS
PMSS	PMSS-DABK-S-SO40-0001	-0.1520565	-0.30912	0.72434	0.01535	-0.24297	-0.569154	0.79491	-0.872538	0.485949	-0.76924	1.54617	-0.3757	PMSS
SESB	SESB-BWBK-SB-SO03-0108	1.22612972	1.84367	0.20909	1.29992	2.67943	2.5982891	-0.05829	1.980544	0.690933	3.92851	-0.01419	2.43047	SESB
SESB	SESB-BWBK-SB-SO04-0108	-0.0403117	1.69074	-0.07716	0.80361	1.96121	1.722443	-0.28509	0.856603	-0.08717	2.24842	-0.19598	1.58209	SESB
SESB	SESB-BWBK-SB-SO05-0106	0.6301573	1.4084	0.09459	1.06636	1.06963	1.4824852	-0.32829	0.94306	0.176382	1.88956	0.03125	1.39284	SESB
SESB	SESB-BWBK-SB-SO06-0108	1.0212642	2.73772	-0.40634	1.37291	2.44415	2.8082522	-0.00429	1.634716	-0.12273	2.83563	0.35696	2.10417	SESB
SESB	SESB-BWBK-SB-SO07-0106	-0.1148082	0.76139	-0.66874	0.68683	2.58037	1.1825379	-0.04749	0.733093	3.154923	2.62358	0.15245	1.54293	SESB
SESB	SESB-BWBK-SB-SO08-0107	0.89089523	1.89072	0.07551	1.50428	2.45653	2.4783102	0.00651	1.671769	1.038151	2.9335	0.34939	2.27384	SESB
SESB	SESB-BWBK-SB-SO09-0106	0.33217108	1.36135	0.23772	0.92039	1.19346	1.17054	-0.37149	1.054219	-0.37582	1.72644	-0.05964	1.10569	SESB
SESB	SESB-BWBK-SB-SO11-0106	0.70465385	1.72603	-0.28707	1.06636	1.96121	1.8664177	-0.29589	1.708822	4.368093	2.31366	0.107	1.50378	SESB
SESB	SESB-BWBK-SB-SO12-0106	0.01556073	1.61427	-0.66397	0.8474	1.84976	1.8784156	-0.25809	0.899831	0.61145	2.21579	-0.02934	1.7224	SESB
SESB	SESB-BWBK-SB-SO15-0103	0.10868142	0.1732	-0.22028	0.36569	0.52478	0.4146729	-0.52269	0.202	0.569616	0.43782	0.31909	0.08112	SESB
SESB	SESB-BWBK-SB-SO16-0105	-0.6027607	0.06732	-0.58286	0.33649	0.9458	0.6786265	-0.63069	0.337861	0.130365	1.22078	-0.13539	0.53141	SESB
SESB	SESB-BWBK-SB-SO17-0106	-0.5841365	-0.43853	-0.27753	0.2781	0.72291	-0.13723	-0.64149	0.226702	-0.39674	0.78037	-0.36263	0.13985	SESB
SESB	SESB-BWBK-SB-SO18-0105	-0.5245393	-0.53264	-0.33478	0.13213	0.82197	-0.509165	-0.68469	0.164947	-0.15829	0.33995	-0.49897	-0.20603	SESB
SESB	SESB-BWBK-SB-SO19-0104	-0.6139351	-0.52087	-0.16303	0.2781	2.67943	-0.341194	-0.58749	0.350212	0.201482	0.56832	-0.04449	0.32258	SESB
SESB	SESB-BWBK-SB-SO20-0104	-0.5245393	0.1379	-0.48745	0.45327	1.36682	1.2545253	-0.43629	0.547828	1.159468	1.30234	-0.28688	1.19706	SESB
SESS	SESS-DABK-S-SO01-0001	1.33787455	-0.13267	-0.63057	0.24891	-0.54017	-0.077241	0.25491	-0.588465	-0.80503	-0.37776	0.71297	0.49225	SESS
SESS	SESS-DABK-S-SO02-0001	0.66740557	0.86726	3.13837	4.68652	1.11916	0.5826434	2.17732	0.658987	0.042515	0.99242	0.0161	2.90034	SESS
SESS	SESS-DABK-S-SO03-0001	0.59290902	-0.03855	0.06597	-0.0722	-0.78783	-0.017251	1.64812	-0.637869	-0.90836	-0.70399	2.33393	0.19206	SESS
SESS	SESS-DABK-S-SO04-0001	2.2318332	-0.14443	0.47626	0.65763	-0.41634	-0.101236	0.95691	-0.810783	-0.91129	-0.11677	1.75826	1.15138	SESS
SESS	SESS-DABK-S-SO05-0001	0.89089523	0.06732	-0.37295	-0.0722	-0.63923	0.0067446	1.33492	-0.835485	-0.50969	-0.52456	1.62192	0.38784	SESS
SESS	SESS-DABK-S-SO06-0001	1.52411594	7.38445	1.98383	1.06636	1.24299	4.1580149	1.31331	0.164947	0.364632	0.27471	2.30363	1.54293	SESS
SESS	SESS-DABK-S-SO07-0001	0.90951937	0.11438	1.83117	0.42408	-0.26774	-0.389186	1.06491	0.115542	-0.81674	0.21762	0.81144	0.94907	SESS
SESS	SESS-DABK-S-SO08-0001	0.59290902	0.50258	1.38271	0.16132	-0.19344	0.1507193	1.47532	-0.193233	-0.33399	-0.0189	0.9705	0.55099	SESS
SESS	SESS-DABK-S-SO09-0001	0.18317797	0.432	-0.39203	-0.2766	-0.664	0.4506666	1.15131	-0.736677	-0.80754	-0.37776	1.81886	0.08112	SESS

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN	GROUP
SESS	SESS-DABK-S-SO10-0001	0.66740557	0.26731	-0.00082	-0.335	-0.7383	0.5466497	0.67611	-1.922373	-0.83933	-0.67137	0.65237	-0.14729	SESS
SESS	SESS-DABK-S-SO11-0001	-0.919371	-0.74145	0.36653	-1.1232	-0.78783	-1.248235	0.36291	-2.030445	-0.9845	-0.96498	-0.12781	-0.64979	SESS
SESS	SESS-DABK-S-SO12-0001	0.44391591	-0.29736	1.4495	-0.2474	-0.56493	-0.569154	0.52491	-0.687273	-0.84979	-0.70399	0.51603	0.06807	SESS
SESS	SESS-DABK-S-SO13-0001	-0.3233986	0.38495	-0.0867	-0.3642	-0.5897	-0.065243	0.03891	-0.711975	-0.83306	-0.0189	0.28879	0.88381	SESS
SESS	SESS-DABK-S-SO14-0001	-0.5431634	0.26731	-1.20307	-0.6853	-0.664	-0.149228	0.76251	-0.699624	-0.9071	-0.34514	0.83416	-0.36265	SESS
SESS	SESS-DABK-S-SO15-0001	0.36941936	0.24378	-0.23937	0.19052	-0.56493	-0.209217	1.01091	-1.953251	-0.73559	-0.50825	1.60677	-0.12119	SESS
SESS	SESS-DABK-S-SO16-0001	-0.6288345	-0.59146	0.22817	-1.1232	-0.8126	-1.189445	-0.00429	-2.101463	-0.98659	-1.19334	-0.72621	-1.03482	SESS
SESS	SESS-DABK-S-SO17-0001	0.10868142	-0.36794	1.86933	-0.8897	-0.56493	-0.53316	0.87051	-2.179274	-0.71467	-1.25859	0.54633	-0.98914	SESS
SESS	SESS-DABK-S-SO18-0001	-0.5841365	-0.36794	0.63846	-0.6561	-0.4411	-0.737125	0.65451	-0.415551	-0.88744	-0.60612	0.54633	-0.17992	SESS
SESS	SESS-DABK-S-SO19-0001	0.85364696	0.03203	1.62125	0.57005	0.15328	-0.233213	2.65252	0.263755	-0.15829	0.14421	0.77357	1.12527	SESS
SESS	SESS-DABK-S-SO20-0001	1.67310905	1.71426	1.72621	1.12475	-0.04485	0.510656	2.12332	0.844252	-0.42602	0.29102	1.78856	1.00781	SESS

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092

10708.2243 **Mean**
2684.6880 **Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AS	-0.2628	-0.1172	0.8834	0.7013	0.0700	0.4771
BA	-0.0314	0.0448	0.0164	-0.0983	-0.0337	1.0252
CR	0.0598	-0.0714	-0.1220	-1.5230	-0.0360	0.2120
CO	0.5264	0.1561	-0.2893	2.6170	-0.5469	0.3773
FE	0.0389	-0.1883	0.5438	-1.4109	-0.2928	-0.5534
PB	-0.0800	0.1421	0.0290	0.1817	0.1030	-0.0259
MG	0.1090	-0.0594	-0.1292	-0.3066	-0.0058	0.1053
MN	0.0572	0.0000	-0.0389	0.2090	-0.0887	0.0469
NI	0.1793	-0.1480	-0.1456	-1.5295	0.0559	-0.3305
V	0.0015	0.8127	-0.1852	0.1420	-0.5374	-0.7710
ZN	0.2804	0.2679	-0.2058	1.2550	1.1149	-0.1451

ARSENIC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349

8.9277 **Mean**
8.5006 **Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0245	0.0333	0.0195	0.1512	0.0485	-1.0272
AS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BA	-0.0249	0.0378	-0.0105	0.0183	-0.0310	-25.0778
CR	0.0473	-0.0602	0.0781	0.2839	-0.0331	-5.1855
CO	0.4164	0.1316	0.1852	-0.4878	-0.5030	-9.2300
FE	0.0308	-0.1587	-0.3481	0.2630	-0.2693	13.5357
PB	-0.0633	0.1198	-0.0186	-0.0339	0.0947	0.6329
MG	0.0863	-0.0501	0.0827	0.0572	-0.0053	-2.5763
MN	0.0452	0.0000	0.0249	-0.0390	-0.0816	-1.1472
NI	0.1418	-0.1247	0.0932	0.2851	0.0515	8.0847
V	0.0012	0.6849	0.1186	-0.0265	-0.4943	18.8588
ZN	0.2218	0.2258	0.1318	-0.2339	1.0254	3.5499

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2212.34254	-1.84153	-1.72818	-1.66853	-4.42963	-1.8176	-2.18887	-19.16133	-1.53944	-1.63028	-0.62534	-1.29392	-1.72455	-87.8796
MAXIMUM DOMAIN VALUE	27238.8355	2.74385	3.38567	7.54597	7.25775	2.71203	3.97838	42.768445	2.52408	2.91646	0.84213	1.13666	2.48949	86.9354
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	8935.51243	-0.96487	-1.60233	-0.17074	0.86339	0.85344	-0.62902	1.5120798	-0.89808	-1.51377	-0.44807	-0.61481	0.73598	7.05366
BASS-BWBK-SS-BA102-0001	9439.36603	-1.17076	-1.70703	-0.08776	1.3239	0.80379	-0.58885	-0.281845	-1.05916	-1.61837	-0.5293	-0.76343	0.67405	6.03967
BASS-BWBK-SS-BA103-0001	9387.94275	-1.10095	-1.618	-0.14018	1.18771	0.73729	-0.52934	-0.084315	-1.00586	-1.53757	-0.48818	-0.71444	0.61959	4.52696
BASS-BWBK-SS-BA104-0001	8612.05111	-0.87036	-1.39297	-0.32975	0.47566	0.56501	-0.6447	2.9721545	-0.82114	-1.33581	-0.3394	-0.5393	0.47048	7.56307
BASS-BWBK-SS-BA105-0001	9315.0968	-0.9797	-1.59179	-0.17298	1.12236	0.83577	-0.7227	2.1841594	-0.90215	-1.5153	-0.45274	-0.7104	0.70455	9.66666
BASS-BWBK-SS-BA106-0001	7555.83316	-0.80034	-1.47183	-0.39582	-0.11025	0.77371	-0.78601	4.3413767	-0.76999	-1.40412	-0.30834	-0.43213	0.6639	10.7824
BASS-BWBK-SS-BA107-0001	9607.26542	-1.17126	-1.61101	-0.11049	1.34604	0.75287	-0.58197	-0.118814	-1.06052	-1.53658	-0.51484	-0.76321	0.62873	5.827
BASS-BWBK-SS-BA108-0001	9202.19344	-1.13167	-1.67679	-0.15135	1.14372	0.78264	-0.56657	0.0348355	-1.02877	-1.5908	-0.48558	-0.7215	0.6569	5.48225
BASS-BWBK-SS-BA109-0001	6887.23214	-0.87867	-1.72818	-0.37755	-0.30559	0.76734	-0.63108	2.3385274	-0.83077	-1.63028	-0.33733	-0.43469	0.64791	6.97675
BASS-BWBK-SS-BA110-0001	7686.27222	-0.83263	-1.49144	-0.30132	-0.15503	0.48254	-0.08067	-1.476889	-0.80074	-1.41492	-0.36727	-0.39665	0.40517	-6.6994
BASS-BWBK-SS-BA111-0001	8633.99277	-1.06154	-1.64984	-0.17733	0.74306	0.73562	-0.60389	0.7343342	-0.97554	-1.5628	-0.46286	-0.62464	0.62014	6.31826
BASS-BWBK-SS-BA112-0001	9101.78478	-1.10156	-1.65896	-0.14335	1.04805	0.7372	-0.55526	-0.070065	-1.01044	-1.57236	-0.49407	-0.68477	0.62229	4.94428
BASS-BWBK-SS-BA113-0001	11711.3898	-0.8048	-1.29696	-0.36009	2.38025	1.93507	-0.74429	4.3265989	-0.76578	-1.27132	-0.34513	-0.95917	1.71306	10.0554
MASB-BWBK-SB-MA01-0105	12773.1397	1.72277	-0.37171	-0.33998	1.3189	-0.18622	-0.3144	21.261275	1.45623	-0.27075	0.46783	-0.19394	-0.20179	12.9105
MASB-BWBK-SB-MA02-0107	8412.48722	1.66201	-0.49614	-0.40777	-1.35938	0.35386	-0.27766	19.097744	1.34705	-0.39124	0.37068	0.31655	0.32606	8.68544
MASB-BWBK-SB-MA03-0108	20986.2237	2.67241	-0.24203	-0.33503	6.01976	-0.10904	0.69793	20.446412	2.30663	-0.13463	0.69537	-1.08303	-0.17992	-6.44705
MASB-BWBK-SB-MA04-0106	8981.64311	1.83081	-0.22412	-0.59258	-1.28664	0.65497	-0.11426	21.455779	1.52218	-0.14227	0.60209	0.32914	0.59014	7.02232
MASB-BWBK-SB-MA05-0108	10619.2098	0.73668	-0.66132	1.60603	-0.23919	0.60979	0.55284	19.213042	1.07319	-0.3278	0.29906	0.34003	0.40591	13.9743
MASB-BWBK-SB-MA06-0105	8076.823	1.30082	-0.30546	-0.54548	-1.53606	0.51303	-0.66087	19.929869	1.02366	-0.26015	0.334	0.28238	0.47344	15.8559
MASB-BWBK-SB-MA07-0108	8251.0694	0.5418	-0.78388	0.90999	-1.11422	0.73293	-0.88897	20.049114	0.62368	-0.57474	-0.06512	0.30502	0.60753	32.6393
MASB-BWBK-SB-MA08-0108	8848.96814	1.31308	-0.24265	3.78035	-2.19293	0.26642	-1.65923	42.768445	1.85665	0.24163	-0.08505	1.13666	0.04439	86.9354
MASB-BWBK-SB-MA09-0108	15389.8054	0.54737	-0.78213	3.50568	2.48515	0.82448	0.41827	24.478538	1.25392	-0.26423	-0.00198	0.07104	0.5087	35.8819
MASB-BWBK-SB-MA10-0104	10024.5398	0.43588	-0.66929	0.67759	0.11334	0.36828	-1.32599	20.034605	0.45852	-0.54476	-0.19127	-0.07862	0.27186	38.5456
MASB-BWBK-SB-MA11-0108	9379.53646	1.39691	-0.07123	0.3434	-1.14538	0.69144	-1.029	26.325355	1.2654	0.02599	0.23501	0.351	0.59538	34.2406
MASB-BWBK-SB-MA12-0108	14276.1135	1.14875	-0.8421	2.63659	1.8186	0.5626	0.81825	23.328149	1.63524	-0.36132	0.29421	0.12968	0.29555	20.7824
MASB-BWBK-SB-MA13-0105	8472.09407	-0.08832	0.03366	-0.49168	-1.44066	-0.5145	0.7383	2.2956696	-0.13323	-0.03031	0.08761	0.12271	-0.47965	-21.8368
MASB-BWBK-SB-MA14-0104	9857.50733	0.5866	-0.00201	1.1223	-1.26901	-0.69513	1.1124	7.6060292	0.69956	0.13011	-0.03972	0.4586	-0.69407	-13.8393
MASB-BWBK-SB-MA15-0105	9301.29121	0.1832	0.31342	0.43206	-1.53377	-0.94731	0.7669	6.7935233	0.24498	0.33325	0.03698	0.42899	-0.88257	-12.9766
MASB-BWBK-SB-MA16-0104	11106.8484	0.37118	-0.0279	-0.16256	0.1966	-0.43347	0.1355	8.9228842	0.29065	-0.05653	0.03527	-0.15573	-0.42654	-3.72838
MASB-BWBK-SB-MA17-0104	12006.5354	0.16426	0.00559	-0.01746	0.66936	-0.22414	0.64508	3.9103622	0.10796	-0.00253	-0.0425	-0.12671	-0.19642	-16.989
MASB-BWBK-SB-MA18-0104	6716.14078	0.02623	0.56884	-0.57621	-2.87181	-0.73482	-0.4813	14.542784	-0.01164	0.46383	0.28049	0.51447	-0.66595	9.95344
MASB-BWBK-SB-MA19-0103	10065.6639	-0.20998	-0.09688	-0.2442	-0.26708	-0.2922	0.45671	4.1310856	-0.19279	-0.12289	0.02897	-0.07299	-0.28654	-12.8897
MASB-BWBK-SB-MA20-0103	9726.23241	1.18745	-0.28783	-0.57505	-0.45705	0.25505	-0.55695	17.265698	0.90478	-0.2774	0.23855	-0.00476	0.22857	11.5346
MASS-BWBK-SS-MA01-0001	10921.6844	-1.2855	-0.42042	-0.21011	0.77841	0.24072	1.20715	-10.06751	-1.15726	-0.4565	-0.31525	-0.36537	0.23236	-37.6748
MASS-BWBK-SS-MA02-0001	9174.46973	-0.84684	-0.27711	-0.55966	-0.85342	0.66392	2.90636	-19.16133	-0.84781	-0.28468	-0.06151	0.17087	0.69604	-80.8153
MASS-BWBK-SS-MA03-0001	8830.02808	-0.97477	-0.437	0.03335	-0.75819	0.24969	1.35502	-7.970262	-0.83946	-0.42474	-0.2532	0.00916	0.22886	-37.1628
MASS-BWBK-SS-MA04-0001	8464.30869	-0.58704	-0.48026	-0.41125	-0.96304	0.57263	1.44006	-7.456814	-0.59438	-0.47159	-0.10007	0.07869	0.5622	-42.5582
MASS-BWBK-SS-MA05-0001	8104.78419	0.08834	0.20913	-0.64092	-1.77004	0.48394	0.20241	6.9262943	-0.04712	0.14559	0.13989	0.34896	0.50407	-11.3256
MASS-BWBK-SS-MA06-0001	8083.68067	-0.6983	0.02216	1.4432	-2.64156	0.12119	3.73648	-13.24671	-0.24874	0.21469	0.00152	0.8753	0.06459	-73.9486
MASS-BWBK-SS-MA07-0001	11659.1275	-1.84153	-0.76364	0.36365	1.88108	-0.00312	-0.2998	-2.798073	-1.53944	-0.77033	-0.62534	-0.72762	-0.05719	2.02378
MASS-BWBK-SS-MA08-0001	12919.3915	-0.76259	0.75468	0.49944	0.77155	0.11048	0.10781	5.5997357	-0.58221	0.65087	-0.25293	-0.11244	0.09953	-1.414
MASS-BWBK-SS-MA09-0001	13090.3575	0.29794	1.90879	-0.45466	-0.5188	0.6255	1.31598	7.0985217	0.22592	1.70576	0.45992	0.4686	0.67121	-31.9504
MASS-BWBK-SS-MA10-0001	12886.6616	0.09471	1.44409	-0.02805	-0.04796	0.33724	0.19501	13.166631	0.11729	1.29713	0.24847	0.25848	0.35182	-1.92667
MASS-BWBK-SS-MA11-0001	10994.4494	0.07836	1.48226	0.33216	-1.51545	-0.70184	0.80746	7.8991313	0.12882	1.34091	0.0844	0.54743	-0.61145	-15.5351
MASS-BWBK-SS-MA12-0001	6753.14413	-0.46287	-0.33315	-0.39885	-2.02837	0.91432	0.21803	2.0021198	-0.50195	-0.34871	-0.12058	0.27984	0.87979	-12.9792
MASS-BWBK-SS-MA13-0001	9146.93464	-0.74047	0.82195	-0.2669	-1.88656	-0.44112	2.09637	-9.932682	-0.6909	0.6727	-0.05746	0.3968	-0.34589	-56.9445
MASS-BWBK-SS-MA14-0001	12436.4348	-1.16447	1.07549	-0.44526	0.41379	-0.21718	0.87516	-3.325214	-1.05471	0.83073	-0.10131	-0.20624	-0.16956	-28.9916
MASS-BWBK-SS-MA15-0001	10366.8723	-1.11062	0.69953	-0.35005	-0.68835	-0.25583	1.29981	-6.741395	-1.01376	0.53856	-0.11794	0.09251	-0.18142	-39.274
MASS-BWBK-SS-MA16-0001	9322.27096	-0.91567	0.58966	0.04124	-1.19542	-0.30108	0.03534	4.3595085	-0.76946	0.46266	-0.17354	0.14685	-0.2747	-3.4915
MASS-BWBK-SS-MA17-0001	10996.2728	-0.61835	0.5988	-0.16375	-0.19464	-0.30624	0.25726	4.0786941	-0.55643	0.48256	-0.05904	0.03074	-0.25184	-9.98925
MASS-BWBK-SS-MA18-0001	11671.6588	-1.10415	1.05306	0.05913	0.01575	-0.36444	-0.40193	8.1135688	-0.90566	0.86699	-0.13508	-0.04225	-0.32995	7.98942
MASS-BWBK-SS-MA19-0001	11480.453	-0.68177	0.92431	-0.11566	-0.19681	-0.42697	0.30031	4.5147397	-0.58766	0.76252	-0.0447	0.03064	-0.37179	-10.0049
MASS-BWBK-SS-MA20-0001	9682.46751	-0.36093	0.3651	-0.09513	-0.93771	0.06278	0.3223	4.9174984	-0.31981	0.28122	-0.05182	0.11551	0.05908	-9.8856
MMSB-BWBK-SB-MM101-0110	10005.0234	0.00764	-0.98321	-0.27259	0.50039	0.03346	0.384	1.5235727	-0.07634	-0.91741	-0.14501	-0.3296	0.01095	-14.4023
MMSB-BWBK-SB-MM102-0109	5941.69083	0.40108	-0.97335	-0.83489	-2.03674	-0.05587	0.07197	7.0730752	0.20857	-0.89796	0.18867	0.21459	-0.04148	-8.06634
MMSB-BWBK-SB-MM103-0107	13246.8514	0.62765	-0.92946	-0.72559	2.40029	-0.5453	0.88329	2.4252219	0.43211	-0.85834	0.20383	-0.65296	-0.52211	-25.569
MMSB-BWBK-SB-MM104-0110	8054.60864	0.76794	-0.64908	-0.44291	-1.23467	-0.15532	0.19021	8.7757287	0.54768	-0.56552	0.13964	0.22923	-0.1153	-7.93732
MMSB-BWBK-SB-MM105-0110	10305.0586	-0.52071	-1.14343	-0.12013	1.04555	0.17752	-0.02257	1.9465646	-0.48422	-1.06393	-0.24638	-0.48537	0.12546	-4.01569
MMSB-BWBK-SB-MM106-0110	7196.38016	0.98548	-0.15568	-1.12452	-2.19048	-0.11072	0.48847	8.4382258	0.64736	-0.17244	0.40146	0.40531	-0.04119	-19.2074
MMSB-BWBK-SB-MM107-0110	5531.28872	0.0544	-0.9966	-0.66478	-2.32846	-0.12977	0.63883	1.222534	-0.04957	-0.93498	0.0755	0.18603	-0.13732	-21.221
MMSB-BWBK-SB-MM108-0110	9681.30453	-0.03586	-0.75702	-0.47361	0.21303	-0.04999	0.03348	4.3040602	-0.1398	-0.72321	-0.06198	-0.22976	-0.04096	-7.3244
MMSB-BWBK-SB-MM109-0110	8540.36859	0.26694	-0.33372	-0.70061	-1.119	-0.37678	0.87812	0.6422089	0.08005	-0.34199	0.09474	0.13183	-0.30456	-28.8284
MMSB-BWBK-SB-MM110-0109	6097.97674	0.01838	-0.70822	-0.50826	-2.20379	-0.20509	0.26636	3.8519751	-0.08508	-0.66452	0.0153	0.27257	-0.17637	-12.265
MMSB-BWBK-SB-MM111-0110	7677.67723	0.20327	-0.69682	-0.47055	-1.31849	-0.12245	0.56369	1.694926	0.04677	-0.65324	-0.03175	0.13011	-0.08812	-20.2821
MMSB-BWBK-SB-MM112-0110	7446.20906	0.33656	-0.30861	-0.71165	-1.68165	-0.69467	-0.09538	7.7318029	0.13313	-0.32931	0.0819	0.20752	-0.60317	-5.18699
MMSB-BWBK-SB-MM113-0110	2212.34254	0.3996	-1.01981	-1.00395	-4.42963	-0.04513	0.45723	4.5425774	0.1951	-0.9473	0.25508	0.63679	-0.03176	-18.2143
MMSB-BWBK-SB-MM114-0110	9662.03546	-0.37504	-1.11656	-0.17913	0.44949	0.02155	0.64846	-1.536916	-0.36354	-1.01729	-0.15273	-0.2914	-0.00017	-19.9583

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2212.34254	-1.84153	-1.72818	-1.66853	-4.42963	-1.8176	-2.18887	-19.16133	-1.53944	-1.63028	-0.62534	-1.29392	-1.72455	-87.8796
MAXIMUM DOMAIN VALUE	27238.8355	2.74385	3.38567	7.54597	7.25775	2.71203	3.97838	42.768445	2.52408	2.91646	0.84213	1.13666	2.48949	86.9354
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	10745.6244	0.01195	-0.25533	-0.64927	0.12297	-0.25442	1.79285	-7.56888	-0.13544	-0.28414	0.02122	-0.11455	-0.18928	-51.989
MMSB-BWBK-SB-MM116-0110	8185.15311	0.17336	-1.03797	-0.61119	-0.65543	0.24661	0.78468	-0.173433	0.02724	-0.96427	0.02059	-0.08554	0.2268	-25.6534
MMSB-BWBK-SB-MM117-0110	12004.6784	-0.18738	-1.14116	-0.28733	2.04224	0.04492	0.23293	0.8809069	-0.24535	-1.06863	-0.19696	-0.66755	0.01591	-11.6195
MMSB-BWBK-SB-MM118-0110	7917.87658	0.68016	-1.03403	-0.98843	-0.69614	-0.02477	-0.16245	10.024741	0.43598	-0.96703	0.26449	-0.10936	-0.03413	-2.12457
MMSB-BWBK-SB-MM119-0110	8646.11438	0.02634	-0.8874	-0.49165	-0.3627	0.04771	0.11764	4.2341125	-0.07442	-0.83936	-0.03322	-0.16408	0.03117	-8.58324
MMSB-BWBK-SB-MM120-0110	11039.8135	-0.70493	-1.28318	-0.16534	1.73187	0.04107	-0.03525	-0.592407	-0.66757	-1.2203	-0.35951	-0.71391	-0.00732	-5.97658
MMSS-BWBK-SS-MM101-0001	7585.34482	-0.6963	0.28105	0.01338	-2.03281	-0.32832	-0.22468	5.420234	-0.66837	0.25617	-0.18399	0.58382	-0.19714	-0.51651
MMSS-BWBK-SS-MM102-0001	7576.15218	-0.94753	-0.40839	0.00959	-1.18123	-0.2526	-0.81431	5.9017588	-0.88381	-0.39632	-0.3489	0.17876	-0.18026	12.4776
MMSS-BWBK-SS-MM103-0001	7315.32277	-0.81612	0.30621	0.08259	-2.09817	-0.50447	-0.82814	9.3383667	-0.74915	0.2673	-0.22226	0.54276	-0.37874	14.9019
MMSS-BWBK-SS-MM104-0001	7478.3746	-0.55223	0.1319	-0.03892	-2.03825	-0.39795	0.04683	4.1371202	-0.53946	0.11917	-0.1452	0.52596	-0.28257	-6.46241
MMSS-BWBK-SS-MM105-0001	9872.06225	-1.14419	-0.26376	0.10122	0.18136	-0.27648	-0.71285	4.8759079	-1.0156	-0.27986	-0.37492	-0.12234	-0.22483	11.2019
MMSS-BWBK-SS-MM106-0001	6006.15745	-0.41626	0.10198	-0.24119	-2.93326	-0.58285	-0.00468	5.2008906	-0.44564	0.08574	-0.05635	0.67795	-0.4499	-5.98786
MMSS-BWBK-SS-MM107-0001	6436.86046	-0.52091	0.04985	-0.1936	-2.55084	-0.26551	-0.20669	5.2833358	-0.55804	0.04615	-0.13204	0.6563	-0.13209	-2.56564
MMSS-BWBK-SS-MM108-0001	7410.72552	-0.94045	0.38974	-0.0784	-2.06505	-0.59747	-0.63899	6.8124361	-0.89606	0.33637	-0.20954	0.58674	-0.42943	7.71855
MMSS-BWBK-SS-MM109-0001	6765.81595	-0.88789	-0.02179	-0.03041	-2.0442	-0.57	-1.01684	8.9433074	-0.84353	-0.02529	-0.24899	0.51526	-0.42584	17.4203
MMSS-BWBK-SS-MM110-0001	9979.10804	-1.49506	-0.38897	0.14977	0.43641	-0.23883	-0.55181	0.6164705	-1.32512	-0.41375	-0.51819	-0.23899	-0.19237	5.3687
MMSS-BWBK-SS-MM111-0001	9226.76996	-1.33171	-0.59957	0.0769	0.10659	-0.14248	-0.4709	0.446836	-1.2101	-0.5764	-0.46881	-0.10639	-0.07968	2.75869
MMSS-BWBK-SS-MM112-0001	10196.1591	-1.49475	-0.65852	0.19662	0.81093	0.14311	-0.51045	0.1035373	-1.31589	-0.63964	-0.52953	-0.31433	0.1534	4.8375
MMSS-BWBK-SS-MM113-0001	8909.19679	-1.10905	0.39871	-0.04407	-1.04969	-0.39338	-0.70965	6.14188	-1.02588	0.31217	-0.28598	0.27559	-0.27331	9.38843
MMSS-BWBK-SS-MM114-0001	10479.8811	-1.46498	-0.93164	0.16202	1.21771	0.1756	-0.29167	-2.231765	-1.29889	-0.8878	-0.55377	-0.44951	0.17175	-0.99712
MMSS-BWBK-SS-MM115-0001	9440.35804	-1.35797	-0.63475	0.18154	0.20702	0.04248	-0.22465	-1.644721	-1.2196	-0.61239	-0.52759	-0.16146	0.07627	-2.72236
MMSS-BWBK-SS-MM116-0001	10107.5562	-1.38435	-0.5207	0.14404	0.60162	-0.13748	-0.4938	0.6975862	-1.22937	-0.52239	-0.49522	-0.27024	-0.10305	4.39584
MMSS-BWBK-SS-MM117-0001	8010.21395	-0.89093	-0.15409	-0.0327	-1.28808	-0.23313	-0.09458	1.4866998	-0.84936	-0.1635	-0.305	0.27906	-0.13781	-5.526
MMSS-BWBK-SS-MM118-0001	8693.69511	-0.5872	-0.91606	-0.13701	-0.20002	-0.21394	0.04579	1.4987315	-0.55955	-0.84147	-0.21747	-0.11294	-0.1896	-6.64042
MMSS-BWBK-SS-MM119-0001	9254.82936	-0.74003	-1.05182	-0.13737	0.3437	-0.07023	0.03111	-0.129872	-0.6987	-0.98043	-0.29733	-0.28472	-0.06626	-7.42801
MMSS-BWBK-SS-MM120-0001	5751.77834	-0.55833	-0.76629	-0.01466	-2.13023	-0.20126	-0.82532	6.9136962	-0.55553	-0.73006	-0.35821	0.21333	-0.17745	13.5661
NESB-BWBK-SB-NE01-0108	5804.41943	1.11598	-0.89547	-0.76977	-2.32781	0.11367	-0.55478	15.006311	0.77722	-0.77818	0.25637	0.46626	0.16153	7.84398
NESB-BWBK-SB-NE02-0109	7983.10268	0.92795	-0.94736	-0.59742	-1.25213	0.10946	1.51684	-0.911879	0.65409	-0.82981	0.17722	0.20738	0.13143	-41.5468
NESB-BWBK-SB-NE03-0105	6751.98776	0.47497	-1.02669	-0.25756	-1.56236	-0.00698	-0.41972	9.7674834	0.28837	-0.90015	-0.06031	0.26059	0.02661	5.41134
NESB-BWBK-SB-NE04-0110	8211.5441	0.59271	-0.90906	-0.57293	-0.72291	0.07925	-0.16843	8.9723562	0.36316	-0.81643	0.0788	0.06774	0.1055	-1.81795
NESB-BWBK-SB-NE05-0108	6707.01026	0.90365	-0.83757	-0.65104	-1.71871	0.1325	-0.81492	15.529946	0.60997	-0.74159	0.15827	0.30663	0.16719	14.1509
NESB-BWBK-SB-NE06-0109	7880.0636	0.69726	-0.90556	-0.55159	-0.89606	0.04849	-0.60912	12.73377	0.45503	-0.81249	0.08364	0.09337	0.07133	9.45012
NESB-BWBK-SB-NE07-0107	5669.07615	0.94982	-0.92247	-0.66469	-2.39807	0.25952	-0.40818	12.961317	0.64576	-0.80094	0.1891	0.47935	0.29568	4.25814
NESB-BWBK-SB-NE08-0104	8447.35445	0.45243	-0.80153	-0.60233	-0.53447	-0.0967	-0.61466	11.79452	0.25093	-0.7331	0.08141	0.00701	-0.06204	8.97559
NESB-BWBK-SB-NE09-0110	7565.22499	0.60954	-0.97998	-0.55287	-1.02573	0.13386	-0.47974	11.052209	0.37722	-0.8817	0.05676	0.10294	0.15016	5.79357
NESB-BWBK-SB-NE10-0107	7360.29469	0.17366	-0.20494	-0.66127	-1.73491	-0.25306	-0.47438	10.453602	0.00658	-0.22494	0.08649	0.27788	-0.18324	4.33815
NESB-BWBK-SB-NE101-0110	8485.00492	0.09551	-0.38014	-0.60679	-1.1381	-0.39383	1.16402	-2.916555	-0.07448	-0.37335	0.01534	0.18556	-0.29914	-36.7536
NESB-BWBK-SB-NE102-0110	9408.19169	-0.20845	-0.52863	-0.56355	-0.40459	-0.16866	1.62584	-8.19896	-0.32052	-0.51786	-0.05953	-0.01673	-0.10557	-48.4912
NESB-BWBK-SB-NE103-0110	9624.26453	-0.42937	-0.75001	-0.42065	0.0963	-0.11344	0.98994	-5.460262	-0.48808	-0.72541	-0.17827	-0.19618	-0.07927	-32.721
NESB-BWBK-SB-NE104-0110	10339.3679	-0.54857	-0.88079	-0.36782	0.77016	-0.06938	0.65737	-4.089288	-0.5771	-0.85401	-0.23781	-0.39604	-0.05944	-24.4511
NESB-BWBK-SB-NE105-0110	8835.66505	-0.02624	-0.40384	-0.48624	-0.91509	-0.2745	1.31101	-4.373979	-0.14945	-0.39991	-0.03585	0.09535	-0.21124	-39.2802
NESB-BWBK-SB-NE106-0110	9329.91567	-0.07139	-0.58817	-0.59525	-0.33687	-0.18267	1.12924	-4.083303	-0.2066	-0.57547	-0.0436	-0.06315	-0.1293	-36.1144
NESB-BWBK-SB-NE107-0510	10048.5281	-0.41635	-0.89424	-0.38869	0.59765	0.03948	0.44934	-2.228328	-0.47857	-0.86606	-0.23681	-0.35964	0.04455	-19.6867
NESB-BWBK-SB-NE108-0110	9935.31005	-0.16493	-0.39089	-0.5892	-0.00391	-0.42205	0.59689	-0.759865	-0.29312	-0.41015	-0.07191	-0.11447	-0.34101	-23.7564
NESB-BWBK-SB-NE109-0110	9525.44886	-0.22048	-0.62513	-0.51658	-0.1387	-0.22115	1.06657	-4.944024	-0.33617	-0.60878	-0.11913	-0.09498	-0.15805	-35.2071
NESB-BWBK-SB-NE110-0110	9722.11138	-0.14126	-0.61707	-0.56709	0.07308	-0.27713	0.5326	-0.315057	-0.26524	-0.59974	-0.06756	-0.13547	-0.21361	-21.6954
NESS-BKG-SS03-NEB-0016	12691.6183	-0.43763	1.14637	-0.24241	0.43754	0.44732	-0.30321	9.7624553	-0.45485	0.99125	0.0071	0.1351	0.51504	1.91532
NESS-BKG-SS09-NEB-0018	10248.5733	-1.02683	-0.03081	0.51143	-0.05068	-0.21127	-0.23272	6.6698425	-0.7866	0.02296	-0.18691	0.16168	-0.16889	7.42411
NESS-BWBK-SS-NE01-0001	10427.5636	0.28672	0.65697	0.2294	-1.05031	0.9083	0.33658	13.025089	0.3048	0.69758	0.27034	0.64149	0.90872	-3.02896
NESS-BWBK-SS-NE02-0001	10096.24	0.48931	0.23484	0.34342	-0.85599	2.17129	-0.26404	19.960759	0.54326	0.35224	0.35868	0.55514	2.02178	15.8439
NESS-BWBK-SS-NE03-0001	6510.3105	-0.37135	-0.06808	0.16748	-2.53781	0.09492	-0.26018	8.4244104	-0.35102	0.00565	-0.08981	0.77172	0.18721	3.85139
NESS-BWBK-SS-NE04-0001	7016.41701	0.26781	0.03377	-0.41367	-2.33688	-0.4912	-0.21965	10.798292	0.1091	0.06816	0.15509	0.69941	-0.33931	0.2899
NESS-BWBK-SS-NE05-0001	6668.16054	-0.22916	0.06642	-0.015	-2.60773	0.4061	-0.00846	9.0331713	-0.20527	0.1097	0.06932	0.71257	0.44025	-0.63374
NESS-BWBK-SS-NE06-0001	5591.52341	0.11373	-0.16039	-0.47945	-2.9474	-0.32146	-0.52922	11.60458	-0.02966	-0.12187	0.11603	0.73435	-0.19474	6.77305
NESS-BWBK-SS-NE07-0001	9287.9344	-0.49078	0.612	0.3384	-1.40883	0.29587	-0.27821	11.571635	-0.35965	0.60113	-0.00099	0.54698	0.32869	8.96899
NESS-BWBK-SS-NE08-0001	5940.22964	-0.23313	-0.142	-0.14397	-2.78582	-0.06999	-0.25248	7.8872351	-0.28816	-0.09212	-0.04261	0.73906	0.03773	0.94902
NESS-BWBK-SS-NE09-0001	8144.36357	-0.58444	0.28271	0.12503	-1.89841	-0.03372	0.58683	1.8324387	-0.54337	0.32007	-0.06951	0.74929	0.10368	-17.9677
NESS-BWBK-SS-NE10-0001	9589.21681	-0.47485	0.51795	-0.01657	-1.00804	0.31515	-0.35483	10.171047	-0.41987	0.46386	-0.01678	0.33959	0.34762	6.57394
NESS-BWBK-SS-NE101-0001	8317.20916	-0.85817	-0.2595	-0.18821	-0.97668	-0.44984	0.05268	0.1830942	-0.85152	-0.2456	-0.24329	0.27784	-0.31015	-10.5483
NESS-BWBK-SS-NE102-0001	9913.8217	-1.18336	-0.28813	-0.09824	0.22017	-0.13741	-0.28304	0.6161916	-1.0958	-0.31875	-0.37145	-0.1419	-0.07711	-2.03455
NESS-BWBK-SS-NE103-0001	9069.02022	-1.27251	-0.45169	-0.04279	-0.14933	-0.15989	-0.32354	0.6041687	-1.14404	-0.46891	-0.3903	-0.14403	-0.12558	0.02924
NESS-BWBK-SS-NE104-0001	9314.61585	-1.16136	-0.27973	-0.03972	-0.10289	0.01762	-0.80629	4.3138662	-1.08113	-0.30796	-0.40673	-0.06478	0.07089	10.6497
NESS-BWBK-SS-NE105-0001	10079.798	-1.35376	-0.72094	0.04873	0.73147	0.074	-0.16817	-2.19191	-1.22528	-0.69968	-0.48699	-0.30337	0.0986	-4.69036
NESS-BWBK-SS-NE106-0001	10702.6531	-1.3979	-0.26597	0.02058	0.75962	0.07038	-0.39131	0.1767197	-1.26433	-0.3062	-0.45708	-0.26653	0.10752	0.62964
NESS-BWBK-SS-NE107-0001	10882.9145	-1.41477	-0.3553	0.03233	0.94068	-0.01722	-0.25997	-1.08722	-1.28133	-0.37651	-0.4617	-0.27775	0.03418	-2.7361
NESS-BWBK-SS-NE108-0001	10738.7526	-1.27461	-0.27568	-0.05267	0.67754	-0.0119	0.12982	-2.837948	-1.16617	-0.31074	-0.40208	-0.23843	0.03471	-12.057
NESS-BWBK-SS-NE109-0001	10233.5907	-1.39751	-0.70288	0.02938	0.80978	0.05883	-0.04437	-3.63124	-1.27341	-0.68853	-0.50685	-0.31777	0.09096	-8.45877
NESS-BWBK-SS-NE110-0001	11318.2971	-1.50833	-0.01972	0.09134	0.99792	-0.32121	-0.70274	2.7365376	-1.32508	-0.10344	-0.46338	-0.35876	-0.27673	9.60627

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2212.34254	-1.84153	-1.72818	-1.66853	-4.42963	-1.8176	-2.18887	-19.16133	-1.53944	-1.63028	-0.62534	-1.29392	-1.72455	-87.8796
MAXIMUM DOMAIN VALUE	27238.8355	2.74385	3.38567	7.54597	7.25775	2.71203	3.97838	42.768445	2.52408	2.91646	0.84213	1.13666	2.48949	86.9354
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	12318.1565	1.2295	-0.14973	-0.62361	0.85528	-0.80481	0.74516	10.511937	0.98198	-0.09515	0.47548	-0.05483	-0.71883	-17.5017
PMSB-BWBK-SB-PM02-0104	8559.23726	1.36975	0.36288	0.97279	-2.39325	-1.8176	-0.23963	22.293497	1.34397	0.47114	0.16525	0.76446	-1.71433	20.7943
PMSB-BWBK-SB-PM03-0106	13600.8315	2.04937	-0.11835	0.33653	1.44666	-0.94242	-1.00277	29.296688	1.82716	0.0096	0.36655	-0.09734	-0.91995	36.169
PMSB-BWBK-SB-PM04-0105	10763.0393	0.946	-0.3711	0.89393	-0.15506	-0.25477	-0.0525	20.502616	1.05968	-0.1583	0.28695	0.24894	-0.32469	18.805
PMSB-BWBK-SB-PM05-0105	11913.2269	1.27354	-0.17144	0.08478	0.54498	-0.70773	-0.07872	17.946018	1.13599	-0.08025	0.30121	-0.00894	-0.68777	9.15837
PMSB-BWBK-SB-PM06-0105	10988.453	1.1718	-0.49748	0.52692	0.1055	-0.91346	0.23183	14.901345	1.1029	-0.32746	0.15672	0.12142	-0.88709	4.26154
PMSB-BWBK-SB-PM07-0105	16122.5042	0.88196	-0.12248	0.6225	3.04327	-1.78462	0.74842	10.126765	0.896	-0.03293	0.09487	-0.53129	-1.72455	-7.36552
PMSB-BWBK-SB-PM08-0106	15171.3797	1.079	-0.17762	0.42872	2.52937	-1.02858	0.41925	15.632995	1.07744	-0.04685	0.3276	-0.34371	-1.01848	2.27868
PMSB-BWBK-SB-PM09-0106	12419.2547	0.50439	-0.72557	0.38208	1.54627	-0.54161	-0.00925	13.324758	0.56138	-0.57309	0.12257	-0.33004	-0.58373	9.03717
PMSB-BWBK-SB-PM10-0105	12726.3777	0.81533	0.93844	0.03935	0.29271	-1.74278	-0.73106	22.967481	0.7869	0.84351	0.33249	-0.01987	-1.66023	25.7305
PMSB-BWBK-SB-PM11-0104	14220.3847	1.46819	-0.24921	0.10021	1.90686	-1.48157	0.7191	11.736772	1.28749	-0.16705	0.24601	-0.33885	-1.41703	-10.6527
PMSB-BWBK-SB-PM12-0105	7960.53198	0.10498	-0.47051	-0.62696	-1.16387	-0.3109	-0.01865	7.8944013	0.01339	-0.46452	0.14484	0.04356	-0.29622	-3.72488
PMSB-BWBK-SB-PM13-0106	7476.25571	-0.06531	0.08034	0.3393	-2.28454	-1.07982	0.24752	6.4318502	-0.02446	0.07882	-0.14666	0.43627	-1.00324	-4.54108
PMSB-BWBK-SB-PM14-0106	10757.8766	-0.01847	-0.22376	-0.25853	0.3206	-0.57613	0.09313	7.0210519	-0.04245	-0.2327	0.03047	-0.19197	-0.54946	-4.07992
PMSB-BWBK-SB-PM15-0105	8919.41974	0.44395	-0.23005	-0.03315	-1.06749	-0.38326	0.03541	10.43262	0.36896	-0.19227	0.05632	0.18481	-0.36421	0.07563
PMSB-BWBK-SB-PM16-0106	9052.10217	0.06486	-0.37251	-0.13762	-0.64686	-0.22967	-0.222	9.4746343	0.02767	-0.34134	-0.00727	0.04563	-0.21868	3.97797
PMSB-BWBK-SB-PM17-0105	17090.1336	1.48829	0.37623	-0.44186	3.46602	-1.41727	-0.07838	18.362568	1.23571	0.34206	0.43622	-0.61931	-1.32398	5.16576
PMSB-BWBK-SB-PM18-0105	6636.29005	0.99449	-0.77194	0.94825	-2.36739	0.25499	-0.63416	19.558095	0.97637	-0.55054	-0.07236	0.59726	0.18487	26.23
PMSB-BWBK-SB-PM19-0105	8437.56843	0.67074	-0.35946	0.16342	-1.38037	-0.00033	-0.00899	12.442836	0.58937	-0.27181	0.06125	0.30615	-0.01555	3.54045
PMSB-BWBK-SB-PM20-0106	9363.58203	0.52697	-0.30595	-0.01581	-0.71293	-0.13122	-0.11151	12.56682	0.45696	-0.24395	0.10915	0.13895	-0.13779	4.93528
PMSB-BWBK-SB-SO01-0107-PM	11270.0168	1.41993	-0.2936	0.0694	0.34748	0.54264	-0.9107	23.446888	1.21332	-0.19145	0.2256	0.04091	0.48333	27.4267
PMSB-BWBK-SB-SO02-0109-PM	9020.18583	0.96279	-0.42495	1.28633	-1.14909	0.43304	-1.17467	25.843272	1.03234	-0.21127	-0.05231	0.45214	0.33117	44.0645
PMSB-BWBK-SB-SO13-0104-PM	12762.3139	1.69422	-0.26445	0.66979	0.94042	-0.53113	-0.41403	23.633116	1.58913	-0.11803	0.2222	-0.06843	-0.57767	23.9854
PMSB-BWBK-SB-SO14-0105-PM	11852.8475	1.72428	-0.5781	1.17898	0.42834	0.41418	-0.13062	23.910886	1.71517	-0.3105	0.21902	0.1776	0.28133	22.9731
PMSS-DABK-S-SO21-0001	18188.5675	-0.12477	1.93429	0.23065	2.98616	1.64008	-0.32464	17.61964	0.02117	1.66322	0.13291	-0.5693	1.44976	14.4858
PMSS-DABK-S-SO22-0001	23727.2797	0.77887	3.38567	-0.48974	5.21543	2.71203	-1.00148	30.540507	0.70066	2.91646	0.58792	-0.83276	2.48949	29.4176
PMSS-DABK-S-SO23-0001	13919.4577	-0.09148	1.8856	-0.42424	0.46357	-0.23841	-0.25896	14.973573	-0.0882	1.60474	0.27322	-0.01	-0.19317	5.62649
PMSS-DABK-S-SO24-0001	15873.5289	-0.0376	2.0126	0.33847	1.36782	0.21556	-0.31519	15.620883	0.03389	1.74282	-0.01173	-0.15341	0.19368	11.4107
PMSS-DABK-S-SO25-0001	12339.651	-0.22194	1.98264	2.28461	-1.18002	-1.45189	-1.4276	23.423658	0.10563	1.84352	-0.62243	0.54215	-1.38673	51.0088
PMSS-DABK-S-SO26-0001	19570.4579	0.44537	3.12004	-0.0871	2.70688	2.22392	-0.66177	26.902566	0.48543	2.72073	0.47205	-0.31593	2.03007	23.876
PMSS-DABK-S-SO27-0001	15880.8762	-0.44732	2.20179	-0.40587	1.57737	0.38902	-0.52664	15.378082	-0.38415	1.84592	0.18693	-0.29496	0.37162	11.2223
PMSS-DABK-S-SO28-0001	23092.102	0.60838	2.74682	-0.80653	5.3519	1.18916	0.24399	17.773938	0.50182	2.32598	0.57502	-0.97909	1.08879	-4.80598
PMSS-DABK-S-SO29-0001	15666.3604	0.08757	2.5138	-0.29901	0.79736	0.32039	0.21414	14.384727	0.07466	2.18601	0.33098	0.09627	0.35234	-4.43137
PMSS-DABK-S-SO30-0001	18247.4118	0.36117	2.1097	-0.72692	2.66737	0.98399	1.40003	5.840869	0.2428	1.81247	0.45419	-0.31996	0.96851	-36.2299
PMSS-DABK-S-SO31-0001	15578.6888	-0.27905	1.3602	-0.41781	2.20342	-0.72337	-0.75569	13.87786	-0.29124	1.09721	0.04599	-0.51267	-0.65767	14.409
PMSS-DABK-S-SO32-0001	27238.8355	1.02589	3.26835	-0.56584	7.25775	0.43209	0.67782	18.44405	0.90219	2.8138	0.64038	-1.23447	0.38451	-11.3693
PMSS-DABK-S-SO33-0001	17799.6144	-0.07983	2.3548	-1.12861	2.52109	0.33205	0.79543	7.1884221	-0.17104	1.94132	0.44483	-0.50729	0.3463	-25.4487
PMSS-DABK-S-SO34-0001	16000.6497	-0.26493	1.34903	-0.4802	2.30444	-1.1379	0.30996	6.5115599	-0.26907	1.08182	0.09436	-0.56616	-1.05255	-11.1269
PMSS-DABK-S-SO35-0001	15096.9889	-0.26197	1.89343	-0.39191	1.24528	-0.64385	-0.1415	12.064549	-0.23421	1.56816	0.14956	-0.30328	-0.59716	1.83539
PMSS-DABK-S-SO36-0001	12194.151	-0.86578	1.5145	-0.31011	-0.03241	-0.78546	-0.50443	10.125545	-0.76048	1.23856	-0.01034	-0.04816	-0.70071	8.0865
PMSS-DABK-S-SO37-0001	13909.3427	-0.35773	1.6575	0.10307	0.69373	-1.05157	-0.67548	15.990336	-0.24843	1.42476	0.0503	-0.06464	-0.96735	18.5537
PMSS-DABK-S-SO38-0001	14975.4963	-0.56686	1.51897	-0.4891	1.7843	-1.31072	-0.78814	13.275049	-0.52309	1.22318	0.06912	-0.45887	-1.20194	14.9248
PMSS-DABK-S-SO39-0001	12288.8794	-0.45841	1.01444	-0.04444	0.18481	-1.16028	0.15651	5.791452	-0.40235	0.82231	-0.10575	-0.11018	-1.06736	-6.16172
PMSS-DABK-S-SO40-0001	14543.1235	-0.46248	1.57153	-0.48236	1.29387	-0.99604	-0.15132	10.037468	-0.42644	1.28871	0.13101	-0.3046	-0.9036	0.2503
SESB-BWBK-SB-SO03-0108	10383.5184	2.74385	-0.43837	0.75726	-0.79516	0.70744	-0.45496	32.782674	2.52408	-0.14651	0.58181	0.57466	0.59151	31.3838
SESB-BWBK-SB-SO04-0108	12656.2671	1.66305	-0.43683	1.03128	0.85775	0.48346	-0.04338	23.764041	1.66822	-0.20246	0.29518	0.05505	0.33392	20.8324
SESB-BWBK-SB-SO05-0106	9022.31693	1.17981	-0.33298	0.90656	-1.38764	0.62483	-0.15647	21.489971	1.21079	-0.12052	0.22844	0.53809	0.51464	19.6154
SESB-BWBK-SB-SO06-0108	12191.1223	2.04156	-0.24799	1.94576	0.12977	0.31067	-0.80245	35.457719	2.15935	0.09541	0.32258	0.48815	0.15911	50.5274
SESB-BWBK-SB-SO07-0106	16232.4202	2.43352	0.11055	-0.47213	3.00913	-0.21039	-0.83965	31.239813	2.0864	0.16454	0.73061	-0.47877	-0.24807	29.5414
SESB-BWBK-SB-SO08-0107	12199.4368	2.38519	-0.04828	0.90904	0.08161	0.41689	-0.49048	32.088648	2.25831	0.1757	0.50471	0.36668	0.30499	33.1463
SESB-BWBK-SB-SO09-0106	10021.487	1.1061	-0.37197	0.78521	-0.72932	0.40907	0.30881	17.851037	1.14999	-0.16794	0.2737	0.36416	0.30476	7.99135
SESB-BWBK-SB-SO11-0106	12734.023	2.02043	-0.33276	0.77226	0.81261	-0.2064	-0.21052	27.37975	1.94006	-0.08649	0.4955	0.18072	-0.26672	24.5675
SESB-BWBK-SB-SO12-0106	12290.7757	1.72787	-0.32493	0.97889	0.67067	0.51719	-0.90198	29.991915	1.70224	-0.11386	0.28656	0.08838	0.37256	40.885
SESB-BWBK-SB-SO15-0103	10615.8816	0.47374	0.07754	-0.02448	-0.18597	-0.56412	-0.43811	15.127613	0.40815	0.08607	0.11574	0.07374	-0.52473	12.6261
SESB-BWBK-SB-SO16-0105	9942.16549	1.00736	-0.29625	-0.22483	-0.30075	-0.0487	-0.83097	19.40425	0.82574	-0.26305	0.17024	-0.02627	-0.07836	21.7309
SESB-BWBK-SB-SO17-0106	10266.2133	0.74765	-0.31961	-0.81741	0.04311	-0.02428	-0.06284	11.255908	0.51465	-0.33208	0.26389	-0.15369	-0.02245	-2.98023
SESB-BWBK-SB-SO18-0105	12105.1863	0.63735	-0.35598	-0.95658	1.27016	-0.33122	0.35249	7.4245798	0.40636	-0.37004	0.30092	-0.38573	-0.29581	-14.2991
SESB-BWBK-SB-SO19-0104	20972.2537	1.84465	0.37826	-1.66853	6.07778	-1.07159	0.70436	12.50092	1.36616	0.24688	0.76161	-1.29392	-0.98187	-22.677
SESB-BWBK-SB-SO20-0104	11822.9642	1.50403	-0.293	-0.16607	0.72592	0.30556	-0.77594	21.003338	1.23144	-0.25074	0.17407	-0.19661	0.24672	21.1281
SESS-DABK-S-SO01-0001	10666.0628	-0.27696	0.73818	-0.10727	-0.35951	0.56665	-1.42069	18.903829	-0.27948	0.65346	0.01976	0.25197	0.59462	31.8288
SESS-DABK-S-SO02-0001	9693.04391	1.45649	0.68286	-0.52895	-2.40429	2.50081	3.97838	-3.619937	1.31626	0.6833	0.84213	0.66249	2.2767	-87.8796
SESS-DABK-S-SO03-0001	13054.4446	-0.73375	2.21757	-0.00929	-0.00659	-0.39181	-2.00084	24.02846	-0.60305	1.88463	-0.00428	0.08584	-0.32913	47.8834
SESS-DABK-S-SO04-0001	12932.5228	-0.07329	1.88431	-0.51224	0.00879	0.7239	-1.17928	21.168002	-0.14269	1.64788	0.28982	0.31694	0.78337	24.8683
SESS-DABK-S-SO05-0001	13007.5823	-0.55633	1.61861	0.11346	0.423	0.08651	-1.89031	23.32077	-0.44797	1.40027	-0.01717	0.06465	0.11845	46.109
SESS-DABK-S-SO06-0001	20226.163	-0.70399	0.98019	7.54597	2.85365	-0.88603	1.86067	22.995712	0.94092	1.60607	-0.62488	0.66392	-1.21617	39.0936
SESS-DABK-S-SO07-0001	12635.9803	-0.03131	1.09587	-0.38439	0.06361	1.00719	1.2472	4.3319733	-0.02328	0.96504	0.32852	0.14062	0.96313	-30.1071
SESS-DABK-S-SO08-0001	13144.0609	-0.26747	1.0933	0.37532	0.36768	0.31889	0.63901	7.7076565	-0.12165	0.99067	0.05553	0.08682	0.28973	-10.3749
SESS-DABK-S-SO09-0001	11689.04	-0.7105	1.52634	0.70757	-0.40666	-0.42902	-2.18887	25.295287	-0.47679	1.33499	-0.20509	0.15998	-0.41351	58.3947

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2212.34254	-1.84153	-1.72818	-1.66853	-4.42963	-1.8176	-2.18887	-19.16133	-1.53944	-1.63028	-0.62534	-1.29392	-1.72455	-87.8796
MAXIMUM DOMAIN VALUE	27238.8355	2.74385	3.38567	7.54597	7.25775	2.71203	3.97838	42.768445	2.52408	2.91646	0.84213	1.13666	2.48949	86.9354
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	10484.8133	-0.9299	0.57482	1.0957	-0.53417	-0.12262	-1.04444	11.78913	-0.69648	0.533	-0.53725	0.23544	-0.09761	27.9818
SESS-DABK-S-SO11-0001	13736.381	-1.00912	0.33269	-0.35385	1.97914	0.1992	0.41975	-1.521599	-0.93	0.17653	-0.21073	-0.60489	0.18632	-17.9753
SESS-DABK-S-SO12-0001	12941.271	-0.57358	0.79373	-0.22481	0.71432	0.30752	1.09266	-1.153891	-0.52649	0.65427	-0.01558	-0.10492	0.32351	-30.6534
SESS-DABK-S-SO13-0001	12155.4829	-0.31664	0.41934	0.41102	0.6123	1.2957	-0.62859	15.009209	-0.16256	0.38063	-0.05174	-0.11271	1.15127	20.2002
SESS-DABK-S-SO14-0001	11246.4692	-0.7801	0.66995	0.52912	0.17701	-0.21811	-2.03153	22.105347	-0.5483	0.57289	-0.19817	-0.08018	-0.24416	53.3701
SESS-DABK-S-SO15-0001	12589.2685	-0.80918	1.5067	0.3495	0.20332	-0.45786	-1.50571	19.873223	-0.59855	1.30605	-0.07867	0.04983	-0.41889	39.2963
SESS-DABK-S-SO16-0001	12558.3593	-1.18323	-0.30968	0.03743	1.68591	0.05297	0.90221	-7.10067	-1.04368	-0.34031	-0.37073	-0.48669	0.05627	-28.3249
SESS-DABK-S-SO17-0001	14429.9132	-1.18359	0.82118	0.3079	1.62524	-0.89275	1.48696	-9.308365	-1.01557	0.65927	-0.40308	-0.33464	-0.79217	-40.7775
SESS-DABK-S-SO18-0001	13712.6174	-0.53014	0.79177	-0.37649	1.40383	0.05389	0.28431	4.9085723	-0.48161	0.61143	0.02153	-0.39812	0.04491	-10.648
SESS-DABK-S-SO19-0001	15103.1973	0.19634	1.36617	-0.53258	1.39456	1.04425	1.12951	6.2207824	0.14108	1.18282	0.37573	-0.1267	0.99981	-28.1319
SESS-DABK-S-SO20-0001	13179.4547	-0.206	1.62512	1.08431	-0.40674	0.32676	0.91912	13.683467	0.15243	1.59445	0.30798	0.55292	0.27139	-4.19638

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

BARIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
27.7086	Mean					
10.4804	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0309	0.0397	-0.0351	0.4056	0.0938	-0.0311
AS	-0.2626	-0.1180	1.0171	-0.3507	0.1244	-0.3528
BA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CR	0.0597	-0.0719	-0.1404	0.7616	-0.0640	-0.1568
CO	0.5261	0.1571	-0.3331	-1.3087	-0.9727	-0.2790
FE	0.0389	-0.1895	0.6262	0.7056	-0.5207	0.4092
PB	-0.0799	0.1430	0.0334	-0.0909	0.1832	0.0191
MG	0.1090	-0.0598	-0.1487	0.1533	-0.0102	-0.0779
MN	0.0572	0.0000	-0.0447	-0.1045	-0.1578	-0.0347
NI	0.1792	-0.1490	-0.1677	0.7649	0.0995	0.2444
V	0.0015	0.8179	-0.2132	-0.0710	-0.9557	0.5701
ZN	0.2802	0.2696	-0.2370	-0.6276	1.9829	0.1073

CHROMIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
12.1474	Mean					
3.4253	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0345	0.0349	-0.0243	-0.2030	0.0958	0.0708
AS	-0.2931	-0.1035	0.7031	0.1755	0.1271	0.8041
BA	-0.0351	0.0396	0.0131	-0.0246	-0.0612	1.7280
CR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CO	0.5870	0.1379	-0.2303	0.6550	-0.9935	0.6360
FE	0.0434	-0.1663	0.4328	-0.3531	-0.5318	-0.9327
PB	-0.0892	0.1255	0.0231	0.0455	0.1871	-0.0436
MG	0.1216	-0.0525	-0.1028	-0.0767	-0.0105	0.1775
MN	0.0638	0.0000	-0.0309	0.0523	-0.1612	0.0791
NI	0.1999	-0.1307	-0.1159	-0.3828	0.1016	-0.5571
V	0.0017	0.7179	-0.1474	0.0355	-0.9761	-1.2995
ZN	0.3127	0.2366	-0.1638	0.3141	2.0252	-0.2446

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	5.4852625	-1.81824	-1.74488	-1.89651	-3.57815	-3.21428	-1.11495	6.8241699	-1.84336	-1.73377	-1.28607	-0.92014	-3.27643	-3.57756
MAXIMUM DOMAIN VALUE	58.408209	2.71097	3.37158	8.59746	2.12659	4.9469	1.98284	22.172849	2.97289	3.06119	6.0723	2.07003	5.03046	5.99834
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	7.7243004	-0.95637	-1.61364	-0.08236	-1.23574	1.19458	-0.92791	7.3816433	-0.87213	-1.61318	-0.26768	-0.06274	1.21304	-0.53403
BASS-BWBK-SS-BA102-0001	5.4852625	-1.15358	-1.72953	0.02864	-1.6165	1.06401	-1.02527	6.9793369	-1.07293	-1.73377	-0.215	0.04137	1.07083	-0.41003
BASS-BWBK-SS-BA103-0001	6.7735619	-1.08361	-1.64089	-0.03984	-1.49546	0.96886	-0.95816	7.2235396	-1.00411	-1.64625	-0.25466	-0.00071	0.96814	-0.32004
BASS-BWBK-SS-BA104-0001	10.239665	-0.85806	-1.40853	-0.26836	-1.04387	0.69066	-0.81538	7.703501	-0.78268	-1.41313	-0.37183	-0.07303	0.70546	-0.64313
BASS-BWBK-SS-BA105-0001	7.22901	-0.96511	-1.6103	-0.07179	-1.48653	1.12696	-0.93572	7.4579304	-0.87981	-1.61294	-0.25903	0.07672	1.15288	-0.72451
BASS-BWBK-SS-BA106-0001	10.189675	-0.7936	-1.48	-0.34132	-0.7409	1.05189	-0.84122	7.5489078	-0.72515	-1.46333	-0.39475	-0.10358	1.10494	-0.99057
BASS-BWBK-SS-BA107-0001	6.4917012	-1.1523	-1.63558	-0.00021	-1.6197	0.98138	-0.96618	7.0890941	-1.07451	-1.64792	-0.23381	0.04086	0.98119	-0.39632
BASS-BWBK-SS-BA108-0001	5.9193456	-1.11552	-1.69789	-0.04677	-1.50618	1.03244	-1.0289	7.0690005	-1.03892	-1.69788	-0.25554	0.0302	1.04505	-0.41051
BASS-BWBK-SS-BA109-0001	7.362182	-0.86631	-1.74488	-0.31084	-0.7371	1.01477	-0.99178	7.1243454	-0.79553	-1.70637	-0.38718	-0.15415	1.06195	-0.69937
BASS-BWBK-SS-BA110-0001	10.004851	-0.80932	-1.52433	-0.25227	-0.67918	0.59343	-0.83316	7.9791391	-0.75871	-1.48257	-0.33672	-0.20191	0.58493	0.25814
BASS-BWBK-SS-BA111-0001	6.8471088	-1.04951	-1.66556	-0.08184	-1.24886	0.96265	-0.99847	7.1173216	-0.97922	-1.65625	-0.25981	-0.02091	0.98655	-0.53641
BASS-BWBK-SS-BA112-0001	6.4469402	-1.08778	-1.67719	-0.04336	-1.40675	0.96762	-0.99802	7.1038964	-1.00997	-1.67745	-0.25243	-0.02096	0.97535	-0.38195
BASS-BWBK-SS-BA113-0001	8.6949331	-0.78579	-1.31972	-0.28575	-2.15061	3.07878	-0.86669	8.8303729	-0.68498	-1.35249	-0.4018	0.42411	3.14511	-0.78208
MASB-BWBK-SB-MA01-0105	23.804217	1.70355	-0.34768	-0.37831	-0.6454	-0.37217	-0.23708	16.355304	1.87298	-0.28274	-0.19727	0.62233	-0.29341	-0.79905
MASB-BWBK-SB-MA02-0107	27.191998	1.6477	-0.48129	-0.4753	0.79282	0.64319	0.06649	15.207195	1.77158	-0.36016	-0.22444	0.02506	0.73908	-0.84121
MASB-BWBK-SB-MA03-0108	18.668698	2.68431	-0.26047	-0.36742	-3.20676	-0.24347	-0.54489	21.576871	2.97289	-0.20785	-0.21923	1.74568	-0.22121	1.01095
MASB-BWBK-SB-MA04-0106	29.454133	1.8236	-0.21786	-0.69241	0.74519	1.19244	0.11927	16.169008	1.95205	-0.11252	-0.36019	0.08778	1.29367	-0.60753
MASB-BWBK-SB-MA05-0108	20.515664	0.73025	-0.65654	1.85698	0.10133	1.06121	-0.60958	14.761097	0.759	-0.52512	1.37513	0.32896	1.16422	0.5766
MASB-BWBK-SB-MA06-0105	29.120155	1.28878	-0.29114	-0.6211	0.78479	0.8904	0.21328	14.065936	1.39335	-0.21555	-0.35039	-0.05525	0.98797	-1.42211
MASB-BWBK-SB-MA07-0108	23.617874	0.51769	-0.75401	1.07025	0.54013	1.23496	-0.02574	11.88102	0.60553	-0.69398	0.73369	-0.22546	1.32065	-1.53025
MASB-BWBK-SB-MA08-0108	33.767105	1.24222	-0.14953	4.32601	1.66434	0.53605	0.4523	14.853975	1.2926	-0.04896	3.16334	-0.07991	0.73182	-3.38944
MASB-BWBK-SB-MA09-0108	16.767842	0.52538	-0.75653	4.04365	-1.17007	1.44167	-0.75456	15.520686	0.59009	-0.67137	2.81167	0.69479	1.52434	0.62375
MASB-BWBK-SB-MA10-0104	22.766871	0.41728	-0.64361	0.83279	-0.30452	0.50177	-0.01601	11.73528	0.52348	-0.62827	0.54256	0.12459	0.58436	-2.23264
MASB-BWBK-SB-MA11-0108	32.163735	1.3758	-0.04353	0.39579	0.68336	1.22467	0.42793	14.828257	1.47917	0.01202	0.37148	0.07505	1.34681	-2.0998
MASB-BWBK-SB-MA12-0108	16.386645	1.13449	-0.82825	3.04014	-0.86263	0.98554	-0.88281	16.942019	1.21729	-0.68329	2.18606	0.79148	1.08895	1.05535
MASB-BWBK-SB-MA13-0105	27.976638	-0.04852	-0.02021	-0.55585	0.43099	-0.93652	-0.04216	12.230977	-0.11646	0.04533	-0.31771	-0.00298	-0.95637	0.98525
MASB-BWBK-SB-MA14-0104	30.130631	0.61285	-0.04223	1.2524	0.75166	-1.11789	0.13594	14.908089	0.55611	0.09201	1.00298	0.06551	-1.13901	1.46277
MASB-BWBK-SB-MA15-0105	33.211467	0.20417	0.28293	0.45896	0.90597	-1.57119	0.28538	13.395972	0.1283	0.34983	0.41871	-0.14185	-1.61643	1.00824
MASB-BWBK-SB-MA16-0104	27.098366	0.39872	-0.0646	-0.16607	-0.39295	-0.82554	0.06569	13.378136	0.42749	-0.039	-0.09665	0.25347	-0.84422	0.12097
MASB-BWBK-SB-MA17-0104	26.922883	0.18083	-0.01861	-0.03395	-0.33527	-0.35599	-0.02414	13.375094	0.17581	0.01208	-0.00847	0.18113	-0.39548	1.066
MASB-BWBK-SB-MA18-0104	36.368897	0.02569	0.57326	-0.66297	1.43591	-1.30839	0.34091	11.569665	-0.05922	0.58618	-0.3295	-0.21151	-1.24819	-1.28635
MASB-BWBK-SB-MA19-0103	25.548021	-0.1824	-0.13394	-0.2635	-0.13668	-0.56457	-0.13052	11.830262	-0.20933	-0.11048	-0.18309	0.04592	-0.59455	0.74013
MASB-BWBK-SB-MA20-0103	27.725385	1.19103	-0.29384	-0.64269	0.07581	0.3992	0.22138	14.182728	1.31207	-0.24361	-0.40942	0.11917	0.44991	-1.10879
MASS-BWBK-SS-MA01-0001	19.019971	-1.24589	-0.47523	-0.22272	-0.73331	0.38115	-0.52145	9.4778931	-1.32748	-0.47353	-0.26269	-0.09466	0.28408	2.40076
MASS-BWBK-SS-MA02-0001	22.886102	-0.80008	-0.34878	-0.71208	0.61944	1.38233	-0.50185	11.61216	-0.96132	-0.22714	-0.47612	-0.41399	1.26853	4.99787
MASS-BWBK-SS-MA03-0001	21.376468	-0.93369	-0.49547	0.0428	0.12439	0.43949	-0.40729	10.126203	-1.03847	-0.43318	-0.00432	-0.25321	0.3727	2.40739
MASS-BWBK-SS-MA04-0001	21.932367	-0.5556	-0.52745	-0.48605	0.39194	1.0602	-0.39645	10.865446	-0.63228	-0.44567	-0.35137	-0.32315	1.0111	2.51793
MASS-BWBK-SS-MA05-0001	32.661553	0.08846	0.20762	-0.76791	1.08342	0.94592	0.25201	11.99927	0.04717	0.23453	-0.47675	-0.3719	0.96384	0.2081
MASS-BWBK-SS-MA06-0001	27.802409	-0.63372	-0.07522	1.56125	1.63205	0.51378	-0.39058	13.588617	-0.88959	0.127	1.2242	-0.48845	0.40017	5.99834
MASS-BWBK-SS-MA07-0001	13.95529	-1.81824	-0.79136	0.51012	-1.67257	-0.26118	-0.63703	6.8241699	-1.84336	-0.87787	0.12854	0.04925	-0.33281	0.12304
MASS-BWBK-SS-MA08-0001	34.260081	-0.74487	0.73416	0.55882	-0.37408	0.24607	0.41541	11.560481	-0.82021	0.63823	0.34534	-0.02342	0.17775	0.37169
MASS-BWBK-SS-MA09-0001	48.491129	0.30551	1.8993	-0.65002	1.05798	1.47384	0.83657	16.159602	0.15172	1.8619	-0.26806	-0.00596	1.45384	1.83076
MASS-BWBK-SS-MA10-0001	43.303003	0.08982	1.45402	-0.10126	0.5095	0.79494	0.69615	14.371723	-0.00192	1.38029	0.03455	0.06723	0.80092	0.09451
MASS-BWBK-SS-MA11-0001	46.191108	0.10466	1.44767	0.29474	1.19461	-0.99368	0.99557	14.494678	-0.03377	1.42689	0.34108	-0.22216	-1.07318	1.05379
MASS-BWBK-SS-MA12-0001	26.756826	-0.45275	-0.34908	-0.46101	0.97123	1.63312	0.0214	9.9660622	-0.50677	-0.30337	-0.32541	-0.53057	1.64679	0.39824
MASS-BWBK-SS-MA13-0001	36.927195	-0.67797	0.73498	-0.38049	1.08479	-0.5643	0.42496	12.344513	-0.87709	0.77606	-0.18745	-0.44601	-0.70962	3.42915
MASS-BWBK-SS-MA14-0001	35.929181	-1.11077	1.0075	-0.52999	-0.3868	-0.32663	0.43847	11.143534	-1.24942	0.90283	-0.40582	-0.06921	-0.45957	1.66947
MASS-BWBK-SS-MA15-0001	33.548411	-1.06968	0.64475	-0.44314	0.38653	-0.33312	0.22261	10.806433	-1.23422	0.61442	-0.30694	-0.31532	-0.45072	2.28969
MASS-BWBK-SS-MA16-0001	34.294352	-0.88834	0.55628	0.04672	0.45365	-0.5281	0.41615	10.172048	-1.00258	0.50264	0.02708	-0.29089	-0.58287	0.08599
MASS-BWBK-SS-MA17-0001	33.165037	-0.60656	0.58517	-0.20726	0.15819	-0.48919	0.24355	11.323538	-0.69822	0.53758	-0.13418	-0.08761	-0.53417	0.44373
MASS-BWBK-SS-MA18-0001	37.739045	-1.08742	1.03719	0.06455	-0.0741	-0.63499	0.60398	10.127398	-1.19339	0.89399	0.00032	-0.16721	-0.70634	-0.50329
MASS-BWBK-SS-MA19-0001	36.524327	-0.65745	0.89517	-0.15541	0.11311	-0.69146	0.45998	11.640142	-0.76638	0.8225	-0.09411	-0.07303	-0.76059	0.51102
MASS-BWBK-SS-MA20-0001	32.331218	-0.33035	0.3249	-0.11562	0.3405	0.13493	0.33231	11.69167	-0.39571	0.31557	-0.06872	-0.18285	0.09334	0.52172
MMSB-BWBK-SB-MM101-0110	15.658376	0.02749	-1.01281	-0.26631	-0.67692	-0.07185	-0.59742	11.391297	0.09633	-0.95401	-0.26227	0.06658	-0.09394	0.83458
MMSB-BWBK-SB-MM102-0109	19.77162	0.4023	-0.97893	-0.93099	0.80896	-0.18529	-0.43369	11.062053	0.46825	-0.88088	-0.65174	-0.3972	-0.158	0.08518
MMSB-BWBK-SB-MM103-0107	11.928086	0.63753	-0.94544	-0.78841	-1.57008	-1.10162	-1.11495	14.09103	0.74092	-0.86193	-0.56331	0.76308	-1.09201	1.45494
MMSB-BWBK-SB-MM104-0110	22.703004	0.75047	-0.6298	-0.51156	0.72285	-0.27504	-0.39408	12.898861	0.8186	-0.53706	-0.31386	-0.18099	-0.23139	0.17424
MMSB-BWBK-SB-MM105-0110	12.645082	-0.50852	-1.16095	-0.06647	-1.06685	0.11374	-0.74846	9.6517174	-0.44338	-1.14319	-0.18596	0.06531	0.0967	0.32181
MMSB-BWBK-SB-MM106-0110	29.318418	0.98472	-0.15861	-1.32049	1.26769	-0.12384	-0.02233	13.799109	1.02496	-0.06637	-0.82299	-0.31734	-0.09868	0.54938
MMSB-BWBK-SB-MM107-0110	16.64486	0.07161	-1.02238	-0.7146	0.73056	-0.37199	-0.87169	11.177007	0.02505	-0.8491	-0.39226	0.07721	-0.27134	0.59424
MMSB-BWBK-SB-MM108-0110	18.682496	-0.03307	-0.76247	-0.5083	-0.36811	-0.19365	-0.47322	10.957195	0.02958	-0.7361	-0.42458	-0.05616	-0.20364	0.24512
MMSB-BWBK-SB-MM109-0110	25.011521	0.2843	-0.36114	-0.81904	0.54444	-0.63155	-0.20254	12.534897	0.27992	-0.27789	-0.53427	-0.19212	-0.66488	1.39355
MMSB-BWBK-SB-MM110-0109	21.538413	0.02069	-0.71396	-0.56224	0.93637	-0.42966	-0.46562	10.844568	-0.00571	-0.60177	-0.3325	-0.2199	-0.37493	0.19229
MMSB-BWBK-SB-MM111-0110	21.99701	0.217	-0.7199	-0.53594	0.54349	-0.23172	-0.27183	11.628039	0.24645	-0.63479	-0.38362	-0.33735	-0.25815	0.98854
MMSB-BWBK-SB-MM112-0110	27.352942	0.34048	-0.31585	-0.8147	0.7869	-1.24806	0.07405	11.543943	0.38184	-0.27904	-0.56592	-0.40463	-1.27649	-0.16004
MMSB-BWBK-SB-MM113-0110	19.746361	0.40202	-1.02696	-1.12116	1.96916	-0.17869	-0.75897	11.129252	0.33959	-0.80193	-0.59406	-0.23084	-0.01989	0.02876
MMSB-BWBK-SB-MM114-0110	13.535041	-0.3579	-1.14336	-0.16305	-0.60632	-0.08123	-0.78204	10.393937	-0.3188	-1.08257	-0.21332	-0.05825	-0.11996	1.37182

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	5.4852625	-1.81824	-1.74488	-1.89651	-3.57815	-3.21428	-1.11495	6.8241699	-1.84336	-1.73377	-1.28607	-0.92014	-3.27643	-3.57756
MAXIMUM DOMAIN VALUE	58.408209	2.71097	3.37158	8.59746	2.12659	4.9469	1.98284	22.172849	2.97289	3.06119	6.0723	2.07003	5.03046	5.99834
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	23.745841	0.0576	-0.32246	-0.77485	-0.13398	-0.36599	-0.22677	13.002423	0.05911	-0.26886	-0.5832	-0.22983	-0.50725	3.26652
MMSB-BWBK-SB-MM116-0110	16.041001	0.19314	-1.06924	-0.67099	-0.00046	0.34939	-0.69611	11.716726	0.23174	-0.95502	-0.48035	-0.05053	0.35878	1.3156
MMSB-BWBK-SB-MM117-0110	11.858791	-0.17175	-1.16439	-0.26738	-1.52971	-0.09755	-0.76737	10.894884	-0.06007	-1.15188	-0.34452	0.20229	-0.14837	0.84408
MMSB-BWBK-SB-MM118-0110	18.49042	0.69306	-1.05477	-1.08968	-0.04762	-0.17915	-0.31086	11.771157	0.84629	-0.99872	-0.83624	-0.25574	-0.19609	-0.07194
MMSB-BWBK-SB-MM119-0110	17.767799	0.03931	-0.9069	-0.51851	-0.20729	-0.04791	-0.51133	10.952939	0.10287	-0.85567	-0.42146	-0.09817	-0.04928	0.32846
MMSB-BWBK-SB-MM120-0110	9.7839021	-0.68405	-1.31176	-0.09889	-1.58852	-0.18314	-0.86218	9.175303	-0.60369	-1.31036	-0.25325	0.16392	-0.22405	0.42422
MMSS-BWBK-SS-MM101-0001	34.706725	-0.73783	0.33517	-0.04928	1.67983	-0.40818	0.35228	9.2675844	-0.83338	0.30574	-0.0313	-0.85369	-0.437	-0.25532
MMSS-BWBK-SS-MM102-0001	25.48158	-0.9811	-0.36329	0.01769	0.73609	-0.47485	-0.0358	7.6623487	-1.01603	-0.39866	-0.07082	-0.63143	-0.48278	-1.08855
MMSS-BWBK-SS-MM103-0001	34.84275	-0.86405	0.37151	0.05432	1.58957	-0.79071	0.37607	8.530372	-0.95608	0.31681	0.03566	-0.78331	-0.79076	-1.30926
MMSS-BWBK-SS-MM104-0001	32.487966	-0.57906	0.16577	-0.09636	1.51307	-0.56646	0.21486	9.8089207	-0.6644	0.16522	-0.05448	-0.73849	-0.59702	0.14201
MMSS-BWBK-SS-MM105-0001	24.228465	-1.16762	-0.23038	0.13718	-0.09408	-0.55511	-0.13544	7.9547287	-1.20108	-0.30415	-0.02002	-0.33719	-0.58283	-0.82915
MMSS-BWBK-SS-MM106-0001	32.569222	-0.44831	0.14321	-0.32417	1.9554	-0.9108	0.1022	9.9178191	-0.56401	0.18721	-0.13804	-0.65447	-0.88492	-0.2291
MMSS-BWBK-SS-MM107-0001	33.001657	-0.56527	0.1066	-0.28394	1.92988	-0.3074	0.24609	9.2337417	-0.64622	0.10942	-0.18096	-0.92014	-0.31694	-0.2798
MMSS-BWBK-SS-MM108-0001	35.851454	-0.99579	0.46406	-0.15256	1.7577	-0.89641	0.402	8.2542735	-1.10562	0.40196	-0.11273	-0.9067	-0.91903	-0.92488
MMSS-BWBK-SS-MM109-0001	31.350571	-0.95133	0.06355	-0.06845	1.60019	-0.93117	0.16723	7.6325315	-1.02379	0.01549	-0.07502	-0.85526	-0.91957	-1.55166
MMSS-BWBK-SS-MM110-0001	22.051031	-1.50799	-0.3698	0.20269	-0.34287	-0.51348	-0.21644	7.1062754	-1.55497	-0.45078	-0.01392	-0.36942	-0.56935	-0.43251
MMSS-BWBK-SS-MM111-0001	20.592821	-1.36291	-0.55792	0.1039	0.02214	-0.30333	-0.37077	7.1292047	-1.40303	-0.60716	-0.06374	-0.47161	-0.33494	-0.33514
MMSS-BWBK-SS-MM112-0001	18.643412	-1.51281	-0.63341	0.26331	-0.5461	0.14582	-0.41856	6.9606064	-1.5387	-0.70411	0.00515	-0.33997	0.10466	-0.29451
MMSS-BWBK-SS-MM113-0001	33.866677	-1.14665	0.45123	-0.08363	0.95618	-0.61357	0.34718	8.2170605	-1.23485	0.35259	-0.11551	-0.69053	-0.6521	-0.91936
MMSS-BWBK-SS-MM114-0001	14.897101	-1.47429	-0.9193	0.23602	-0.88166	0.16967	-0.60622	7.0594169	-1.48237	-0.96797	-0.03134	-0.23764	0.12047	0.11337
MMSS-BWBK-SS-MM115-0001	20.291363	-1.37059	-0.61875	0.22723	-0.15027	0.02118	-0.29158	7.3578573	-1.40968	-0.66022	0.00603	-0.47144	-0.0373	0.13447
MMSS-BWBK-SS-MM116-0001	20.487943	-1.39841	-0.50069	0.19854	-0.4358	-0.34037	-0.30894	7.3462349	-1.42841	-0.57015	-0.0205	-0.3324	-0.39037	-0.32666
MMSS-BWBK-SS-MM117-0001	28.150665	-0.91458	-0.12407	-0.06499	0.96025	-0.3416	0.04512	8.6670492	-0.98453	-0.14295	-0.0973	-0.68613	-0.38409	0.08844
MMSS-BWBK-SS-MM118-0001	16.974372	-0.59498	-0.90775	-0.1237	-0.08133	-0.47892	-0.61803	9.2323778	-0.58264	-0.8787	-0.17373	-0.24554	-0.49309	0.32533
MMSS-BWBK-SS-MM119-0001	14.975868	-0.73798	-1.05671	-0.11097	-0.4949	-0.25881	-0.62512	8.7893268	-0.70583	-1.0441	-0.21644	-0.23793	-0.30029	0.46332
MMSS-BWBK-SS-MM120-0001	22.01744	-0.5735	-0.74584	0.0286	0.84889	-0.49031	-0.24469	8.4355802	-0.6121	-0.68835	0.02317	-0.3238	-0.41766	-1.50683
NESB-BWBK-SB-NE01-0108	23.397705	1.0694	-0.838	-0.89054	1.44781	0.20517	-0.2743	12.308687	1.17052	-0.71961	-0.54904	-0.39665	0.31581	-1.18025
NESB-BWBK-SB-NE02-0109	19.586735	0.94959	-0.98588	-0.70902	0.64368	0.25917	-0.48302	14.133503	1.00157	-0.80497	-0.43785	-0.18136	0.24053	2.41544
NESB-BWBK-SB-NE03-0105	20.598437	0.44438	-0.99041	-0.28616	0.88089	-0.04791	-0.31689	10.978109	0.51974	-0.89714	-0.20138	-0.39254	0.00613	-0.72346
NESB-BWBK-SB-NE04-0110	20.037982	0.57056	-0.88354	-0.64639	0.39456	0.0989	-0.40405	11.83002	0.66592	-0.80764	-0.46293	-0.20784	0.13894	-0.2583
NESB-BWBK-SB-NE05-0108	23.298968	0.86044	-0.78309	-0.74078	1.03833	0.20218	-0.20347	11.818548	0.96867	-0.70215	-0.4846	-0.33216	0.29845	-1.50288
NESB-BWBK-SB-NE06-0109	20.960549	0.66836	-0.87007	-0.61379	0.465	0.02007	-0.29287	11.668361	0.78314	-0.80531	-0.4413	-0.22493	0.07785	-1.01679
NESB-BWBK-SB-NE07-0107	23.187047	0.90843	-0.8725	-0.77261	1.47498	0.47429	-0.25973	11.99663	0.99106	-0.74899	-0.4739	-0.44762	0.57503	-0.90187
NESB-BWBK-SB-NE08-0104	20.787672	0.42297	-0.76403	-0.6678	0.25864	-0.25087	-0.3588	11.255376	0.51657	-0.7197	-0.48555	-0.14156	-0.19685	-1.01052
NESB-BWBK-SB-NE09-0110	19.838551	0.58197	-0.94654	-0.61304	0.50788	0.1658	-0.39766	11.490274	0.67946	-0.86563	-0.42963	-0.20152	0.23519	-0.84439
NESB-BWBK-SB-NE10-0107	28.277391	0.15292	-0.17765	-0.76082	0.97864	-0.45573	0.01057	11.011226	0.16168	-0.15027	-0.49615	-0.33957	-0.41465	-0.91464
NESB-BWBK-SB-NE101-0110	25.028262	0.11224	-0.40855	-0.7306	0.6882	-0.60636	-0.16511	12.096746	0.10118	-0.32983	-0.50549	-0.41719	-0.68497	2.03742
NESB-BWBK-SB-NE102-0110	21.594054	-0.17374	-0.58184	-0.67152	0.16043	-0.22883	-0.34314	11.805477	-0.19187	-0.50529	-0.51022	-0.34717	-0.34408	2.9668
NESB-BWBK-SB-NE103-0110	18.501937	-0.40244	-0.79073	-0.473	-0.27196	-0.22877	-0.45281	10.641065	-0.39416	-0.74374	-0.42012	-0.25608	-0.32069	1.99209
NESB-BWBK-SB-NE104-0110	15.924829	-0.52261	-0.91868	-0.38655	-0.77367	-0.22349	-0.56496	10.162474	-0.49156	-0.89391	-0.39512	-0.10418	-0.30433	1.50291
NESB-BWBK-SB-NE105-0110	24.099033	0.00568	-0.45237	-0.58087	0.41995	-0.42221	-0.17544	12.076099	-0.00811	-0.37665	-0.42034	-0.36365	-0.51725	2.33184
NESB-BWBK-SB-NE106-0110	21.252314	-0.04453	-0.62955	-0.69133	0.05889	-0.3027	-0.32343	11.692404	-0.0313	-0.56568	-0.53002	-0.28485	-0.39094	2.11396
NESB-BWBK-SB-NE107-0510	16.54898	-0.39556	-0.92513	-0.41011	-0.66213	-0.0322	-0.49944	10.213267	-0.34383	-0.90595	-0.41574	-0.16832	-0.10386	1.16613
NESB-BWBK-SB-NE108-0110	23.142444	-0.15346	-0.40934	-0.68108	-0.04353	-0.74081	-0.22259	11.245707	-0.13558	-0.3912	-0.53359	-0.24646	-0.81887	1.24544
NESB-BWBK-SB-NE109-0110	20.542109	-0.19974	-0.65819	-0.60102	-0.0039	-0.37158	-0.37344	11.243065	-0.19236	-0.60309	-0.48055	-0.29489	-0.46133	2.05533
NESB-BWBK-SB-NE110-0110	20.282177	-0.1386	-0.62401	-0.64633	-0.09491	-0.5112	-0.44038	11.062564	-0.11147	-0.58898	-0.50709	-0.18425	-0.558	1.10572
NESS-BKG-SS03-NEB-0016	39.942303	-0.47566	1.20062	-0.34798	0.45203	0.98396	0.52494	11.826805	-0.54425	1.06954	-0.23862	-0.25411	0.97359	-0.37462
NESS-BKG-SS09-NEB-0018	26.086689	-1.07136	0.02988	0.57211	0.38749	-0.33694	-0.33132	9.1279686	-1.15879	-0.0125	0.36604	-0.26159	-0.31982	-0.25649
NESS-BWBK-SS-NE01-0001	37.020064	0.23355	0.72612	0.16812	1.45868	1.87815	0.17568	13.712259	0.14118	0.75453	0.26516	-0.19506	1.97251	0.21918
NESS-BWBK-SS-NE02-0001	32.52053	0.42628	0.31806	0.33727	1.16384	4.01483	-0.04165	13.601752	0.38963	0.35903	0.36754	-0.03657	4.20771	-0.82491
NESS-BWBK-SS-NE03-0001	31.792474	-0.43603	0.01521	0.12396	2.08806	0.35202	0.0643	9.715706	-0.52927	0.05323	0.15123	-0.78106	0.40973	-0.5418
NESS-BWBK-SS-NE04-0001	32.559552	0.20453	0.11536	-0.54423	1.97153	-0.69279	0.04995	11.383276	0.16147	0.16399	-0.27639	-0.58967	-0.63563	-0.60129
NESS-BWBK-SS-NE05-0001	31.473271	-0.27633	0.12793	-0.06671	1.89592	0.85362	-0.09725	10.805949	-0.39421	0.19306	0.08191	-0.44032	0.96343	-0.38656
NESS-BWBK-SS-NE06-0001	31.270914	0.05303	-0.08169	-0.59946	2.12659	-0.44875	0.04565	10.299621	0.01353	-0.03101	-0.33297	-0.71494	-0.37609	-1.09992
NESS-BWBK-SS-NE07-0001	36.356606	-0.53522	0.67259	0.33064	1.34554	0.68526	0.27121	10.874661	-0.64636	0.63782	0.29437	-0.42645	0.73358	-0.59076
NESS-BWBK-SS-NE08-0001	31.37644	-0.28746	-0.07275	-0.2249	2.08933	0.03305	0.0968	9.7891254	-0.35899	-0.02798	-0.09792	-0.81602	0.07589	-0.51862
NESS-BWBK-SS-NE09-0001	34.163525	-0.64126	0.35399	0.03441	1.99571	0.24039	0.10435	10.342043	-0.77839	0.37542	0.08416	-0.82391	0.22883	0.99589
NESS-BWBK-SS-NE10-0001	34.78662	-0.50585	0.56109	-0.05814	0.9378	0.6655	0.27895	10.704169	-0.57946	0.50709	-0.02083	-0.39833	0.68812	-0.5899
NESS-BWBK-SS-NE101-0001	26.581749	-0.89777	-0.20939	-0.25848	0.98912	-0.6891	-0.12829	8.6367441	-0.96344	-0.22047	-0.23191	-0.69894	-0.73492	0.3683
NESS-BWBK-SS-NE102-0001	23.74679	-1.19823	-0.26767	-0.10362	-0.08692	-0.27443	-0.16738	8.0775134	-1.23695	-0.33282	-0.19849	-0.41694	-0.33095	-0.03421
NESS-BWBK-SS-NE103-0001	21.717287	-1.27844	-0.44267	-0.0177	-0.09835	-0.37543	-0.28797	7.676833	-1.32653	-0.48773	-0.13063	-0.36131	-0.41305	-0.18031
NESS-BWBK-SS-NE104-0001	24.830406	-1.1926	-0.23628	-0.03241	0.14013	-0.0128	-0.09498	7.5616988	-1.21627	-0.32151	-0.15463	-0.52048	-0.03864	-0.90824
NESS-BWBK-SS-NE105-0001	18.098812	-1.36432	-0.70735	0.08549	-0.49824	0.04586	-0.44915	7.4603257	-1.38728	-0.75362	-0.10824	-0.34895	-0.01171	0.26548
NESS-BWBK-SS-NE106-0001	22.691944	-1.41555	-0.24054	0.04294	-0.40541	0.06686	-0.26354	7.692974	-1.4555	-0.33317	-0.12298	-0.3407	0.01694	-0.1438
NESS-BWBK-SS-NE107-0001	21.978728	-1.43252	-0.33097	0.04853	-0.44256	-0.0664	-0.25678	7.6214478	-1.46973	-0.41609	-0.13141	-0.38127	-0.13745	0.14028
NESS-BWBK-SS-NE108-0001	22.910974	-1.27634	-0.27361	-0.05503	-0.36275	-0.03763	-0.20996	8.3845145	-1.32058	-0.33916	-0.18309	-0.37637	-0.12537	0.73985
NESS-BWBK-SS-NE109-0001	18.168189	-1.40547	-0.69313	0.05885	-0.52282	0.03177	-0.44105	7.4583845	-1.43204	-0.74136	-0.13341	-0.37332	-0.04	0.50915
NESS-BWBK-SS-NE110-0001	24.99605	-1.51512	-0.00639	0.13873	-0.67984	-0.66821	-0.05015	7.5537329	-1.55554	-0.13838	-0.07143	-0.25806	-0.74102	-0.64397

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	5.4852625	-1.81824	-1.74488	-1.89651	-3.57815	-3.21428	-1.11495	6.8241699	-1.84336	-1.73377	-1.28607	-0.92014	-3.27643	-3.57756
MAXIMUM DOMAIN VALUE	58.408209	2.71097	3.37158	8.59746	2.12659	4.9469	1.98284	22.172849	2.97289	3.06119	6.0723	2.07003	5.03046	5.99834
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	25.68508	1.22455	-0.14732	-0.7473	-0.20922	-1.34897	-0.23008	15.716413	1.31658	-0.07931	-0.46105	0.28872	-1.37167	1.11512
PMSB-BWBK-SB-PM02-0104	36.507346	1.34924	0.38921	1.08209	1.55931	-3.12854	0.36477	15.848216	1.31743	0.52143	1.0111	0.23112	-3.03805	-1.29296
PMSB-BWBK-SB-PM03-0106	28.058644	2.01355	-0.07053	0.3945	-0.57716	-1.70287	0.08909	17.119842	2.20746	-0.03014	0.36227	0.70509	-1.61941	-2.04252
PMSB-BWBK-SB-PM04-0105	24.654888	0.92775	-0.3487	1.0321	0.15741	-0.46463	-0.28463	14.586252	0.99445	-0.27018	0.78877	0.24901	-0.39437	-0.37572
PMSB-BWBK-SB-PM05-0105	26.344282	1.26356	-0.15954	0.09936	-0.23251	-1.26551	-0.11463	15.493042	1.36522	-0.09918	0.14234	0.42264	-1.22716	-0.40954
PMSB-BWBK-SB-PM06-0105	23.961974	1.16517	-0.49291	0.60046	0.02205	-1.60808	-0.18498	15.001348	1.2625	-0.39708	0.47026	0.2065	-1.60448	0.20004
PMSB-BWBK-SB-PM07-0105	21.642185	0.90301	-0.15168	0.73238	-1.74565	-3.21428	-0.41457	16.267733	0.98535	-0.11104	0.53252	0.96454	-3.27643	1.13488
PMSB-BWBK-SB-PM08-0106	22.098326	1.07329	-0.17104	0.50087	-1.28462	-1.85099	-0.48909	16.183494	1.17579	-0.13101	0.3871	0.82156	-1.8462	0.5392
PMSB-BWBK-SB-PM09-0106	17.119771	0.50232	-0.7236	0.48739	-1.07895	-1.09861	-0.65419	13.36027	0.59714	-0.67557	0.31804	0.53476	-1.07127	-0.05089
PMSB-BWBK-SB-PM10-0105	36.798152	0.81868	0.94051	0.06059	-0.26919	-3.14235	0.39823	15.217935	0.82226	0.91055	0.18245	0.70193	-3.10064	-1.78242
PMSB-BWBK-SB-PM11-0104	23.777257	1.49548	-0.28936	0.11866	-1.13169	-2.63889	-0.12286	16.979591	1.62789	-0.212	0.12153	0.68174	-2.70523	1.06523
PMSB-BWBK-SB-PM12-0105	22.19948	0.10858	-0.47513	-0.6823	0.29846	-0.66481	-0.45458	11.511397	0.10011	-0.40126	-0.41628	0.11728	-0.59627	-0.32147
PMSB-BWBK-SB-PM13-0106	31.380109	-0.04696	0.05475	0.38182	1.09944	-1.89177	0.22992	11.811495	-0.13278	0.1276	0.36037	-0.21276	-1.90516	0.08547
PMSB-BWBK-SB-PM14-0106	23.659666	-0.00558	-0.24046	-0.26843	-0.42641	-1.1053	-0.25066	11.987599	0.00799	-0.22621	-0.19606	0.19246	-1.1172	0.13405
PMSB-BWBK-SB-PM15-0105	27.051923	0.44869	-0.23796	-0.03299	0.47174	-0.69538	-0.01485	12.820274	0.46041	-0.17072	0.03548	-0.00789	-0.67157	-0.1652
PMSB-BWBK-SB-PM16-0106	24.711702	0.06396	-0.37197	-0.13856	0.196	-0.4652	-0.11462	11.395489	0.08765	-0.34434	-0.10495	-0.10509	-0.45455	-0.38432
PMSB-BWBK-SB-PM17-0105	27.458203	1.48132	0.38773	-0.50189	-1.74477	-2.5414	-0.13253	17.366385	1.63256	0.35793	-0.30766	1.04664	-2.55142	-0.29302
PMSB-BWBK-SB-PM18-0105	26.340922	0.9742	-0.74958	1.09185	1.29354	0.44957	0.15043	12.950024	1.04595	-0.62165	0.8302	-0.31981	0.53874	-1.35085
PMSB-BWBK-SB-PM19-0105	27.462912	0.67233	-0.36491	0.18315	0.71277	0.01406	0.10508	13.132071	0.71145	-0.28276	0.178	-0.16495	0.03969	-0.19292
PMSB-BWBK-SB-PM20-0106	26.205122	0.52496	-0.3049	-0.011	0.31821	-0.25421	-0.04119	12.88563	0.5663	-0.25027	0.02712	-0.01017	-0.22451	-0.33195
PMSB-BWBK-SB-SO01-0107-PM	28.371898	1.39411	-0.26091	0.07912	-0.02925	0.96244	0.28027	14.812124	1.55481	-0.23152	0.07507	0.1331	1.03212	-1.61349
PMSB-BWBK-SB-SO02-0109-PM	28.88425	0.92596	-0.37747	1.48106	0.7767	0.76314	0.28392	13.32582	1.01195	-0.31601	1.08342	-0.09722	0.87237	-2.20696
PMSB-BWBK-SB-SO13-0104-PM	26.93331	1.69677	-0.26974	0.78508	-0.58195	-0.98344	0.17733	16.621984	1.85586	-0.20248	0.60414	0.5464	-0.95029	-0.95387
PMSB-BWBK-SB-SO14-0105-PM	24.909569	1.71379	-0.56912	1.35138	-0.12054	0.75213	0.02401	16.622848	1.86567	-0.45595	1.00533	0.34651	0.82218	-0.47083
PMSS-DABK-S-SO21-0001	43.712676	-0.07928	1.88396	0.26664	-1.75309	2.92279	0.95753	15.591919	-0.12776	1.69664	0.20638	0.89385	2.9353	-0.62135
PMSS-DABK-S-SO22-0001	57.908249	0.80166	3.37158	-0.6057	-2.45931	4.9469	1.67148	19.727731	0.7952	3.06119	-0.32152	1.51751	5.03046	-1.94888
PMSS-DABK-S-SO23-0001	46.833396	-0.07242	1.86795	-0.52776	-0.07637	-0.3086	1.02113	14.026002	-0.14819	1.71039	-0.30907	0.17243	-0.35569	-0.55131
PMSS-DABK-S-SO24-0001	48.140783	-0.00646	1.97908	0.35116	-0.60074	0.49912	1.24818	15.097118	-0.09463	1.82842	0.31859	0.49575	0.46612	-0.71922
PMSS-DABK-S-SO25-0001	54.991207	-0.20925	1.97321	2.5761	0.88208	-2.42507	1.98284	13.14225	-0.32535	1.82686	1.86664	-0.19948	-2.50697	-2.60034
PMSS-DABK-S-SO26-0001	58.408209	0.47838	3.08932	-0.15413	-1.18058	4.11497	1.74232	18.045521	0.41553	2.83414	0.00189	0.88924	4.15834	-1.38924
PMSS-DABK-S-SO27-0001	48.128483	-0.41988	2.17632	-0.48951	-0.79254	0.76032	1.12329	13.725173	-0.49975	1.94593	-0.32985	0.35631	0.71425	-0.86458
PMSS-DABK-S-SO28-0001	48.350657	0.65555	2.69606	-0.95903	-2.73851	2.21069	0.98976	19.350132	0.64125	2.46159	-0.59023	1.53868	2.19871	0.22042
PMSS-DABK-S-SO29-0001	53.524141	0.10501	2.498	-0.43266	0.09176	0.82461	1.30064	15.957157	-0.02736	2.34195	-0.16398	0.334	0.79439	0.06165
PMSS-DABK-S-SO30-0001	45.576112	0.39917	2.06263	-0.92581	-0.95565	2.01017	0.76339	17.802519	0.30104	1.96248	-0.5218	0.75837	1.96313	2.12811
PMSS-DABK-S-SO31-0001	38.374075	-0.26672	1.35305	-0.46982	-1.24447	-1.31618	0.6051	13.010066	-0.28861	1.17934	-0.33966	0.56074	-1.35756	-1.24108
PMSS-DABK-S-SO32-0001	50.957677	1.07685	3.21359	-0.70233	-3.57815	0.92309	1.00577	22.172849	1.07388	2.95421	-0.37564	2.07003	0.87663	0.86062
PMSS-DABK-S-SO33-0001	46.973816	-0.0234	2.28808	-1.34322	-1.28351	0.72598	0.90288	16.219178	-0.11972	2.10946	-0.8672	0.73318	0.64462	1.223
PMSS-DABK-S-SO34-0001	36.553041	-0.2203	1.2966	-0.54767	-1.43467	-2.02999	0.41799	14.076924	-0.27203	1.16813	-0.37192	0.6812	-2.12682	0.49569
PMSS-DABK-S-SO35-0001	44.368256	-0.2203	1.84747	-0.45874	-0.80389	-1.11569	0.87366	14.154921	-0.30432	1.68328	-0.26994	0.51152	-1.17776	-0.38697
PMSS-DABK-S-SO36-0001	41.834935	-0.85089	1.50368	-0.36357	-0.02074	-1.37567	0.69193	11.171411	-0.96905	1.34101	-0.23868	0.02818	-1.42582	-0.87942
PMSS-DABK-S-SO37-0001	43.73403	-0.35114	1.65772	0.10098	-0.26488	-1.81871	0.8381	12.960623	-0.44194	1.50534	0.12545	0.31635	-1.85202	-1.3031
PMSS-DABK-S-SO38-0001	39.657204	-0.55064	1.50808	-0.54714	-1.08728	-2.37361	0.62591	12.175059	-0.5973	1.30767	-0.40456	0.43779	-2.4446	-1.26328
PMSS-DABK-S-SO39-0001	37.158862	-0.42026	0.96797	-0.05759	-0.26056	-2.03796	0.58031	12.389978	-0.50367	0.88824	-0.02365	0.1251	-2.13391	0.22632
PMSS-DABK-S-SO40-0001	40.885422	-0.43476	1.54286	-0.56373	-0.74434	-1.74239	0.66576	12.982317	-0.51154	1.38381	-0.37872	0.36055	-1.82285	-0.2713
SESB-BWBK-SB-SO03-0108	31.111126	2.71097	-0.40188	0.82491	0.88474	1.38575	0.45688	18.44172	2.93101	-0.26246	0.69913	0.04757	1.48749	-1.14452
SESB-BWBK-SB-SO04-0108	24.944216	1.66095	-0.43775	1.19029	-0.44151	0.85146	-0.02517	16.920555	1.80249	-0.33658	0.89977	0.52917	0.92687	-0.3631
SESB-BWBK-SB-SO05-0106	29.142415	1.16263	-0.31434	1.01991	0.94491	1.17607	0.16785	14.777433	1.22291	-0.20489	0.80975	-0.06876	1.26508	-0.60015
SESB-BWBK-SB-SO06-0108	30.202042	1.99606	-0.19067	2.21217	0.36934	0.624	0.25362	17.433468	2.15001	-0.09685	1.6571	0.34847	0.75191	-1.77081
SESB-BWBK-SB-SO07-0106	28.203905	2.41472	0.13686	-0.52695	-1.51855	-0.425	0.11748	18.847867	2.67208	0.13697	-0.30631	1.03822	-0.34826	-1.66877
SESB-BWBK-SB-SO08-0107	32.263643	2.35868	-0.01659	1.01396	0.31685	0.82955	0.39228	18.488651	2.52897	0.0833	0.8479	0.41296	0.94096	-1.30115
SESB-BWBK-SB-SO09-0106	26.525081	1.10269	-0.37187	0.88794	0.48778	0.77294	-0.05845	15.154051	1.16073	-0.25893	0.70623	0.10086	0.83505	0.21514
SESB-BWBK-SB-SO11-0106	26.441911	1.98849	-0.29394	0.86987	-0.10644	-0.31818	-0.08385	17.46124	2.15781	-0.2021	0.70105	0.4668	-0.2377	-0.68598
SESB-BWBK-SB-SO12-0106	27.329082	1.70557	-0.29644	1.1391	-0.29645	0.88154	0.16314	16.349241	1.86993	-0.23303	0.86098	0.4877	0.99634	-1.82198
SESB-BWBK-SB-SO15-0103	29.808492	0.4632	0.09229	-0.02784	0.14791	-1.00631	0.1536	12.987768	0.5002	0.09535	0.01338	0.07078	-0.9904	-0.86141
SESB-BWBK-SB-SO16-0105	27.177128	1.00714	-0.2958	-0.22669	-0.06545	-0.17805	0.19131	13.654366	1.12181	-0.26148	-0.13164	0.17535	-0.12421	-1.56349
SESB-BWBK-SB-SO17-0106	24.419588	0.75659	-0.33235	-0.91542	-0.24486	-0.1146	-0.1458	13.514303	0.83543	-0.28515	-0.6094	0.23537	-0.08189	-0.24663
SESB-BWBK-SB-SO18-0105	20.998015	0.64271	-0.364	-1.07667	-0.83152	-0.65834	-0.49818	13.833923	0.72009	-0.3244	-0.73578	0.47474	-0.64327	0.50979
SESB-BWBK-SB-SO19-0104	21.773602	1.85751	0.36364	-1.89651	-3.28048	-1.97322	-0.6254	19.558823	2.05985	0.33025	-1.28607	1.75177	-1.98716	1.04438
SESB-BWBK-SB-SO20-0104	26.846871	1.50412	-0.29373	-0.16359	-0.55184	0.46506	0.22053	15.44333	1.66522	-0.24851	-0.07544	0.46094	0.53442	-1.50693
SESS-DABK-S-SO01-0001	37.908875	-0.33803	0.8245	-0.15857	0.75347	1.09555	0.53097	10.680364	-0.37166	0.7144	-0.09368	-0.2667	1.17375	-2.38882
SESS-DABK-S-SO02-0001	32.353116	1.53367	0.57219	-0.69177	1.31884	4.69834	-0.58336	21.137057	1.28891	0.92203	0.01776	1.04913	4.91296	5.07828
SESS-DABK-S-SO03-0001	52.538428	-0.74962	2.25233	-0.03276	0.24056	-0.63728	1.51119	10.990518	-0.83395	1.97491	-0.0288	-0.14955	-0.65963	-3.30466
SESS-DABK-S-SO04-0001	50.132631	-0.12735	1.96357	-0.67716	0.8775	1.52536	1.16382	12.754846	-0.20264	1.78375	-0.39802	-0.2002	1.57176	-2.0647
SESS-DABK-S-SO05-0001	46.017301	-0.59532	1.68118	0.10641	0.16817	0.2151	1.08744	10.974822	-0.64638	1.45624	0.06167	-0.10252	0.23777	-3.09726
SESS-DABK-S-SO06-0001	34.121224	-0.68842	0.95754	8.59746	-0.90636	-1.31408	0.08075	17.410038	-0.9088	0.98622	6.0723	0.81127	-1.39373	2.86302
SESS-DABK-S-SO07-0001	38.382949	-0.00189	1.05643	-0.50913	0.24712	1.9863	0.43774	14.515033	-0.09459	1.02646	-0.28684	-0.00707	1.94439	2.01501
SESS-DABK-S-SO08-0001	38.495171	-0.24222	1.06148	0.3852	-0.01133	0.70558	0.55733	13.679006	-0.32952	0.99657	0.29998	0.03315	0.64661	1.06138
SESS-DABK-S-SO09-0001	46.605651	-0.7281	1.56106	0.81568	0.29694	-0.76933	1.31573	10.202206	-0.78025	1.33717	0.53185	-0.2444	-0.77985	-3.57756

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	5.4852625	-1.81824	-1.74488	-1.89651	-3.57815	-3.21428	-1.11495	6.8241699	-1.84336	-1.73377	-1.28607	-0.92014	-3.27643	-3.57756
MAXIMUM DOMAIN VALUE	58.408209	2.71097	3.37158	8.59746	2.12659	4.9469	1.98284	22.172849	2.97289	3.06119	6.0723	2.07003	5.03046	5.99834
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	36.811917	-0.95007	0.60505	1.23818	0.5379	-0.15553	0.751	9.4952208	-1.03776	0.50989	0.82334	-0.39686	-0.1807	-1.59348
SESS-DABK-S-SO11-0001	26.429757	-0.96859	0.28175	-0.38207	-1.3807	0.28999	-0.00397	10.833973	-1.01878	0.19096	-0.36835	0.25382	0.20033	1.04376
SESS-DABK-S-SO12-0001	33.896931	-0.54144	0.75107	-0.30182	-0.2484	0.67538	0.27713	12.696015	-0.6385	0.70099	-0.21371	-0.00564	0.58496	1.96151
SESS-DABK-S-SO13-0001	32.155037	-0.30918	0.41308	0.48624	-0.43313	2.26894	0.40915	11.846598	-0.31768	0.33616	0.29962	0.08008	2.29883	-0.95226
SESS-DABK-S-SO14-0001	35.299011	-0.80068	0.70692	0.65104	-0.24972	-0.51091	0.60706	9.3037057	-0.80555	0.5296	0.36778	-0.10666	-0.49303	-3.21772
SESS-DABK-S-SO15-0001	43.68674	-0.82769	1.54181	0.39397	0.05993	-0.79401	0.9205	10.721662	-0.92786	1.35578	0.28769	0.04851	-0.78385	-2.57981
SESS-DABK-S-SO16-0001	19.610391	-1.15594	-0.34694	0.06087	-1.10941	0.04889	-0.47465	9.9750018	-1.22298	-0.36632	-0.06399	0.12145	-0.03745	1.87752
SESS-DABK-S-SO17-0001	32.489134	-1.12755	0.74643	0.31538	-0.86057	-1.46567	0.31425	11.785778	-1.26442	0.67303	0.15605	0.04558	-1.66942	2.83186
SESS-DABK-S-SO18-0001	32.578329	-0.49171	0.74482	-0.42504	-0.97037	0.07929	0.29194	12.350367	-0.52732	0.63762	-0.34916	0.21983	-0.00096	0.6723
SESS-DABK-S-SO19-0001	38.91701	0.22077	1.3357	-0.67383	-0.43082	2.03441	0.36736	15.815643	0.15149	1.27247	-0.38926	0.39302	2.01592	1.76053
SESS-DABK-S-SO20-0001	44.387079	-0.20341	1.62414	1.15712	0.79724	0.84147	0.57707	14.831342	-0.36247	1.56477	0.93157	-0.01273	0.82737	1.26571

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COBALT

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477

6.8811	Mean
4.0378	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0848	0.0459	-0.0177	0.0604	-0.0259	0.2124
AS	-0.7192	-0.1361	0.5119	-0.0522	-0.0343	2.4130
BA	-0.0861	0.0521	0.0095	0.0073	0.0165	5.1855
CR	0.1636	-0.0829	-0.0707	0.1134	0.0177	1.0722
CO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FE	0.1065	-0.2187	0.3151	0.1051	0.1437	-2.7989
PB	-0.2189	0.1651	0.0168	-0.0135	-0.0505	-0.1309
MG	0.2984	-0.0690	-0.0749	0.0228	0.0028	0.5327
MN	0.1565	0.0000	-0.0225	-0.0156	0.0435	0.2372
NI	0.4907	-0.1719	-0.0844	0.1139	-0.0275	-1.6717
V	0.0041	0.9439	-0.1073	-0.0106	0.2637	-3.8995
ZN	0.7674	0.3111	-0.1193	-0.0935	-0.5471	-0.7340

IRON

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678

19243.7850	Mean
8334.7981	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0336	0.0311	0.0500	-0.2302	-0.0703	0.0173
AS	-0.2855	-0.0922	-1.4480	0.1990	-0.0932	0.1968
BA	-0.0342	0.0353	-0.0269	-0.0279	0.0449	0.4229
CR	0.0649	-0.0562	0.1999	-0.4322	0.0480	0.0874
CO	0.5719	0.1228	0.4742	0.7426	0.7290	0.1556
FE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PB	-0.0869	0.1118	-0.0476	0.0516	-0.1373	-0.0107
MG	0.1184	-0.0467	0.2117	-0.0870	0.0077	0.0434
MN	0.0621	0.0000	0.0637	0.0593	0.1183	0.0193
NI	0.1948	-0.1164	0.2387	-0.4340	-0.0746	-0.1363
V	0.0016	0.6393	0.3035	0.0403	0.7162	-0.3180
ZN	0.3046	0.2107	0.3374	0.3561	-1.4860	-0.0599

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-3.478559	-3.84672	-1.89974	-0.6648	-0.57284	-1.54481	-10.9885	-22250.21	-1.8676	-1.63734	-8.58642	-1.25215	-3.85045	-0.88144
MAXIMUM DOMAIN VALUE	19.749829	3.5459	3.8876	4.55442	0.6556	0.70078	20.1742	48105.529	2.86893	2.75473	2.40017	2.30435	2.07165	1.78557
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	3.4476817	-0.67585	-1.73884	-0.26662	-0.43864	-0.03037	-1.29768	7743.308	-0.92244	-1.50884	-0.91256	0.26915	-0.50827	-0.57481
BASS-BWBK-SS-BA102-0001	1.8908634	-1.09982	-1.86456	-0.22421	-0.5106	0.02386	-1.03421	4863.9869	-1.12445	-1.63385	-1.25278	0.40503	-0.33413	-0.61226
BASS-BWBK-SS-BA103-0001	2.3377213	-0.99273	-1.76331	-0.24892	-0.4818	0.03934	-0.79608	5920.6667	-1.05554	-1.55244	-1.11877	0.35035	-0.27377	-0.57473
BASS-BWBK-SS-BA104-0001	3.6352194	-0.59652	-1.51763	-0.33821	-0.38494	0.07764	-1.61096	9359.7329	-0.81847	-1.34968	-0.68665	0.1407	-0.10918	-0.59012
BASS-BWBK-SS-BA105-0001	2.8768337	-0.79695	-1.75442	-0.24993	-0.46235	-0.03354	-1.97978	7499.93	-0.92458	-1.52235	-0.99725	0.38199	-0.4309	-0.63749
BASS-BWBK-SS-BA106-0001	4.3996951	-0.35167	-1.60232	-0.38279	-0.34832	-0.01489	-2.25399	10210.727	-0.74341	-1.40849	-0.55945	-0.01802	-0.39579	-0.64355
BASS-BWBK-SS-BA107-0001	1.8993132	-1.10371	-1.75168	-0.23791	-0.51045	0.04808	-0.99307	5125.3314	-1.12594	-1.55757	-1.2151	0.40398	-0.26789	-0.60918
BASS-BWBK-SS-BA108-0001	2.133042	-1.03293	-1.83154	-0.25783	-0.4892	0.02624	-0.9577	5416	-1.08262	-1.61235	-1.16946	0.33133	-0.29932	-0.60819
BASS-BWBK-SS-BA109-0001	4.0653148	-0.45668	-1.89974	-0.37837	-0.36024	0.01102	-1.40285	8511.6856	-0.81484	-1.63734	-0.72055	-0.07214	-0.31834	-0.61431
BASS-BWBK-SS-BA110-0001	4.3226474	-0.54471	-1.62795	-0.32087	-0.32188	0.10665	1.23412	9407.337	-0.78942	-1.40145	-0.60415	-0.02734	-0.06478	-0.32357
BASS-BWBK-SS-BA111-0001	2.6180864	-0.88867	-1.79824	-0.27124	-0.44598	0.03901	-1.16364	6384.0719	-1.01556	-1.57147	-1.02783	0.22637	-0.28685	-0.59758
BASS-BWBK-SS-BA112-0001	2.4153074	-0.9619	-1.80468	-0.25557	-0.47397	0.04507	-0.87201	5948.0468	-1.05858	-1.57959	-1.08817	0.31271	-0.28656	-0.57875
BASS-BWBK-SS-BA113-0001	5.3295475	-0.22244	-1.40438	-0.36737	-0.57284	-0.55434	-1.98742	11293.548	-0.72892	-1.30345	-0.75809	0.72837	-1.86275	-0.66405
MASB-BWBK-SB-MA01-0105	16.60953	2.82087	-0.67238	0.02455	0.1561	-0.26112	-4.11288	38138.888	1.8337	-0.1558	1.38481	0.75614	-0.11208	0.08202
MASB-BWBK-SB-MA02-0107	16.179167	2.70068	-0.79424	-0.02831	0.36394	-0.52055	-3.7692	38195.873	1.74752	-0.20888	1.72472	0.02359	-0.94651	0.15711
MASB-BWBK-SB-MA03-0108	16.899743	2.71094	-0.88819	0.35511	0.15044	-0.79913	-2.72791	48105.529	2.86893	-0.02693	1.60015	2.30435	-0.29094	0.55477
MASB-BWBK-SB-MA04-0106	18.729031	3.30541	-0.46037	-0.15201	0.33921	-0.64172	-2.75368	40553.026	1.937	-0.01625	1.89931	-0.01341	-1.29166	0.19165
MASB-BWBK-SB-MA05-0108	10.751393	0.76733	-0.92961	1.0782	0.18301	-0.53112	1.11644	15745.802	0.76262	-0.3812	-1.78551	0.33217	-1.17979	0.44458
MASB-BWBK-SB-MA06-0105	14.714755	2.37644	-0.50392	-0.17824	0.27445	-0.47227	-4.912	35358.122	1.38012	-0.12385	1.59518	-0.12025	-0.99052	-0.0931
MASB-BWBK-SB-MA07-0108	10.213044	1.06088	-0.97209	0.58065	0.13265	-0.43674	-5.10474	20096.151	0.54934	-0.4657	-0.56274	0.13943	-1.37613	-0.12952
MASB-BWBK-SB-MA08-0108	11.65783	1.3199	-0.49553	2.42009	0.53378	-0.5673	-10.9885	16691.177	1.21887	0.42568	-2.66133	0.64172	-1.9647	0.22663
MASB-BWBK-SB-MA09-0108	7.7594356	-0.23043	-1.11975	2.22975	0.05409	-0.7277	-0.13913	5549.7818	0.51112	-0.33184	-4.05583	1.43709	-1.8442	0.6059
MASB-BWBK-SB-MA10-0104	8.0530981	0.6453	-0.88998	0.47772	0.02777	-0.27494	-7.68359	21329.783	0.46077	-0.41443	-0.33053	0.57812	-0.79488	-0.35069
MASB-BWBK-SB-MA11-0108	14.442297	2.26369	-0.26655	0.37445	0.30713	-0.63207	-7.19918	33632.746	1.44301	0.18637	0.86589	0.26102	-1.55769	-0.0576
MASB-BWBK-SB-MA12-0108	10.771151	0.63377	-1.28989	1.81811	0.2077	-0.74445	0.83614	14902.942	1.17284	-0.40504	-2.78284	1.18926	-1.42699	0.7319
MASB-BWBK-SB-MA13-0105	7.0365356	-0.05185	0.02702	-0.28951	0.05047	0.29427	3.77921	19571.38	-0.05709	-0.05448	0.40583	-0.4278	0.89171	0.1992
MASB-BWBK-SB-MA14-0104	9.0970363	0.25885	-0.14673	0.79489	0.29846	0.08575	3.98651	20278.657	0.56098	0.22732	-0.52268	0.11925	0.32854	0.79807
MASB-BWBK-SB-MA15-0105	7.4725161	-0.04563	0.32235	0.3008	0.21181	0.35809	3.31041	19056.382	0.1567	0.35308	-0.1327	-0.29831	0.98741	0.46587
MASB-BWBK-SB-MA16-0104	8.4598427	0.46224	-0.14184	-0.0104	0.02585	0.11666	-0.27651	24202.367	0.4165	-0.00725	0.45122	0.31645	0.53093	0.10002
MASB-BWBK-SB-MA17-0104	7.576054	0.04431	-0.04048	0.03508	0.00847	0.03376	2.74906	21421.717	0.16817	0.03427	0.19863	0.24826	0.22086	0.30994
MASB-BWBK-SB-MA18-0104	7.4943027	0.35074	0.69557	-0.3663	0.17602	0.41258	-2.06582	21822.999	0.03897	0.41101	0.72577	-0.91242	1.0753	-0.25455
MASB-BWBK-SB-MA19-0103	6.4947925	-0.17074	-0.09764	-0.17101	-0.06591	0.22506	2.63857	16988.62	-0.18571	-0.16959	-0.07471	-0.12839	0.62819	0.06388
MASB-BWBK-SB-MA20-0103	12.880814	1.88647	-0.52901	-0.16329	0.19852	-0.37505	-4.75624	34601.643	1.27669	-0.14392	1.49501	0.22176	-0.56195	-0.09013
MASS-BWBK-SS-MA01-0001	1.5273121	-1.74536	-0.30993	-0.30628	-0.33668	0.22018	8.19713	5014.4099	-1.30831	-0.57126	-0.99509	-0.18047	0.30387	0.15136
MASS-BWBK-SS-MA02-0001	6.0871059	-0.96026	-0.10905	-0.50275	-0.0838	-0.08038	16.7394	10258.226	-0.89011	-0.38725	-0.20315	-0.93289	-0.43033	0.91526
MASS-BWBK-SS-MA03-0001	3.7584863	-1.20213	-0.35332	-0.13652	-0.16808	0.15595	8.62148	7144.4192	-1.00326	-0.49263	-0.87756	-0.44943	0.05335	0.34579
MASS-BWBK-SS-MA04-0001	6.43865	-0.46201	-0.42019	-0.36838	-0.08877	-0.06659	8.76288	13119.084	-0.59668	-0.51181	-0.11706	-0.59964	-0.41136	0.3909
MASS-BWBK-SS-MA05-0001	9.4654663	0.65176	0.32588	-0.43443	0.10357	-0.16671	1.7473	23364.766	0.08511	0.15431	0.91324	-0.70435	-0.61181	0.05084
MASS-BWBK-SS-MA06-0001	6.6941049	-1.23066	0.17648	0.72543	0.16104	0.0557	20.1742	1779.081	-0.80326	0.07374	-2.18442	-0.95915	-0.29661	1.59285
MASS-BWBK-SS-MA07-0001	-3.478559	-2.72305	-0.70553	-0.00521	-0.54915	0.4529	0.91993	-3198.53	-1.8676	-0.89764	-2.11646	0.34383	0.76415	-0.52179
MASS-BWBK-SS-MA08-0001	2.5668887	-1.35392	0.97489	0.2011	-0.15137	0.0813	1.55203	11339.78	-0.83042	0.59086	-0.85001	0.17742	-0.1388	0.03694
MASS-BWBK-SS-MA09-0001	10.35124	0.40234	2.29308	-0.27788	0.20561	-0.4068	6.84545	27184.284	0.23947	1.59949	1.02512	-0.59475	-1.06607	0.62474
MASS-BWBK-SS-MA10-0001	7.9661416	0.06773	1.72865	-0.03081	0.09497	-0.21466	1.16699	23001.908	0.04594	1.21927	0.36486	-0.20837	-0.65384	0.16814
MASS-BWBK-SS-MA11-0001	7.8990345	-0.08407	1.7595	0.19039	0.21876	0.27528	4.12292	21732.939	0.00282	1.33814	0.30917	-0.38462	0.49701	0.55769
MASS-BWBK-SS-MA12-0001	7.6152512	0.12443	-0.21619	-0.39092	-0.04096	-0.18869	2.92077	15738.075	-0.47825	-0.34163	0.18534	-0.76641	-1.00985	-0.03037
MASS-BWBK-SS-MA13-0001	5.5919061	-0.94824	1.12804	-0.29855	0.02728	0.41063	12.2485	13277.346	-0.80692	0.59716	0.04906	-0.87843	0.72567	0.76827
MASS-BWBK-SS-MA14-0001	1.953535	-1.6367	1.42885	-0.431	-0.25388	0.39815	6.39241	10418.591	-1.20628	0.6633	-0.33223	-0.29109	0.76752	0.08781
MASS-BWBK-SS-MA15-0001	2.6263168	-1.53731	1.01817	-0.38583	-0.13758	0.40246	8.6605	9410.9182	-1.1722	0.40401	-0.34662	-0.68325	0.72961	0.30181
MASS-BWBK-SS-MA16-0001	2.9982899	-1.13287	0.84148	-0.12805	-0.11078	0.40647	1.90519	10389.476	-0.96367	0.37951	-0.53577	-0.47723	0.62009	-0.1066
MASS-BWBK-SS-MA17-0001	3.8215185	-0.9329	0.80348	-0.18935	-0.07748	0.28954	2.37894	14194.395	-0.65718	0.40065	-0.18515	-0.31463	0.59604	-0.00902
MASS-BWBK-SS-MA18-0001	1.1986998	-1.55622	1.40098	-0.13317	-0.20513	0.45306	-0.12828	8978.9333	-1.16406	0.71377	-0.77043	-0.26904	0.78612	-0.33877
MASS-BWBK-SS-MA19-0001	3.4912562	-1.0645	1.18258	-0.16432	-0.08664	0.35736	2.62814	13928.145	-0.7251	0.65969	-0.2356	-0.28369	0.74814	0.01566
MASS-BWBK-SS-MA20-0001	6.2578259	-0.2975	0.4981	-0.12923	-0.03465	0.10009	2.47118	16513.811	-0.37515	0.24738	-0.05259	-0.30252	0.01857	0.07853
MMSB-BWBK-SB-MM101-0110	6.9995092	0.07234	-1.198	-0.13346	-0.09844	0.00434	1.65079	19207.991	0.05795	-0.85116	0.1301	0.27952	0.14767	0.07229
MMSB-BWBK-SB-MM102-0109	9.9818304	1.03315	-1.17136	-0.46033	0.13204	0.02124	0.09001	24351.813	0.47273	-0.84481	0.97121	-0.60981	0.27649	-0.07468
MMSB-BWBK-SB-MM103-0107	7.5412819	0.22516	-1.32328	-0.2195	-0.02528	-0.00051	2.16856	26295.706	0.73724	-0.839	0.6753	0.70039	0.99977	0.22823
MMSB-BWBK-SB-MM104-0110	11.720202	1.39851	-0.82988	-0.18089	0.19792	-0.05704	0.10186	29033.817	0.80278	-0.41918	1.24571	-0.17263	-0.03115	0.21253
MMSB-BWBK-SB-MM105-0110	3.9738128	-0.66506	-1.31542	-0.11758	-0.25271	0.06933	0.41536	11999.681	-0.47951	-1.07376	-0.65133	0.28724	0.2059	-0.23316
MMSB-BWBK-SB-MM106-0110	14.454729	2.07886	-0.23143	-0.59295	0.27039	-0.06573	1.80762	34422.694	1.04253	-0.06564	2.11933	-0.61917	0.00344	0.27435
MMSB-BWBK-SB-MM107-0110	8.0029986	0.34573	-1.19705	-0.37678	0.09105	0.11184	3.12205	19885.586	0.12047	-0.9	0.54678	-0.61683	0.46577	0.11934
MMSB-BWBK-SB-MM108-0110	6.976119	0.15238	-0.88836	-0.28379	-0.08501	0.07847	0.26741	19821.043	0.004	-0.68344	0.34528	0.04876	0.29018	-0.09982
MMSB-BWBK-SB-MM109-0110	9.0437465	0.50688	-0.4138	-0.38091	0.11529	0.14287	4.15613	24270.934	0.29618	-0.28708	0.99571	-0.39477	0.56739	0.32326
MMSB-BWBK-SB-MM110-0109	7.8053108	0.33177	-0.81274	-0.31481	0.10386	0.15765	1.57278	19986.149	0.04712	-0.61279	0.55978	-0.63352	0.41498	0.03782
MMSB-BWBK-SB-MM111-0110	9.1709922	0.60764	-0.81773	-0.27139	0.07836	0.0723	2.83338	22614.282	0.22994	-0.55706	0.75345	-0.31554	0.1838	0.22674
MMSB-BWBK-SB-MM112-0110	10.052835	1.03277	-0.35191	-0.42172	0.10363	0.36302	-0.37788	25729.534	0.36859	-0.24144	1.1926	-0.43179	0.92093	-0.03327
MMSB-BWBK-SB-MM113-0110	10.774953	1.18004	-1.2118	-0.57319	0.28511	0.04506	2.20711	24604.655	0.47287	-0.87903	1.27556	-1.25215	0.25493	0.09078
MMSB-BWBK-SB-MM114-0110	5.367029	-0.4495	-1.28031	-0.14359	-0.1602	0.10694	3.72152	13239.124	-0.34084	-1.02538	-0.45592	0.04197	0.3475	0.07106

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-3.478559	-3.84672	-1.89974	-0.6648	-0.57284	-1.54481	-10.9885	-22250.21	-1.8676	-1.63734	-8.58642	-1.25215	-3.85045	-0.88144
MAXIMUM DOMAIN VALUE	19.749829	3.5459	3.8876	4.55442	0.6556	0.70078	20.1742	48105.529	2.86893	2.75473	2.40017	2.30435	2.07165	1.78557
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	9.3909362	0.31166	-0.2616	-0.40863	-0.04705	0.17684	9.43659	21805.758	0.02802	-0.25323	0.74927	-0.10581	0.47714	0.65885
MMSB-BWBK-SB-MM116-0110	9.2090569	0.59177	-1.23774	-0.34493	-0.00776	-0.09077	3.85412	21577.36	0.23481	-0.907	0.57056	-0.16956	-0.09964	0.20947
MMSB-BWBK-SB-MM117-0110	5.3031565	-0.3334	-1.37932	-0.15008	-0.24274	0.02506	0.97589	16710.444	-0.12886	-1.04173	-0.21105	0.61555	0.30429	-0.08469
MMSB-BWBK-SB-MM118-0110	11.030872	1.40863	-1.31724	-0.49118	0.06176	-0.06164	-1.76257	27641.408	0.7963	-0.9231	1.10317	-0.16459	0.31017	-0.20415
MMSB-BWBK-SB-MM119-0110	8.0907099	0.43816	-1.04282	-0.29912	-0.07299	0.05519	0.74522	20214.202	0.08077	-0.7912	0.38603	-0.03102	0.17011	-0.06364
MMSB-BWBK-SB-MM120-0110	2.8060587	-0.95173	-1.47645	-0.15638	-0.35588	0.18148	0.48945	10492.9	-0.65702	-1.2229	-0.75003	0.52106	0.48578	-0.28473
MMSS-BWBK-SS-MM101-0001	3.868217	-0.80556	0.55944	-0.16636	0.08445	0.34919	0.86437	12433.707	-0.80545	0.24737	-0.09271	-1.03132	0.38758	-0.10323
MMSS-BWBK-SS-MM102-0001	2.0020392	-1.08776	-0.27025	-0.17676	-0.10312	0.40184	-2.04044	8717.2382	-1.01201	-0.40462	-0.55297	-0.64161	0.55938	-0.47229
MMSS-BWBK-SS-MM103-0001	2.4334427	-1.03057	0.58056	-0.12797	0.05716	0.45856	-2.17245	11018.91	-0.92107	0.24848	-0.26757	-0.98335	0.66728	-0.36956
MMSS-BWBK-SS-MM104-0001	4.5179816	-0.66195	0.33151	-0.15621	0.09872	0.34079	1.77247	13754.697	-0.63616	0.12088	-0.00608	-0.92895	0.49983	0.00714
MMSS-BWBK-SS-MM105-0001	0.1622541	-1.63013	-0.12385	-0.11292	-0.22229	0.41655	-1.65361	6341.5483	-1.20249	-0.33974	-0.94639	-0.27008	0.7157	-0.4944
MMSS-BWBK-SS-MM106-0001	5.1511807	-0.42935	0.27709	-0.25616	0.18245	0.4059	1.31497	15657.434	-0.48668	0.09441	0.31292	-1.17916	0.75357	-0.01749
MMSS-BWBK-SS-MM107-0001	5.2418168	-0.3937	0.28024	-0.27734	0.13044	0.30604	0.85292	14722.328	-0.61364	0.06436	0.2447	-1.16975	0.30649	-0.09646
MMSS-BWBK-SS-MM108-0001	1.8313273	-1.2335	0.72223	-0.25059	0.05981	0.5249	-0.87657	10152.97	-1.06229	0.29369	-0.19337	-1.18148	0.85083	-0.33792
MMSS-BWBK-SS-MM109-0001	1.8672049	-1.08745	0.2193	-0.21073	0.03608	0.51634	-2.92992	9916.9922	-0.99066	-0.04211	-0.28368	-1.06788	0.84095	-0.49878
MMSS-BWBK-SS-MM110-0001	-1.546488	-2.13737	-0.22887	-0.12942	-0.317	0.48545	-0.33442	2388.8644	-1.56304	-0.48503	-1.26741	-0.23181	0.78546	-0.49113
MMSS-BWBK-SS-MM111-0001	-0.582934	-1.87375	-0.46939	-0.16353	-0.24409	0.39915	-0.01219	3834.384	-1.40438	-0.62652	-1.06833	-0.41102	0.59892	-0.43519
MMSS-BWBK-SS-MM112-0001	-1.191503	-2.05949	-0.53601	-0.10939	-0.3586	0.31306	-0.04489	1621.742	-1.5566	-0.71263	-1.42884	-0.14661	0.31668	-0.49604
MMSS-BWBK-SS-MM113-0001	0.8857854	-1.48912	0.71644	-0.23414	-0.08014	0.47062	-1.20311	8796.8761	-1.21382	0.2545	-0.42591	-0.78432	0.69203	-0.41557
MMSS-BWBK-SS-MM114-0001	-0.959966	-2.02127	-0.87739	-0.11528	-0.39927	0.2924	0.89671	1481.6157	-1.50864	-0.95339	-1.48281	0.00286	0.33787	-0.43564
MMSS-BWBK-SS-MM115-0001	0.1024145	-1.78079	-0.50424	-0.11489	-0.28663	0.34172	1.367	3307.3316	-1.42718	-0.65163	-1.18872	-0.29369	0.34263	-0.32171
MMSS-BWBK-SS-MM116-0001	-0.784575	-1.93856	-0.39687	-0.11969	-0.31684	0.41665	-0.1899	3323.6314	-1.44326	-0.584	-1.22548	-0.16184	0.63775	-0.45902
MMSS-BWBK-SS-MM117-0001	2.6534988	-1.11976	0.03105	-0.19388	-0.04434	0.3522	1.52157	9912.1044	-0.97263	-0.17241	-0.36133	-0.74872	0.45464	-0.14174
MMSS-BWBK-SS-MM118-0001	3.7520579	-0.74726	-0.98637	-0.16452	-0.12804	0.27066	1.19443	11561.685	-0.58853	-0.84657	-0.45965	-0.22687	0.61096	-0.15877
MMSS-BWBK-SS-MM119-0001	3.0960047	-0.92149	-1.13332	-0.18339	-0.21888	0.24918	1.32864	9798.1941	-0.73404	-0.99455	-0.65857	-0.07279	0.52388	-0.21751
MMSS-BWBK-SS-MM120-0001	3.8720507	-0.51448	-0.80045	-0.10792	-0.01145	0.2944	-3.05017	12967.128	-0.5756	-0.65286	-0.18544	-0.52844	0.39255	-0.39711
NESB-BWBK-SB-NE01-0108	13.139803	2.03409	-1.13487	-0.34367	0.34047	-0.25184	-3.96524	33123.249	1.16989	-0.60674	1.76802	-0.58298	-0.40181	-0.09653
NESB-BWBK-SB-NE02-0109	13.853374	1.66439	-1.20216	-0.24834	0.21886	-0.21827	6.55965	29725.625	0.98826	-0.68808	1.30273	-0.2469	-0.29455	0.70916
NESB-BWBK-SB-NE03-0105	9.3517259	0.92409	-1.23143	-0.10953	0.17438	-0.06808	-2.57353	24254.076	0.49562	-0.74871	0.75635	-0.33014	-0.14404	-0.0869
NESB-BWBK-SB-NE04-0110	10.227916	1.11624	-1.11961	-0.27305	0.12216	-0.13312	-1.52324	26704.455	0.64021	-0.70168	1.01986	-0.16811	-0.14082	-0.04882
NESB-BWBK-SB-NE05-0108	11.784254	1.70854	-1.05126	-0.29692	0.24684	-0.21065	-5.03308	30809.358	0.95267	-0.58409	1.47388	-0.38426	-0.36982	-0.23058
NESB-BWBK-SB-NE06-0109	10.339198	1.26599	-1.13693	-0.24275	0.14987	-0.14269	-3.9571	27917.868	0.75072	-0.6817	1.0988	-0.14726	-0.14609	-0.20176
NESB-BWBK-SB-NE07-0107	12.477825	1.79339	-1.13929	-0.30769	0.31674	-0.28354	-2.94017	30814.969	0.99242	-0.63864	1.5316	-0.63174	-0.56812	-0.05249
NESB-BWBK-SB-NE08-0104	8.520148	0.78061	-0.99707	-0.2916	0.0943	-0.03628	-3.76457	25220.882	0.50195	-0.65371	0.86809	-0.16681	0.18844	-0.28475
NESB-BWBK-SB-NE09-0110	10.193259	1.19121	-1.20572	-0.26119	0.13443	-0.15322	-3.10186	26861.49	0.66035	-0.75263	1.03394	-0.20002	-0.22784	-0.16579
NESB-BWBK-SB-NE10-0107	8.3347797	0.62826	-0.2063	-0.40708	0.11932	0.15045	-2.12517	23771.735	0.18654	-0.17289	0.98332	-0.5932	0.37066	-0.22044
NESB-BWBK-SB-NE101-0110	8.5906795	0.29156	-0.4147	-0.36635	0.1006	0.19477	6.05946	22026.149	0.09842	-0.31557	0.83916	-0.49553	0.57329	0.44217
NESB-BWBK-SB-NE102-0110	7.5827922	-0.11636	-0.55485	-0.38038	-0.02964	0.16703	8.83613	18042.435	-0.20306	-0.50081	0.40742	-0.35536	0.44917	0.53858
NESB-BWBK-SB-NE103-0110	5.7585234	-0.44299	-0.8077	-0.31495	-0.13119	0.19721	5.81151	14974.83	-0.41818	-0.71492	0.00695	-0.1505	0.47466	0.23125
NESB-BWBK-SB-NE104-0110	4.5489544	-0.67627	-0.9742	-0.28233	-0.21675	0.19761	4.10144	13383.623	-0.52543	-0.85534	-0.24195	0.08545	0.50952	0.05041
NESB-BWBK-SB-NE105-0110	8.6471595	0.23965	-0.42787	-0.31897	0.02769	0.19238	7.05469	20302.613	-0.0198	-0.35112	0.59085	-0.36092	0.45447	0.48813
NESB-BWBK-SB-NE106-0110	7.8383609	0.09932	-0.6567	-0.37404	-0.02405	0.14645	6.04057	19804.28	-0.05069	-0.54036	0.53377	-0.24627	0.4461	0.35177
NESB-BWBK-SB-NE107-0510	5.7038128	-0.31848	-0.98761	-0.29528	-0.20098	0.14294	3.05952	15471.941	-0.39254	-0.83244	-0.01281	0.11182	0.27675	0.01473
NESB-BWBK-SB-NE108-0110	6.4964707	-0.13047	-0.41796	-0.37666	-0.04693	0.26767	3.41896	19498.773	-0.15607	-0.38172	0.52943	-0.17751	0.75729	0.13412
NESB-BWBK-SB-NE109-0110	6.7970716	-0.17233	-0.67824	-0.34637	-0.05362	0.19	5.92849	18034.849	-0.21365	-0.57245	0.37645	-0.2216	0.50619	0.319
NESB-BWBK-SB-NE110-0110	6.5164944	-0.09506	-0.68855	-0.35838	-0.05234	0.19184	3.0307	19116.377	-0.12582	-0.56904	0.44669	-0.15773	0.5881	0.09536
NESS-BKG-SS03-NEB-0016	4.0787508	-0.81433	1.47631	-0.2322	-0.00076	-0.16533	-0.47027	18701.537	-0.52517	0.92737	0.31773	-0.34368	-0.64417	-0.13772
NESS-BKG-SS09-NEB-0018	0.6023576	-1.70897	0.14899	0.14571	-0.1053	0.30063	0.54721	4813.8087	-1.11494	-0.09738	-1.39042	-0.4686	0.48374	-0.23367
NESS-BWBK-SS-NE01-0001	9.8492656	0.54055	0.86682	0.09581	0.22782	-0.51523	2.15183	21641.848	0.21236	0.65743	0.14471	-0.66562	-1.55384	0.28294
NESS-BWBK-SS-NE02-0001	12.403829	1.32393	0.37169	0.15165	0.1532	-1.08634	-0.77625	22395.463	0.45454	0.29978	-0.11476	-0.49251	-3.17661	0.01392
NESS-BWBK-SS-NE03-0001	5.5680669	-0.33705	0.11995	-0.03731	0.19542	0.05971	0.23606	14002.468	-0.47333	0.01693	-0.12534	-1.16052	-0.28906	-0.06004
NESS-BWBK-SS-NE04-0001	7.7880669	0.38079	0.10631	-0.25301	0.3182	0.15553	-0.93758	23366.635	0.21675	0.11543	0.94304	-1.04209	0.44329	-0.01384
NESS-BWBK-SS-NE05-0001	6.7700815	-0.07893	0.22808	-0.11242	0.19101	-0.11176	1.15423	16121.805	-0.29448	0.08583	0.02819	-1.1046	-0.61303	0.00399
NESS-BWBK-SS-NE06-0001	7.4740857	0.38628	-0.08858	-0.32957	0.28582	0.15596	-2.07044	21593.679	0.07177	-0.08022	0.84857	-1.20269	0.32543	-0.19519
NESS-BWBK-SS-NE07-0001	4.7063356	-0.66489	0.8865	0.07314	0.0914	-0.03494	0.01056	13180.783	-0.58676	0.53024	-0.47947	-0.76985	-0.50467	-0.08827
NESS-BWBK-SS-NE08-0001	6.3090448	-0.0762	0.00247	-0.19592	0.2152	0.12176	0.02265	16722.053	-0.30958	-0.0629	0.29541	-1.19594	-0.01553	-0.08119
NESS-BWBK-SS-NE09-0001	4.5202511	-0.87007	0.57156	-0.08621	0.17382	0.12542	4.80436	12014.367	-0.71725	0.27813	-0.23615	-1.22948	-0.07109	0.24618
NESS-BWBK-SS-NE10-0001	4.8957888	-0.54141	0.75785	-0.12751	0.02521	-0.02426	-0.44043	15214.804	-0.54278	0.40809	-0.1162	-0.62256	-0.40945	-0.1782
NESS-BWBK-SS-NE101-0001	2.2905404	-1.21071	-0.08884	-0.27528	-0.02122	0.42039	2.17229	10033.096	-0.94295	-0.27343	-0.27659	-0.84971	0.79633	-0.12254
NESS-BWBK-SS-NE102-0001	0.6321983	-1.60409	-0.12906	-0.2471	-0.23774	0.372	0.73309	6781.9924	-1.24222	-0.37854	-0.75288	-0.34724	0.58334	-0.35078
NESS-BWBK-SS-NE103-0001	0.1898461	-1.69781	-0.32895	-0.2184	-0.25553	0.41618	0.5617	5039.4418	-1.31769	-0.53779	-0.95806	-0.3745	0.68805	-0.39905
NESS-BWBK-SS-NE104-0001	0.3740441	-1.55335	-0.11419	-0.21516	-0.20692	0.29304	-1.88969	7434.9507	-1.23019	-0.34003	-0.6721	-0.38777	0.29396	-0.52086
NESS-BWBK-SS-NE105-0001	-0.090369	-1.82104	-0.62391	-0.17947	-0.32999	0.31894	1.50908	3515.4492	-1.4057	-0.75858	-1.17508	-0.17817	0.40112	-0.3517
NESS-BWBK-SS-NE106-0001	-0.962912	-2.03596	-0.0922	-0.19222	-0.30623	0.30048	0.34289	4512.0837	-1.46725	-0.3764	-1.01928	-0.18868	0.34496	-0.41445
NESS-BWBK-SS-NE107-0001	-0.532028	-1.95204	-0.17115	-0.20465	-0.33003	0.3662	1.22791	3712.1128	-1.48663	-0.45589	-1.11451	-0.20906	0.48777	-0.37906
NESS-BWBK-SS-NE108-0001	0.5992565	-1.74051	-0.10455	-0.23183	-0.29079	0.33228	2.94728	5678.1119	-1.33581	-0.38173	-0.89547	-0.22912	0.44939	-0.1982
NESS-BWBK-SS-NE109-0001	-0.159576	-1.87387	-0.59156	-0.19991	-0.34233	0.33833	2.2409	3271.1221	-1.45408	-0.74595	-1.16	-0.1766	0.42611	-0.30466
NESS-BWBK-SS-NE110-0001	-1.964766	-2.234	0.185	-0.15267	-0.35704	0.51596	-1.22002	3326.7628	-1.57155	-0.20398	-1.21025	-0.05687	0.91847	-0.56386

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-3.478559	-3.84672	-1.89974	-0.6648	-0.57284	-1.54481	-10.9885	-22250.21	-1.8676	-1.63734	-8.58642	-1.25215	-3.85045	-0.88144
MAXIMUM DOMAIN VALUE	19.749829	3.5459	3.8876	4.55442	0.6556	0.70078	20.1742	48105.529	2.86893	2.75473	2.40017	2.30435	2.07165	1.78557
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	11.316571	1.20307	-0.41248	-0.12609	0.25786	-0.01384	1.09718	32849.031	1.30693	-0.06815	1.23967	0.1906	0.94879	0.36573
PMSB-BWBK-SB-PM02-0104	10.543842	1.09467	0.13985	0.84709	0.58284	0.38807	-4.42704	30550.219	1.35826	0.65997	0.53269	0.04184	1.44649	0.45005
PMSB-BWBK-SB-PM03-0106	12.597645	1.94123	-0.5845	0.61479	0.40114	-0.22344	-9.84736	39912.821	2.13743	0.19666	1.15709	1.1129	0.49567	0.02507
PMSB-BWBK-SB-PM04-0105	10.300958	0.92884	-0.6317	0.70725	0.24335	-0.18577	-2.41775	22979.346	0.97998	-0.1371	-0.5536	0.32862	-0.06657	0.21245
PMSB-BWBK-SB-PM05-0105	11.605238	1.40349	-0.45711	0.28949	0.24464	-0.04133	-3.1334	31789.949	1.33834	0.01763	0.769	0.54442	0.54239	0.20035
PMSB-BWBK-SB-PM06-0105	13.248174	1.7221	-0.75431	0.47315	0.20205	0.16973	-0.73541	28388.574	1.21086	-0.18914	0.32792	0.51888	0.68703	0.40158
PMSB-BWBK-SB-PM07-0105	7.0964057	-0.00962	-0.47732	0.65744	0.07519	0.42961	0.40207	25018.731	0.93879	0.01786	-0.26022	1.33943	2.07165	0.50095
PMSB-BWBK-SB-PM08-0106	8.7174077	0.49118	-0.52052	0.53711	0.14093	0.04686	-1.16632	26821.938	1.1467	-0.04339	-0.11237	1.00253	1.11628	0.32375
PMSB-BWBK-SB-PM09-0106	6.9339733	0.12682	-1.04924	0.3911	0.01219	0.04093	-1.98799	20109.013	0.57168	-0.57874	-0.55649	0.68829	0.73314	0.01015
PMSB-BWBK-SB-PM10-0105	7.6456184	0.46856	0.84951	0.23699	0.20073	0.53007	-6.13939	28913.164	0.86407	0.84269	0.60965	0.4685	2.04362	-0.13041
PMSB-BWBK-SB-PM11-0104	12.401354	1.47462	-0.6308	0.36446	0.18378	0.25691	0.14517	33592.986	1.56029	-0.04143	0.81763	1.07701	1.56309	0.54633
PMSB-BWBK-SB-PM12-0105	7.5696392	0.3465	-0.58296	-0.3488	0.04061	0.17143	-0.26849	21210.035	0.16225	-0.47142	0.52425	-0.3599	0.67242	-0.14012
PMSB-BWBK-SB-PM13-0106	6.8987785	-0.03937	0.10856	0.18151	0.14933	0.55625	1.42348	17592.048	-0.09524	0.15178	-0.01741	-0.39613	1.20536	0.23987
PMSB-BWBK-SB-PM14-0106	6.628097	0.00103	-0.29229	-0.13687	-0.06456	0.29927	0.31586	19215.509	0.01751	-0.24791	0.08521	0.11283	0.94943	-0.05139
PMSB-BWBK-SB-PM15-0105	9.0600078	0.65036	-0.34685	0.0507	0.14848	0.0844	-0.61842	23744.516	0.46839	-0.11893	0.44847	-0.08749	0.34566	0.11484
PMSB-BWBK-SB-PM16-0106	7.5613054	0.30836	-0.43654	-0.08505	0.01282	0.14072	-1.06657	19702.22	0.08535	-0.31386	0.14939	-0.12667	0.35692	-0.11271
PMSB-BWBK-SB-PM17-0105	9.6624649	0.9676	0.04273	0.10702	0.15918	0.11747	-4.53014	37558.541	1.58871	0.39993	1.35836	1.28326	1.61431	0.12976
PMSB-BWBK-SB-PM18-0105	12.110185	1.55474	-1.03095	0.67928	0.34505	-0.34479	-4.68221	25435.142	0.9977	-0.33635	0.04557	-0.00889	-1.05087	0.14908
PMSB-BWBK-SB-PM19-0105	10.994723	1.1451	-0.50036	0.17312	0.19977	-0.12923	-0.93733	25276.408	0.69256	-0.16224	0.44758	-0.08841	-0.3162	0.17981
PMSB-BWBK-SB-PM20-0106	9.5256776	0.80306	-0.44227	0.0684	0.13398	-0.05354	-1.44814	24128.862	0.55961	-0.18547	0.37377	-0.01707	0.02819	0.04256
PMSB-BWBK-SB-SO01-0107-PM	13.015867	1.92793	-0.57078	0.26002	0.25354	-0.63409	-7.10497	34327.15	1.48175	-0.04308	0.97651	0.51379	-1.21478	-0.09515
PMSB-BWBK-SB-SO02-0109-PM	10.86245	1.27381	-0.64186	0.89267	0.28969	-0.47021	-7.61279	24239.651	0.95294	-0.04342	-0.41373	0.33239	-1.33873	-0.04873
PMSB-BWBK-SB-SO13-0104-PM	11.525511	1.44439	-0.72574	0.7679	0.34738	-0.33114	-6.42024	34058.701	1.77635	0.04319	0.45474	1.03935	0.04267	0.22544
PMSB-BWBK-SB-SO14-0105-PM	13.684131	1.83958	-1.02135	1.01231	0.36853	-0.74195	-4.40415	31246.992	1.78043	-0.14834	-0.11874	0.88054	-1.35668	0.41156
PMSS-DABK-S-SO21-0001	7.8031585	-0.01803	2.25729	0.11057	-0.29205	-0.73922	-1.38501	22123.022	-0.12364	1.52556	-0.28082	1.02453	-2.20299	-0.1114
PMSS-DABK-S-SO22-0001	13.447596	1.5459	3.8876	-0.2299	-0.28383	-1.4452	-5.67323	38808.673	0.80717	2.75473	1.28389	1.56514	-3.85045	-0.28756
PMSS-DABK-S-SO23-0001	5.98447	-0.30108	2.21282	-0.25423	-0.0023	0.10232	-1.20862	23661.637	-0.11154	1.48068	0.60969	-0.03791	0.3302	-0.12642
PMSS-DABK-S-SO24-0001	6.783241	-0.21234	2.3445	0.19871	-0.069	-0.12989	-1.61922	23348.132	-0.08602	1.70921	0.15416	0.61326	-0.61553	0.05319
PMSS-DABK-S-SO25-0001	3.1632518	-1.00923	2.30132	1.3467	0.18496	0.6288	-7.46975	15402.301	-0.39245	2.01399	-1.12843	0.61996	0.74763	0.08504
PMSS-DABK-S-SO26-0001	12.190086	1.12315	3.64709	-0.05667	-0.15781	-1.11551	-3.26952	32258.724	0.43551	2.56882	0.74713	0.8804	-3.25922	-0.11537
PMSS-DABK-S-SO27-0001	4.5646124	-0.7051	2.62859	-0.29863	-0.18243	-0.09527	-1.94055	21231.288	-0.4732	1.67756	0.3238	0.26678	-0.37429	-0.30418
PMSS-DABK-S-SO28-0001	10.347928	0.62079	3.06059	-0.34679	-0.25566	-0.77843	-0.13834	35438.922	0.6646	2.14481	1.2228	1.46553	-1.54319	0.07539
PMSS-DABK-S-SO29-0001	8.0348294	0.00302	2.97162	-0.18565	0.04359	-0.21594	1.24023	26838.103	0.0334	2.06768	0.83598	0.0154	-0.64861	0.18344
PMSS-DABK-S-SO30-0001	10.647783	0.44969	2.45164	-0.39231	-0.06576	-0.59561	6.76548	30245.896	0.35744	1.67536	1.11981	0.41496	-1.33948	0.56467
PMSS-DABK-S-SO31-0001	3.9750107	-0.63417	1.57647	-0.24769	-0.19858	0.3826	-3.76277	21612.236	-0.27763	1.01038	0.37413	0.57305	1.11691	-0.39284
PMSS-DABK-S-SO32-0001	9.5643226	0.30793	3.50204	-0.04714	-0.18427	-0.68148	0.23645	40207.438	1.08208	2.6525	1.3691	2.16459	-0.7871	0.39433
PMSS-DABK-S-SO33-0001	7.5262693	-0.16941	2.75133	-0.6648	-0.18546	-0.15565	4.14768	27636.4	-0.05971	1.74158	1.15927	0.35892	-0.1491	0.15207
PMSS-DABK-S-SO34-0001	3.5624997	-0.96685	1.50266	-0.23376	-0.16808	0.51935	1.05424	21201.916	-0.24831	0.9743	0.34628	0.60633	1.73846	0.01228
PMSS-DABK-S-SO35-0001	4.3193283	-0.74973	2.17649	-0.21435	-0.10425	0.31314	-0.86463	22431.707	-0.26661	1.45442	0.47707	0.36129	0.94628	-0.10217
PMSS-DABK-S-SO36-0001	1.0582781	-1.51667	1.86397	-0.27787	-0.11497	0.54474	-1.43445	14477.849	-0.91368	1.10036	-0.03313	-0.24221	1.28587	-0.34689
PMSS-DABK-S-SO37-0001	3.3199697	-0.90066	1.94942	0.0435	-0.04967	0.52803	-3.22891	18490.438	-0.40166	1.32693	-0.06449	0.17868	1.34339	-0.25071
PMSS-DABK-S-SO38-0001	1.4569886	-1.26815	1.77285	-0.3033	-0.19455	0.70078	-3.76552	18355.658	-0.57173	1.08146	0.185	0.34962	2.04001	-0.48516
PMSS-DABK-S-SO39-0001	3.6020472	-0.95015	1.19924	-0.0528	-0.06989	0.62916	1.09608	17059.371	-0.48553	0.78056	0.01016	0.10128	1.58868	0.04713
PMSS-DABK-S-SO40-0001	3.5638554	-0.90289	1.86221	-0.31758	-0.15292	0.55791	-0.33393	19231.154	-0.47329	1.14707	0.27571	0.17429	1.56035	-0.19496
SESB-BWBK-SB-SO03-0108	19.566279	3.5459	-0.93868	0.86641	0.6556	-1.09799	-7.1545	43723.838	2.82996	0.07809	1.13617	0.53243	-2.04297	0.42664
SESB-BWBK-SB-SO04-0108	13.360549	1.72976	-0.86476	0.92717	0.31597	-0.76255	-3.971	30984.351	1.73535	-0.08974	-0.15704	0.94232	-1.31366	0.37456
SESB-BWBK-SB-SO05-0106	13.078008	1.63478	-0.55175	0.69356	0.34993	-0.60999	-2.69899	26524.915	1.19793	-0.02278	-0.133	0.05473	-1.45558	0.28476
SESB-BWBK-SB-SO06-0108	13.941151	1.98003	-0.68432	1.51933	0.52847	-0.83484	-8.50657	31448.425	2.06498	0.25257	-0.63506	0.92612	-1.58166	0.32768
SESB-BWBK-SB-SO07-0106	16.452272	2.95287	-0.34471	0.16105	0.27191	-0.58631	-9.19595	46694.816	2.59775	0.25853	1.8223	1.35381	-0.17295	-0.07841
SESB-BWBK-SB-SO08-0107	17.367236	2.91375	-0.46061	0.92292	0.52659	-0.88692	-6.97999	40399.653	2.45664	0.35673	0.76367	0.81036	-1.58533	0.3788
SESB-BWBK-SB-SO09-0106	12.048488	1.27989	-0.63315	0.64926	0.30703	-0.52963	-0.64531	25577.322	1.14106	-0.1089	-0.22705	0.18524	-1.02533	0.40031
SESB-BWBK-SB-SO11-0106	16.446678	2.64478	-0.70973	0.7639	0.36434	-0.44331	-4.65816	35689.963	2.09248	0.03657	0.43311	0.81568	-0.50272	0.35139
SESB-BWBK-SB-SO12-0106	13.832107	2.06299	-0.71203	0.87714	0.31155	-0.75063	-8.08917	32832.772	1.7973	0.02311	0.07066	0.93882	-1.42339	0.05697
SESB-BWBK-SB-SO15-0103	8.2336273	0.53141	-0.0001	0.07188	0.12271	0.13317	-3.1944	24444.616	0.49351	0.12578	0.41521	0.08824	0.58244	-0.08418
SESB-BWBK-SB-SO16-0105	11.051519	1.44566	-0.54317	0.03894	0.17035	-0.21434	-6.13605	30893.05	1.08603	-0.15123	0.94334	0.3251	-0.15753	-0.1983
SESB-BWBK-SB-SO17-0106	10.095336	1.05437	-0.52904	-0.34217	0.10241	-0.16698	-1.8216	29715.173	0.83773	-0.28986	1.18835	0.09174	0.12698	-0.06736
SESB-BWBK-SB-SO18-0105	8.6638473	0.60472	-0.5865	-0.40726	0.03392	-0.04449	0.1027	28497.363	0.73161	-0.37169	1.0879	0.27732	0.67702	0.02009
SESB-BWBK-SB-SO19-0104	10.868392	1.24073	-0.07465	-0.50684	0.03249	-0.17738	-1.6816	45657.261	2.03917	0.22793	2.40017	1.72943	1.60457	0.20202
SESB-BWBK-SB-SO20-0104	13.958918	2.19187	-0.61215	0.1422	0.18067	-0.5032	-6.64465	37191.965	1.59866	-0.06095	1.3643	0.82902	-0.85991	-0.0428
SESS-DABK-S-SO01-0001	5.6589892	-0.09324	1.01659	-0.17637	0.00232	-0.16771	-5.87058	18818.107	-0.34264	0.61072	0.17385	-0.44089	-0.81917	-0.58047
SESS-DABK-S-SO02-0001	19.749829	2.31751	0.62075	-0.13069	0.43756	-1.54481	18.128	35862.875	1.5353	0.64412	1.41978	-0.60262	-3.60748	1.78557
SESS-DABK-S-SO03-0001	2.4077996	-0.92354	2.74545	-0.14795	-0.11726	0.38836	-8.49052	17151.643	-0.81639	1.76009	0.02949	-0.14525	0.48728	-0.81898
SESS-DABK-S-SO04-0001	7.3261967	0.21004	2.36623	-0.40609	0.05303	-0.30125	-4.69605	24575.104	-0.15043	1.53643	0.86097	-0.55175	-1.08224	-0.47088
SESS-DABK-S-SO05-0001	3.3634658	-0.67727	2.03656	-0.05717	-0.10229	0.10605	-8.15175	17095.989	-0.63467	1.30179	-0.13544	-0.08232	-0.18056	-0.76275
SESS-DABK-S-SO06-0001	-2.213827	-3.84672	0.9829	4.55442	0.12182	0.06174	7.36246	-22250.21	-0.99185	1.43411	-8.58642	2.12377	-0.54867	1.74297
SESS-DABK-S-SO07-0001	9.4827391	0.22294	1.36297	-0.28372	-0.00198	-0.44592	7.01236	21470.597	-0.04817	0.83257	0.32862	-0.34712	-1.25451	0.44137
SESS-DABK-S-SO08-0001	6.3406348	-0.50364	1.33199	0.17459	-0.02927	-0.11991	3.72718	16658.1	-0.31691	0.90067	-0.45122	0.02821	-0.52553	0.30825
SESS-DABK-S-SO09-0001	1.9410931	-1.00358	1.90144	0.29548	-0.08807	0.38399	-9.7649	13141.558	-0.79712	1.27298	-0.74894	0.02287	0.3831	-0.79683

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							IRON						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-3.478559	-3.84672	-1.89974	-0.6648	-0.57284	-1.54481	-10.9885	-22250.21	-1.8676	-1.63734	-8.58642	-1.25215	-3.85045	-0.88144
MAXIMUM DOMAIN VALUE	19.749829	3.5459	3.8876	4.55442	0.6556	0.70078	20.1742	48105.529	2.86893	2.75473	2.40017	2.30435	2.07165	1.78557
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**FE predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	0.953531	-1.53809	0.83204	0.49939	-0.0638	0.24104	-3.73187	7627.6052	-1.05584	0.55381	-1.27539	-0.08634	-0.09678	-0.29448
SESS-DABK-S-SO11-0001	1.6445101	-1.54906	0.48706	-0.3209	-0.35653	0.13749	3.43137	10696.733	-1.01266	0.04826	-0.57863	0.27348	0.2862	-0.1277
SESS-DABK-S-SO12-0001	5.3743272	-0.79363	1.0446	-0.23284	-0.13651	-0.01077	6.69904	15441.642	-0.61403	0.5538	-0.11667	-0.12735	-0.219	0.32848
SESS-DABK-S-SO13-0001	7.0883145	0.01032	0.5791	0.14503	-0.18009	-0.46918	-2.12258	15308.908	-0.33037	0.31013	-0.74805	0.22207	-1.67879	-0.27978
SESS-DABK-S-SO14-0001	1.2308833	-1.13252	0.87354	0.2049	-0.17543	0.29929	-9.12334	10614.767	-0.82295	0.48798	-1.02749	0.11551	0.38712	-0.88144
SESS-DABK-S-SO15-0001	0.7991613	-1.43216	1.86921	0.10129	-0.10295	0.36673	-6.45906	12077.177	-0.8827	1.16559	-0.74093	-0.1111	0.66593	-0.66244
SESS-DABK-S-SO16-0001	0.2738031	-2.01453	-0.24117	-0.10344	-0.32197	0.20837	5.98059	5585.6109	-1.21407	-0.43927	-1.15308	0.14693	0.43773	0.08976
SESS-DABK-S-SO17-0001	-0.422355	-2.43484	1.06111	0.08179	-0.22461	0.58689	8.62214	7248.6749	-1.26702	0.57032	-0.97454	0.22272	1.39032	0.49353
SESS-DABK-S-SO18-0001	4.518919	-0.76602	0.97273	-0.28181	-0.22584	0.10706	2.15578	16757.279	-0.52516	0.49546	-0.06916	0.2377	0.25686	-0.0611
SESS-DABK-S-SO19-0001	9.4205278	0.24421	1.59799	-0.29802	-0.02242	-0.57566	5.60171	25911.902	0.19445	1.06653	0.70778	0.10588	-1.36085	0.42746
SESS-DABK-S-SO20-0001	6.6186709	-0.641	1.97223	0.59128	0.12264	-0.19161	5.08973	13311.616	-0.30167	1.40583	-1.23853	-0.29607	-0.7524	0.52466

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LEAD

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301

13.4397	**Mean**
9.2592	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0293	0.0450	-0.0366	0.2552	0.0420	0.0361
AS	-0.2489	-0.1335	1.0603	-0.2207	0.0558	0.4104
BA	-0.0298	0.0511	0.0197	0.0309	-0.0268	0.8820
CR	0.0566	-0.0813	-0.1464	0.4793	-0.0287	0.1824
CO	0.4985	0.1779	-0.3473	-0.8235	-0.4359	0.3246
FE	0.0368	-0.2145	0.6527	0.4440	-0.2333	-0.4761
PB	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MG	0.1033	-0.0677	-0.1550	0.0965	-0.0046	0.0906
MN	0.0542	0.0000	-0.0466	-0.0658	-0.0707	0.0404
NI	0.1698	-0.1686	-0.1748	0.4813	0.0446	-0.2843
V	0.0014	0.9260	-0.2223	-0.0447	-0.4283	-0.6633
ZN	0.2656	0.3052	-0.2470	-0.3949	0.8886	-0.1249

MAGNESIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710

2246.4509	**Mean**
809.6507	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0368	0.0353	-0.0239	0.7223	0.0750	0.0495
AS	-0.3126	-0.1049	0.6920	-0.6245	0.0994	0.5623
BA	-0.0374	0.0401	0.0129	0.0875	-0.0478	1.2083
CR	0.0711	-0.0639	-0.0955	1.3562	-0.0511	0.2498
CO	0.6262	0.1397	-0.2266	-2.3304	-0.7772	0.4447
FE	0.0463	-0.1684	0.4260	1.2564	-0.4160	-0.6522
PB	-0.0952	0.1271	0.0227	-0.1618	0.1464	-0.0305
MG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MN	0.0680	0.0000	-0.0304	-0.1861	-0.1261	0.0553
NI	0.2133	-0.1324	-0.1141	1.3620	0.0795	-0.3895
V	0.0018	0.7271	-0.1451	-0.1264	-0.7637	-0.9087
ZN	0.3336	0.2397	-0.1612	-1.1175	1.5844	-0.1710

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.1956295	-1.6979	-1.89085	-1.95978	-2.1029	-1.38325	-1.85088	768.47525	-1.84792	-1.65739	-1.25687	-5.99834	-2.57671	-2.47923
MAXIMUM DOMAIN VALUE	43.728605	2.5584	3.37946	8.9558	1.30562	1.92928	3.49524	4417.0601	3.09419	3.00065	5.8911	3.7936	3.88585	4.64004
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	1.9151725	-0.93429	-1.74266	-0.08456	-0.9017	0.67966	-0.6463	1459.5313	-1.05397	-1.51668	-0.09037	-2.34337	1.046	-0.83928
BASS-BWBK-SS-BA102-0001	1.1234354	-1.12132	-1.87221	0.03059	-1.14701	0.6275	-0.62656	1297.4192	-1.20308	-1.65739	-0.07994	-2.85857	0.94154	-0.73273
BASS-BWBK-SS-BA103-0001	1.7559855	-1.05875	-1.76582	-0.03816	-1.0655	0.57988	-0.56974	1345.2094	-1.14794	-1.56329	-0.10707	-2.67689	0.85963	-0.67668
BASS-BWBK-SS-BA104-0001	3.0185686	-0.84183	-1.51063	-0.27733	-0.77436	0.44669	-0.65842	1509.4319	-0.96278	-1.32046	-0.19895	-2.03387	0.63827	-0.87714
BASS-BWBK-SS-BA105-0001	1.8243333	-0.93589	-1.75172	-0.0773	-1.06058	0.64888	-0.73724	1431.7814	-0.99441	-1.54523	-0.13589	-2.66171	0.99331	-0.90232
BASS-BWBK-SS-BA106-0001	2.3571906	-0.77235	-1.6073	-0.35827	-0.58656	0.60964	-0.77889	1687.1735	-0.87721	-1.39187	-0.25266	-1.50437	0.93498	-1.04119
BASS-BWBK-SS-BA107-0001	1.864537	-1.12021	-1.76672	0.00109	-1.14452	0.58551	-0.61884	1271.1919	-1.20637	-1.56978	-0.09721	-2.86014	0.87151	-0.72468
BASS-BWBK-SS-BA108-0001	1.2125261	-1.08255	-1.84241	-0.04915	-1.07453	0.6093	-0.60455	1341.9643	-1.17132	-1.62324	-0.121	-2.68744	0.91621	-0.71616
BASS-BWBK-SS-BA109-0001	0.1956295	-0.84856	-1.89085	-0.32348	-0.59273	0.6043	-0.65687	1699.2693	-0.96242	-1.62928	-0.23204	-1.50429	0.90811	-0.87117
BASS-BWBK-SS-BA110-0001	2.1492072	-0.81483	-1.60745	-0.24852	-0.53082	0.39233	-0.16741	1715.2204	-0.93596	-1.39738	-0.17238	-1.36133	0.53573	-0.2139
BASS-BWBK-SS-BA111-0001	1.301887	-1.0211	-1.80358	-0.08514	-0.91293	0.57865	-0.63178	1439.5755	-1.12033	-1.58297	-0.12349	-2.28575	0.86171	-0.77919
BASS-BWBK-SS-BA112-0001	1.367028	-1.06042	-1.81081	-0.04333	-1.01205	0.58137	-0.59069	1354.8374	-1.17248	-1.58942	-0.09295	-2.57283	0.8637	-0.72685
BASS-BWBK-SS-BA113-0001	5.9974749	-0.7569	-1.44295	-0.3041	-1.46805	1.50981	-0.75539	1340.4065	-0.76665	-1.29114	-0.29371	-3.80294	2.54862	-0.91553
MASB-BWBK-SB-MA01-0105	8.7080264	1.59735	-0.34942	-0.39027	-0.45213	-0.11164	-0.28237	3180.2899	1.92383	-0.28184	-0.16618	-1.47118	-0.25965	-0.4942
MASB-BWBK-SB-MA02-0107	8.3710747	1.52534	-0.46553	-0.47991	0.46243	0.33756	-0.24168	3615.2854	1.76048	-0.34979	-0.16391	0.96042	0.53526	-0.51281
MASB-BWBK-SB-MA03-0108	9.9848067	2.50427	-0.2097	-0.3652	-2.05079	-0.06286	0.57059	3067.0464	3.09419	-0.1916	-0.17028	-5.93219	-0.18526	0.69959
MASB-BWBK-SB-MA04-0106	11.252859	1.67949	-0.14339	-0.6991	0.43522	0.58376	-0.10279	3569.6043	1.85557	-0.06311	-0.22619	0.67308	0.96983	-0.42142
MASB-BWBK-SB-MA05-0108	9.9327183	0.65631	-0.66356	1.95064	0.0225	0.53011	0.45998	2894.4965	0.70406	-0.52253	1.39653	-0.21179	0.87182	0.48007
MASB-BWBK-SB-MA06-0105	10.443854	1.18926	-0.25652	-0.63491	0.45024	0.45524	-0.58126	3330.6869	1.38045	-0.20483	-0.2968	1.01373	0.73939	-0.93902
MASB-BWBK-SB-MA07-0108	8.2028199	0.4731	-0.8048	1.11829	0.27823	0.62602	-0.78336	2852.2986	0.51261	-0.65023	0.82373	0.59285	1.03886	-1.18686
MASB-BWBK-SB-MA08-0108	13.287869	1.19591	-0.1971	4.49526	1.00966	0.27723	-1.38413	3513.768	1.21875	-0.05039	3.16156	2.25539	0.49338	-2.17549
MASB-BWBK-SB-MA09-0108	10.774592	0.49118	-0.83479	4.21492	-0.77246	0.68778	0.3567	2438.0023	0.52165	-0.64438	2.84135	-2.39872	1.18775	0.37821
MASB-BWBK-SB-MA10-0104	8.2704013	0.39675	-0.71447	0.85947	-0.26252	0.30302	-1.18013	2522.045	0.51765	-0.61402	0.57219	-0.72195	0.4672	-1.62922
MASB-BWBK-SB-MA11-0108	12.624975	1.31626	-0.07055	0.40427	0.41646	0.56073	-0.8774	3323.6098	1.48492	0.01324	0.39539	0.82388	1.00978	-1.36337
MASB-BWBK-SB-MA12-0108	8.8604547	1.04795	-0.87506	3.17952	-0.58271	0.49256	0.69538	2917.5442	1.16957	-0.67111	2.21521	-1.97707	0.81713	0.78185
MASB-BWBK-SB-MA13-0105	13.552271	-0.12259	0.13283	-0.54038	0.24748	-0.37441	0.59526	2392.6483	-0.05337	-0.00395	-0.39199	0.88281	-0.78064	0.8657
MASB-BWBK-SB-MA14-0104	13.384615	0.51483	0.07695	1.34359	0.49172	-0.50534	0.96491	3023.8209	0.6673	0.0197	0.87957	1.42081	-0.9537	1.31944
MASB-BWBK-SB-MA15-0105	15.896651	0.11735	0.4686	0.52032	0.57374	-0.68925	0.6648	2678.2699	0.21406	0.2917	0.31614	1.7425	-1.31106	0.94092
MASB-BWBK-SB-MA16-0104	12.569805	0.33504	0.01596	-0.15229	-0.26942	-0.33481	0.08025	2400.2463	0.47652	-0.05351	-0.11759	-0.66404	-0.66929	0.13355
MASB-BWBK-SB-MA17-0104	14.167295	0.10816	0.10645	-0.00272	-0.22662	-0.12652	0.54424	2347.7589	0.24507	-0.01391	-0.05618	-0.43438	-0.31647	0.81386
MASB-BWBK-SB-MA18-0104	17.559532	-0.02775	0.76056	-0.66727	0.86317	-0.52871	-0.42966	2511.3524	-0.0157	0.52804	-0.41459	2.4561	-1.04153	-0.6124
MASB-BWBK-SB-MA19-0103	13.050218	-0.23454	-0.02289	-0.24483	-0.11936	-0.20077	0.35397	2145.0735	-0.17727	-0.12927	-0.21438	-0.11841	-0.46604	0.55376
MASB-BWBK-SB-MA20-0103	10.287931	1.09297	-0.25296	-0.65516	0.00644	0.23344	-0.50677	3090.3819	1.34543	-0.23821	-0.37649	-0.06165	0.33698	-0.75539
MASS-BWBK-SS-MA01-0001	11.577114	-1.21588	-0.46848	-0.21324	-0.4636	0.18195	1.00355	1440.4123	-1.31802	-0.47872	-0.28766	-0.88251	0.2712	1.55772
MASS-BWBK-SS-MA02-0001	13.653836	-0.84379	-0.23968	-0.68973	0.44286	0.58199	2.52133	2281.6499	-0.90397	-0.27531	-0.55814	1.57115	0.99087	3.58725
MASS-BWBK-SS-MA03-0001	11.193162	-0.92585	-0.48281	0.06806	0.08802	0.19635	1.14101	1904.5371	-1.04114	-0.45033	-0.03812	0.4961	0.30846	1.66498
MASS-BWBK-SS-MA04-0001	10.731292	-0.56769	-0.52016	-0.48249	0.26239	0.4679	1.23034	2238.0408	-0.64825	-0.45249	-0.35519	0.87124	0.80228	1.73545
MASS-BWBK-SS-MA05-0001	15.638081	0.06704	0.26395	-0.78948	0.6986	0.40943	0.19411	2611.3648	0.03279	0.22795	-0.47488	1.86844	0.73266	0.21645
MASS-BWBK-SS-MA06-0001	16.196855	-0.67911	0.04278	1.68273	1.13732	0.12762	3.26087	2555.5056	-0.9458	0.09029	1.15964	3.03114	0.26312	4.39117
MASS-BWBK-SS-MA07-0001	8.1015147	-1.6979	-0.93437	0.51294	-1.09825	-0.07263	-0.33163	768.47525	-1.84792	-0.86312	0.12007	-2.51398	-0.16776	-0.19058
MASS-BWBK-SS-MA08-0001	18.807148	-0.58341	0.56112	0.53017	-0.10785	-0.0613	0.13841	1546.2718	-0.80445	0.63519	0.30533	-0.38382	0.15842	0.23462
MASS-BWBK-SS-MA09-0001	28.887281	0.38551	1.91374	-0.70689	0.87064	0.40986	1.26404	2528.7245	0.26228	1.79122	-0.40364	2.08286	1.05953	1.65506
MASS-BWBK-SS-MA10-0001	24.943794	0.18024	1.4281	-0.14232	0.45452	0.1844	0.25423	2210.9546	0.06282	1.33934	-0.05349	1.00784	0.57956	0.2955
MASS-BWBK-SS-MA11-0001	25.225979	0.0952	1.62022	0.32202	0.86383	-0.56842	0.7607	2419.9682	0.01934	1.38333	0.24741	2.26404	-0.89557	0.99432
MASS-BWBK-SS-MA12-0001	12.049937	-0.44709	-0.35962	-0.47086	0.61023	0.73737	0.18155	2410.5112	-0.52113	-0.31169	-0.33137	1.80634	1.29187	0.27865
MASS-BWBK-SS-MA13-0001	21.068475	-0.71467	0.95318	-0.34765	0.76873	-0.33028	1.82948	2138.9523	-0.82434	0.72561	-0.2883	2.3328	-0.58198	2.5814
MASS-BWBK-SS-MA14-0001	22.191893	-1.01672	1.04594	-0.56048	-0.14042	-0.26928	0.7661	1283.4166	-1.19485	0.87856	-0.48306	-0.18454	-0.34035	1.19072
MASS-BWBK-SS-MA15-0001	19.736309	-1.02405	0.73225	-0.44774	0.31944	-0.23106	1.13963	1664.5754	-1.18049	0.57405	-0.39952	1.14514	-0.35102	1.69163
MASS-BWBK-SS-MA16-0001	18.582801	-0.84118	0.62116	0.05184	0.31649	-0.27116	0.02526	1728.3849	-0.97201	0.47363	-0.04415	1.08256	-0.45606	0.12967
MASS-BWBK-SS-MA17-0001	18.684935	-0.57853	0.6631	-0.21086	0.12777	-0.24955	0.23328	1850.294	-0.62576	0.4951	-0.22556	0.58088	-0.42613	0.42702
MASS-BWBK-SS-MA18-0001	22.495905	-0.99936	1.1026	0.05537	-0.00178	-0.34194	-0.33729	1321.3885	-1.14968	0.87255	-0.07547	0.23907	-0.53658	-0.32661
MASS-BWBK-SS-MA19-0001	21.06111	-0.61351	0.98164	-0.16095	0.12673	-0.37372	0.27436	1730.643	-0.69205	0.78103	-0.19112	0.54249	-0.60368	0.4802
MASS-BWBK-SS-MA20-0001	16.603087	-0.31507	0.36275	-0.11515	0.25245	0.0187	0.27501	2131.4034	-0.36233	0.29455	-0.1149	0.79495	0.06854	0.42483
MMSB-BWBK-SB-MM101-0110	4.5161614	0.01648	-1.12034	-0.27596	-0.45768	0.00529	0.28352	2182.3169	-0.01395	-0.8925	-0.13726	-1.37991	-0.03143	0.33666
MMSB-BWBK-SB-MM102-0109	3.9820303	0.34829	-1.03119	-0.95852	0.45611	-0.01626	0.02667	2800.3735	0.30893	-0.81352	-0.49221	0.99535	-0.11095	-0.12536
MMSB-BWBK-SB-MM103-0107	3.9419228	0.58063	-1.01185	-0.81496	-1.04043	-0.42979	0.71154	2289.7152	0.71691	-0.83929	-0.49303	-2.99205	-0.84497	0.92861
MMSB-BWBK-SB-MM104-0110	6.8922307	0.68536	-0.6537	-0.52336	0.418	-0.07605	0.16117	2758.1086	0.53165	-0.41963	-0.06058	0.47175	-0.18063	-0.12268
MMSB-BWBK-SB-MM105-0110	4.234159	-0.49701	-1.26851	-0.06876	-0.73984	0.13056	-0.08634	1793.9439	-0.51939	-1.09364	-0.09477	-1.89668	0.13916	-0.05546
MMSB-BWBK-SB-MM106-0110	10.956986	0.87721	-0.06585	-1.34802	0.7804	-0.02245	0.42527	3031.7053	0.79205	0.02637	-0.60946	1.53483	-0.09842	0.25248
MMSB-BWBK-SB-MM107-0110	4.1057454	0.03061	-1.07058	-0.73124	0.40097	-0.09245	0.49248	2717.7691	0.04204	-0.90527	-0.44308	1.1146	-0.26573	0.63466
MMSB-BWBK-SB-MM108-0110	6.9477555	-0.0643	-0.78489	-0.51844	-0.28968	-0.01435	-0.01233	2123.9174	-0.11441	-0.66236	-0.27711	-0.91671	-0.11882	-0.09025
MMSB-BWBK-SB-MM109-0110	9.8045905	0.21549	-0.30103	-0.82548	0.33344	-0.25951	0.74602	2624.2614	0.22122	-0.25835	-0.47543	0.82099	-0.5269	0.94562
MMSB-BWBK-SB-MM110-0109	6.7405955	-0.01379	-0.73217	-0.57299	0.54409	-0.13431	0.19969	2636.7375	-0.05009	-0.61324	-0.31811	1.44803	-0.31988	0.2066
MMSB-BWBK-SB-MM111-0110	6.8605972	0.16721	-0.73512	-0.53994	0.32263	-0.07287	0.46571	2574.5496	0.08758	-0.56547	-0.23437	0.63839	-0.18345	0.49437
MMSB-BWBK-SB-MM112-0110	9.4922545	0.26549	-0.23537	-0.823	0.45197	-0.49731	-0.10368	2586.0249	0.24054	-0.21324	-0.42572	1.05426	-0.98682	-0.2767
MMSB-BWBK-SB-MM113-0110	3.343276	0.34237	-1.07274	-1.1545	1.17884	-0.00379	0.35246	3287.4852	0.34438	-0.87229	-0.64856	3.12705	-0.10506	0.3561
MMSB-BWBK-SB-MM114-0110	4.4968253	-0.38285	-1.19547	-0.15252	-0.43799	0.03693	0.50529	2031.8098	-0.41813	-1.03044	-0.10988	-1.13618	-0.04333	0.70685

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.1956295	-1.6979	-1.89085	-1.95978	-2.1029	-1.38325	-1.85088	768.47525	-1.84792	-1.65739	-1.25687	-5.99834	-2.57671	-2.47923
MAXIMUM DOMAIN VALUE	43.728605	2.5584	3.37946	8.9558	1.30562	1.92928	3.49524	4417.0601	3.09419	3.00065	5.8911	3.7936	3.88585	4.64004
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	11.942098	-0.05192	-0.15569	-0.75007	-0.08727	-0.13429	1.5237	2146.0374	-0.17846	-0.14948	-0.3581	-0.51757	-0.34964	1.92833
MMSB-BWBK-SB-MM116-0110	4.458534	0.14409	-1.12487	-0.68269	-0.03966	0.20983	0.63195	2524.292	0.12018	-0.91009	-0.36783	-0.26286	0.29548	0.77194
MMSB-BWBK-SB-MM117-0110	4.0048108	-0.19287	-1.24324	-0.26992	-1.03019	0.0386	0.13523	1814.1651	-0.18477	-1.06389	-0.18351	-2.82222	-0.03699	0.19618
MMSB-BWBK-SB-MM118-0110	2.7674625	0.6403	-1.15116	-1.13203	-0.07506	-0.02628	-0.18788	2777.2313	0.7191	-0.90933	-0.64875	-0.40928	-0.10577	-0.36661
MMSB-BWBK-SB-MM119-0110	5.7224105	0.00168	-0.94305	-0.52777	-0.18944	0.05267	0.04824	2217.0933	-0.07862	-0.76962	-0.24507	-0.73322	-0.00015	-0.05397
MMSB-BWBK-SB-MM120-0110	3.1901529	-0.67758	-1.40654	-0.0971	-1.08853	0.02367	-0.11971	1512.0958	-0.70872	-1.24023	-0.12915	-2.81447	-0.09019	-0.08101
MMSS-BWBK-SS-MM101-0001	16.29042	-0.70397	0.38568	-0.04729	1.07022	-0.19632	-0.1315	2248.1062	-0.84569	0.29237	-0.06403	3.11188	-0.34397	-0.13961
MMSS-BWBK-SS-MM102-0001	10.852445	-0.95113	-0.35507	0.0233	0.40266	-0.1405	-0.70482	1936.7737	-1.01713	-0.40525	-0.09193	1.4897	-0.34721	-0.83253
MMSS-BWBK-SS-MM103-0001	15.890051	-0.79671	0.37659	0.04491	1.00312	-0.36302	-0.66124	2111.1793	-0.94087	0.28792	-0.02716	2.97186	-0.62435	-0.83707
MMSS-BWBK-SS-MM104-0001	14.343273	-0.54569	0.17633	-0.09958	0.97476	-0.27968	0.09016	2311.0607	-0.69445	0.15891	-0.06772	2.74659	-0.47142	0.12638
MMSS-BWBK-SS-MM105-0001	11.891535	-1.09947	-0.26475	0.1345	-0.10083	-0.20445	-0.62305	1547.9385	-1.17809	-0.31332	-0.05749	0.13206	-0.41279	-0.67465
MMSS-BWBK-SS-MM106-0001	14.055126	-0.45017	0.21401	-0.3252	1.22096	-0.39138	0.03441	2563.6586	-0.52331	0.12755	-0.23152	3.53355	-0.73748	0.07149
MMSS-BWBK-SS-MM107-0001	14.398149	-0.5613	0.17304	-0.28307	1.2052	-0.12123	-0.12458	2454.6454	-0.68692	0.10523	-0.18528	3.43836	-0.25428	-0.16931
MMSS-BWBK-SS-MM108-0001	17.196438	-0.95158	0.54251	-0.15552	1.099	-0.39197	-0.48775	2108.3351	-1.06016	0.36071	-0.20108	3.38991	-0.72315	-0.54572
MMSS-BWBK-SS-MM109-0001	13.792739	-0.91651	0.113	-0.06877	0.95736	-0.35871	-0.83715	2108.5608	-1.02122	-0.00681	-0.12157	2.96419	-0.71508	-1.0515
MMSS-BWBK-SS-MM110-0001	10.994995	-1.41661	-0.43463	0.20053	-0.25125	-0.1939	-0.49321	1309.2356	-1.53036	-0.45798	-0.0548	-0.19328	-0.38477	-0.44745
MMSS-BWBK-SS-MM111-0001	9.4462178	-1.28909	-0.62498	0.1015	-0.0347	-0.08272	-0.41009	1554.3102	-1.39363	-0.61306	-0.09224	0.36351	-0.20932	-0.36649
MMSS-BWBK-SS-MM112-0001	9.2772133	-1.41599	-0.74125	0.25997	-0.38746	0.10948	-0.46053	1301.9596	-1.54098	-0.69597	-0.006	-0.60353	0.15384	-0.4149
MMSS-BWBK-SS-MM113-0001	16.624692	-1.04033	0.41429	-0.10963	0.62638	-0.31381	-0.56103	1721.2216	-1.23009	0.34111	-0.15889	1.95441	-0.48914	-0.6628
MMSS-BWBK-SS-MM114-0001	7.5350637	-1.41489	-0.98864	0.24751	-0.62787	0.16134	-0.2951	1305.2015	-1.47605	-0.9591	-0.03868	-1.1688	0.17408	-0.1569
MMSS-BWBK-SS-MM115-0001	9.7943527	-1.3194	-0.64881	0.24267	-0.14274	0.06793	-0.21151	1546.8476	-1.39572	-0.66176	-0.01929	0.12689	0.03276	-0.07047
MMSS-BWBK-SS-MM116-0001	10.152089	-1.32386	-0.55824	0.20091	-0.32168	-0.10035	-0.44836	1362.9116	-1.42561	-0.56545	-0.03649	-0.42396	-0.24148	-0.40772
MMSS-BWBK-SS-MM117-0001	12.568855	-0.86945	-0.13456	-0.06649	0.60212	-0.15005	-0.05404	2023.2194	-0.99624	-0.14818	-0.11627	1.90418	-0.27873	0.01547
MMSS-BWBK-SS-MM118-0001	6.1619309	-0.60028	-0.93976	-0.11695	-0.12102	-0.12827	0.00213	1955.4306	-0.68071	-0.83778	-0.09265	-0.21877	-0.34461	0.02501
MMSS-BWBK-SS-MM119-0001	5.3801809	-0.74119	-1.09636	-0.10142	-0.38738	-0.02151	-0.02521	1806.572	-0.79022	-0.99602	-0.13072	-0.83376	-0.17064	0.04692
MMSS-BWBK-SS-MM120-0001	6.9559366	-0.56175	-0.79073	0.03129	0.45867	-0.13163	-0.74985	2353.4477	-0.52944	-0.75437	-0.08118	1.64194	-0.34343	-0.90079
NESB-BWBK-SB-NE01-0108	4.6274975	0.99016	-0.88793	-0.92293	0.84657	0.16908	-0.47038	3394.2345	1.04249	-0.67219	-0.41174	1.9469	0.22258	-0.87649
NESB-BWBK-SB-NE02-0109	4.9078351	0.82601	-0.9689	-0.70006	0.3946	0.14604	1.29596	3239.0695	0.89935	-0.76067	-0.31604	0.80106	0.17905	1.60427
NESB-BWBK-SB-NE03-0105	4.2514689	0.39207	-1.04879	-0.28988	0.48852	0.05856	-0.37154	2934.313	0.43576	-0.8625	-0.10857	1.23581	0.00884	-0.60605
NESB-BWBK-SB-NE04-0110	5.1810435	0.51122	-0.92847	-0.66447	0.1888	0.11748	-0.15977	2795.3077	0.54286	-0.74677	-0.32205	0.29974	0.12263	-0.35405
NESB-BWBK-SB-NE05-0108	5.426985	0.79562	-0.83103	-0.76944	0.58236	0.17412	-0.70476	3137.3008	0.85946	-0.65457	-0.3583	1.3275	0.22467	-1.14018
NESB-BWBK-SB-NE06-0109	4.9769957	0.60997	-0.9226	-0.635	0.22242	0.09249	-0.54232	2871.6273	0.67639	-0.74891	-0.30855	0.41361	0.07294	-0.87099
NESB-BWBK-SB-NE07-0107	4.8164086	0.83607	-0.92569	-0.7983	0.87115	0.28178	-0.34331	3373.8387	0.89929	-0.71868	-0.37192	2.12412	0.42642	-0.65158
NESB-BWBK-SB-NE08-0104	5.9766833	0.37619	-0.79867	-0.69129	0.08652	-0.02193	-0.55097	2662.6125	0.45676	-0.68671	-0.40025	0.18281	-0.14333	-0.81528
NESB-BWBK-SB-NE09-0110	4.5988873	0.52445	-1.00115	-0.63261	0.24587	0.16261	-0.43423	2864.1748	0.58451	-0.82172	-0.31634	0.51064	0.1894	-0.71131
NESB-BWBK-SB-NE10-0107	11.230175	0.10941	-0.1197	-0.77943	0.56554	-0.13977	-0.41444	2578.7376	0.10499	-0.13723	-0.45032	1.50734	-0.33721	-0.63765
NESB-BWBK-SB-NE101-0110	10.052837	0.02912	-0.30918	-0.72048	0.42465	-0.24325	1.0016	2556.4321	-0.01245	-0.28015	-0.39835	1.07332	-0.5222	1.28568
NESB-BWBK-SB-NE102-0110	9.5969313	-0.2544	-0.48113	-0.65194	0.09381	-0.07235	1.38353	2288.1227	-0.31068	-0.44651	-0.39432	0.25563	-0.23326	1.85906
NESB-BWBK-SB-NE103-0110	7.8181798	-0.45382	-0.7447	-0.45768	-0.20726	-0.04455	0.815	2042.6795	-0.49979	-0.68576	-0.31125	-0.47023	-0.19893	1.13405
NESB-BWBK-SB-NE104-0110	6.7453127	-0.55593	-0.90852	-0.37592	-0.54032	-0.0259	0.51123	1832.4035	-0.5852	-0.83528	-0.28937	-1.32398	-0.17368	0.75661
NESB-BWBK-SB-NE105-0110	10.223124	-0.07773	-0.34769	-0.56102	0.25754	-0.16114	1.11388	2408.8388	-0.14197	-0.31517	-0.29627	0.60906	-0.38064	1.44202
NESB-BWBK-SB-NE106-0110	8.7042035	-0.11885	-0.55727	-0.68143	0.01484	-0.09202	0.94798	2312.1318	-0.15381	-0.50175	-0.40256	0.00356	-0.269	1.24892
NESB-BWBK-SB-NE107-0510	6.5802064	-0.43048	-0.92517	-0.40349	-0.47244	0.06113	0.33448	1865.0701	-0.51299	-0.81146	-0.24189	-1.31074	-0.01009	0.4341
NESB-BWBK-SB-NE108-0110	10.205269	-0.21317	-0.32223	-0.67713	-0.06327	-0.27546	0.4933	2121.1022	-0.25478	-0.32723	-0.41174	-0.18188	-0.60172	0.64083
NESB-BWBK-SB-NE109-0110	8.5511057	-0.26306	-0.59428	-0.58935	-0.02913	-0.11867	0.89652	2200.3528	-0.3147	-0.54007	-0.35771	-0.07864	-0.31932	1.19715
NESB-BWBK-SB-NE110-0110	8.2973152	-0.18652	-0.58764	-0.6488	-0.10497	-0.1653	0.4359	2152.7946	-0.2375	-0.52662	-0.38202	-0.33291	-0.4005	0.54834
NESS-BKG-SS03-NEB-0016	20.280592	-0.21461	0.84861	-0.46856	0.48759	0.15746	-0.1256	1844.6631	-0.54415	1.06975	-0.26153	0.92885	0.7614	-0.23492
NESS-BKG-SS09-NEB-0018	14.053727	-0.98208	-0.02915	0.57735	0.2352	-0.14968	-0.16649	1707.035	-1.14327	-0.04314	0.29657	0.86291	-0.24588	-0.13016
NESS-BWBK-SS-NE01-0001	20.639698	0.25296	0.74612	0.16465	0.97688	0.76853	0.39062	2827.8739	0.21117	0.68911	0.15576	2.56606	1.47191	0.4741
NESS-BWBK-SS-NE02-0001	19.032953	0.43613	0.29433	0.33536	0.74385	1.77851	-0.15532	2948.5432	0.43088	0.30816	0.29305	1.8715	3.22483	-0.30465
NESS-BWBK-SS-NE03-0001	13.962954	-0.41994	0.03272	0.1318	1.3042	0.17019	-0.15402	2717.3784	-0.47628	-0.00614	0.05242	3.7936	0.28294	-0.16946
NESS-BWBK-SS-NE04-0001	13.020196	0.18079	0.15932	-0.56174	1.22714	-0.29234	-0.12218	2951.4956	0.17333	0.12962	-0.31443	3.35171	-0.54574	-0.23085
NESS-BWBK-SS-NE05-0001	14.431208	-0.22716	0.07164	-0.08596	1.21509	0.3495	0.05461	2740.2307	-0.31217	0.10495	-0.05718	3.39834	0.68489	0.07503
NESS-BWBK-SS-NE06-0001	11.627058	0.03215	-0.04885	-0.61893	1.30357	-0.15831	-0.40764	2941.5342	0.01955	-0.06446	-0.36742	3.62978	-0.33614	-0.60218
NESS-BWBK-SS-NE07-0001	18.732039	-0.42368	0.58101	0.30717	0.91783	0.20761	-0.15573	2243.4246	-0.60807	0.58974	0.19984	2.48219	0.53809	-0.21559
NESS-BWBK-SS-NE08-0001	12.677351	-0.28847	-0.04742	-0.22735	1.30001	0.03508	-0.16057	2792.1022	-0.3297	-0.07098	-0.16193	3.73851	0.02806	-0.20273
NESS-BWBK-SS-NE09-0001	16.77732	-0.5997	0.37335	0.03712	1.30562	0.05062	0.61116	2544.0118	-0.71443	0.31493	-0.02809	3.79279	0.14785	0.90031
NESS-BWBK-SS-NE10-0001	17.107219	-0.37611	0.41368	-0.10771	0.67157	0.18244	-0.23543	2109.9374	-0.58272	0.49243	-0.05576	1.72166	0.52723	-0.34396
NESS-BWBK-SS-NE101-0001	12.166438	-0.89163	-0.14887	-0.25107	0.58796	-0.26054	0.07702	2085.5876	-0.95131	-0.23588	-0.26625	1.99694	-0.55461	0.23262
NESS-BWBK-SS-NE102-0001	11.663959	-1.12675	-0.31547	-0.11502	-0.07463	-0.10309	-0.2454	1539.7981	-1.24643	-0.32395	-0.20266	0.14112	-0.20567	-0.17943
NESS-BWBK-SS-NE103-0001	10.196001	-1.20522	-0.50554	-0.02564	-0.0954	-0.13271	-0.30131	1522.3923	-1.32407	-0.49224	-0.15453	0.12181	-0.27647	-0.24321
NESS-BWBK-SS-NE104-0001	10.318779	-1.03392	-0.46176	-0.08349	0.11236	-0.0564	-0.6694	1547.03	-1.27083	-0.29345	-0.12324	0.41172	0.02595	-0.83505
NESS-BWBK-SS-NE105-0001	8.9882874	-1.31027	-0.7539	0.09246	-0.36796	0.08511	-0.17174	1436.595	-1.39164	-0.74314	-0.11043	-0.52682	0.06084	-0.02438
NESS-BWBK-SS-NE106-0001	10.487564	-1.22985	-0.50152	-0.01097	-0.21017	-0.04748	-0.3158	1266.847	-1.49777	-0.30873	-0.10477	-0.45024	0.07855	-0.31595
NESS-BWBK-SS-NE107-0001	11.749941	-1.35002	-0.38325	0.04359	-0.30446	-0.00286	-0.22675	1322.0873	-1.47239	-0.40426	-0.13887	-0.39662	-0.03798	-0.10502
NESS-BWBK-SS-NE108-0001	12.053215	-1.202	-0.32388	-0.06174	-0.23078	-0.01594	0.10975	1410.9272	-1.35545	-0.31414	-0.16268	-0.32671	-0.03269	0.3004
NESS-BWBK-SS-NE109-0001	9.2297997	-1.35406	-0.72922	0.0677	-0.3799	0.0761	-0.06358	1394.9014	-1.44914	-0.72369	-0.12409	-0.5663	0.04341	0.12075
NESS-BWBK-SS-NE110-0001	13.186721	-1.37708	-0.12299	0.11298	-0.4248	-0.31735	-0.61359	1056.286	-1.56841	-0.12118	-0.07633	-0.84445	-0.5099	-0.6577

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.1956295	-1.6979	-1.89085	-1.95978	-2.1029	-1.38325	-1.85088	768.47525	-1.84792	-1.65739	-1.25687	-5.99834	-2.57671	-2.47923
MAXIMUM DOMAIN VALUE	43.728605	2.5584	3.37946	8.9558	1.30562	1.92928	3.49524	4417.0601	3.09419	3.00065	5.8911	3.7936	3.88585	4.64004
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	10.6099	1.09932	-0.0418	-0.74824	-0.15387	-0.56476	0.64846	3009.029	1.36496	-0.08191	-0.44346	-0.49305	-1.09451	0.83497
PMSB-BWBK-SB-PM02-0104	13.683497	1.24278	0.51359	1.14622	0.96941	-1.38008	-0.18065	3508.0587	1.4762	0.40624	0.83274	2.55081	-2.50596	-0.35048
PMSB-BWBK-SB-PM03-0106	10.240008	1.8824	-0.01414	0.41798	-0.428	-0.68499	-0.86839	3256.7248	2.25013	-0.02365	0.39661	-1.47762	-1.30874	-1.33981
PMSB-BWBK-SB-PM04-0105	9.9653327	0.86601	-0.36133	1.07944	0.06665	-0.16909	-0.04744	2883.9485	0.94325	-0.25436	0.83464	-0.12866	-0.33998	-0.22384
PMSB-BWBK-SB-PM05-0105	10.521167	1.16206	-0.10223	0.11849	-0.185	-0.51552	-0.07749	2925.5075	1.36047	-0.08855	0.18324	-0.75357	-0.99084	-0.23466
PMSB-BWBK-SB-PM06-0105	7.9555217	1.04851	-0.43893	0.65149	-0.02868	-0.65972	0.18962	3024.5785	1.22652	-0.37266	0.53377	-0.30005	-1.27428	0.12844
PMSB-BWBK-SB-PM07-0105	10.524831	0.79415	-0.04212	0.79277	-1.13632	-1.38325	0.60798	2304.0338	1.07945	-0.13272	0.49201	-3.07183	-2.57671	0.86593
PMSB-BWBK-SB-PM08-0106	10.788167	0.97726	-0.10548	0.53902	-0.8512	-0.77219	0.34409	2521.2423	1.20902	-0.12988	0.3981	-2.47145	-1.46267	0.41614
PMSB-BWBK-SB-PM09-0106	6.9974982	0.43563	-0.7214	0.52122	-0.75788	-0.39493	-0.05896	2345.6068	0.60405	-0.66818	0.3416	-2.05915	-0.83266	-0.08024
PMSB-BWBK-SB-PM10-0105	19.061884	0.73649	1.15132	0.08005	-0.20982	-1.35371	-0.65408	2409.7608	0.97502	0.83081	0.04408	-0.51162	-2.50079	-0.88447
PMSB-BWBK-SB-PM11-0104	8.7080829	1.35134	-0.19346	0.15713	-0.73383	-1.14222	0.59032	2942.9551	1.73104	-0.22415	0.1104	-2.03118	-2.13179	0.80078
PMSB-BWBK-SB-PM12-0105	8.8516821	0.06219	-0.4427	-0.69645	0.12239	-0.21542	-0.06179	2484.473	0.14016	-0.44289	-0.46208	0.44642	-0.49928	-0.07329
PMSB-BWBK-SB-PM13-0106	13.504097	-0.11337	0.20232	0.43296	0.66886	-0.80526	0.19601	2577.6622	-0.05435	0.06148	0.24968	2.05125	-1.53895	0.31064
PMSB-BWBK-SB-PM14-0106	11.240964	-0.05409	-0.16454	-0.25899	-0.31946	-0.42661	0.03857	2135.7288	0.03005	-0.23542	-0.20686	-0.7266	-0.87203	0.10121
PMSB-BWBK-SB-PM15-0105	10.99301	0.38043	-0.17382	-0.01375	0.26352	-0.26363	0.01189	2717.5872	0.48031	-0.18927	0.01935	0.72828	-0.55268	-0.01693
PMSB-BWBK-SB-PM16-0106	10.342641	0.01768	-0.32452	-0.127	0.0705	-0.13934	-0.21998	2390.7996	0.07065	-0.33787	-0.08374	0.27387	-0.35217	-0.29843
PMSB-BWBK-SB-PM17-0105	13.896046	1.37827	0.49663	-0.513	-1.1307	-1.09629	-0.07927	2412.4878	1.65599	0.38232	-0.25366	-3.37469	-2.01117	-0.20699
PMSB-BWBK-SB-PM18-0105	6.9868619	0.8983	-0.79018	1.14719	0.77322	0.25276	-0.54853	3416.1123	1.0094	-0.61491	0.86667	1.91881	0.38933	-0.89496
PMSB-BWBK-SB-PM19-0105	10.321833	0.59358	-0.3217	0.21175	0.42273	0.04565	-0.01679	2976.5117	0.70183	-0.28072	0.19923	1.08402	0.01078	-0.09653
PMSB-BWBK-SB-PM20-0106	10.730467	0.45592	-0.25424	0.00664	0.15991	-0.05897	-0.11376	2722.9992	0.56168	-0.24928	0.04454	0.40573	-0.19071	-0.20357
PMSB-BWBK-SB-SO01-0107-PM	10.8402	1.31297	-0.27158	0.08319	-0.0516	0.47008	-0.77967	3202.8499	1.58166	-0.2126	0.12274	-0.29993	0.79936	-1.15127
PMSB-BWBK-SB-SO02-0109-PM	10.441489	0.88245	-0.42843	1.53713	0.45219	0.38122	-1.00104	3167.6362	1.01609	-0.31893	1.08705	1.07635	0.65309	-1.4737
PMSB-BWBK-SB-SO13-0104-PM	9.4314198	1.59176	-0.26851	0.82476	-0.38813	-0.41243	-0.37328	3232.2702	1.94259	-0.21269	0.59718	-1.22874	-0.7718	-0.58295
PMSB-BWBK-SB-SO14-0105-PM	8.7035186	1.60505	-0.60255	1.41698	-0.09483	0.36279	-0.11076	3485.4601	1.8904	-0.44675	1.0374	-0.54378	0.61476	-0.28923
PMSS-DABK-S-SO21-0001	30.539718	0.08028	1.78898	0.21204	-0.93647	1.08675	-0.24463	1386.1585	0.00823	1.65547	0.08626	-2.75189	2.28252	-0.27745
PMSS-DABK-S-SO22-0001	43.728605	0.95699	3.37946	-0.71466	-1.33192	1.92928	-0.77396	1443.023	1.02064	3.00065	-0.48429	-4.0316	3.88585	-1.04635
PMSS-DABK-S-SO23-0001	27.035944	0.05247	1.8418	-0.59916	0.10291	-0.33546	-0.15872	1765.5776	-0.08204	1.68632	-0.38049	0.05823	-0.30285	-0.23563
PMSS-DABK-S-SO24-0001	30.322484	0.07105	2.05848	0.3387	-0.24746	0.06001	-0.2233	1759.9344	0.08365	1.75526	0.14552	-0.65227	0.32507	-0.21729
PMSS-DABK-S-SO25-0001	27.655475	-0.08187	1.96914	2.63949	0.71014	-1.28734	-1.15146	1980.1464	-0.20622	1.76756	1.69855	1.87015	-2.00361	-1.55329
PMSS-DABK-S-SO26-0001	40.447674	0.65749	3.03988	-0.24449	-0.49917	1.52365	-0.4719	1643.4252	0.5525	2.79455	-0.11908	-1.85869	3.20481	-0.70484
PMSS-DABK-S-SO27-0001	29.336699	-0.18008	1.98599	-0.60464	-0.28239	0.04721	-0.37665	1254.8541	-0.44542	1.9363	-0.39131	-1.13511	0.55528	-0.52846
PMSS-DABK-S-SO28-0001	36.304208	0.76389	2.72776	-1.05609	-1.53305	0.74478	0.26658	1344.4927	0.82764	2.41534	-0.71461	-4.51973	1.68587	0.3899
PMSS-DABK-S-SO29-0001	34.083465	0.19883	2.59065	-0.48481	0.23864	0.14464	0.28314	1914.3687	0.12068	2.27133	-0.32338	0.48418	0.55956	0.39104
PMSS-DABK-S-SO30-0001	32.467911	0.41297	2.23037	-0.96654	-0.44577	0.72003	1.28016	1987.2625	0.48964	1.88748	-0.68073	-1.26827	1.48365	1.81137
PMSS-DABK-S-SO31-0001	23.777569	-0.21439	1.44914	-0.50713	-0.75163	-0.63419	-0.65094	1368.1407	-0.18044	1.14769	-0.4273	-1.91966	-1.06267	-0.77491
PMSS-DABK-S-SO32-0001	37.840155	1.25587	3.1097	-0.82839	-1.96695	0.04019	0.68318	1225.1846	1.30077	2.89832	-0.52534	-5.99834	0.63582	0.90706
PMSS-DABK-S-SO33-0001	32.517641	0.05697	2.39625	-1.42481	-0.64248	0.12287	0.73147	1398.3207	-0.01098	2.07581	-0.95921	-1.92167	0.4799	1.03338
PMSS-DABK-S-SO34-0001	22.28163	-0.15524	1.343	-0.59056	-0.81809	-1.01675	0.26814	1373.7211	-0.15925	1.13086	-0.46645	-2.19999	-1.67017	0.46409
PMSS-DABK-S-SO35-0001	26.143987	-0.07076	1.78391	-0.53567	-0.34824	-0.70871	-0.08418	1413.0558	-0.22656	1.65236	-0.35626	-1.18991	-0.94399	-0.11289
PMSS-DABK-S-SO36-0001	23.018927	-0.65714	1.37812	-0.44511	0.12193	-0.80295	-0.38792	1295.2772	-0.93774	1.31621	-0.31274	0.19076	-1.12498	-0.50966
PMSS-DABK-S-SO37-0001	26.222186	-0.29597	1.79227	0.0911	-0.1145	-0.88194	-0.55701	1561.9031	-0.3235	1.44613	-0.01246	-0.19679	-1.48213	-0.67657
PMSS-DABK-S-SO38-0001	23.458759	-0.44143	1.53498	-0.60711	-0.62152	-1.15303	-0.67131	1131.0114	-0.52604	1.2884	-0.47377	-1.65747	-1.90663	-0.82727
PMSS-DABK-S-SO39-0001	20.343366	-0.38874	1.06405	-0.05898	-0.10841	-0.97715	0.13436	1690.09	-0.42415	0.85165	-0.11332	-0.15322	-1.67867	0.27462
PMSS-DABK-S-SO40-0001	25.036034	-0.37335	1.65491	-0.6011	-0.40053	-0.86554	-0.11798	1365.6041	-0.43142	1.35409	-0.46248	-1.02377	-1.43403	-0.07756
SESB-BWBK-SB-SO03-0108	8.9912632	2.5584	-0.43484	0.86608	0.55986	0.62019	-0.34841	4417.0601	2.96215	-0.24354	0.76427	1.05296	1.11346	-0.72137
SESB-BWBK-SB-SO04-0108	10.046156	1.5547	-0.45334	1.24924	-0.29651	0.40705	-0.04512	3355.1416	1.8688	-0.34666	0.89544	-1.02681	0.69104	-0.15945
SESB-BWBK-SB-SO05-0106	11.573845	1.07408	-0.29786	1.07651	0.57875	0.55146	-0.11915	3437.6643	1.25802	-0.22548	0.79048	1.43335	0.94291	-0.27029
SESB-BWBK-SB-SO06-0108	11.480157	1.90334	-0.2359	2.29824	0.21959	0.2909	-0.65357	3707.6568	2.17907	-0.09886	1.66513	0.17577	0.53141	-1.09813
SESB-BWBK-SB-SO07-0106	11.738956	2.30462	0.12848	-0.56084	-0.97896	-0.16861	-0.72757	3293.7634	2.80414	0.13382	-0.29291	-2.96267	-0.30159	-1.08627
SESB-BWBK-SB-SO08-0107	12.402078	2.23344	-0.01598	1.05827	0.20209	0.3692	-0.38964	3901.7025	2.58786	0.07716	0.85993	0.11437	0.6729	-0.7415
SESB-BWBK-SB-SO09-0106	10.986358	1.00973	-0.34869	0.94326	0.29305	0.37051	0.2694	3235.105	1.16689	-0.26497	0.71379	0.60154	0.61485	0.24953
SESB-BWBK-SB-SO11-0106	9.5439923	1.87052	-0.29951	0.91145	-0.09278	-0.1106	-0.16224	3508.0791	2.15599	-0.18194	0.76099	-0.68121	-0.22653	-0.42536
SESB-BWBK-SB-SO12-0106	10.77735	1.6165	-0.32771	1.18337	-0.22184	0.43406	-0.78117	3355.6626	1.93825	-0.24228	0.85745	-0.83166	0.74351	-1.17398
SESB-BWBK-SB-SO15-0103	13.479685	0.40591	0.17787	-0.01515	0.05638	-0.40215	-0.38462	2537.1825	0.53338	0.08395	-0.00133	0.18895	-0.79189	-0.53604
SESB-BWBK-SB-SO16-0105	10.094166	0.92399	-0.26251	-0.22582	-0.09527	-0.01237	-0.75071	2927.1511	1.17677	-0.26834	-0.12753	-0.2598	-0.11162	-1.05112
SESB-BWBK-SB-SO17-0106	9.9682129	0.67665	-0.28655	-0.9374	-0.19934	0.00876	-0.08944	2728.1059	0.88155	-0.2945	-0.6034	-0.5222	-0.07644	-0.13111
SESB-BWBK-SB-SO18-0105	9.4621244	0.56717	-0.3183	-1.10512	-0.57274	-0.22983	0.26907	2454.9717	0.75615	-0.32821	-0.72008	-1.55496	-0.50867	0.369
SESB-BWBK-SB-SO19-0104	13.828695	1.72061	0.49846	-1.95978	-2.1029	-0.83168	0.57072	2257.7701	2.17165	0.33532	-1.25687	-5.95124	-1.56601	0.75629
SESB-BWBK-SB-SO20-0104	10.182524	1.40684	-0.28677	-0.16493	-0.38727	0.25731	-0.69621	3117.4762	1.73751	-0.25151	-0.06212	-1.17486	0.3994	-1.00846
SESS-DABK-S-SO01-0001	21.033874	-0.28224	0.85992	-0.1866	0.4692	0.48696	-1.16823	2128.8851	-0.30244	0.67632	-0.17552	1.44714	0.90074	-1.53512
SESS-DABK-S-SO02-0001	19.628302	1.52486	0.45547	-0.73519	1.05144	1.84255	3.49524	3999.1413	1.62263	0.66948	-0.3636	2.44312	3.60937	4.64004
SESS-DABK-S-SO03-0001	30.886759	-0.58748	2.28631	-0.09028	0.24765	-0.42267	-1.66325	1238.5364	-0.81201	1.97081	-0.08598	0.60827	-0.51759	-2.24962
SESS-DABK-S-SO04-0001	30.631887	-0.06238	2.09228	-0.72987	0.62162	0.59224	-0.91263	2124.466	-0.06425	1.72139	-0.53659	1.82556	1.1894	-1.17877
SESS-DABK-S-SO05-0001	26.825638	-0.45191	1.66803	0.05707	0.17061	-0.00319	-1.56436	1525.5108	-0.58629	1.43501	-0.01694	0.49491	0.18288	-2.08006
SESS-DABK-S-SO06-0001	26.521013	-0.61197	0.97266	8.9558	-0.43389	-0.74996	1.68506	1490.9677	-0.91503	0.93946	5.8911	-1.48532	-1.14357	2.24789
SESS-DABK-S-SO07-0001	23.881665	0.02435	1.11703	-0.53178	0.27302	0.75358	1.12955	2200.1194	-0.08574	1.01861	-0.31113	0.56874	1.50045	1.50058
SESS-DABK-S-SO08-0001	22.602937	-0.15895	1.0334	0.37738	0.11999	0.15797	0.60401	1923.6449	-0.31498	0.98871	0.26027	0.1536	0.49605	0.80645
SESS-DABK-S-SO09-0001	25.546883	-0.59108	1.5608	0.80247	0.24056	-0.42877	-1.85088	1449.8912	-0.75644	1.33273	0.47533	0.69557	-0.60199	-2.47923

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD							MAGNESIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	0.1956295	-1.6979	-1.89085	-1.95978	-2.1029	-1.38325	-1.85088	768.47525	-1.84792	-1.65739	-1.25687	-5.99834	-2.57671	-2.47923
MAXIMUM DOMAIN VALUE	43.728605	2.5584	3.37946	8.9558	1.30562	1.92928	3.49524	4417.0601	3.09419	3.00065	5.8911	3.7936	3.88585	4.64004
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	D6	**MG predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	19.022661	-0.84909	0.57545	1.26717	0.37711	-0.12519	-0.85939	1855.6304	-0.88151	0.43559	0.64782	1.48259	-0.13996	-0.95929
SESS-DABK-S-SO11-0001	16.94494	-0.90131	0.27892	-0.40372	-0.83673	0.09033	0.33598	1291.6746	-0.90328	0.15719	-0.46065	-1.87208	0.19757	0.70125
SESS-DABK-S-SO12-0001	21.280299	-0.5165	0.83928	-0.30437	-0.08147	0.22067	0.96776	1762.214	-0.60956	0.68919	-0.25624	-0.12782	0.46468	1.39506
SESS-DABK-S-SO13-0001	19.840267	-0.28746	0.45691	0.50382	-0.27301	1.01594	-0.55161	1926.7478	-0.27243	0.32586	0.25764	-0.58444	1.81129	-0.66847
SESS-DABK-S-SO14-0001	18.454263	-0.66516	0.61538	0.62841	-0.15074	-0.25928	-1.75041	1398.6653	-0.81729	0.54294	0.35665	-0.35893	-0.35639	-2.33434
SESS-DABK-S-SO15-0001	25.674451	-0.70064	1.56953	0.37076	0.08811	-0.4324	-1.25954	1509.4982	-0.72291	1.25706	0.06731	0.61907	-0.63896	-1.51384
SESS-DABK-S-SO16-0001	12.024835	-1.10255	-0.38042	0.06809	-0.69129	0.01614	0.75337	1432.8551	-1.11189	-0.41098	-0.16829	-1.38172	0.01096	1.29306
SESS-DABK-S-SO17-0001	19.996384	-1.05825	0.79952	0.33527	-0.43393	-0.77847	1.30256	1298.2903	-1.12941	0.62258	0.01809	-0.77376	-1.27839	2.02838
SESS-DABK-S-SO18-0001	19.998861	-0.43539	0.76981	-0.45332	-0.55344	-0.03534	0.23806	1433.175	-0.55526	0.66557	-0.323	-1.55855	0.0294	0.35775
SESS-DABK-S-SO19-0001	23.704541	0.36188	1.16541	-0.76292	-0.06929	0.65043	1.06162	2034.3009	0.16792	1.26631	-0.41088	-0.69727	1.55015	1.34072
SESS-DABK-S-SO20-0001	27.291377	-0.08331	1.58298	1.16627	0.67646	0.15645	0.89844	2011.426	-0.41619	1.55777	0.89481	1.34016	0.59667	1.06125

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MANGANESE

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379

285.8371 **Mean**
239.0432 **Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0344	0.0377	-0.0298	0.2463	0.1861	0.0425
AS	-0.2921	-0.1119	0.8632	-0.2130	0.2469	0.4827
BA	-0.0350	0.0428	0.0160	0.0298	-0.1188	1.0374
CR	0.0664	-0.0682	-0.1192	0.4625	-0.1270	0.2145
CO	0.5851	0.1491	-0.2827	-0.7948	-1.9303	0.3818
FE	0.0432	-0.1798	0.5314	0.4285	-1.0332	-0.5599
PB	-0.0889	0.1357	0.0284	-0.0552	0.3635	-0.0262
MG	0.1212	-0.0568	-0.1262	0.0931	-0.0203	0.1066
MN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NI	0.1993	-0.1414	-0.1423	0.4645	0.1974	-0.3344
V	0.0017	0.7762	-0.1809	-0.0431	-1.8966	-0.7801
ZN	0.3117	0.2559	-0.2011	-0.3811	3.9348	-0.1469

NICKEL

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173

13.0159 **Mean**
6.1306 **Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0407	0.0323	-0.0231	-0.2016	0.0519	0.0222
AS	-0.3455	-0.0958	0.6678	0.1743	0.0688	0.2523
BA	-0.0413	0.0366	0.0124	-0.0244	-0.0331	0.5421
CR	0.0786	-0.0584	-0.0922	-0.3786	-0.0354	0.1121
CO	0.6920	0.1276	-0.2187	0.6505	-0.5382	0.1995
FE	0.0511	-0.1539	0.4111	-0.3507	-0.2881	-0.2926
PB	-0.1052	0.1162	0.0219	0.0452	0.1014	-0.0137
MG	0.1433	-0.0486	-0.0977	-0.0762	-0.0057	0.0557
MN	0.0752	0.0000	-0.0294	0.0520	-0.0873	0.0248
NI	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
V	0.0020	0.6643	-0.1400	0.0353	-0.5288	-0.4077
ZN	0.3686	0.2190	-0.1556	0.3120	1.0971	-0.0767

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-178.12295	-1.91126	-1.74254	-1.60437	-2.06249	-5.86048	-2.16878	2.7497285	-1.94895	-1.63347	-1.18465	-1.1572	-1.80155	-1.21935
MAXIMUM DOMAIN VALUE	844.309529	2.96389	3.25315	7.34157	1.25275	9.68676	4.052	32.126267	3.05742	2.76807	5.69971	2.3634	2.70295	2.2919
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	16.5734954	-0.95615	-1.61391	-0.12477	-0.84808	2.40206	-0.70069	8.6781754	-0.90478	-1.52169	-0.20579	0.22005	0.78872	-0.58465
BASS-BWBK-SS-BA102-0001	9.06872981	-1.16331	-1.72837	-0.03734	-1.09094	2.1135	-0.67	7.6171271	-1.13295	-1.63347	-0.14678	0.36846	0.72624	-0.59189
BASS-BWBK-SS-BA103-0001	28.6746606	-1.09269	-1.63772	-0.09189	-1.01102	1.91573	-0.60483	7.8540693	-1.06645	-1.54602	-0.18087	0.33558	0.66405	-0.54286
BASS-BWBK-SS-BA104-0001	87.3650928	-0.84563	-1.41353	-0.28396	-0.73341	1.35738	-0.71172	8.7577124	-0.82711	-1.32652	-0.3047	0.19583	0.49471	-0.55849
BASS-BWBK-SS-BA105-0001	26.5614345	-0.95868	-1.61564	-0.11954	-1.00699	2.26576	-0.8064	8.681016	-0.93076	-1.5133	-0.19129	0.37851	0.75061	-0.62688
BASS-BWBK-SS-BA106-0001	48.0500215	-0.77351	-1.48871	-0.3453	-0.54896	2.12214	-0.85872	9.0806944	-0.76404	-1.37606	-0.34127	0.09595	0.69353	-0.61174
BASS-BWBK-SS-BA107-0001	16.9757028	-1.16621	-1.63554	-0.05964	-1.089	1.94588	-0.66276	7.5355367	-1.13481	-1.55402	-0.16466	0.36796	0.67768	-0.58759
BASS-BWBK-SS-BA108-0001	16.1528356	-1.12245	-1.69753	-0.10055	-1.02258	2.05251	-0.64583	7.6973752	-1.09905	-1.59918	-0.18888	0.33797	0.70455	-0.56755
BASS-BWBK-SS-BA109-0001	46.9030554	-0.84627	-1.74254	-0.324	-0.55447	2.02515	-0.70751	8.5752784	-0.87078	-1.58638	-0.31568	0.11716	0.67174	-0.52514
BASS-BWBK-SS-BA110-0001	107.937127	-0.81489	-1.50056	-0.25888	-0.4912	1.12454	-0.13665	8.7394074	-0.80047	-1.3931	-0.28033	0.02631	0.41962	-0.24471
BASS-BWBK-SS-BA111-0001	29.9755748	-1.05282	-1.66644	-0.12809	-0.86257	1.92993	-0.68016	7.9961565	-1.01646	-1.5706	-0.20998	0.21603	0.66472	-0.58128
BASS-BWBK-SS-BA112-0001	26.5327009	-1.09572	-1.67544	-0.09546	-0.95836	1.92757	-0.63028	7.8825679	-1.04955	-1.58816	-0.19311	0.26234	0.67038	-0.56999
BASS-BWBK-SS-BA113-0001	-167.16886	-0.75611	-1.337	-0.3033	-1.41375	6.10409	-0.82749	10.640479	-0.66688	-1.29063	-0.34531	0.65736	1.83548	-0.66284
MASB-BWBK-SB-MA01-0105	451.544025	1.52702	-0.35661	-0.09846	-0.02172	1.25333	-0.61054	24.410802	1.92509	-0.12981	-0.09655	0.88694	-0.26511	0.08612
MASB-BWBK-SB-MA02-0107	448.902199	1.75956	-0.46415	-0.35891	0.55524	1.68614	-0.32901	23.193184	1.77156	-0.19031	-0.12593	0.26032	0.26744	0.15778
MASB-BWBK-SB-MA03-0108	744.549635	2.80264	-0.24971	-0.20232	-1.76464	0.43443	0.54734	32.126267	3.05742	0.03073	-0.01956	2.3634	-0.24399	0.71117
MASB-BWBK-SB-MA04-0106	388.722721	1.89933	-0.20436	-0.5109	0.58094	2.98465	-0.1994	24.176238	1.95505	0.05176	-0.24768	0.34042	0.55476	0.27268
MASB-BWBK-SB-MA05-0108	319.980795	0.77815	-0.63455	1.59748	0.09686	2.35146	0.52372	19.253868	0.62246	-0.36378	1.37905	0.51954	0.51445	0.54956
MASB-BWBK-SB-MA06-0105	367.987518	1.41093	-0.29186	-0.51191	0.50086	1.98323	-0.69509	20.746039	1.37267	-0.07642	-0.25455	0.16354	0.4258	-0.0991
MASB-BWBK-SB-MA07-0108	249.525444	0.6117	-0.75441	0.89116	0.29674	2.53771	-0.90285	17.495422	0.48461	-0.52558	0.8007	0.131	0.6587	-0.29999
MASB-BWBK-SB-MA08-0108	472.367816	1.35705	-0.18341	3.69046	1.04016	1.46669	-1.66808	24.252254	1.19999	0.08646	3.04981	-0.03869	0.21795	-0.49727
MASB-BWBK-SB-MA09-0108	290.586331	0.54163	-0.74292	3.45982	-0.66502	3.24079	0.38077	20.676313	0.38905	-0.46837	2.80008	1.12199	0.74077	0.46544
MASB-BWBK-SB-MA10-0104	321.392838	0.52468	-0.66842	0.67706	-0.23862	1.08909	-1.36454	17.321324	0.49754	-0.51711	0.58009	0.35691	0.29722	-0.63896
MASB-BWBK-SB-MA11-0108	360.100651	1.50845	-0.05973	0.35092	0.43885	2.66236	-1.05929	22.332752	1.45529	0.14001	0.42844	0.27141	0.60488	-0.26314
MASB-BWBK-SB-MA12-0108	430.619173	1.20874	-0.80159	2.61333	-0.4691	2.32268	0.78194	23.459281	1.06205	-0.45741	2.19959	1.15606	0.4533	0.76448
MASB-BWBK-SB-MA13-0105	393.115274	-0.04202	0.00816	-0.48193	0.24659	-2.10307	0.74561	11.599502	-0.0627	-0.00715	-0.36989	-0.27422	-0.53288	0.35585
MASB-BWBK-SB-MA14-0104	536.521179	0.5987	0.01481	1.10611	0.53278	-2.1832	1.11606	17.089988	0.58845	0.09723	0.91514	-0.13927	-0.69946	0.72019
MASB-BWBK-SB-MA15-0105	498.082514	0.16177	0.31748	0.42294	0.60962	-3.12918	0.77757	13.436168	0.14115	0.31285	0.35296	-0.34903	-0.92593	0.47561
MASB-BWBK-SB-MA16-0104	437.499585	0.39635	-0.05318	-0.11371	-0.19257	-1.46144	0.07702	15.544219	0.46728	-0.02016	-0.08362	0.27032	-0.47458	0.09264
MASB-BWBK-SB-MA17-0104	363.940631	0.16812	0.00803	-0.01201	-0.1737	-0.7186	0.64682	14.370164	0.2598	-0.01712	-0.03668	0.07658	-0.20593	0.30802
MASB-BWBK-SB-MA18-0104	413.764154	0.05449	0.54318	-0.57798	0.84626	-2.71823	-0.46832	11.444464	0.01985	0.47245	-0.42863	-0.68943	-0.72669	-0.24361
MASB-BWBK-SB-MA19-0103	311.282258	-0.23309	-0.11653	-0.20676	-0.05408	-1.04339	0.41899	11.409706	-0.21495	-0.1178	-0.18639	0.0051	-0.31233	0.20126
MASB-BWBK-SB-MA20-0103	433.505717	1.33425	-0.29033	-0.54982	0.03782	0.82291	-0.58078	20.284004	1.2709	-0.0909	-0.28191	0.46401	0.15805	-0.07598
MASS-BWBK-SS-MA01-0001	69.7653899	-1.33848	-0.43142	-0.2194	-0.49477	0.39086	1.23497	5.06942	-1.36119	-0.52151	-0.27913	-0.12518	0.26502	0.40074
MASS-BWBK-SS-MA02-0001	19.384685	-0.9078	-0.23668	-0.60423	0.38297	2.19029	3.01653	6.4676155	-0.97766	-0.28774	-0.5177	-0.62938	0.73057	1.43023
MASS-BWBK-SS-MA03-0001	111.013264	-1.01129	-0.43756	0.01641	0.04458	0.51645	1.38853	6.7781291	-1.06693	-0.47348	-0.05252	-0.39152	0.26294	0.5616
MASS-BWBK-SS-MA04-0001	88.3541076	-0.60369	-0.46301	-0.42522	0.21937	1.77848	1.48581	8.747445	-0.66272	-0.44987	-0.35702	-0.38467	0.58192	0.68148
MASS-BWBK-SS-MA05-0001	181.723213	0.12157	0.2207	-0.66818	0.63202	1.60204	0.26016	12.364665	0.05953	0.20632	-0.48145	-0.4972	0.49711	0.14457
MASS-BWBK-SS-MA06-0001	174.914807	-0.7925	0.0646	1.36188	1.06264	0.52701	3.84726	8.1302706	-0.97589	0.06089	1.06958	-0.87122	0.17647	2.0094
MASS-BWBK-SS-MA07-0001	60.3062837	-1.91126	-0.80291	0.37249	-1.12044	-0.71209	-0.33506	2.7497285	-1.94895	-0.88879	0.13643	0.22745	-0.01259	-0.49307
MASS-BWBK-SS-MA08-0001	152.063282	-0.81504	0.72489	0.46303	-0.24389	0.2309	0.14087	8.4378286	-0.87187	0.55099	0.31192	-0.04816	0.14593	-0.04081
MASS-BWBK-SS-MA09-0001	141.799736	0.26421	1.90863	-0.5185	0.70543	2.57518	1.43634	13.115345	0.22306	1.67264	-0.36039	-0.46342	0.71546	0.80279
MASS-BWBK-SS-MA10-0001	191.893715	0.06583	1.42968	-0.07122	0.33755	1.40672	0.2591	12.827612	0.0476	1.23511	-0.04156	-0.24545	0.39604	0.14947
MASS-BWBK-SS-MA11-0001	407.238286	0.04101	1.46613	0.28471	0.78988	-2.22779	0.87387	12.340073	0.04917	1.25446	0.21998	-0.64744	-0.62106	0.45621
MASS-BWBK-SS-MA12-0001	22.0588575	-0.46153	-0.3211	-0.41746	0.54668	2.96462	0.2549	9.3939855	-0.55866	-0.29881	-0.32157	-0.56398	0.90661	0.0789
MASS-BWBK-SS-MA13-0001	247.437096	-0.79691	0.81021	-0.31003	0.6883	-1.67477	2.18634	6.6662265	-0.83477	0.60822	-0.29466	-0.87118	-0.36068	1.00028
MASS-BWBK-SS-MA14-0001	143.96454	-1.23232	1.01697	-0.45848	-0.24516	-1.07683	0.91342	4.6527789	-1.28096	0.74768	-0.44198	-0.22793	-0.17198	0.27954
MASS-BWBK-SS-MA15-0001	156.06928	-1.184	0.67924	-0.38707	0.22111	-1.14701	1.37311	4.6758752	-1.24091	0.46259	-0.37947	-0.60365	-0.18242	0.52235
MASS-BWBK-SS-MA16-0001	205.928418	-0.95338	0.5524	0.01621	0.23805	-1.38489	0.06437	6.5059961	-1.02629	0.38758	-0.03974	-0.50712	-0.27237	-0.1107
MASS-BWBK-SS-MA17-0001	242.622981	-0.6596	0.58022	-0.18766	0.07814	-1.21383	0.29606	8.4267617	-0.66755	0.41732	-0.20099	-0.34188	-0.25385	0.02644
MASS-BWBK-SS-MA18-0001	182.714325	-1.16494	1.00144	0.02628	-0.09144	-1.59558	-0.36794	5.3390235	-1.25031	0.7561	-0.04453	-0.2902	-0.31863	-0.36091
MASS-BWBK-SS-MA19-0001	258.454709	-0.72302	0.8883	-0.14116	0.05594	-1.67603	0.33983	7.8815423	-0.75559	0.68493	-0.15933	-0.31499	-0.37831	0.05326
MASS-BWBK-SS-MA20-0001	217.3754	-0.36685	0.34017	-0.10205	0.20247	0.04862	0.33633	10.148776	-0.44163	0.27897	-0.07775	-0.22561	0.05555	0.14784
MMSB-BWBK-SB-MM101-0110	313.176575	0.04311	-0.98081	-0.23126	-0.4213	-0.07082	0.33889	13.731603	0.09419	-0.85947	-0.19878	0.28468	-0.01543	0.14949
MMSB-BWBK-SB-MM102-0109	362.451112	0.47188	-0.95152	-0.80211	0.46953	-0.33514	0.0527	14.367207	0.37086	-0.72191	-0.53366	-0.09877	-0.12716	0.1587
MMSB-BWBK-SB-MM103-0107	541.704274	0.72002	-0.92505	-0.67246	-0.96118	-2.051	0.84294	17.749106	0.86612	-0.79201	-0.52599	0.79531	-0.58783	0.44461
MMSB-BWBK-SB-MM104-0110	433.588547	0.83297	-0.61162	-0.43153	0.44234	-0.44274	0.19208	17.920724	1.00512	-0.52573	-0.34199	-0.35854	-0.14036	0.10217
MMSB-BWBK-SB-MM105-0110	213.434379	-0.50802	-1.14753	-0.0856	-0.69997	0.25344	-0.07027	10.644894	-0.52031	-1.03571	-0.10569	0.38799	0.12275	-0.12201
MMSB-BWBK-SB-MM106-0110	418.493601	1.03522	-0.13055	-1.08703	0.82739	-0.08616	0.48213	17.91086	1.16518	-0.0548	-0.80941	-0.46266	-0.10988	0.35119
MMSB-BWBK-SB-MM107-0110	338.749525	0.11054	-0.9948	-0.62209	0.41571	-0.72355	0.60613	13.029458	0.18003	-0.88328	-0.50532	-0.44934	-0.17231	0.26644
MMSB-BWBK-SB-MM108-0110	310.051033	-0.00155	-0.75017	-0.44938	-0.25559	-0.37708	0.01337	13.036419	0.05967	-0.68182	-0.37764	0.07313	-0.06846	-0.05575
MMSB-BWBK-SB-MM109-0110	398.184338	0.29444	-0.31744	-0.68492	0.34938	-1.31799	0.88918	13.757982	0.3348	-0.2641	-0.52353	-0.26123	-0.37244	0.47603
MMSB-BWBK-SB-MM110-0109	331.646288	0.04824	-0.69352	-0.49038	0.54536	-0.86834	0.25935	12.498866	0.08169	-0.6136	-0.39202	-0.51933	-0.21624	0.10181
MMSB-BWBK-SB-MM111-0110	346.935311	0.23659	-0.67548	-0.45284	0.3339	-0.48891	0.56034	13.851829	0.26707	-0.57249	-0.34454	-0.25694	-0.13674	0.3003
MMSB-BWBK-SB-MM112-0110	420.951588	0.27668	-0.2998	-0.63045	0.57974	-1.97396	-0.17835	14.000564	0.40432	-0.23418	-0.51455	-0.32078	-0.70068	-0.02106
MMSB-BWBK-SB-MM113-0110	346.97769	0.47225	-0.99955	-0.96361	1.17375	-0.30869	0.43743	14.124132	0.49205	-0.82419	-0.7149	-0.86632	-0.09378	0.27189
MMSB-BWBK-SB-MM114-0110	252.313585	-0.38352	-1.10389	-0.14491	-0.38051	-0.1048	0.6133	11.070507	-0.38281	-0.98059	-0.14512	0.19951	-0.01407	0.26905

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-178.12295	-1.91126	-1.74254	-1.60437	-2.06249	-5.86048	-2.16878	2.7497285	-1.94895	-1.63347	-1.18465	-1.1572	-1.80155	-1.21935
MAXIMUM DOMAIN VALUE	844.309529	2.96389	3.25315	7.34157	1.25275	9.68676	4.052	32.126267	3.05742	2.76807	5.69971	2.3634	2.70295	2.2919
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	341.853825	0.00617	-0.24398	-0.62999	-0.03089	-0.86293	1.80864	12.754097	0.14332	-0.27424	-0.55031	-0.17445	-0.22074	0.85341
MMSB-BWBK-SB-MM116-0110	278.668686	0.21239	-1.02272	-0.56706	0.00308	0.75964	0.75198	14.149112	0.26241	-0.8756	-0.44316	0.00381	0.19965	0.39599
MMSB-BWBK-SB-MM117-0110	296.444926	-0.15318	-1.14101	-0.24543	-0.96254	-0.13541	0.18444	12.982653	-0.09831	-1.0242	-0.22936	0.63107	-0.00443	0.02421
MMSB-BWBK-SB-MM118-0110	384.777701	0.72487	-1.02718	-0.89431	0.02005	0.04881	-0.25925	16.089891	0.56852	-0.68995	-0.55092	0.63298	-0.16492	0.16401
MMSB-BWBK-SB-MM119-0110	297.572968	0.06047	-0.88643	-0.4471	-0.13956	-0.00236	0.07202	13.418497	0.11951	-0.78066	-0.36794	0.04854	0.00346	0.0075
MMSB-BWBK-SB-MM120-0110	225.890144	-0.69238	-1.29842	-0.11872	-1.0267	-0.3364	-0.09935	9.9540754	-0.63991	-1.21813	-0.17771	0.48428	-0.01125	-0.21594
MMSS-BWBK-SS-MM101-0001	192.047099	-0.79892	0.33153	-0.05629	0.99693	-1.00823	-0.13187	7.0023998	-0.85225	0.21632	-0.0898	-1.05449	-0.20557	-0.17903
MMSS-BWBK-SS-MM102-0001	169.684408	-1.02972	-0.38033	-0.01766	0.38988	-1.00317	-0.78885	6.3728752	-1.0711	-0.42055	-0.08518	-0.64424	-0.19195	-0.56215
MMSS-BWBK-SS-MM103-0001	212.320369	-0.91689	0.34151	0.02101	0.92263	-1.71107	-0.75654	6.3447364	-0.97923	0.21696	-0.03607	-1.02045	-0.39465	-0.51779
MMSS-BWBK-SS-MM104-0001	240.533748	-0.63185	0.17363	-0.09089	0.90482	-1.29489	0.1201	8.026389	-0.6846	0.10091	-0.10193	-0.91122	-0.30433	-0.01605
MMSS-BWBK-SS-MM105-0001	161.372843	-1.22806	-0.25624	0.07853	-0.12315	-1.19344	-0.69645	5.6572352	-1.25682	-0.34395	-0.03425	-0.32346	-0.22131	-0.55953
MMSS-BWBK-SS-MM106-0001	293.018306	-0.48049	0.14364	-0.28679	1.16853	-1.94915	0.0656	8.6249167	-0.48509	0.06538	-0.26297	-1.1572	-0.48372	-0.05837
MMSS-BWBK-SS-MM107-0001	203.706265	-0.60613	0.1093	-0.25535	1.14853	-0.77648	-0.11782	7.9504347	-0.64704	0.03994	-0.23284	-1.13234	-0.15199	-0.15039
MMSS-BWBK-SS-MM108-0001	201.200389	-1.06086	0.43956	-0.15723	1.02097	-2.00288	-0.53643	5.0792816	-1.1355	0.28706	-0.18151	-1.15326	-0.45475	-0.42698
MMSS-BWBK-SS-MM109-0001	214.988097	-0.99078	0.02965	-0.09481	0.90825	-1.97076	-0.94054	5.8886775	-1.03667	-0.06968	-0.14032	-1.07656	-0.44821	-0.64525
MMSS-BWBK-SS-MM110-0001	109.943185	-1.5937	-0.38691	0.12622	-0.28733	-1.18557	-0.53536	3.63031	-1.62926	-0.49527	-0.02669	-0.32476	-0.18158	-0.53793
MMSS-BWBK-SS-MM111-0001	105.495281	-1.43268	-0.56994	0.0431	-0.06478	-0.7363	-0.43607	4.4757067	-1.45713	-0.64006	-0.08208	-0.46642	-0.06721	-0.46737
MMSS-BWBK-SS-MM112-0001	38.7412589	-1.59052	-0.64688	0.17367	-0.41812	0.14734	-0.49596	4.0148013	-1.62997	-0.71578	0.01207	-0.21194	0.18989	-0.51469
MMSS-BWBK-SS-MM113-0001	150.679394	-1.2245	0.42003	-0.10038	0.53094	-1.41205	-0.64097	4.6915715	-1.28071	0.24666	-0.15994	-0.82508	-0.2818	-0.51509
MMSS-BWBK-SS-MM114-0001	49.3404131	-1.54963	-0.92024	0.15191	-0.61972	0.21813	-0.29137	4.5403326	-1.5658	-0.95565	-0.01183	-0.06259	0.20736	-0.41492
MMSS-BWBK-SS-MM115-0001	68.4961733	-1.46446	-0.61337	0.16002	-0.14797	-0.07505	-0.20661	4.5797999	-1.48873	-0.67329	0.00663	-0.37648	0.09947	-0.33725
MMSS-BWBK-SS-MM116-0001	108.178244	-1.47762	-0.51399	0.12648	-0.33764	-0.79403	-0.48416	4.5229719	-1.49387	-0.5981	-0.02486	-0.25833	-0.08628	-0.49944
MMSS-BWBK-SS-MM117-0001	169.643184	-0.97784	-0.11778	-0.07865	0.54389	-0.87144	-0.03325	6.3775999	-1.0256	-0.1919	-0.12558	-0.76354	-0.14752	-0.1643
MMSS-BWBK-SS-MM118-0001	256.938191	-0.60535	-0.8954	-0.13481	-0.10169	-0.99744	0.04466	9.4109646	-0.59551	-0.84558	-0.16317	-0.18925	-0.20265	-0.10233
MMSS-BWBK-SS-MM119-0001	211.817861	-0.76411	-1.0384	-0.12399	-0.35293	-0.55087	0.01398	8.6381422	-0.78588	-0.96599	-0.15349	0.02345	-0.0805	-0.1151
MMSS-BWBK-SS-MM120-0001	244.918351	-0.56691	-0.75727	-0.0125	0.45056	-0.98612	-0.84095	9.4149227	-0.54841	-0.72934	-0.06947	-0.64898	-0.19604	-0.56869
NESB-BWBK-SB-NE01-0108	409.30855	1.20064	-0.83289	-0.75819	0.87247	0.60739	-0.5507	19.055696	1.21303	-0.59472	-0.48814	-0.32708	0.08889	-0.10959
NESB-BWBK-SB-NE02-0109	383.130013	0.93389	-0.89932	-0.53279	0.50868	0.86958	1.47194	18.358005	1.03016	-0.67524	-0.36908	-0.04398	0.07232	0.94168
NESB-BWBK-SB-NE03-0105	357.391451	0.51892	-0.97507	-0.2536	0.51448	0.0224	-0.42152	15.705502	0.51918	-0.78351	-0.15167	-0.25754	-0.0225	-0.14503
NESB-BWBK-SB-NE04-0110	356.907092	0.64348	-0.86834	-0.55048	0.23424	0.35532	-0.18211	16.48463	0.68004	-0.69216	-0.38665	-0.01883	0.05462	-0.01546
NESB-BWBK-SB-NE05-0108	379.597344	0.97876	-0.78813	-0.63656	0.61414	0.59959	-0.82243	18.066517	0.9933	-0.58108	-0.41439	-0.19686	0.10415	-0.28898
NESB-BWBK-SB-NE06-0109	381.939523	0.76891	-0.86782	-0.53138	0.26184	0.20016	-0.62624	17.093217	0.77055	-0.66606	-0.34545	0.03377	0.00882	-0.21308
NESB-BWBK-SB-NE07-0107	360.477947	1.03163	-0.85868	-0.66488	0.87814	1.04487	-0.39065	18.019422	1.00226	-0.62074	-0.41229	-0.35695	0.23421	-0.03778
NESB-BWBK-SB-NE08-0104	378.159795	0.51635	-0.77126	-0.5889	0.11668	-0.40999	-0.6223	15.457505	0.50552	-0.61105	-0.40723	0.05186	-0.12536	-0.25757
NESB-BWBK-SB-NE09-0110	350.511046	0.67227	-0.941	-0.53033	0.28852	0.49628	-0.49849	16.662815	0.70363	-0.75237	-0.36668	-0.06161	0.10069	-0.18012
NESB-BWBK-SB-NE10-0107	340.337494	0.19524	-0.18742	-0.65854	0.57143	-0.90035	-0.46334	13.068641	0.22379	-0.16269	-0.50707	-0.48289	-0.23653	-0.24925
NESB-BWBK-SB-NE101-0110	374.135239	0.10356	-0.34772	-0.61182	0.43446	-1.37039	1.20364	12.546154	0.12885	-0.30778	-0.47736	-0.3969	-0.3618	0.60982
NESB-BWBK-SB-NE102-0110	294.597284	-0.21778	-0.5036	-0.56069	0.11621	-0.66337	1.6579	11.002183	-0.19796	-0.47079	-0.46303	-0.23248	-0.1461	0.80298
NESB-BWBK-SB-NE103-0110	261.968597	-0.43797	-0.73554	-0.40882	-0.17652	-0.60246	0.99629	10.151822	-0.42205	-0.69199	-0.36311	-0.06964	-0.10965	0.42188
NESB-BWBK-SB-NE104-0110	249.048644	-0.547	-0.878	-0.34778	-0.50332	-0.57028	0.64555	9.8739291	-0.52714	-0.83069	-0.3277	0.13903	-0.08282	0.21146
NESB-BWBK-SB-NE105-0110	332.092135	-0.03996	-0.38441	-0.47038	0.29595	-0.91508	1.32087	12.157262	0.0147	-0.35496	-0.39201	-0.31597	-0.25653	0.65647
NESB-BWBK-SB-NE106-0110	320.231428	-0.06252	-0.56889	-0.58214	0.04536	-0.73082	1.14233	12.010441	-0.03941	-0.51088	-0.46747	-0.12097	-0.17866	0.55824
NESB-BWBK-SB-NE107-0510	242.477441	-0.40808	-0.88903	-0.3658	-0.43262	-0.14563	0.43234	10.862798	-0.34758	-0.84407	-0.34819	0.07398	0.02861	0.09683
NESB-BWBK-SB-NE108-0110	351.196776	-0.15969	-0.37625	-0.58592	-0.03885	-1.60726	0.61633	11.477987	-0.10158	-0.37956	-0.496	-0.16617	-0.39315	0.23077
NESB-BWBK-SB-NE109-0110	307.130237	-0.22203	-0.60138	-0.51274	-0.00523	-0.896	1.08863	11.235393	-0.17695	-0.57026	-0.43844	-0.18596	-0.19829	0.48115
NESB-BWBK-SB-NE110-0110	327.443324	-0.13548	-0.59508	-0.55931	-0.07594	-1.08674	0.54464	11.876676	-0.05974	-0.57079	-0.48116	-0.14441	-0.25262	0.18942
NESS-BKG-SS03-NEB-0016	69.7267144	-0.52358	1.15939	-0.30081	0.26672	1.78991	-0.21789	9.060103	-0.58673	0.96233	-0.24991	-0.3301	0.54255	-0.16556
NESS-BKG-SS09-NEB-0018	153.160317	-1.1411	0.00137	0.45842	0.18814	-0.73364	-0.17958	6.3643975	-1.16736	-0.10966	0.26696	-0.52548	-0.1151	-0.26502
NESS-BWBK-SS-NE01-0001	89.8826266	0.23566	0.71725	0.15387	0.9066	3.65432	0.44091	14.178689	0.23067	0.63919	0.1416	-0.66149	1.00582	0.26744
NESS-BWBK-SS-NE02-0001	-112.89659	0.49944	0.2916	0.27224	0.68271	7.91184	-0.17866	16.483634	0.4367	0.31832	0.28104	-0.35658	2.19796	-0.00066
NESS-BWBK-SS-NE03-0001	154.418325	-0.45696	0.01072	0.0889	1.24059	0.58593	-0.1593	9.2650792	-0.52325	-0.01482	0.05848	-1.11118	0.20856	-0.12764
NESS-BWBK-SS-NE04-0001	369.576196	0.23858	0.10659	-0.46814	1.18658	-1.40975	-0.13198	12.789581	0.23017	0.11262	-0.3387	-0.91109	-0.3908	-0.04147
NESS-BWBK-SS-NE05-0001	121.341263	-0.28393	0.11811	-0.07021	1.12843	1.60112	0.06849	10.396618	-0.3251	0.08301	-0.0612	-0.99731	0.48307	0.0016
NESS-BWBK-SS-NE06-0001	318.373973	0.09976	-0.0943	-0.53117	1.25275	-0.97732	-0.44894	11.698145	0.02891	-0.05142	-0.3718	-0.95543	-0.24862	-0.20286
NESS-BWBK-SS-NE07-0001	106.119986	-0.57163	0.64481	0.26573	0.79279	1.1992	-0.19198	8.9676752	-0.6559	0.5239	0.19354	-0.76033	0.38682	-0.15198
NESS-BWBK-SS-NE08-0001	212.540119	-0.2912	-0.07112	-0.20765	1.24064	-0.06075	-0.16279	9.7858349	-0.37552	-0.06118	-0.14855	-1.03833	0.02003	-0.09598
NESS-BWBK-SS-NE09-0001	132.318554	-0.72409	0.37104	0.03173	1.21873	0.29207	0.7209	7.4589025	-0.79226	0.27381	-0.00703	-1.14944	0.12574	0.30661
NESS-BWBK-SS-NE10-0001	108.659551	-0.54023	0.53531	-0.06303	0.54685	1.19117	-0.29484	9.0194744	-0.62142	0.43414	-0.05919	-0.54316	0.37694	-0.19837
NESS-BWBK-SS-NE101-0001	210.269766	-0.95895	-0.2016	-0.24264	0.56155	-1.5426	0.13317	6.288278	-0.9892	-0.26956	-0.25883	-0.79487	-0.33488	-0.08506
NESS-BWBK-SS-NE102-0001	123.629404	-1.27332	-0.27529	-0.12097	-0.10953	-0.69229	-0.2552	5.1996392	-1.30134	-0.36618	-0.19301	-0.35494	-0.07596	-0.33833
NESS-BWBK-SS-NE103-0001	127.157889	-1.34847	-0.45076	-0.05539	-0.12939	-0.89808	-0.31309	4.7817872	-1.39393	-0.51832	-0.14112	-0.35011	-0.12367	-0.37392
NESS-BWBK-SS-NE104-0001	86.7425101	-1.25404	-0.26306	-0.06632	0.01744	-0.1178	-0.78091	5.2710378	-1.31156	-0.33795	-0.13518	-0.40197	0.07431	-0.58687
NESS-BWBK-SS-NE105-0001	71.872329	-1.44598	-0.7044	0.03364	-0.36998	-0.03562	-0.15491	4.7589218	-1.46225	-0.75711	-0.09383	-0.21815	0.12119	-0.32106
NESS-BWBK-SS-NE106-0001	50.3121766	-1.50721	-0.25975	-0.00011	-0.30954	0.01593	-0.37149	4.1710641	-1.5389	-0.37262	-0.1177	-0.25282	0.12975	-0.4274
NESS-BWBK-SS-NE107-0001	61.5843172	-1.54013	-0.33945	0.01233	-0.3188	-0.22097	-0.239	4.1111788	-1.54023	-0.45464	-0.12483	-0.28127	0.05757	-0.37459
NESS-BWBK-SS-NE108-0001	90.3726793	-1.37246	-0.26622	-0.07407	-0.26653	-0.26189	0.1592	4.8582956	-1.38753	-0.37421	-0.17121	-0.27585	0.05086	-0.14448
NESS-BWBK-SS-NE109-0001	67.0841747	-1.49641	-0.68518	0.01318	-0.38092	-0.07945	-0.02741	4.4795355	-1.49884	-0.75251	-0.12044	-0.24641	0.11436	-0.27154
NESS-BWBK-SS-NE110-0001	124.066557	-1.60478	-0.03917	0.07351	-0.48916	-1.49651	-0.69424	3.5388928	-1.64139	-0.19765	-0.06785	-0.15889	-0.2694	-0.62063

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-178.12295	-1.91126	-1.74254	-1.60437	-2.06249	-5.86048	-2.16878	2.7497285	-1.94895	-1.63347	-1.18465	-1.1572	-1.80155	-1.21935
MAXIMUM DOMAIN VALUE	844.309529	2.96389	3.25315	7.34157	1.25275	9.68676	4.052	32.126267	3.05742	2.76807	5.69971	2.3634	2.70295	2.2919
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	622.808621	1.27311	-0.12066	-0.58329	-0.04063	-2.36962	0.72458	19.77331	1.27386	0.06024	-0.33634	0.60681	-0.83557	0.64334
PMSB-BWBK-SB-PM02-0104	844.309529	1.39326	0.38157	0.98101	1.05272	-5.76252	-0.27573	21.502663	1.53686	0.4427	0.81968	-0.41714	-1.79325	0.06164
PMSB-BWBK-SB-PM03-0106	831.680981	2.23349	-0.10333	0.34245	-0.34026	-3.10242	-1.03037	26.879026	2.28468	0.11651	0.43495	0.95164	-1.00724	-0.22849
PMSB-BWBK-SB-PM04-0105	498.772551	0.98533	-0.34894	0.90566	0.14416	-0.57051	-0.09261	19.655268	0.92317	-0.13711	0.8194	0.43958	-0.31662	0.20879
PMSB-BWBK-SB-PM05-0105	618.308647	1.31529	-0.16106	0.13918	-0.05016	-2.00224	-0.14971	21.414793	1.42988	-0.01381	0.1753	0.51078	-0.74915	0.13911
PMSB-BWBK-SB-PM06-0105	548.423036	0.96805	-0.46829	0.7054	0.34079	-1.57308	-0.00266	21.003204	1.30311	-0.28262	0.50158	0.3604	-0.9431	0.29724
PMSB-BWBK-SB-PM07-0105	797.471302	0.84865	-0.13707	0.7137	-0.90552	-5.65853	0.6227	20.011153	1.10493	-0.07812	0.51849	0.9868	-1.80155	0.44049
PMSB-BWBK-SB-PM08-0106	685.18775	1.11799	-0.17258	0.47142	-0.70335	-3.23049	0.35817	20.836048	1.21862	-0.0434	0.42078	0.97209	-1.06363	0.3706
PMSB-BWBK-SB-PM09-0106	514.684192	0.55099	-0.72555	0.42259	-0.64299	-1.87817	-0.07546	17.274077	0.56051	-0.55021	0.37311	0.78075	-0.60996	0.07811
PMSB-BWBK-SB-PM10-0105	753.7549	0.84625	0.88394	0.09078	-0.09828	-5.86048	-0.80689	18.023568	1.00514	0.79765	0.07471	0.26797	-1.75064	-0.33441
PMSB-BWBK-SB-PM11-0104	752.526324	1.35664	-0.25223	0.28129	-0.38377	-3.87862	0.49644	22.726456	1.63479	-0.05628	0.22959	1.05107	-1.54999	0.60235
PMSB-BWBK-SB-PM12-0105	360.194432	0.12454	-0.47871	-0.57813	0.18076	-1.14883	-0.06605	13.195457	0.18183	-0.41593	-0.46171	-0.15207	-0.34346	-0.03614
PMSB-BWBK-SB-PM13-0106	457.647572	-0.15369	0.07519	0.38199	0.76626	-3.41224	0.18717	12.118576	-0.0221	0.03247	0.22841	-0.65997	-1.05015	0.08392
PMSB-BWBK-SB-PM14-0106	381.582781	-0.07267	-0.23968	-0.1868	-0.19124	-1.78794	0.00837	12.928698	0.05048	-0.22912	-0.2014	0.14309	-0.59174	-0.0007
PMSB-BWBK-SB-PM15-0105	429.528275	0.46943	-0.22546	-0.01036	0.316	-1.23663	0.0075	15.642405	0.5059	-0.14985	0.01767	-0.09925	-0.40464	0.07761
PMSB-BWBK-SB-PM16-0106	329.612977	0.04537	-0.36939	-0.10035	0.14669	-0.68492	-0.26918	13.261961	0.0775	-0.3046	-0.08523	-0.05186	-0.24996	-0.10874
PMSB-BWBK-SB-PM17-0105	829.117492	1.60781	0.3571	-0.40097	-1.01868	-4.77372	-0.11808	23.070571	1.81556	0.37932	-0.26562	1.10504	-1.43123	0.06369
PMSB-BWBK-SB-PM18-0105	403.999418	1.07495	-0.72896	0.93365	0.79618	1.05386	-0.64944	19.898107	0.98388	-0.46235	0.85875	-0.12538	0.18887	-0.09713
PMSB-BWBK-SB-PM19-0105	381.416151	0.69787	-0.34063	0.18458	0.48201	0.23504	-0.03985	17.132113	0.67964	-0.18921	0.215	-0.03604	-0.04317	0.14462
PMSB-BWBK-SB-PM20-0106	396.493069	0.56814	-0.29654	0.00087	0.20979	-0.37818	-0.13383	16.251555	0.55394	-0.1801	0.05776	0.0775	-0.16862	0.04494
PMSB-BWBK-SB-SO01-0107-PM	421.54469	1.57961	-0.26929	0.05222	-0.04425	1.91394	-0.90049	22.352259	1.44794	-0.02159	0.23574	0.6833	0.45424	-0.17328
PMSB-BWBK-SB-SO02-0109-PM	373.866491	1.05432	-0.39052	1.24589	0.45107	1.61342	-1.17277	20.258853	0.93463	-0.17271	1.11004	0.13991	0.37374	-0.37879
PMSB-BWBK-SB-SO13-0104-PM	732.55849	1.9126	-0.26378	0.6519	-0.37793	-2.024	-0.41732	24.606084	1.75578	0.0226	0.73919	1.07413	-0.65108	0.13321
PMSB-BWBK-SB-SO14-0105-PM	536.222627	1.91011	-0.54382	1.1448	-0.07681	1.49779	-0.12204	25.30927	1.71655	-0.18746	1.13913	0.93547	0.29254	0.33732
PMSS-DABK-S-SO21-0001	-54.328078	-0.09688	1.8275	0.227	-1.06065	5.57372	-0.33331	13.825743	-0.07656	1.53018	0.15573	0.74239	1.60188	-0.2323
PMSS-DABK-S-SO22-0001	-178.12295	0.84417	3.25315	-0.49173	-1.45251	9.68676	-0.99417	19.839185	1.03428	2.76807	-0.39684	1.14132	2.70295	-0.5413
PMSS-DABK-S-SO23-0001	289.63508	-0.09591	1.82047	-0.44408	-0.03667	-0.86133	-0.22237	11.152159	-0.16384	1.56955	-0.32218	0.04693	-0.21295	-0.10877
PMSS-DABK-S-SO24-0001	223.15553	-0.04552	1.93614	0.31434	-0.3334	0.78522	-0.29652	13.358901	0.05147	1.5975	0.1932	0.07849	0.25837	-0.24443
PMSS-DABK-S-SO25-0001	523.189254	-0.32131	1.92647	2.23293	0.61778	-4.74224	-1.44079	12.523463	-0.24019	1.60404	1.66632	-0.60972	-1.36309	-0.8001
PMSS-DABK-S-SO26-0001	-131.93369	0.48211	3.00367	-0.1091	-0.67559	7.92328	-0.63634	16.694089	0.50669	2.59797	-0.05552	0.63165	2.20868	-0.29647
PMSS-DABK-S-SO27-0001	111.191896	-0.46725	2.107	-0.41996	-0.48597	1.22708	-0.5031	9.5213909	-0.53042	1.77136	-0.33836	0.26998	0.40296	-0.32212
PMSS-DABK-S-SO28-0001	128.262333	0.66627	2.62473	-0.78381	-1.6082	4.24676	0.24176	18.015396	0.87213	2.20854	-0.64491	1.20466	1.18914	0.07516
PMSS-DABK-S-SO29-0001	194.217184	0.08596	2.45557	-0.35836	0.07648	1.21088	0.30704	12.665063	0.11054	2.07362	-0.28489	-0.18188	0.40322	0.10505
PMSS-DABK-S-SO30-0001	111.256917	0.36693	2.06118	-0.75139	-0.51571	3.66331	1.4745	15.140189	0.49858	1.72623	-0.61221	0.29701	1.04912	0.7129
PMSS-DABK-S-SO31-0001	360.712266	-0.3337	1.28606	-0.37679	-0.71901	-2.44295	-0.8058	11.358543	-0.14075	0.99181	-0.40694	0.27536	-0.68023	-0.5645
PMSS-DABK-S-SO32-0001	348.91123	1.07681	3.13548	-0.53353	-2.06249	1.8442	0.66362	21.102998	1.39202	2.65356	-0.4635	1.63563	0.45798	0.3234
PMSS-DABK-S-SO33-0001	187.606929	-0.05653	2.25595	-1.13122	-0.75901	1.01629	0.84142	11.776141	0.02276	1.86133	-0.92057	0.37171	0.36783	0.32444
PMSS-DABK-S-SO34-0001	462.296939	-0.31314	1.26598	-0.42809	-0.80746	-3.93408	0.25913	11.14719	-0.14662	0.99239	-0.43219	0.40661	-1.10918	0.01909
PMSS-DABK-S-SO35-0001	361.314864	-0.27301	1.79613	-0.37742	-0.46532	-2.36743	-0.15178	10.810014	-0.21332	1.47669	-0.34383	0.185	-0.62292	-0.16944
PMSS-DABK-S-SO36-0001	291.817741	-0.91184	1.44497	-0.33116	-0.04917	-3.0218	-0.47544	6.3514353	-0.9438	1.13766	-0.32359	-0.31099	-0.72997	-0.41061
PMSS-DABK-S-SO37-0001	416.086868	-0.41321	1.59277	0.09702	-0.14054	-3.63042	-0.67755	10.375302	-0.3072	1.27403	-0.00912	-0.15956	-0.98085	-0.48018
PMSS-DABK-S-SO38-0001	438.182276	-0.62866	1.43279	-0.45479	-0.64429	-4.64105	-0.82889	8.7837337	-0.52153	1.12133	-0.45424	0.20987	-1.26677	-0.57885
PMSS-DABK-S-SO39-0001	433.307377	-0.52225	0.95738	-0.0205	-0.10806	-4.03757	0.12812	9.6035824	-0.4282	0.73616	-0.10228	-0.15406	-1.11971	-0.04419
PMSS-DABK-S-SO40-0001	379.118474	-0.53974	1.4952	-0.44833	-0.39958	-3.39151	-0.18264	9.3200807	-0.42055	1.18659	-0.44584	0.05983	-0.94568	-0.21783
SESB-BWBK-SB-SO03-0108	590.853261	2.96389	-0.37245	0.72961	0.5874	2.9414	-0.44106	30.331038	2.63164	0.15657	0.97672	1.04872	0.54351	0.47322
SESB-BWBK-SB-SO04-0108	517.208293	1.85554	-0.41873	1.00555	-0.27597	1.67151	-0.04147	24.943794	1.65819	-0.08633	1.02809	1.07618	0.34987	0.36911
SESB-BWBK-SB-SO05-0106	360.96756	1.27855	-0.29426	0.87372	0.58787	2.37779	-0.13992	20.80998	1.08015	-0.02322	0.87885	0.24641	0.54354	0.26149
SESB-BWBK-SB-SO06-0108	606.447892	2.24201	-0.19834	1.8661	0.20438	1.24812	-0.76277	27.508487	1.97422	0.17334	1.7596	0.90444	0.2026	0.09393
SESB-BWBK-SB-SO07-0106	668.599351	2.50845	0.10122	-0.33812	-0.74194	0.22406	-1.00423	28.787564	2.58577	0.40409	-0.06543	1.76863	-0.35741	0.01198
SESB-BWBK-SB-SO08-0107	589.643989	2.55467	-0.01253	0.90109	0.26058	1.96228	-0.50773	28.863586	2.40824	0.34422	0.98964	0.95596	0.29498	0.2731
SESB-BWBK-SB-SO09-0106	421.357374	1.24198	-0.34273	0.74306	0.27948	1.38789	0.34443	20.440945	1.03381	-0.08444	0.77602	0.40812	0.32473	0.47238
SESB-BWBK-SB-SO11-0106	567.759414	1.94395	-0.2913	0.89941	0.20404	0.77057	-0.39038	26.585071	2.08235	0.03068	0.82229	0.93956	-0.2939	0.30868
SESB-BWBK-SB-SO12-0106	488.524359	1.88126	-0.30976	0.97922	-0.16105	2.0197	-0.94106	25.367485	1.74883	0.003	0.98361	1.00601	0.38775	-0.08935
SESB-BWBK-SB-SO15-0103	461.540055	0.48665	0.07815	-0.00553	0.11941	-1.79238	-0.46573	15.759277	0.51524	0.11986	0.02719	0.09832	-0.57357	-0.15273
SESB-BWBK-SB-SO16-0105	472.117473	1.13222	-0.30567	-0.19677	-0.04887	-0.24324	-0.87264	19.404931	1.06123	-0.1139	-0.02167	0.51091	-0.14641	-0.23942
SESB-BWBK-SB-SO17-0106	431.232284	0.8764	-0.32728	-0.79635	-0.18217	-0.31868	-0.06958	17.27837	0.82282	-0.18569	-0.51857	0.42518	-0.09717	0.09018
SESB-BWBK-SB-SO18-0105	475.523111	0.73659	-0.35977	-0.92505	-0.52502	-1.31619	0.34191	16.803236	0.77919	-0.26677	-0.67364	0.55074	-0.37187	0.23415
SESB-BWBK-SB-SO19-0104	842.556936	2.05881	0.33812	-1.60437	-1.98433	-3.8332	0.67708	25.347456	2.31629	0.35814	-1.18465	1.85066	-1.11762	0.45813
SESB-BWBK-SB-SO20-0104	462.477616	1.6162	-0.29963	-0.10262	-0.27609	1.34387	-0.86247	23.422888	1.69182	-0.09885	0.02993	0.78135	0.20176	-0.19433
SESS-DABK-S-SO01-0001	87.5422044	-0.30274	0.75548	-0.17524	0.38767	1.99685	-1.34251	10.70357	-0.32956	0.60086	-0.15352	-0.50274	0.64783	-0.78752
SESS-DABK-S-SO02-0001	9.42074678	1.59333	0.67736	-0.53511	0.89732	8.96377	4.052	22.24812	1.65383	0.69979	-0.306	-0.35491	2.44087	2.2919
SESS-DABK-S-SO03-0001	209.678787	-0.77829	2.14033	-0.06123	0.0904	-1.55692	-1.95632	7.3893781	-0.82291	1.7466	-0.0982	-0.38884	-0.31603	-1.16785
SESS-DABK-S-SO04-0001	57.2018083	-0.10036	1.88386	-0.60161	0.48929	2.68497	-1.05521	11.029562	-0.1597	1.59814	-0.45155	-0.49221	0.8346	-0.59442
SESS-DABK-S-SO05-0001	135.924865	-0.61667	1.57951	0.06497	0.05865	0.31155	-1.85073	8.9884214	-0.64407	1.28834	0.00748	-0.27391	0.16024	-1.07143
SESS-DABK-S-SO06-0001	506.468511	-0.85819	0.99364	7.34157	-0.46808	-2.72922	1.93024	15.034286	-1.05236	0.88364	5.69971	0.5065	-0.8079	1.06571
SESS-DABK-S-SO07-0001	65.8348937	-0.01419	1.08096	-0.4337	0.1529	3.46826	1.33943	11.932665	-0.12948	0.95145	-0.2876	-0.08483	1.02633	0.7177
SESS-DABK-S-SO08-0001	174.641658	-0.2965	1.06656	0.33637	0.01319	1.13126	0.68765	11.152947	-0.37134	0.91051	0.26798	-0.03534	0.34561	0.34775
SESS-DABK-S-SO09-0001	247.791516	-0.74475	1.4647	0.65525	0.11738	-1.73296	-2.16878	8.2849083	-0.85255	1.20784	0.4891	-0.28164	-0.39187	-1.21935

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE							NICKEL						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-178.12295	-1.91126	-1.74254	-1.60437	-2.06249	-5.86048	-2.16878	2.7497285	-1.94895	-1.63347	-1.18465	-1.1572	-1.80155	-1.21935
MAXIMUM DOMAIN VALUE	844.309529	2.96389	3.25315	7.34157	1.25275	9.68676	4.052	32.126267	3.05742	2.76807	5.69971	2.3634	2.70295	2.2919
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	D6	**NI predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	164.145728	-1.00328	0.57418	1.01886	0.27337	-0.57138	-0.98866	7.4018182	-1.09152	0.41017	0.73903	-0.5226	-0.04907	-0.65478
SESS-DABK-S-SO11-0001	118.764654	-1.02749	0.28309	-0.35573	-0.89005	0.22361	0.43239	6.8724737	-1.06187	0.12551	-0.35255	0.31046	0.20142	0.03289
SESS-DABK-S-SO12-0001	136.150287	-0.59884	0.77483	-0.26515	-0.16153	0.90187	1.16484	9.0321589	-0.60625	0.57795	-0.25769	-0.17959	0.3644	0.46459
SESS-DABK-S-SO13-0001	-4.8695078	-0.28788	0.38832	0.37961	-0.31851	4.25192	-0.61027	11.947839	-0.39868	0.33005	0.31609	0.21022	1.25927	-0.34286
SESS-DABK-S-SO14-0001	220.002929	-0.79079	0.61939	0.49875	-0.24514	-1.15494	-2.0357	8.2725139	-0.92218	0.48833	0.37453	0.0223	-0.22381	-1.14658
SESS-DABK-S-SO15-0001	231.636681	-0.86542	1.45297	0.30256	-0.01744	-1.77753	-1.473	7.2926274	-0.95911	1.18201	0.19974	-0.21718	-0.4034	-0.87679
SESS-DABK-S-SO16-0001	130.624104	-1.23089	-0.31948	0.01785	-0.72956	-0.23905	0.93303	6.0765168	-1.24878	-0.41782	-0.08859	0.09217	0.08518	0.25454
SESS-DABK-S-SO17-0001	303.033349	-1.27397	0.78841	0.27048	-0.51219	-3.35441	1.54316	5.3755	-1.26391	0.52246	0.0917	-0.09642	-0.80357	0.56871
SESS-DABK-S-SO18-0001	213.625405	-0.51278	0.73419	-0.38415	-0.62658	-0.19644	0.30498	9.6297789	-0.53036	0.555	-0.33788	0.23629	0.05608	0.03143
SESS-DABK-S-SO19-0001	80.9785488	0.19893	1.337	-0.55183	-0.2233	3.79487	1.18672	13.806919	0.18939	1.16171	-0.40642	0.22937	1.06394	0.64141
SESS-DABK-S-SO20-0001	172.15535	-0.25949	1.61523	0.99345	0.50865	1.33128	1.02135	11.327249	-0.40754	1.41758	0.81319	-0.32781	0.39235	0.57401

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
18.7937	Mean					
6.6010	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0322	0.5014	-0.0213	0.2694	-0.0265	0.0143
AS	-0.2729	-1.4884	0.6162	-0.2330	-0.0352	0.1620
BA	-0.0327	0.5692	0.0114	0.0326	0.0169	0.3481
CR	0.0621	-0.9067	-0.0851	0.5059	0.0181	0.0720
CO	0.5466	1.9825	-0.2018	-0.8693	0.2749	0.1281
FE	0.0404	-2.3911	0.3793	0.4687	0.1472	-0.1879
PB	-0.0831	1.8047	0.0202	-0.0604	-0.0518	-0.0088
MG	0.1132	-0.7547	-0.0901	0.1018	0.0029	0.0358
MN	0.0594	0.0002	-0.0271	-0.0694	0.0446	0.0159
NI	0.1862	-1.8797	-0.1016	0.5080	-0.0281	-0.1122
V	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ZN	0.2912	3.4021	-0.1436	-0.4169	-0.5604	-0.0493

ZINC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0321	0.0377	-0.0333	0.3361	0.0720	0.0382
AS	-0.2724	-0.1119	0.9660	-0.2906	0.0955	0.4335
BA	-0.0326	0.0428	0.0179	0.0407	-0.0459	0.9316
CR	0.0619	-0.0682	-0.1334	0.6311	-0.0491	0.1926
CO	0.5456	0.1491	-0.3164	-1.0844	-0.7463	0.3429
FE	0.0403	-0.1798	0.5947	0.5847	-0.3995	-0.5028
PB	-0.0829	0.1357	0.0317	-0.0753	0.1406	-0.0235
MG	0.1130	-0.0568	-0.1412	0.1271	-0.0079	0.0957
MN	0.0593	0.0000	-0.0425	-0.0866	-0.1211	0.0426
NI	0.1858	-0.1414	-0.1592	0.6338	0.0763	-0.3003
V	0.0016	0.7762	-0.2025	-0.0588	-0.7333	-0.7006
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319
ZN	0.2906	0.2559	-0.2251	-0.5200	1.5214	-0.1319

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.1805	0.5561	0.1708	0.5752	0.0072	0.1092
AS	0.4857	0.2183	0.7925	0.0495	0.0456	0.0349
BA	0.0697	0.7006	0.0132	0.1782	0.0042	0.5319
CR	0.6706	0.4223	0.1592	0.4154	0.0239	0.1604
CO	0.9360	0.0815	0.2051	-0.0851	-0.1079	0.0477
FE	0.7487	0.1919	0.5622	0.1931	-0.0443	-0.0678
PB	-0.1047	0.8693	0.0676	-0.0455	0.2304	0.0301
MG	0.7769	-0.2918	0.0543	0.2491	0.0502	0.0710
MN	0.6666	-0.0449	0.1027	-0.0832	-0.2468	0.0379
NI	0.9174	-0.0451	0.2349	0.1478	0.0755	-0.0173
V	0.1097	0.9407	0.1835	0.1341	-0.1123	-0.0181
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
ZN	0.7321	0.4661	0.2629	0.0253	0.3908	0.0169
37.2570	Mean					
15.3234	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0480	0.0542	-0.0204	0.1054	0.0083	0.0290
AS	-0.4071	-0.1610	0.5923	-0.0912	0.0110	0.3295
BA	-0.0487	0.0616	0.0110	0.0128	-0.0053	0.7082
CR	0.0926	-0.0981	-0.0818	0.1979	-0.0056	0.1464
CO	0.8155	0.2145	-0.1940	-0.3401	-0.0857	0.2607
FE	0.0603	-0.2587	0.3646	0.1834	-0.0459	-0.3822
PB	-0.1239	0.1953	0.0195	-0.0236	0.0161	-0.0179
MG	0.1689	-0.0817	-0.0866	0.0398	-0.0009	0.0728
MN	0.0886	0.0000	-0.0261	-0.0272	-0.0139	0.0324
NI	0.2777	-0.2034	-0.0976	0.1988	0.0088	-0.2283
V	0.0023	1.1166	-0.1242	-0.0185	-0.0842	-0.5326
ZN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-51.48464	-1.8478	-12.2206	-1.15651	-2.20188	-2.03599	-0.79532	10.735254	-2.00092	-2.08251	-1.06161	-0.80203	-0.39585	-1.49855
MAXIMUM DOMAIN VALUE	131.6956	2.80983	18.0714	5.52855	1.40473	0.87405	1.36872	68.027535	3.42845	3.68545	5.24099	0.85591	0.32293	3.05825
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	4.9133538	-0.9277	-1.9243	-0.31644	-0.97297	0.14099	-0.74068	13.322656	-0.94471	-1.94552	-0.21017	-0.51245	0.29397	-0.6012
BASS-BWBK-SS-BA102-0001	5.7617605	-1.12891	-1.72636	-0.27193	-1.23716	0.22113	-0.77614	10.735254	-1.14607	-2.02611	-0.17821	-0.65	0.32293	-0.60749
BASS-BWBK-SS-BA103-0001	5.5753744	-1.06139	-1.77188	-0.296	-1.14607	0.21787	-0.72208	12.306247	-1.06206	-1.91012	-0.211	-0.6102	0.3069	-0.55813
BASS-BWBK-SS-BA104-0001	2.0962629	-0.8304	-2.38717	-0.38845	-0.82689	0.20383	-0.66653	16.902015	-0.76763	-1.63086	-0.32692	-0.47258	0.2614	-0.61891
BASS-BWBK-SS-BA105-0001	6.5442324	-0.93299	-1.63461	-0.31526	-1.14472	0.16635	-0.78489	13.41605	-0.93849	-1.936	-0.20978	-0.58441	0.29432	-0.67827
BASS-BWBK-SS-BA106-0001	1.4517464	-0.75768	-2.52685	-0.44538	-0.63519	0.12134	-0.73627	16.283181	-0.71887	-1.78945	-0.35238	-0.37369	0.27019	-0.70267
BASS-BWBK-SS-BA107-0001	6.629445	-1.13055	-1.58657	-0.27472	-1.23149	0.21729	-0.74562	11.504118	-1.1511	-1.89497	-0.19316	-0.64867	0.31405	-0.60121
BASS-BWBK-SS-BA108-0001	5.4428963	-1.09006	-1.78533	-0.31152	-1.16112	0.2181	-0.75593	11.474189	-1.09084	-1.98414	-0.22102	-0.62002	0.3189	-0.58993
BASS-BWBK-SS-BA109-0001	-3.62061	-0.83097	-3.3219	-0.45986	-0.64632	0.19838	-0.7525	14.066729	-0.74375	-2.08251	-0.36227	-0.40536	0.30143	-0.6222
BASS-BWBK-SS-BA110-0001	-0.039589	-0.79709	-2.76255	-0.38237	-0.57079	0.26081	-0.49218	16.956489	-0.70394	-1.74404	-0.31617	-0.3763	0.25572	-0.22717
BASS-BWBK-SS-BA111-0001	3.3444915	-1.02191	-2.1538	-0.32287	-0.98633	0.21752	-0.74675	12.476656	-1.00883	-1.95624	-0.23502	-0.54557	0.30472	-0.60702
BASS-BWBK-SS-BA112-0001	4.4388295	-1.06318	-1.96064	-0.30292	-1.09107	0.22511	-0.73828	11.985434	-1.05914	-1.95957	-0.21569	-0.59025	0.30947	-0.57626
BASS-BWBK-SS-BA113-0001	30.028794	-0.74886	2.1483	-0.44509	-1.58398	-0.38209	-0.79532	12.520263	-1.06492	-1.87507	-0.2062	-0.60553	0.30461	-0.60287
MASB-BWBK-SB-MA01-0105	6.262288	1.79063	-2.09242	-0.26943	-0.46105	0.16398	-0.17451	54.118965	2.21904	-0.89583	-0.08355	-0.00596	-0.21131	-0.11405
MASB-BWBK-SB-MA02-0107	2.1861489	1.71805	-2.89761	-0.33088	0.506	-0.09902	-0.17364	51.132699	2.04824	-1.10344	-0.11527	0.39696	-0.14929	-0.06563
MASB-BWBK-SB-MA03-0108	30.726034	2.79165	1.9865	-0.28965	-2.15608	0.20669	0.0954	66.830089	3.42845	-0.9823	0.01904	-0.558	-0.31697	0.63759
MASB-BWBK-SB-MA04-0106	3.4180102	1.89284	-2.72681	-0.41869	0.49684	-0.33631	-0.03487	53.398554	2.13683	-0.87625	-0.18424	0.45244	-0.17166	0.08715
MASB-BWBK-SB-MA05-0108	-18.93711	0.76777	-6.41421	1.09657	0.04931	-0.25151	0.13531	40.329245	0.69024	-1.29813	1.22283	0.19368	-0.08801	0.48459
MASB-BWBK-SB-MA06-0105	5.476296	1.35112	-2.32682	-0.39986	0.5023	-0.21713	-0.26386	47.562106	1.5607	-0.80518	-0.22118	0.37009	-0.10255	-0.35164
MASB-BWBK-SB-MA07-0108	-10.88031	0.56826	-5.03722	0.57547	0.30632	-0.23369	-0.43069	35.962913	0.51237	-1.36847	0.71942	0.25431	-0.02086	-0.54133
MASB-BWBK-SB-MA08-0108	-51.48464	1.3208	-12.2206	2.732	1.11851	-0.42391	-0.29701	50.189459	1.00492	-1.08393	2.81582	0.7836	-0.33697	-0.88558
MASB-BWBK-SB-MA09-0108	-24.20209	0.56527	-7.38597	2.41176	-0.80758	-0.35209	0.08037	37.491949	0.19523	-1.61735	2.55389	-0.06839	-0.13036	0.44152
MASB-BWBK-SB-MA10-0104	-1.768872	0.47834	-3.42485	0.42073	-0.27117	-0.02163	-0.59985	36.670073	0.51277	-1.13069	0.53354	-0.02137	-0.02899	-0.89232
MASB-BWBK-SB-MA11-0108	5.2052922	1.4432	-2.52385	0.25649	0.44775	-0.39866	-0.30239	49.702019	1.46354	-0.67062	0.44495	0.43122	-0.16739	-0.54515
MASB-BWBK-SB-MA12-0108	-24.42759	1.19107	-7.38437	1.79657	-0.59978	-0.19901	0.19583	44.821521	1.12591	-1.70415	1.97287	0.01538	-0.17285	0.71739
MASB-BWBK-SB-MA13-0105	8.3752211	-0.07152	-1.6214	-0.30777	0.31501	0.23021	0.2855	38.017226	0.08524	0.17403	-0.37749	0.04824	-0.00885	0.44733
MASB-BWBK-SB-MA14-0104	-5.040406	0.5942	-4.1126	0.82731	0.56081	0.22485	0.49337	46.408306	0.68927	-0.14665	0.80635	0.28617	-0.18501	0.82704
MASB-BWBK-SB-MA15-0105	-0.721743	0.17362	-3.29357	0.38518	0.67343	0.26674	0.45789	44.489371	0.29071	0.48209	0.27032	0.23882	-0.13243	0.53679
MASB-BWBK-SB-MA16-0104	11.218156	0.40798	-1.18588	-0.09243	-0.25261	0.22399	0.04813	42.624404	0.60476	-0.07992	-0.09332	-0.09818	-0.07538	0.07414
MASB-BWBK-SB-MA17-0104	21.143588	0.16832	0.40963	-0.01749	-0.20448	0.11869	0.21238	39.391958	0.21866	-0.0159	-0.00287	-0.0673	-0.04757	0.45515
MASB-BWBK-SB-MA18-0104	-0.976573	0.02574	-3.26349	-0.27062	1.00099	0.09502	0.1025	43.045509	0.1473	0.8716	-0.42009	0.33293	-0.07235	-0.35713
MASB-BWBK-SB-MA19-0103	10.498105	-0.19753	-1.24648	-0.16059	-0.0841	0.17167	0.13833	35.131496	-0.11741	-0.01733	-0.20706	-0.09897	0.02029	0.25609
MASB-BWBK-SB-MA20-0103	10.78203	1.24659	-1.36846	-0.42359	0.03022	-0.05214	-0.25816	47.679383	1.52643	-0.6997	-0.27143	0.14127	-0.09731	-0.31976
MASS-BWBK-SS-MA01-0001	31.814443	-1.30814	2.38428	-0.23132	-0.50924	0.11254	0.19262	19.42585	-1.4757	-0.2157	-0.27647	-0.36417	0.22339	0.70058
MASS-BWBK-SS-MA02-0001	43.021313	-0.90213	4.03545	-0.49604	0.45055	-0.16541	0.81528	23.137284	-1.14187	-0.16616	-0.45575	0.11188	0.19293	1.98166
MASS-BWBK-SS-MA03-0001	20.66464	-0.99403	0.42631	-0.04349	0.07898	0.05212	0.29408	22.717059	-1.15404	-0.34944	-0.07167	-0.08201	0.16762	0.8442
MASS-BWBK-SS-MA04-0001	27.43194	-0.60473	1.49517	-0.38017	0.254	-0.08454	0.29327	25.420534	-0.72094	-0.51095	-0.33152	0.04433	0.16242	0.94917
MASS-BWBK-SS-MA05-0001	26.66692	0.0736	1.20453	-0.43722	0.74555	-0.30325	0.12053	37.120137	-0.02709	0.20113	-0.39745	0.34018	0.02521	0.18762
MASS-BWBK-SS-MA06-0001	5.3965725	-0.76265	-2.43446	1.02337	1.20275	-0.17763	1.36872	29.871373	-1.14401	0.08708	0.94624	0.46732	0.02574	2.61603
MASS-BWBK-SS-MA07-0001	19.922977	-1.8478	0.57195	0.15438	-1.2019	0.34765	-0.41492	12.65162	-2.00092	-0.51229	0.04274	-0.73499	0.28848	-0.43874
MASS-BWBK-SS-MA08-0001	46.404987	-0.79616	4.46853	0.41075	-0.20338	-0.19371	0.16929	33.78403	-1.13405	1.08734	0.31591	-0.10859	0.03939	0.06547
MASS-BWBK-SS-MA09-0001	73.663146	0.23387	8.63752	-0.15589	0.86015	-0.81265	0.90382	49.884323	-0.22963	2.2521	-0.16622	0.5253	-0.11746	1.10925
MASS-BWBK-SS-MA10-0001	53.241993	0.05325	5.39652	0.12234	0.43858	-0.56123	0.43058	45.979154	-0.31272	1.72167	0.0794	0.29569	-0.09508	0.26473
MASS-BWBK-SS-MA11-0001	28.568281	0.03558	1.34687	0.43034	0.94674	-0.15761	0.75356	49.397128	-0.16512	1.92063	0.26597	0.42149	-0.18837	0.64788
MASS-BWBK-SS-MA12-0001	23.339421	-0.4774	0.72402	-0.33905	0.63004	-0.32684	-0.05373	26.008349	-0.70612	-0.45574	-0.26814	0.25271	0.14558	0.14668
MASS-BWBK-SS-MA13-0001	32.192056	-0.79168	2.16315	-0.09262	0.8458	-0.02128	0.93974	35.02861	-0.99617	1.32056	-0.25074	0.24682	0.01001	1.42522
MASS-BWBK-SS-MA14-0001	50.951112	-1.20171	5.3813	-0.20293	-0.17334	-0.09668	0.49979	31.833663	-1.48897	1.71886	-0.38895	-0.19581	0.08524	0.52695
MASS-BWBK-SS-MA15-0001	40.009368	-1.1636	3.5489	-0.18183	0.33315	-0.0227	0.58463	29.923832	-1.40153	1.25947	-0.3466	-0.00459	0.0964	0.82951
MASS-BWBK-SS-MA16-0001	21.389107	-0.94268	0.45514	0.12107	0.35146	-0.02138	0.18267	31.578858	-1.15666	1.00495	-0.04536	0.03199	0.0503	-0.04118
MASS-BWBK-SS-MA17-0001	30.294224	-0.65006	1.91965	-0.04638	0.15052	-0.00357	0.23749	34.857427	-0.79403	0.98253	-0.16974	-0.017	0.02403	0.14382
MASS-BWBK-SS-MA18-0001	31.945604	-1.14455	2.20406	0.18274	0.0146	-0.10456	0.14372	32.779326	-1.45122	1.65569	-0.03867	-0.10949	0.04407	-0.33957
MASS-BWBK-SS-MA19-0001	33.45827	-0.71408	2.41972	0.03375	0.1476	-0.03503	0.34227	36.77724	-0.90006	1.41608	-0.13237	-0.02032	-6.3E-05	0.17402
MASS-BWBK-SS-MA20-0001	24.501643	-0.36805	0.91681	-0.0164	0.26691	-0.11992	0.19768	35.152429	-0.51268	0.51951	-0.07047	0.08461	0.0223	0.20784
MMSB-BWBK-SB-MM101-0110	10.999074	0.04537	-1.08974	-0.31615	-0.5192	0.32532	-0.18855	31.59235	0.30472	-1.20775	-0.23628	-0.27181	0.09252	0.1778
MMSB-BWBK-SB-MM102-0109	-5.716606	0.43648	-3.90555	-0.67946	0.4802	0.27236	-0.20568	36.409774	0.86064	-1.18964	-0.61505	0.12415	0.07148	-0.0159
MMSB-BWBK-SB-MM103-0107	16.36429	0.68545	-0.11377	-0.63756	-1.11973	0.61925	-0.02329	41.364793	1.27385	-1.11553	-0.54689	-0.51169	0.00849	0.52282
MMSB-BWBK-SB-MM104-0110	-0.326118	0.79111	-3.13862	-0.37612	0.44669	0.20291	-0.05893	42.112353	1.13261	-0.91927	-0.28666	0.2012	-0.04125	0.14853
MMSB-BWBK-SB-MM105-0110	8.8671609	-0.4913	-1.35207	-0.22654	-0.80705	0.31368	-0.38136	24.272745	-0.33483	-1.31067	-0.17797	-0.44162	0.17709	-0.15087
MMSB-BWBK-SB-MM106-0110	6.4976333	1.00781	-2.05831	-0.79057	0.85871	0.03446	0.18091	46.99056	1.34658	-0.32093	-0.71386	0.39442	-0.07658	0.38764
MMSB-BWBK-SB-MM107-0110	-1.76464	0.09465	-3.23015	-0.56457	0.42085	0.35705	-0.05289	31.924409	0.41554	-1.19665	-0.51028	0.07868	0.0815	0.34441
MMSB-BWBK-SB-MM108-0110	8.7489742	-0.01278	-1.46296	-0.42155	-0.30366	0.26697	-0.2148	32.385421	0.22158	-0.87358	-0.37987	-0.19468	0.08379	-0.05374
MMSB-BWBK-SB-MM109-0110	12.565268	0.27659	-0.94714	-0.53038	0.36594	0.27416	0.21563	39.348146	0.56379	-0.32796	-0.51867	0.09202	0.00232	0.57252
MMSB-BWBK-SB-MM110-0109	0.1387278	0.03463	-2.97687	-0.42302	0.58123	0.27854	-0.07441	33.540738	0.28433	-0.7993	-0.40585	0.1507	0.05826	0.11681
MMSB-BWBK-SB-MM111-0110	5.4589335	0.22061	-2.11146	-0.40858	0.33549	0.24833	0.01339	35.635919	0.48512	-0.83819	-0.36013	0.0844	0.04199	0.34537
MMSB-BWBK-SB-MM112-0110	-2.775012	0.35386	-3.44852	-0.50028	0.52018	0.36677	-0.04792	41.049356	0.71798	-0.27013	-0.5348	0.13311	-0.03349	-0.11363
MMSB-BWBK-SB-MM113-0110	-10.11922	0.43804	-4.70046	-0.79336	1.24965	0.26543	-0.07228	35.065732	0.82898	-1.28754	-0.7156	0.43772	0.05868	0.25526
MMSB-BWBK-SB-MM114-0110	5.9613705	-0.35554	-1.86628	-0.26414	-0.47561	0.3508	-0.11894	26.538788	-0.14904	-1.2623	-0.22187	-0.3075	0.14975	0.33041

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-51.48464	-1.8478	-12.2206	-1.15651	-2.20188	-2.03599	-0.79532	10.735254	-2.00092	-2.08251	-1.06161	-0.80203	-0.39585	-1.49855
MAXIMUM DOMAIN VALUE	131.6956	2.80983	18.0714	5.52855	1.40473	0.87405	1.36872	68.027535	3.42845	3.68545	5.24099	0.85591	0.32293	3.05825
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	18.117939	0.01301	0.02967	-0.49378	-0.05663	0.21364	0.52571	36.303212	0.18471	-0.21027	-0.48799	-0.07865	0.02689	1.20004
MMSB-BWBK-SB-MM116-0110	8.802874	0.20862	-1.49061	-0.56015	-0.06173	0.21496	-0.05253	31.921184	0.47171	-1.33289	-0.44461	-0.06379	0.09742	0.48024
MMSB-BWBK-SB-MM117-0110	13.048077	-0.14879	-0.63983	-0.35345	-1.10986	0.39364	-0.30882	28.512331	0.12218	-1.34691	-0.27532	-0.53876	0.1356	0.0414
MMSB-BWBK-SB-MM118-0110	-1.733902	0.74163	-3.1915	-0.7981	-0.09941	0.31418	-0.3356	39.665945	1.28435	-1.32488	-0.69849	-0.08785	0.05993	-0.18425
MMSB-BWBK-SB-MM119-0110	2.9783074	0.06193	-2.41465	-0.43828	-0.20015	0.24861	-0.21246	31.955176	0.31301	-1.08639	-0.3793	-0.14519	0.08855	-4.7E-05
MMSB-BWBK-SB-MM120-0110	8.434365	-0.66743	-1.3257	-0.27369	-1.16875	0.44771	-0.44381	21.744235	-0.47335	-1.42203	-0.23846	-0.62635	0.20206	-0.20181
MMSS-BWBK-SS-MM101-0001	18.42868	-0.77754	-0.13613	0.03061	1.14676	0.00175	0.06283	31.735545	-0.92497	0.67523	-0.0996	0.35269	0.05653	-0.16069
MMSS-BWBK-SS-MM102-0001	7.2394351	-0.9917	-1.78339	-0.03976	0.44683	0.20581	-0.35587	24.524086	-1.0365	-0.17103	-0.13984	0.01403	0.14107	-0.65746
MMSS-BWBK-SS-MM103-0001	14.295098	-0.8901	-0.78524	0.0966	1.07169	0.07971	-0.12756	31.36273	-1.01051	0.75924	-0.07169	0.29105	0.05891	-0.60731
MMSS-BWBK-SS-MM104-0001	15.954153	-0.6145	-0.51577	-0.01867	1.03032	0.09262	0.10556	33.034701	-0.66226	0.4649	-0.13258	0.30276	0.05021	0.0104
MMSS-BWBK-SS-MM105-0001	16.923361	-1.18394	-0.13345	0.03208	-0.10613	0.22769	-0.32673	23.730006	-1.26945	0.05311	-0.0879	-0.22256	0.15592	-0.6106
MMSS-BWBK-SS-MM106-0001	8.7719797	-0.47222	-1.69621	-0.14919	1.32115	0.16609	0.10736	34.528665	-0.44414	0.42657	-0.26924	0.41302	0.0232	-0.02757
MMSS-BWBK-SS-MM107-0001	12.754748	-0.5939	-1.05829	-0.1384	1.29951	0.02436	0.01685	31.843334	-0.66278	0.34595	-0.234	0.42035	0.0615	-0.14672
MMSS-BWBK-SS-MM108-0001	17.381988	-1.03489	-0.26341	-0.01621	1.19472	0.09316	-0.0366	30.549255	-1.16683	0.95072	-0.20844	0.31544	0.07228	-0.47635
MMSS-BWBK-SS-MM109-0001	6.7143852	-0.96537	-1.96106	-0.02019	1.05022	0.1894	-0.26646	28.499951	-1.01294	0.40431	-0.18334	0.24645	0.09342	-0.7621
MMSS-BWBK-SS-MM110-0001	20.262901	-1.53847	0.47432	0.04285	-0.28084	0.27794	-0.33573	18.99781	-1.66853	-0.02438	-0.09076	-0.33569	0.21184	-0.538
MMSS-BWBK-SS-MM111-0001	17.991998	-1.38399	0.07344	-0.04364	-0.05112	0.26997	-0.35297	19.011181	-1.47253	-0.31648	-0.13863	-0.2294	0.21723	-0.46032
MMSS-BWBK-SS-MM112-0001	22.023864	-1.53542	0.77026	0.02999	-0.44045	0.18595	-0.41783	16.015591	-1.71019	-0.43677	-0.04357	-0.3744	0.2529	-0.5009
MMSS-BWBK-SS-MM113-0001	26.881673	-1.18573	1.35317	9.8E-05	0.64817	0.05942	-0.11881	28.491964	-1.3668	0.94424	-0.1783	0.09536	0.10837	-0.55265
MMSS-BWBK-SS-MM114-0001	18.569835	-1.49337	0.26276	-0.02623	-0.67918	0.26024	-0.42758	14.420927	-1.61698	-0.80357	-0.06989	-0.47393	0.26779	-0.36659
MMSS-BWBK-SS-MM115-0001	18.311249	-1.40278	0.12134	0.02707	-0.15758	0.20028	-0.28893	17.657039	-1.56024	-0.4294	-0.04423	-0.24758	0.22011	-0.28404
MMSS-BWBK-SS-MM116-0001	18.517458	-1.42222	0.19188	0.02195	-0.35118	0.26472	-0.35221	18.993569	-1.53509	-0.24081	-0.0813	-0.3458	0.21148	-0.48973
MMSS-BWBK-SS-MM117-0001	18.421623	-0.94996	-0.01238	-0.05883	0.63067	0.13719	-0.06042	26.836456	-1.03619	0.15381	-0.15904	0.10631	0.12335	-0.13077
MMSS-BWBK-SS-MM118-0001	3.0001033	-0.59083	-2.37759	-0.20325	-0.12343	0.37128	-0.23387	25.916398	-0.42565	-0.89994	-0.22625	-0.20325	0.14621	-0.08983
MMSS-BWBK-SS-MM119-0001	5.3792994	-0.7378	-1.93365	-0.22533	-0.41009	0.36981	-0.30339	22.956495	-0.59726	-1.06481	-0.23457	-0.32931	0.1852	-0.12135
MMSS-BWBK-SS-MM120-0001	-1.301101	-0.55707	-3.19908	-0.08188	0.49473	0.2988	-0.4641	26.280706	-0.47956	-0.79012	-0.10824	0.07327	0.10493	-0.67114
NESB-BWBK-SB-NE01-0108	-3.600281	1.14089	-3.73539	-0.64138	0.89943	0.11921	-0.36608	43.437454	1.56891	-1.30963	-0.48641	0.41447	-0.03023	-0.33565
NESB-BWBK-SB-NE02-0109	6.8367106	0.96043	-1.9604	-0.54492	0.40955	0.20274	0.26357	41.118222	1.33307	-1.37634	-0.37252	0.21477	-0.0209	1.07454
NESB-BWBK-SB-NE03-0105	-3.20713	0.48995	-3.59328	-0.30004	0.51546	0.2449	-0.37815	36.038538	0.80136	-1.34121	-0.1987	0.19123	0.02927	-0.30243
NESB-BWBK-SB-NE04-0110	4.2057343	0.61697	-2.33051	-0.51489	0.1972	0.20141	-0.29098	37.872101	0.9569	-1.2165	-0.39628	0.07919	0.02787	-0.12531
NESB-BWBK-SB-NE05-0108	-1.148807	0.92937	-3.2966	-0.55067	0.62255	0.11306	-0.45443	41.336051	1.29305	-1.21161	-0.4137	0.29095	-0.01362	-0.53261
NESB-BWBK-SB-NE06-0109	0.5263463	0.72784	-2.94895	-0.49059	0.2375	0.20248	-0.42582	39.227922	1.09694	-1.23737	-0.37235	0.10342	0.01217	-0.426
NESB-BWBK-SB-NE07-0107	-0.87007	0.96847	-3.29653	-0.57787	0.91919	0.06636	-0.33613	40.889874	1.31999	-1.33952	-0.41866	0.42041	-0.00395	-0.23635
NESB-BWBK-SB-NE08-0104	3.2687774	0.47589	-2.44693	-0.51462	0.10089	0.25698	-0.40893	37.722529	0.83177	-1.0048	-0.43996	0.00706	0.03327	-0.4575
NESB-BWBK-SB-NE09-0110	1.2276535	0.63872	-2.82751	-0.504	0.26052	0.1897	-0.41044	37.293432	0.97506	-1.33303	-0.37567	0.11013	0.02965	-0.34086
NESB-BWBK-SB-NE10-0107	6.2078419	0.17331	-2.03276	-0.47168	0.63356	0.13337	-0.16959	38.202793	0.36781	-0.17696	-0.48259	0.20767	0.00614	-0.34653
NESB-BWBK-SB-NE101-0110	12.010834	0.08665	-1.0371	-0.47678	0.47122	0.28103	0.31009	37.132419	0.3342	-0.32589	-0.48049	0.11354	0.02439	0.76839
NESB-BWBK-SB-NE102-0110	17.063066	-0.21656	-0.13891	-0.47588	0.11364	0.25548	0.38624	32.10576	-0.04799	-0.49006	-0.4664	-0.04767	0.0851	1.06024
NESB-BWBK-SB-NE103-0110	13.582629	-0.42808	-0.643	-0.39692	-0.21104	0.30965	0.09712	28.193813	-0.26919	-0.74324	-0.38964	-0.20576	0.12746	0.58328
NESB-BWBK-SB-NE104-0110	13.577949	-0.53659	-0.58273	-0.37462	-0.56925	0.351	-0.07202	26.049436	-0.37342	-0.89893	-0.36316	-0.36425	0.1539	0.32664
NESB-BWBK-SB-NE105-0110	11.784216	-0.02773	-1.05578	-0.39064	0.29464	0.2432	0.34279	35.132092	0.15494	-0.38586	-0.38935	0.04848	0.03659	0.86108
NESB-BWBK-SB-NE106-0110	13.628088	-0.067	-0.69434	-0.49714	0.02951	0.27662	0.2065	33.381762	0.15523	-0.6008	-0.47678	-0.07258	0.07308	0.7153
NESB-BWBK-SB-NE107-0510	11.893879	-0.40087	-0.88568	-0.38825	-0.49818	0.2909	-0.13801	26.885211	-0.2446	-0.97724	-0.35473	-0.30904	0.14171	0.20135
NESB-BWBK-SB-NE108-0110	13.879953	-0.1681	-0.63465	-0.46399	-0.03955	0.32851	0.09078	34.284692	0.05599	-0.28045	-0.49122	-0.12323	0.05701	0.33903
NESB-BWBK-SB-NE109-0110	14.706852	-0.22412	-0.5009	-0.45168	-0.01911	0.31036	0.17041	31.552863	-0.02546	-0.6019	-0.44267	-0.11071	0.08933	0.66174
NESB-BWBK-SB-NE110-0110	12.761113	-0.14071	-0.80807	-0.48123	-0.0977	0.32925	-0.00152	32.692825	0.09765	-0.59404	-0.47532	-0.14163	0.07968	0.29213
NESS-BKG-SS03-NEB-0016	72.815019	-0.51046	8.68223	-0.1212	0.34624	-0.4464	0.09222	38.787388	-0.84635	1.59467	-0.17009	0.15583	0.04954	-0.13993
NESS-BKG-SS09-NEB-0018	17.655326	-1.09255	-0.14806	0.34144	0.23755	0.0802	-0.06316	26.514621	-1.27972	0.29878	0.21492	-0.03888	0.11454	-0.21791
NESS-BWBK-SS-NE01-0001	38.941909	0.22018	2.95984	0.19168	1.02037	-0.69179	0.31506	40.386768	-0.19568	0.58635	0.27212	0.58488	-0.04941	0.42287
NESS-BWBK-SS-NE02-0001	37.18386	0.45052	2.61643	0.21736	0.77097	-1.1717	-0.03223	35.239283	-0.18208	-0.30457	0.46521	0.62027	0.01133	0.06659
NESS-BWBK-SS-NE03-0001	13.931135	-0.45036	-0.96183	0.08792	1.38911	-0.12986	-0.0317	31.495528	-0.61621	0.06243	0.0536	0.52073	0.05379	-0.13427
NESS-BWBK-SS-NE04-0001	10.930276	0.21428	-1.40705	-0.29512	1.32019	0.12074	0.02516	41.640975	0.38434	0.20754	-0.33797	0.48749	-0.03495	-0.10931
NESS-BWBK-SS-NE05-0001	21.795036	-0.28477	0.30967	-0.02552	1.26251	-0.27555	0.04978	32.992176	-0.49101	0.11362	-0.01859	0.51669	0.04891	0.05153
NESS-BWBK-SS-NE06-0001	4.9619511	0.06773	-2.35824	-0.35381	1.40473	0.09129	-0.12943	38.101764	0.22198	-0.0334	-0.39171	0.50236	0.01107	-0.34812
NESS-BWBK-SS-NE07-0001	32.208513	-0.56204	1.9966	0.28434	0.92871	-0.36321	0.09515	34.417437	-0.90916	0.86646	0.2171	0.3787	0.03059	-0.12917
NESS-BWBK-SS-NE08-0001	10.82586	-0.29715	-1.42456	-0.13081	1.38834	-0.02269	-0.0492	33.313862	-0.32823	-0.00486	-0.16803	0.49919	0.04943	-0.15133
NESS-BWBK-SS-NE09-0001	29.83715	-0.69353	1.64	0.07145	1.36736	-0.14025	0.321	32.007353	-0.92465	0.62637	-0.00568	0.48808	0.06084	0.45783
NESS-BWBK-SS-NE10-0001	37.145154	-0.52837	2.8861	0.01849	0.64437	-0.29771	0.00221	34.2083	-0.78575	0.77141	-0.03364	0.24396	0.05894	-0.21423
NESS-BWBK-SS-NE101-0001	16.135313	-0.9302	-0.34515	-0.18659	0.6441	0.25473	-0.02387	27.142322	-0.92751	0.10048	-0.29766	0.08315	0.12501	-0.0344
NESS-BWBK-SS-NE102-0001	23.886139	-1.22799	1.02037	-0.12704	-0.09534	0.19165	-0.21488	22.668157	-1.32416	0.03531	-0.22752	-0.22008	0.1832	-0.31308
NESS-BWBK-SS-NE103-0001	17.098145	-1.30397	-0.0618	-0.09316	-0.11581	0.24921	-0.26764	20.857454	-1.37542	-0.16425	-0.19971	-0.24927	0.20054	-0.37025
NESS-BWBK-SS-NE104-0001	29.020293	-1.20865	1.8084	-0.09643	0.03921	0.12713	-0.40683	22.931292	-1.31811	0.03369	-0.18336	-0.1578	0.19929	-0.66605
NESS-BWBK-SS-NE105-0001	20.147666	-1.39074	0.47459	-0.08022	-0.40115	0.23148	-0.31271	17.240811	-1.50577	-0.52912	-0.14026	-0.35393	0.23797	-0.26023
NESS-BWBK-SS-NE106-0001	37.550114	-1.44568	3.25965	-0.06643	-0.32396	0.14435	-0.30533	20.419733	-1.60688	0.0937	-0.15831	-0.32186	0.23163	-0.40201
NESS-BWBK-SS-NE107-0001	28.011084	-1.46806	1.7309	-0.05553	-0.34182	0.17216	-0.24671	19.142227	-1.643	-0.02335	-0.15258	-0.32863	0.218	-0.30631
NESS-BWBK-SS-NE108-0001	29.311843	-1.32024	1.92278	-0.10346	-0.27091	0.151	-0.09558	21.351249	-1.47047	0.04115	-0.19274	-0.28418	0.19883	-0.02809
NESS-BWBK-SS-NE109-0001	21.662285	-1.43785	0.73013	-0.09483	-0.41311	0.23772	-0.26992	16.860073	-1.56189	-0.48946	-0.1588	-0.36393	0.24172	-0.17647
NESS-BWBK-SS-NE110-0001	28.425133	-1.54855	1.81452	0.04596	-0.48748	0.23687	-0.30556	21.859612	-1.697	0.46384	-0.12276	-0.41709	0.19215	-0.64276

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-51.48464	-1.8478	-12.2206	-1.15651	-2.20188	-2.03599	-0.79532	10.735254	-2.00092	-2.08251	-1.06161	-0.80203	-0.39585	-1.49855
MAXIMUM DOMAIN VALUE	131.6956	2.80983	18.0714	5.52855	1.40473	0.87405	1.36872	68.027535	3.42845	3.68545	5.24099	0.85591	0.32293	3.05825
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	10.641548	1.25771	-1.30129	-0.45138	-0.12573	0.39674	0.2538	53.570933	1.81284	-0.22743	-0.41002	-0.02478	-0.14681	0.54661
PMSB-BWBK-SB-PM02-0104	-22.97895	1.39065	-7.13198	0.81155	1.10078	0.56958	0.24146	61.14417	1.83826	0.34611	0.70927	0.49877	-0.37346	-0.08337
PMSB-BWBK-SB-PM03-0106	-6.996107	2.11934	-4.35439	0.26656	-0.39749	0.38887	-0.26122	63.486874	2.72492	-0.51956	0.35943	0.00352	-0.32166	-0.58417
PMSB-BWBK-SB-PM04-0105	-13.45283	0.97752	-5.4311	0.63033	0.09444	0.10348	0.00434	47.444589	1.19661	-0.72395	0.67959	0.13392	-0.14412	0.02844
PMSB-BWBK-SB-PM05-0105	-1.662681	1.31997	-3.40197	0.07339	-0.15602	0.32085	0.00627	53.22969	1.75016	-0.41764	0.12511	0.01912	-0.19862	-0.00165
PMSB-BWBK-SB-PM06-0105	-15.07978	1.21101	-5.61003	0.35593	0.0115	0.4704	0.06572	50.151247	1.63254	-0.82109	0.40485	0.07099	-0.21169	0.20564
PMSB-BWBK-SB-PM07-0105	-1.780347	0.93272	-3.23913	0.46325	-1.14772	0.87405	0.28249	53.535446	1.50695	-0.09968	0.3917	-0.4948	-0.23783	0.47501
PMSB-BWBK-SB-PM08-0106	0.6376061	1.12284	-2.92976	0.30864	-0.85816	0.50244	0.15737	52.952057	1.59482	-0.31652	0.31462	-0.30666	-0.19426	0.30595
PMSB-BWBK-SB-PM09-0106	-6.549828	0.55239	-4.02798	0.21455	-0.77193	0.44218	-0.15798	41.29934	0.92372	-0.95824	0.24179	-0.32986	-0.05146	-0.0547
PMSB-BWBK-SB-PM10-0105	-2.051479	0.85485	-3.42319	0.22434	-0.11602	0.4875	0.13205	58.312555	1.24081	1.23929	0.04516	-0.05823	-0.29115	-0.50569
PMSB-BWBK-SB-PM11-0104	-2.118683	1.53666	-3.36289	0.07801	-0.73452	0.7544	0.23907	57.775349	2.20926	-0.43345	0.10136	-0.2561	-0.26886	0.50509
PMSB-BWBK-SB-PM12-0105	2.9582512	0.13462	-2.46599	-0.46957	0.15922	0.27893	-0.11632	36.331422	0.40286	-0.51671	-0.4689	-0.00691	0.02645	-0.08227
PMSB-BWBK-SB-PM13-0106	-7.3908	-0.06733	-4.32598	0.30418	0.77231	0.40445	0.21857	40.05065	0.06963	0.25127	0.17466	0.22926	-0.10164	0.13084
PMSB-BWBK-SB-PM14-0106	6.9457427	0.00317	-1.78935	-0.18317	-0.29835	0.34441	-0.01364	37.492501	0.21864	-0.16324	-0.22731	-0.19468	-0.00981	-0.00508
PMSB-BWBK-SB-PM15-0105	1.5280849	0.46591	-2.85119	-0.02172	0.31294	0.20051	0.00614	41.912515	0.67121	-0.34456	-0.01152	0.13169	-0.07093	0.02556
PMSB-BWBK-SB-PM16-0106	2.6875452	0.0793	-2.57589	-0.11755	0.10703	0.18612	-0.13976	36.224243	0.22996	-0.4363	-0.12053	0.00393	0.00615	-0.1897
PMSB-BWBK-SB-PM17-0105	17.480233	1.54661	-0.10875	-0.24616	-1.14497	0.58684	0.09574	62.00037	2.1926	0.41538	-0.25818	-0.41312	-0.26927	-0.02908
PMSB-BWBK-SB-PM18-0105	-17.80282	1.02612	-6.26242	0.6138	0.83008	-0.04425	-0.2992	42.655684	1.14058	-1.37871	0.75501	0.47721	-0.11492	-0.34176
PMSB-BWBK-SB-PM19-0105	-0.603968	0.69439	-3.28803	0.09694	0.47208	0.03075	-0.03351	42.306225	0.83892	-0.65676	0.17063	0.26084	-0.07863	0.04128
PMSB-BWBK-SB-PM20-0106	2.0141664	0.55108	-2.78006	-0.02314	0.20057	0.09943	-0.069	41.658527	0.73284	-0.50206	0.02005	0.11401	-0.05735	-0.0598
PMSB-BWBK-SB-SO01-0107-PM	11.33834	1.46532	-1.40146	0.01486	-0.04592	-0.22354	-0.36031	49.606709	1.64023	-0.84959	0.21379	0.19076	-0.13194	-0.49464
PMSB-BWBK-SB-SO02-0109-PM	-10.10252	0.98671	-5.04598	0.88675	0.49058	-0.22461	-0.39679	43.982313	0.94929	-1.00476	1.0202	0.38853	-0.13907	-0.67897
PMSB-BWBK-SB-SO13-0104-PM	-4.621407	1.76878	-3.98626	0.47951	-0.39029	0.26232	-0.13268	57.837102	2.22683	-0.72877	0.58611	0.00123	-0.25153	-0.19948
PMSB-BWBK-SB-SO14-0105-PM	-6.418152	1.78385	-4.42617	0.78257	-0.09571	-0.14063	-0.11235	52.599873	1.97641	-1.36219	1.00336	0.22455	-0.20856	0.07412
PMSS-DABK-S-SO21-0001	84.401513	-0.11467	10.5295	0.34444	-1.07131	-1.17073	0.23149	41.784554	-0.95445	1.96244	0.41528	-0.14849	-0.06367	-0.05807
PMSS-DABK-S-SO22-0001	131.6956	0.78828	18.0714	-0.03746	-1.47765	-2.03599	0.3061	55.614425	-0.41829	3.32387	0.16935	-0.0224	-0.21428	-0.30749
PMSS-DABK-S-SO23-0001	56.519805	-0.11443	6.05809	-0.07983	0.0686	-0.36883	0.37976	49.285086	-0.3521	2.46155	-0.23611	0.06405	-0.10769	-0.12104
PMSS-DABK-S-SO24-0001	61.802932	-0.05381	6.81435	0.46512	-0.26833	-0.61352	0.37838	47.729171	-0.60166	2.33971	0.38636	0.05855	-0.1746	-0.0857
PMSS-DABK-S-SO25-0001	15.487278	-0.26256	-0.97546	1.90777	0.74845	0.01078	0.20215	52.116591	-0.67324	2.52759	1.60524	0.35329	-0.33599	-0.89448
PMSS-DABK-S-SO26-0001	108.85617	0.43831	14.2851	0.24688	-0.61215	-1.80589	0.43495	52.809973	-0.67669	3.18837	0.35326	0.21643	-0.18381	-0.13043
PMSS-DABK-S-SO27-0001	80.721567	-0.47074	10.0242	-0.06026	-0.41247	-0.66925	0.27906	45.348432	-0.96312	2.80647	-0.1902	-0.0941	-0.04467	-0.29951
PMSS-DABK-S-SO28-0001	111.47998	0.62762	15.0319	-0.31465	-1.67772	-1.11856	0.58727	56.345011	-0.0015	2.97716	-0.24207	-0.33813	-0.19241	0.38702
PMSS-DABK-S-SO29-0001	76.657195	0.04074	9.18637	0.05425	0.23291	-0.81352	0.68853	52.042181	-0.52193	3.03405	-0.04331	0.26998	-0.17433	0.32567
PMSS-DABK-S-SO30-0001	91.81019	0.33323	11.7604	-0.33732	-0.48417	-0.93656	0.88973	49.714125	-0.23757	2.33943	-0.27791	0.05979	-0.13261	1.17304
PMSS-DABK-S-SO31-0001	44.234263	-0.28061	4.26878	-0.1235	-0.76642	0.03697	0.06393	44.652607	-0.36593	1.8922	-0.28888	-0.34153	-0.09619	-0.54353
PMSS-DABK-S-SO32-0001	128.27638	1.04977	17.7577	-0.10303	-2.20188	-0.85331	0.84248	68.027535	0.59809	3.68545	-0.07765	-0.53878	-0.32083	0.70361
PMSS-DABK-S-SO33-0001	87.520993	-0.09165	11.2228	-0.55618	-0.70229	-0.66305	0.74888	49.450848	-0.50506	2.92945	-0.64207	-0.16846	-0.09631	0.64075
PMSS-DABK-S-SO34-0001	47.082012	-0.2578	4.7836	-0.17149	-0.87079	0.27241	0.40239	47.080825	-0.18751	1.98582	-0.37153	-0.43525	-0.10507	0.15198
PMSS-DABK-S-SO35-0001	58.193097	-0.26424	6.43809	-0.04814	-0.42157	-0.12426	0.38977	48.986242	-0.42268	2.55625	-0.24581	-0.18397	-0.11663	-0.0997
PMSS-DABK-S-SO36-0001	47.070726	-0.89995	4.66146	-0.03335	0.06638	0.01507	0.19723	40.598993	-1.05431	2.32012	-0.29766	-0.10709	-0.00876	-0.41541
PMSS-DABK-S-SO37-0001	32.732469	-0.38264	2.24891	0.3033	-0.07453	0.02635	0.25444	46.949208	-0.53663	2.31658	0.05431	-0.07425	-0.15062	-0.46604
PMSS-DABK-S-SO38-0001	40.50484	-0.57566	3.71796	-0.13914	-0.6509	0.27018	0.11451	45.448673	-0.53343	2.33385	-0.42046	-0.40299	-0.07985	-0.63253
PMSS-DABK-S-SO39-0001	26.36819	-0.46796	1.30572	0.11845	-0.09131	0.29232	0.33857	42.507945	-0.453	1.58272	-0.10063	-0.14723	-0.08679	0.04329
PMSS-DABK-S-SO40-0001	42.183416	-0.47779	3.92242	-0.1335	-0.39783	0.08705	0.35123	45.298908	-0.54602	2.28912	-0.37213	-0.24547	-0.09171	-0.1466
SESB-BWBK-SB-SO03-0108	-7.578704	2.80983	-4.80551	0.50029	0.5938	-0.38426	-0.14072	63.939121	3.13641	-1.43032	0.81803	0.62903	-0.30366	-0.03505
SESB-BWBK-SB-SO04-0108	-1.246204	1.72852	-3.54475	0.69487	-0.30501	-0.189	-0.06661	52.565403	1.89121	-1.18465	0.91057	0.14232	-0.201	0.12747
SESB-BWBK-SB-SO05-0106	-5.062059	1.20481	-4.23511	0.62297	0.63218	-0.33922	-0.03596	46.479526	1.19259	-0.93595	0.78713	0.47397	-0.14023	0.04983
SESB-BWBK-SB-SO06-0108	-16.82755	2.08657	-6.32139	1.38158	0.24888	-0.27965	-0.16447	58.936129	2.19992	-1.05978	1.57403	0.434	-0.31052	-0.31374
SESB-BWBK-SB-SO07-0106	17.917246	2.53043	-0.22708	-0.30719	-1.02327	0.06762	-0.24684	66.684103	3.10549	-0.42224	-0.10128	-0.15154	-0.30351	-0.42865
SESB-BWBK-SB-SO08-0107	-1.60647	2.4476	-3.77246	0.66025	0.2294	-0.32754	-0.06238	62.902685	2.66485	-0.85493	0.90503	0.45419	-0.3246	-0.08502
SESB-BWBK-SB-SO09-0106	-3.784671	1.138	-3.9415	0.53293	0.32894	-0.19831	0.09398	46.645318	1.21742	-0.89999	0.67224	0.31015	-0.12634	0.33379
SESB-BWBK-SB-SO11-0106	-10.05993	2.0752	-4.97677	0.5375	-0.07502	0.05616	-0.03342	58.941593	2.44319	-0.97244	0.71087	0.21395	-0.28927	0.02577
SESB-BWBK-SB-SO12-0106	-2.748749	1.79377	-3.81564	0.67867	-0.21996	-0.25245	-0.31374	53.419329	1.92801	-1.07953	0.89367	0.19541	-0.21977	-0.44994
SESB-BWBK-SB-SO15-0103	5.1341033	0.48794	-2.25411	0.02183	0.1061	0.19448	-0.06368	44.93135	0.69352	0.08258	-0.00744	0.04886	-0.10168	-0.29135
SESB-BWBK-SB-SO16-0105	2.7305296	1.06564	-2.66692	-0.16149	-0.06888	0.07703	-0.3262	46.953561	1.35877	-0.6353	-0.06508	0.06222	-0.10547	-0.53821
SESB-BWBK-SB-SO17-0106	14.610881	0.79572	-0.60897	-0.60457	-0.1888	0.12564	-0.1246	43.845056	1.1256	-0.52227	-0.5168	-0.04437	-0.03307	-0.04633
SESB-BWBK-SB-SO18-0105	19.937001	0.67948	0.36633	-0.72052	-0.58675	0.31517	-0.01841	43.645229	1.10211	-0.44169	-0.65905	-0.25398	-0.02025	0.20762
SESB-BWBK-SB-SO19-0104	47.179947	1.93531	4.95492	-1.15651	-2.18632	0.56692	0.21877	64.870336	2.74724	0.36765	-1.06161	-0.80203	-0.22938	0.50108
SESB-BWBK-SB-SO20-0104	13.150792	1.57911	-1.02287	-0.14173	-0.39597	-0.06219	-0.34606	50.795746	1.83534	-0.87159	0.06457	0.0456	-0.16561	-0.4312
SESS-DABK-S-SO01-0001	36.088188	-0.33174	2.68634	-0.01119	0.51349	-0.51287	-0.27668	35.621004	-0.70712	0.90556	-0.03134	0.26806	0.01385	-0.89321
SESS-DABK-S-SO02-0001	75.953925	1.49094	8.84008	-0.38107	0.97919	-1.27906	1.36464	48.012613	0.96458	-0.09314	0.03195	0.85591	-0.10932	3.05825
SESS-DABK-S-SO03-0001	46.280355	-0.78467	4.3695	0.28238	0.27199	-0.44919	-0.05994	43.914554	-1.24867	3.00814	0.00815	0.09469	-0.09006	-1.34566
SESS-DABK-S-SO04-0001	62.577	-0.15064	6.90086	-0.17766	0.6813	-0.89795	0.09169	44.155653	-0.72079	2.28611	-0.23018	0.42194	-0.06928	-0.63444
SESS-DABK-S-SO05-0001	45.69541	-0.60889	4.26148	0.26969	0.176	-0.5052	-0.20456	40.312072	-1.07314	2.12935	0.11138	0.1022	-0.04684	-1.24104
SESS-DABK-S-SO06-0001	-41.04449	-0.78366	-10.5643	5.52855	-0.42862	-0.21728	1.25662	41.978632	-1.83408	0.86144	5.24099	0.04145	-0.39585	1.48417
SESS-DABK-S-SO07-0001	56.478318	-0.06304	5.99764	-0.18265	0.26218	-0.74955	0.6489	39.969626	-0.50443	1.20562	-0.14535	0.24242	-0.00046	0.98305
SESS-DABK-S-SO08-0001	45.231048	-0.29834	4.16444	0.37453	0.08338	-0.43815	0.47951	40.310297	-0.68219	1.33142	0.31554	0.10459	-0.04139	0.51384
SESS-DABK-S-SO09-0001	23.970187	-0.74654	0.70228	0.72458	0.2702	-0.2805	-0.26448	40.35606	-1.1448	2.07709	0.48184	0.0854	-0.0799	-1.49855

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-51.48464	-1.8478	-12.2206	-1.15651	-2.20188	-2.03599	-0.79532	10.735254	-2.00092	-2.08251	-1.06161	-0.80203	-0.39585	-1.49855
MAXIMUM DOMAIN VALUE	131.6956	2.80983	18.0714	5.52855	1.40473	0.87405	1.36872	68.027535	3.42845	3.68545	5.24099	0.85591	0.32293	3.05825
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predict**	D1	D2	D3	D4	D5	D6
SESS-DABK-S-SO10-0001	25.146518	-0.98811	0.90111	0.83434	0.38801	-0.13227	-0.17435	30.49316	-1.40873	0.88015	0.70065	0.11576	0.01203	-0.71687
SESS-DABK-S-SO11-0001	48.536432	-1.01812	5.08297	-0.24377	-0.91112	-0.04123	0.09596	27.448576	-1.23705	0.64637	-0.30811	-0.46014	0.13715	0.19814
SESS-DABK-S-SO12-0001	49.212855	-0.61069	4.97621	-0.09959	-0.09334	-0.30573	0.51245	34.319543	-0.93951	1.08952	-0.15041	-0.03494	0.03997	0.77447
SESS-DABK-S-SO13-0001	32.821379	-0.31885	2.18245	0.33087	-0.2769	-0.72071	-0.14245	31.109878	-0.85899	0.23328	0.40414	0.03048	0.04597	-0.35499
SESS-DABK-S-SO14-0001	16.47326	-0.79391	-0.3741	0.48837	-0.1658	-0.10128	-0.47919	34.063124	-1.02502	1.02444	0.31581	-0.13942	0.02469	-1.45542
SESS-DABK-S-SO15-0001	35.96035	-0.85466	2.73526	0.44347	0.10776	-0.21365	-0.08537	39.119418	-1.21873	2.13467	0.21005	-0.00725	-0.04753	-1.04153
SESS-DABK-S-SO16-0001	37.190654	-1.20731	3.24722	-0.05432	-0.76367	0.1862	0.10727	22.143915	-1.35347	-0.0787	-0.10485	-0.4542	0.18392	0.50124
SESS-DABK-S-SO17-0001	47.594163	-1.23341	4.84401	0.28302	-0.4848	0.29829	0.64949	32.724083	-1.40926	1.49817	0.06772	-0.36111	0.03381	0.93113
SESS-DABK-S-SO18-0001	43.353595	-0.53258	4.12308	-0.17961	-0.59792	-0.15917	0.23124	36.326635	-0.71516	1.12233	-0.2653	-0.27338	0.03505	0.16141
SESS-DABK-S-SO19-0001	79.69292	0.17522	9.79297	-0.28972	-0.19675	-0.75647	0.59823	44.739831	-0.22559	1.50908	-0.21924	0.09228	-0.0259	0.9178
SESS-DABK-S-SO20-0001	39.490362	-0.27052	3.01647	0.95176	0.67022	-0.69171	0.80419	44.852614	-0.83721	1.95254	0.83185	0.39362	-0.11105	0.78446

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SUMMARY OF FACTOR ANALYSIS ANALYTE BACK-PREDICTION ERRORS (BEFORE REGRESSIONS)

Extent of Severe Overprediction or Underprediction Errors from Analyte Back-Prediction
No. of Samples With % Prediction Errors (OBSERVED - PREDICTED) / (OBSERVED)*100 > 100 or < -50

ALL SOIL TYPES:

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples)											
33 / 270	106 / 270	10 / 270	3 / 270	35 / 270	18 / 270	15 / 270	10 / 270	46 / 270	7 / 270	100 / 270	5 / 270

SOIL TYPE: BASS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type BASS)											
12 / 13	10 / 13	0 / 13	1 / 13	6 / 13	0 / 13	0 / 13	0 / 13	1 / 13	2 / 13	3 / 13	0 / 13

SOIL TYPE: MASB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASB)											
1 / 20	8 / 20	2 / 20	1 / 20	1 / 20	1 / 20	5 / 20	0 / 20	3 / 20	0 / 20	10 / 20	0 / 20

SOIL TYPE: MASS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASS)											
1 / 20	9 / 20	0 / 20	0 / 20	6 / 20	1 / 20	0 / 20	1 / 20	8 / 20	0 / 20	9 / 20	0 / 20

SOIL TYPE: MMSB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSB)											
4 / 20	8 / 20	0 / 20	1 / 20	4 / 20	5 / 20	1 / 20	0 / 20	1 / 20	0 / 20	6 / 20	0 / 20

SOIL TYPE: MMSS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSS)											
0 / 20	9 / 20	1 / 20	0 / 20	5 / 20	0 / 20	1 / 20	4 / 20	3 / 20	0 / 20	3 / 20	0 / 20

SOIL TYPE: NESB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESB)											
0 / 20	20 / 20	0 / 20	0 / 20	0 / 20	0 / 20	1 / 20	0 / 20	2 / 20	0 / 20	4 / 20	0 / 20

SOIL TYPE: NESS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESS)											
0 / 22	8 / 22	0 / 22	0 / 22	6 / 22	0 / 22	0 / 22	0 / 22	2 / 22	0 / 22	12 / 22	0 / 22

SOIL TYPE: PMSB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSB)											
2 / 24	4 / 24	0 / 24	0 / 24	0 / 24	1 / 24	5 / 24	0 / 24	5 / 24	0 / 24	15 / 24	2 / 24

SOIL TYPE: PMSS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSS)											
10 / 20	12 / 20	0 / 20	0 / 20	2 / 20	5 / 20	0 / 20	0 / 20	4 / 20	4 / 20	15 / 20	2 / 20

SOIL TYPE: SESB

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESB)											
2 / 15	6 / 15	0 / 15	0 / 15	0 / 15	4 / 15	2 / 15	0 / 15	6 / 15	1 / 15	9 / 15	1 / 15

SOIL TYPE: SESS

AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESS)											
1 / 20	12 / 20	7 / 20	0 / 20	5 / 20	1 / 20	0 / 20	5 / 20	11 / 20	0 / 20	14 / 20	0 / 20

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100% or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE													
MAXIMUM DOMAIN VALUE													
SAMPLE	GROUP	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
BASS-BWBK-SS-BA101-0001	BASS	-88	-26	-3	-32	-82	15	36	33	88	-47	22	38
BASS-BWBK-SS-BA102-0001	BASS	-153	132	14	-45	-18	34	57	22	91	-47	-11	41
BASS-BWBK-SS-BA103-0001	BASS	-127	109	15	-45	-30	24	35	25	74	-38	7	34
BASS-BWBK-SS-BA104-0001	BASS	-80	-129	-15	-20	-52	-6	11	34	23	-23	75	18
BASS-BWBK-SS-BA105-0001	BASS	-138	-82	-15	-31	-31	11	46	19	78	-36	-7	36
BASS-BWBK-SS-BA106-0001	BASS	-57	-284	-44	-1	-96	-14	38	26	64	-16	81	28
BASS-BWBK-SS-BA107-0001	BASS	-152	114	11	-48	-19	31	36	24	84	-45	-12	37
BASS-BWBK-SS-BA108-0001	BASS	-138	96	10	-36	-26	25	60	23	85	-38	1	37
BASS-BWBK-SS-BA109-0001	BASS	-66	-149	-13	-2	-103	-8	93	26	58	-5	159	28
BASS-BWBK-SS-BA110-0001	BASS	-45	234	31	-14	-73	5	28	28	18	-17	101	15
BASS-BWBK-SS-BA111-0001	BASS	-103	24	-2	-21	-45	21	55	25	75	-40	44	34
BASS-BWBK-SS-BA112-0001	BASS	-115	108	11	-37	-42	26	49	30	77	-52	24	35
BASS-BWBK-SS-BA113-0001	BASS	-216	-316	-24	-51	-173	-44	-26	19	263	-90	-396	65
MASB-BWBK-SB-MA01-0105	MASB	-21	-67	-12	-11	-36	-41	4	-5	74	-12	63	-2
MASB-BWBK-SB-MA02-0107	MASB	26	-82	-5	4	-35	-32	0	-2	23	1	87	8
MASB-BWBK-SB-MA03-0108	MASB	-124	-25	31	-61	15	-64	-19	-6	24	-27	-100	-6
MASB-BWBK-SB-MA04-0106	MASB	21	-76	-4	1	-62	-46	-46	15	49	1	82	13
MASB-BWBK-SB-MA05-0108	MASB	-1	34	18	5	-3	42	-23	13	29	13	208	24
MASB-BWBK-SB-MA06-0105	MASB	25	-129	-22	7	-44	-37	-27	-1	12	5	69	11
MASB-BWBK-SB-MA07-0108	MASB	20	-20	-30	4	-26	28	-3	8	8	8	170	27
MASB-BWBK-SB-MA08-0108	MASB	38	2	-92	21	10	68	-9	14	7	4	306	30
MASB-BWBK-SB-MA09-0108	MASB	-40	43	22	-19	34	84	-3	20	44	4	241	38
MASB-BWBK-SB-MA10-0104	MASB	-16	-57	-67	-1	6	21	5	-4	-37	-10	112	17
MASB-BWBK-SB-MA11-0108	MASB	17	-68	-39	6	-29	-4	6	-1	15	2	74	19
MASB-BWBK-SB-MA12-0108	MASB	-31	40	31	-11	23	56	-1	16	19	5	246	26
MASB-BWBK-SB-MA13-0105	MASB	6	60	19	14	-8	-24	-112	-16	-150	6	58	-25
MASB-BWBK-SB-MA14-0104	MASB	17	60	27	9	14	35	-33	-30	-25	1	123	-5
MASB-BWBK-SB-MA15-0105	MASB	23	50	16	12	10	22	-92	-24	-31	11	103	-23
MASB-BWBK-SB-MA16-0104	MASB	-26	-10	9	-5	2	-14	-41	-10	0	-9	41	-14
MASB-BWBK-SB-MA17-0104	MASB	-10	52	21	-8	5	-3	-79	-22	-10	-22	-14	-3
MASB-BWBK-SB-MA18-0104	MASB	37	-91	-32	31	-23	-27	-151	1	-117	15	104	-29
MASB-BWBK-SB-MA19-0103	MASB	-12	43	16	1	-10	-13	-92	-11	15	6	44	-13
MASB-BWBK-SB-MA20-0103	MASB	-1	-143	-11	-5	-19	-41	-27	-12	-52	3	37	3
MASS-BWBK-SS-MA01-0001	MASS	-27	520	42	-17	27	29	-7	-30	-44	4	-134	5
MASS-BWBK-SS-MA02-0001	MASS	28	898	55	1	-110	-22	-24	-60	70	26	-203	23
MASS-BWBK-SS-MA03-0001	MASS	5	242	40	5	-30	40	0	-17	-33	15	-40	11
MASS-BWBK-SS-MA04-0001	MASS	19	313	41	3	-74	-10	8	-14	25	15	-97	18
MASS-BWBK-SS-MA05-0001	MASS	34	-47	3	13	-69	-32	-17	-2	-44	11	-34	12
MASS-BWBK-SS-MA06-0001	MASS	41	159	54	14	-42	91	-5	5	12	39	74	20
MASS-BWBK-SS-MA07-0001	MASS	-113	178	7	-42	509	154	33	-39	-116	2	-72	-21
MASS-BWBK-SS-MA08-0001	MASS	-17	43	1	-11	47	40	39	2	-2	11	-110	5
MASS-BWBK-SS-MA09-0001	MASS	22	34	10	7	-38	-31	16	-10	42	13	-150	14
MASS-BWBK-SS-MA10-0001	MASS	10	-10	-9	6	-12	-7	15	2	27	6	-94	10
MASS-BWBK-SS-MA11-0001	MASS	23	39	8	9	-7	18	-21	-1	-42	5	6	-10
MASS-BWBK-SS-MA12-0001	MASS	36	39	11	16	-154	-6	0	-16	77	20	-50	30
MASS-BWBK-SS-MA13-0001	MASS	27	287	33	9	-51	13	-48	-23	-145	23	-33	-14
MASS-BWBK-SS-MA14-0001	MASS	-25	204	16	-10	25	-10	4	-15	-65	32	-112	-20
MASS-BWBK-SS-MA15-0001	MASS	10	282	24	5	-1	10	-10	-28	-171	33	-79	-17
MASS-BWBK-SS-MA16-0001	MASS	6	36	-2	13	3	31	-19	-9	-156	25	8	-11
MASS-BWBK-SS-MA17-0001	MASS	3	36	2	7	19	5	-24	-23	-59	6	-35	-12
MASS-BWBK-SS-MA18-0001	MASS	-12	-8	-18	3	57	31	-20	-6	-177	32	-23	-16
MASS-BWBK-SS-MA19-0001	MASS	-3	36	2	5	24	8	-18	-18	-90	14	-35	-17
MASS-BWBK-SS-MA20-0001	MASS	4	33	9	4	-25	5	-4	-13	-17	18	-16	2
MMSB-BWBK-SB-MM101-0110	MMSB	-29	66	32	-19	0	-14	57	18	-5	-14	1	-10
MMSB-BWBK-SB-MM102-0109	MMSB	35	-81	11	9	-39	-54	47	18	-38	19	143	-22
MMSB-BWBK-SB-MM103-0107	MMSB	-65	54	43	-19	33	-77	52	14	-64	-37	-49	-46
MMSB-BWBK-SB-MM104-0110	MMSB	29	-31	7	6	-33	-21	24	40	-29	-39	102	-8
MMSB-BWBK-SB-MM105-0110	MMSB	-52	57	23	-25	22	0	45	9	-2	-3	10	-5
MMSB-BWBK-SB-MM106-0110	MMSB	40	-111	10	9	-70	-59	-32	33	7	-13	66	-10
MMSB-BWBK-SB-MM107-0110	MMSB	28	69	23	30	-21	-35	40	-3	-38	-14	114	-16
MMSB-BWBK-SB-MM108-0110	MMSB	-10	-18	12	-11	-10	-28	3	26	-32	-19	35	-13
MMSB-BWBK-SB-MM109-0110	MMSB	21	82	26	4	-21	-36	-9	8	-37	-3	25	-23
MMSB-BWBK-SB-MM110-0109	MMSB	36	13	10	24	-26	-18	16	6	-38	-4	99	-16
MMSB-BWBK-SB-MM111-0110	MMSB	23	58	26	0	-35	-18	27	21	-24	-4	62	-12
MMSB-BWBK-SB-MM112-0110	MMSB	28	-131	1	4	-52	-32	-47	21	37	1	115	-34
MMSB-BWBK-SB-MM113-0110	MMSB	75	-38	9	41	-59	-53	49	-2	-30	3	176	-13
MMSB-BWBK-SB-MM114-0110	MMSB	-20	130	41	-18	2	-4	31	12	13	1	44	-12

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MINIMUM DOMAIN VALUE													
MAXIMUM DOMAIN VALUE													
SAMPLE	GROUP	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
MMSB-BWBK-SB-MM115-0110	MMSB	0	352	45	-33	-54	-34	-110	38	-9	-32	-9	-16
MMSB-BWBK-SB-MM116-0110	MMSB	3	105	38	-1	-36	-38	44	15	13	-9	20	-1
MMSB-BWBK-SB-MM117-0110	MMSB	-70	76	37	-58	21	-24	40	22	-17	-23	-37	-14
MMSB-BWBK-SB-MM118-0110	MMSB	0	-171	13	-24	-31	-86	70	9	29	29	114	-28
MMSB-BWBK-SB-MM119-0110	MMSB	-9	-6	17	-7	-33	-28	17	30	2	-13	77	-9
MMSB-BWBK-SB-MM120-0110	MMSB	-100	124	33	-48	39	1	40	20	-17	-31	2	-16
MMSS-BWBK-SS-MM101-0001	MMSS	50	7	-12	23	-14	30	-16	-14	-18	27	15	-9
MMSS-BWBK-SS-MM102-0001	MMSS	34	-60	-34	20	23	38	-39	-29	-4	22	57	-14
MMSS-BWBK-SS-MM103-0001	MMSS	49	-56	-39	30	24	37	-5	-20	-38	31	36	-20
MMSS-BWBK-SS-MM104-0001	MMSS	47	31	-3	21	-8	24	6	-6	-27	24	23	-17
MMSS-BWBK-SS-MM105-0001	MMSS	5	-13	-31	6	94	47	-7	-37	-19	16	-1	-21
MMSS-BWBK-SS-MM106-0001	MMSS	57	4	-10	34	-12	13	-28	-20	-51	15	58	-23
MMSS-BWBK-SS-MM107-0001	MMSS	57	-15	-11	27	-46	17	-31	-7	-16	23	38	-8
MMSS-BWBK-SS-MM108-0001	MMSS	52	-51	-30	31	32	34	-39	-43	-78	40	23	-27
MMSS-BWBK-SS-MM109-0001	MMSS	53	-99	-55	34	33	36	-53	-23	-69	28	67	-28
MMSS-BWBK-SS-MM110-0001	MMSS	-4	77	-17	0	203	76	8	-66	-33	23	-33	-26
MMSS-BWBK-SS-MM111-0001	MMSS	15	83	-16	9	131	63	8	-50	-8	16	-29	-17
MMSS-BWBK-SS-MM112-0001	MMSS	-8	97	-13	-9	192	82	21	-49	52	16	-72	4
MMSS-BWBK-SS-MM113-0001	MMSS	34	-58	-32	19	62	38	10	-19	-26	36	-25	-23
MMSS-BWBK-SS-MM114-0001	MMSS	-23	193	7	-22	164	82	-5	-70	48	-1	-72	8
MMSS-BWBK-SS-MM115-0001	MMSS	7	159	5	-4	93	70	-13	-69	51	17	-36	4
MMSS-BWBK-SS-MM116-0001	MMSS	-6	77	-13	-5	144	67	1	-41	4	10	-30	-15
MMSS-BWBK-SS-MM117-0001	MMSS	37	61	-2	16	12	34	4	-21	-23	24	-4	-13
MMSS-BWBK-SS-MM118-0001	MMSS	6	67	13	2	18	12	-1	14	-44	-5	76	-23
MMSS-BWBK-SS-MM119-0001	MMSS	-12	104	21	-16	23	14	-2	4	-16	5	52	-18
MMSS-BWBK-SS-MM120-0001	MMSS	35	-92	-41	34	8	26	1	-51	-43	-6	109	-6
NESB-BWBK-SB-NE01-0108	NESB	53	-189	-27	17	-37	-40	38	13	-14	0	126	-4
NESB-BWBK-SB-NE02-0109	NESB	28	116	47	-4	-49	-34	35	7	40	-3	45	-1
NESB-BWBK-SB-NE03-0105	NESB	39	-78	-8	12	-18	-9	38	3	-19	-1	125	-4
NESB-BWBK-SB-NE04-0110	NESB	23	-95	2	1	-23	-34	29	14	-4	-6	67	-6
NESB-BWBK-SB-NE05-0108	NESB	42	-214	-40	13	-32	-35	25	11	-11	-2	108	-2
NESB-BWBK-SB-NE06-0109	NESB	25	-160	-21	3	-19	-32	29	11	-20	-1	96	-7
NESB-BWBK-SB-NE07-0107	NESB	54	-149	-15	18	-39	-33	38	5	-20	4	106	2
NESB-BWBK-SB-NE08-0104	NESB	18	-168	-27	5	-4	-39	8	5	-48	0	76	-15
NESB-BWBK-SB-NE09-0110	NESB	27	-146	-15	7	-24	-31	29	9	-9	-6	90	-3
NESB-BWBK-SB-NE10-0107	NESB	35	-175	-22	18	-30	-31	-50	9	-37	-1	66	-14
NESB-BWBK-SB-NE101-0110	NESB	28	191	33	-3	-28	-25	-36	13	-54	0	27	-24
NESB-BWBK-SB-NE102-0110	NESB	13	415	46	-18	-35	-25	-45	13	-29	0	-17	-17
NESB-BWBK-SB-NE103-0110	NESB	-3	332	41	-22	-16	-14	-34	11	-28	-3	-5	-17
NESB-BWBK-SB-NE104-0110	NESB	-28	295	39	-32	5	-13	-23	11	-42	-10	-16	-18
NESB-BWBK-SB-NE105-0110	NESB	18	218	38	-10	-44	-17	-44	18	-3	-4	27	-16
NESB-BWBK-SB-NE106-0110	NESB	9	257	39	-17	-29	-30	-34	15	-30	-2	5	-18
NESB-BWBK-SB-NE107-0510	NESB	-22	217	34	-34	-19	-14	-15	27	-21	-23	-1	-9
NESB-BWBK-SB-NE108-0110	NESB	5	135	25	-15	-8	-28	-65	19	-70	-14	13	-30
NESB-BWBK-SB-NE109-0110	NESB	8	325	39	-17	-19	-21	-34	15	-44	-10	-5	-20
NESB-BWBK-SB-NE110-0110	NESB	6	113	25	-10	-7	-29	-29	21	-46	-20	10	-24
NESS-BKG-SS03-NEB-0016	NESS	17	-58	-23	1	25	-6	54	8	66	21	-215	4
NESS-BKG-SS09-NEB-0018	NESS	21	38	-24	20	83	65	8	-9	14	14	7	-7
NESS-BWBK-SS-NE01-0001	NESS	39	10	-7	20	-41	6	-5	-13	69	1	-69	28
NESS-BWBK-SS-NE02-0001	NESS	35	-17	-29	20	-91	1	-15	-6	151	0	-90	48
NESS-BWBK-SS-NE03-0001	NESS	60	2	-19	33	-24	29	-14	-36	20	22	29	11
NESS-BWBK-SS-NE04-0001	NESS	56	-61	-21	28	-5	-12	-12	-9	-46	9	47	-19
NESS-BWBK-SS-NE05-0001	NESS	54	4	-17	35	-35	13	17	-27	42	14	-11	17
NESS-BWBK-SS-NE06-0001	NESS	63	-107	-33	32	-19	-13	-19	-13	-73	19	75	-16
NESS-BWBK-SS-NE07-0001	NESS	38	1	-24	25	-2	31	23	-11	40	23	-40	14
NESS-BWBK-SS-NE08-0001	NESS	61	-23	-15	31	-29	12	-12	-28	-15	25	43	0
NESS-BWBK-SS-NE09-0001	NESS	55	78	6	26	-8	32	4	-45	40	31	-43	4
NESS-BWBK-SS-NE10-0001	NESS	30	-24	-23	16	-9	13	35	0	44	24	-73	8
NESS-BWBK-SS-NE101-0001	NESS	41	94	2	16	33	24	-48	-36	-44	22	7	-29
NESS-BWBK-SS-NE102-0001	NESS	7	74	-6	-2	73	37	8	-24	3	19	-51	-18
NESS-BWBK-SS-NE103-0001	NESS	3	78	-8	8	91	49	12	-29	-22	24	-14	-22
NESS-BWBK-SS-NE104-0001	NESS	15	-80	-36	4	84	40	53	-1	35	28	-88	-14
NESS-BWBK-SS-NE105-0001	NESS	-5	200	8	-13	105	62	-6	-47	40	9	-61	-1
NESS-BWBK-SS-NE106-0001	NESS	-4	92	-14	-8	151	55	57	-1	61	23	-159	-15
NESS-BWBK-SS-NE107-0001	NESS	-2	147	-2	-16	136	60	4	-42	62	13	-89	-7
NESS-BWBK-SS-NE108-0001	NESS	-2	218	12	-18	70	44	13	-12	30	13	-92	-9
NESS-BWBK-SS-NE109-0001	NESS	-5	314	14	-18	111	64	-10	-40	44	3	-73	-2
NESS-BWBK-SS-NE110-0001	NESS	-22	9	-28	-15	216	65	26	-10	-45	25	-64	-40

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100% or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE													
MAXIMUM DOMAIN VALUE													
SAMPLE	GROUP	AL	AS	BA	CR	CO	FE	PB	MG	MN	NI	V	ZN
PMSB-BWBK-SB-PM01-0105	PMSB	0	-6	21	-13	12	-56	-40	-11	-11	7	43	-36
PMSB-BWBK-SB-PM02-0104	PMSB	35	-9	-19	26	25	21	-36	-17	-30	-14	186	-34
PMSB-BWBK-SB-PM03-0106	PMSB	-19	-67	-49	-9	26	-14	-42	3	-98	-15	134	-21
PMSB-BWBK-SB-PM04-0105	PMSB	3	6	-6	3	10	17	3	14	3	7	170	-2
PMSB-BWBK-SB-PM05-0105	PMSB	-9	-26	-4	-4	9	-15	-27	8	6	-11	109	-18
PMSB-BWBK-SB-PM06-0105	PMSB	2	9	13	-6	-20	6	-21	7	64	-11	182	-16
PMSB-BWBK-SB-PM07-0105	PMSB	-74	39	26	-25	49	6	-62	-6	6	-33	109	-61
PMSB-BWBK-SB-PM08-0106	PMSB	-45	13	12	-18	37	-8	-40	8	-14	-14	97	-32
PMSB-BWBK-SB-PM09-0106	PMSB	-48	9	6	-12	35	1	-35	3	-19	-4	143	-23
PMSB-BWBK-SB-PM10-0105	PMSB	-30	-60	-44	12	36	-13	-141	-5	-36	-19	107	-51
PMSB-BWBK-SB-PM11-0104	PMSB	-47	14	28	-28	12	-18	-19	-21	45	-8	111	-44
PMSB-BWBK-SB-PM12-0105	PMSB	8	-49	-6	20	-10	-42	-45	-7	-1	-4	82	-21
PMSB-BWBK-SB-PM13-0106	PMSB	30	36	6	23	-6	28	-93	-22	23	-6	133	-28
PMSB-BWBK-SB-PM14-0106	PMSB	-21	1	5	-1	4	-17	-73	-3	33	-10	61	-26
PMSB-BWBK-SB-PM15-0105	PMSB	13	-10	3	10	-7	-3	-37	-5	-9	-3	92	-10
PMSB-BWBK-SB-PM16-0106	PMSB	7	-25	-4	5	-15	-5	-52	-1	24	3	85	-9
PMSB-BWBK-SB-PM17-0105	PMSB	-62	-63	-10	-27	38	-49	-48	19	-77	-38	20	-50
PMSB-BWBK-SB-PM18-0105	PMSB	41	-16	-13	14	-20	25	22	-4	-9	6	207	16
PMSB-BWBK-SB-PM19-0105	PMSB	23	-9	6	6	-25	2	-20	-5	16	6	103	4
PMSB-BWBK-SB-PM20-0106	PMSB	10	-20	-1	4	-10	-7	-39	-2	-8	3	89	-3
PMSB-BWBK-SB-SO01-0107-PM	PMSB	2	-82	-27	-13	-6	-17	-2	-12	-74	5	35	12
PMSB-BWBK-SB-SO02-0109-PM	PMSB	24	-27	-46	9	-3	31	8	-7	-28	4	154	21
PMSB-BWBK-SB-SO13-0104-PM	PMSB	-29	-26	-4	-15	28	-1	13	-17	-242	4	124	-12
PMSB-BWBK-SB-SO14-0105-PM	PMSB	-5	-2	7	-13	8	13	19	-9	-90	7	138	14
PMSS-DABK-S-SO21-0001	PMSS	-96	-33	-17	-25	-28	-8	15	0	128	-22	-206	36
PMSS-DABK-S-SO22-0001	PMSS	-96	-137	-42	-32	-60	-65	-4	6	159	-63	-277	41
PMSS-DABK-S-SO23-0001	PMSS	-15	-70	-19	-3	13	-30	16	10	-47	18	-86	-13
PMSS-DABK-S-SO24-0001	PMSS	-36	-31	-15	-6	5	9	-9	-29	11	-34	-100	15
PMSS-DABK-S-SO25-0001	PMSS	5	-10	-35	10	59	64	14	-18	-15	-17	57	-10
PMSS-DABK-S-SO26-0001	PMSS	-58	-79	-29	-19	-74	-31	9	16	152	-16	-209	37
PMSS-DABK-S-SO27-0001	PMSS	-44	-97	-27	-14	16	-33	33	25	30	17	-166	3
PMSS-DABK-S-SO28-0001	PMSS	-114	-81	-10	-38	-6	-94	1	15	60	-62	-254	20
PMSS-DABK-S-SO29-0001	PMSS	-7	-36	-10	0	-12	-23	-4	-6	-38	-9	-127	10
PMSS-DABK-S-SO30-0001	PMSS	-30	31	14	-17	-32	-68	-23	-25	57	-36	-219	22
PMSS-DABK-S-SO31-0001	PMSS	-59	-144	-36	-12	40	-31	-30	1	14	-51	-64	-26
PMSS-DABK-S-SO32-0001	PMSS	-133	-42	-5	-47	31	-73	24	26	27	-84	-276	5
PMSS-DABK-S-SO33-0001	PMSS	-59	-53	3	-21	-12	-118	-7	17	-33	-24	-184	2
PMSS-DABK-S-SO34-0001	PMSS	-76	-10	0	-17	54	-38	3	3	-7	-33	-78	-55
PMSS-DABK-S-SO35-0001	PMSS	-54	-61	-16	-6	39	-26	23	21	-39	-9	-94	-28
PMSS-DABK-S-SO36-0001	PMSS	-15	-75	-30	10	77	-2	31	23	-189	21	-68	-49
PMSS-DABK-S-SO37-0001	PMSS	-22	-51	-35	7	50	8	-34	-1	-34	-22	-6	-30
PMSS-DABK-S-SO38-0001	PMSS	-59	-146	-41	-9	77	-34	0	21	-28	-14	-42	-76
PMSS-DABK-S-SO39-0001	PMSS	-24	17	0	-1	41	9	-14	-8	-16	-9	-1	-48
PMSS-DABK-S-SO40-0001	PMSS	-41	-59	-16	-6	40	-33	-20	11	6	-12	-46	-44
SESB-BWBK-SB-SO03-0108	SESB	26	-33	-4	-11	-11	-7	30	-15	-31	18	141	14
SESB-BWBK-SB-SO04-0108	SESB	-19	-2	7	-14	10	8	7	-14	-95	7	107	15
SESB-BWBK-SB-SO05-0106	SESB	27	-3	-2	7	-17	16	-11	-14	-10	15	127	21
SESB-BWBK-SB-SO06-0108	SESB	9	-10	-29	-4	17	26	14	-4	-136	10	180	15
SESB-BWBK-SB-SO07-0106	SESB	-56	-103	-36	-30	5	-61	10	-16	36	1	10	-10
SESB-BWBK-SB-SO08-0107	SESB	7	-28	-13	-7	-3	-1	8	-8	-10	7	108	13
SESB-BWBK-SB-SO09-0106	SESB	14	13	12	1	-3	12	-10	-4	-115	13	121	14
SESB-BWBK-SB-SO11-0106	SESB	-1	-16	-7	-11	-11	-3	11	3	57	2	152	2
SESB-BWBK-SB-SO12-0106	SESB	-14	-32	-32	-9	4	6	3	-13	-13	5	115	16
SESB-BWBK-SB-SO15-0103	SESB	4	-46	-17	3	9	-8	-57	-5	-9	0	75	-17
SESB-BWBK-SB-SO16-0105	SESB	-9	-104	-26	-3	-3	-24	-33	-16	-49	5	85	-3
SESB-BWBK-SB-SO17-0106	SESB	-12	-117	2	-3	-3	-64	-33	-12	-126	3	11	-11
SESB-BWBK-SB-SO18-0105	SESB	-30	-69	13	-10	15	-90	-33	-3	-92	-11	-29	-28
SESB-BWBK-SB-SO19-0104	SESB	-132	-178	16	-49	39	-178	-73	11	-152	-54	-155	-54
SESB-BWBK-SB-SO20-0104	SESB	-27	-108	-19	-13	-13	-25	-8	-16	18	-12	22	9
SESS-DABK-S-SO01-0001	SESS	25	-142	-80	18	-20	-1	-33	-20	6	0	-54	21
SESS-DABK-S-SO02-0001	SESS	23	122	47	25	-73	-49	42	-44	97	-17	-302	41
SESS-DABK-S-SO03-0001	SESS	-6	-179	-85	8	35	10	-8	28	-205	15	-35	-9
SESS-DABK-S-SO04-0001	SESS	23	-175	-53	11	-41	-34	-37	-34	16	10	-106	20
SESS-DABK-S-SO05-0001	SESS	1	-146	-93	8	22	11	-4	3	17	8	-55	7
SESS-DABK-S-SO06-0001	SESS	-37	68	30	-10	119	141	-4	37	-36	-2	221	31
SESS-DABK-S-SO07-0001	SESS	4	56	18	-7	-64	-34	-3	6	27	17	-134	23
SESS-DABK-S-SO08-0001	SESS	-7	42	9	-8	-4	19	17	8	15	14	-80	12
SESS-DABK-S-SO09-0001	SESS	-4	-101	-98	9	54	43	-6	12	-167	23	22	-5

APPENDIX F, TABLE F4-2
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Be, Ca, Cd, Cu, K, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100% or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE													
MAXIMUM DOMAIN VALUE													
SAMPLE	GROUP	**AL**	**AS**	**BA**	**CR**	**CO**	**FE**	**PB**	**MG**	**MN**	**NI**	**V**	**ZN**
SESS-DABK-S-SO10-0001	SESS	16	-5	**-33**	14	**76**	**68**	3	**-169**	**-93**	17	-9	13
SESS-DABK-S-SO11-0001	SESS	**-67**	**158**	16	**-31**	**56**	-21	-1	**-114**	**-135**	3	**-170**	-1
SESS-DABK-S-SO12-0001	SESS	-9	**118**	21	-12	-17	-7	-16	-4	**-65**	-4	**-122**	10
SESS-DABK-S-SO13-0001	SESS	-24	-23	-20	-9	**-58**	18	**-44**	-15	**106**	7	**-59**	**39**
SESS-DABK-S-SO14-0001	SESS	-22	**-97**	**-134**	5	**71**	**41**	10	17	**-219**	24	**32**	-8
SESS-DABK-S-SO15-0001	SESS	-8	**-81**	**-73**	16	**83**	**31**	-13	**-127**	**-111**	26	-22	-11
SESS-DABK-S-SO16-0001	SESS	**-39**	**282**	**35**	-20	**92**	**40**	10	**-163**	**-161**	-7	**-166**	-4
SESS-DABK-S-SO17-0001	SESS	**-31**	**261**	**31**	-30	**109**	**51**	7	**-169**	**-164**	-1	**-113**	**-48**
SESS-DABK-S-SO18-0001	SESS	**-50**	15	5	-25	11	-28	-3	25	**-190**	-4	**-94**	-5
SESS-DABK-S-SO19-0001	SESS	-16	**32**	13	-12	-26	**-50**	**38**	17	**67**	1	**-233**	18
SESS-DABK-S-SO20-0001	SESS	13	**42**	3	7	1	**43**	18	**31**	6	24	-29	15

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

FACTOR PATTERN MATRIX (FPM) after Varimax rotation: USED TO PREDICT CASE VALUES
(PREDICT each sample and metal from SUMPRODUCT of (FACTOR SCORES ON ONE SAMPLE) X (FACTOR PATTERN MATRIX)

	D1	D2	D3	D4	D5
AL	0.44420155	0.440665	0.25594	0.56745	-0.08344
AS	0.7234547	0.052083	-0.07275	0.38172	0.15488
BA	-0.0872044	-0.03788	0.97631	0.12474	-0.01766
CA	0.32012864	0.007909	-0.13414	0.36073	0.61051
CR	0.44954805	0.247006	0.02113	0.68038	0.17997
CO	0.77585682	0.069882	-0.02937	0.21104	0.37144
CU	0.73085045	0.414257	-0.05943	-0.0231	-0.05265
FE	0.81046474	0.193222	-0.04477	0.47004	0.10028
PB	0.84017869	0.132867	-0.00507	0.20381	-0.1224
MG	0.30388228	0.949129	-0.04105	0.06296	0.03407
MN	0.24505508	0.070846	0.07653	0.14082	0.51931
NI	0.86100665	0.228607	-0.10045	0.20709	0.26304

FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	D1	D2	D3	D4	D5
AL	-0.0185324	-0.32897	-0.17241	0.40667	-0.58442
AS	-0.0750516	0.131485	-0.00574	-0.0712	0.16579
BA	0.01653159	0.1764	1.0703	-0.1558	0.23381
CA	-0.0592441	-0.22999	-0.00957	0.13188	0.15551
CR	-0.0519785	-0.13125	-0.12311	0.35146	-0.09717
CO	0.07877797	-0.02548	0.09584	-0.1791	0.30248
CU	0.2075226	-0.14116	0.02898	-0.1322	-0.25777
FE	0.42071446	-0.4547	0.10323	0.42355	-0.66099
PB	0.18756873	-0.02647	0.07864	-0.0558	-0.45617
MG	-0.4336159	1.550108	0.17958	-0.1178	0.51604
MN	-0.0153224	-0.00704	-0.00503	-0.0584	0.24846
NI	0.33670259	-0.13066	-0.00675	-0.2737	0.28394
K	0.19381028	-0.30344	-0.04355	-0.1351	-0.26096
V	-0.1836844	0.282628	0.01792	0.37827	0.30118
ZN	0.36062011	0.175654	-0.1247	-0.2466	0.47543

TRANSPOSE FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
D1	-0.0185	-0.0751	0.0165	-0.0592	-0.0520	0.0788	0.2075	0.4207	0.1876	-0.4336	-0.0153	0.3367	0.1938	-0.1837	0.3606
D2	-0.3290	0.1315	0.1764	-0.2300	-0.1312	-0.0255	-0.1412	-0.4547	-0.0265	1.5501	-0.0070	-0.1307	-0.3034	0.2826	0.1757
D3	-0.1724	-0.0057	1.0703	-0.0096	-0.1231	0.0958	0.0290	0.1032	0.0786	0.1796	-0.0050	-0.0068	-0.0435	0.0179	-0.1247
D4	0.4067	-0.0712	-0.1558	0.1319	0.3515	-0.1791	-0.1322	0.4236	-0.0558	-0.1178	-0.0584	-0.2737	-0.1351	0.3783	-0.2466
D5	-0.5844	0.1658	0.2338	0.1555	-0.0972	0.3025	-0.2578	-0.6610	-0.4562	0.5160	0.2485	0.2839	-0.2610	0.3012	0.4754

FACTOR PATTERN COEFFICIENT MATRIX (FPC) IS MULTIPLIED BY STANDARDIZED CONCENTRATIONS FOR EACH CASE (SAMPLE), WHERE CONCENTRATIONS ARE NORMALIZED FROM RAW CONCENTRATIONS AS (VALUE - MEAN)/(STANDARD DEVIATION), YIELDING FACTOR SCORES FOR THAT CASE (ONE SAMPLE). FACTOR SCORES FOR EACH CASE (SAMPLE) ARE THEN MULTIPLIED BY THE FACTOR PATTERN MATRIX, WHICH YIELDS PREDICTED CASE VALUES FOR EACH METAL

STANDARDIZATION OF VARIABLES FOR THE ENTIRE DATA SET:

Variable	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
Mean	10304.091	10.967	25.705	953.864	13.253	9.784	15.110	23411.616	8.228	2895.859	425.444	17.389	769.697	16.827	41.153
Std. deviation	1556.013	8.980	6.076	417.768	2.660	3.589	5.504	8112.040	1.891	551.909	278.540	5.840	463.912	3.691	13.087

ADJUSTED FACTOR PATTERN COEFFICIENTS (FPC) MATRICES ELIMINATE THE INFLUENCE OF THE METAL TO BE PREDICTED FROM THE PREDICTION EQUATION FOR THAT METAL:

IN EACH FPC MATRIX, EACH "D" LOADING COEFFICIENT COLUMN VALUE IS MULTIPLIED BY THE SUM OF ENTIRE COLUMN VALUES, THEN DIVIDED BY AN ADJUSTED SUM OF THE VALUES IN THAT "D" COLUMN, LESS THE METAL IN QUESTION.
THE ADJUSTED FACTOR PATTERN COEFFICIENT (FPC) MATRIX ALSO ZEROES OUT THE ROW FOR THE METAL TO BE PREDICTED.

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN	GROUP
MASB	MASB-BWBK-SB-MA01-0105	0.19017138	0.192972	-0.74148	1.69026	0.54414	0.6731182	0.579639	0.442353	0.461128	0.261169	4.755356	0.772415	-0.1438	0.0739	0.92053	MASB
MASB	MASB-BWBK-SB-MA02-0107	0.70430598	-0.05203	0.03209	2.14506	0.99525	0.6173886	0.434294	0.6889	0.091051	1.167116	0.565648	1.046376	-0.1545	-0.0345	1.08863	MASB
MASB	MASB-BWBK-SB-MA03-0108	-0.5874572	0.593878	0.22959	1.57058	0.05544	2.8187088	1.033844	0.725882	0.091051	-0.01062	1.994529	1.371703	-0.4994	-0.3867	1.68464	MASB
MASB	MASB-BWBK-SB-MA04-0106	0.70430598	0.137291	0.4271	2.19293	1.14562	0.5059293	0.525135	0.540972	-0.27903	2.362966	1.211876	1.217601	-0.2106	0.53451	1.55474	MASB
MASB	MASB-BWBK-SB-MA05-0108	0.12590455	1.997047	-0.1325	1.76207	0.84488	0.1715516	0.397957	0.467008	-0.06755	0.804737	0.084568	0.80666	-0.2106	0.18228	0.92817	MASB
MASB	MASB-BWBK-SB-MA06-0105	0.2544382	-0.25248	-0.29709	1.5227	0.69451	0.1158219	0.434294	0.294425	-0.01469	0.714143	-0.02673	0.755293	-0.1567	0.26356	0.92817	MASB
MASB	MASB-BWBK-SB-MA07-0108	-0.0026291	0.643991	-1.23525	1.05594	-0.33928	-0.469339	-0.6558	0.565626	-0.12042	0.378942	-0.55807	0.292985	-0.5479	-0.3325	0.60342	MASB
MASB	MASB-BWBK-SB-MA08-0108	2.47164368	3.639646	-1.34224	1.31924	2.04783	0.8821043	0.488798	3.48721	2.10004	2.172717	0.287412	1.363142	-0.5695	2.22794	2.31122	MASB
MASB	MASB-BWBK-SB-MA09-0108	0.44723868	3.522716	-0.67565	0.66098	-0.09493	0.5337941	1.6879	1.428541	1.201282	0.24305	0.350239	0.703925	-0.784	0.10099	1.44777	MASB
MASB	MASB-BWBK-SB-MA10-0104	-1.0758851	0.204109	-1.99236	-0.3037	-0.62122	-0.330015	-0.69214	0.430025	0.249655	-0.84409	-0.68372	-0.27206	-1.0383	-0.4138	0.24046	MASB
MASB	MASB-BWBK-SB-MA11-0108	0.64003916	0.52706	-0.4123	1.49877	0.95765	0.3944701	0.97934	1.120357	2.734458	0.732262	-0.00519	0.909395	-0.3895	0.83255	1.56238	MASB
MASB	MASB-BWBK-SB-MA12-0108	0.38297185	3.088401	-0.29709	1.76207	0.76969	1.14682	0.852162	1.255958	0.302523	1.022165	0.386141	1.234723	-0.105	-0.0345	1.45541	MASB
MASB	MASB-BWBK-SB-MA13-0105	-0.8380978	-0.58657	1.4311	0.94822	0.35618	-0.915176	-0.83748	-0.938311	-0.96631	-1.49637	-0.96376	-0.87135	-0.7754	0.83255	-0.814	MASB
MASB	MASB-BWBK-SB-MA14-0104	1.02564011	0.894557	2.54208	-0.6651	1.18321	0.2133488	0.11635	0.978593	0.963375	-1.01622	0.012765	-0.01522	-0.7161	1.27962	0.23664	MASB
MASB	MASB-BWBK-SB-MA15-0105	1.08990693	0.282062	2.30342	-0.543	0.7321	-0.41361	-0.34694	0.121842	0.038183	-1.3333	-0.15956	-0.39192	-0.6568	1.83507	-0.3785	MASB
MASB	MASB-BWBK-SB-MA16-0104	-0.9537781	-0.3193	0.65753	0.63704	-0.20771	-0.330015	-0.47412	-0.260306	0.355391	-1.27894	0.045076	-0.5289	-0.7516	0.61579	-0.2868	MASB
MASB	MASB-BWBK-SB-MA17-0104	0.38297185	-0.3193	1.36526	-0.6412	-0.32048	-0.497204	-1.63688	-0.321943	-0.17329	-1.76815	-0.33907	-0.95696	-1.0362	0.48032	-0.2104	MASB
MASB	MASB-BWBK-SB-MA18-0104	0.2544382	-0.37498	0.29543	1.85782	1.29598	-1.026635	-0.92832	-0.765728	-0.6491	-0.64478	-0.84169	-0.683	-0.5964	2.34987	-0.5848	MASB
MASB	MASB-BWBK-SB-MA19-0103	-0.8380978	-0.41952	0.75628	1.21153	-0.47085	-1.082365	-1.49154	-1.024602	-0.75484	-1.73191	-0.20982	-0.90559	-0.7689	0.48032	-0.7758	MASB
MASB	MASB-BWBK-SB-MA20-0103	-0.4460702	-0.43066	-0.1325	1.30727	0.09303	0.2830108	0.325284	0.146496	-0.06755	-0.24616	-0.50422	0.618313	-0.6137	0.10099	0.5996	MASB
MMSB	MMSB-BWBK-SB-MM101-0110	-1.6510732	-0.72577	-0.46168	-1.1115	-1.37307	-0.775852	-0.29243	-0.815037	1.25415	-0.45453	-0.45395	-0.92271	0.32507	-1.5383	-0.9439	MMSB
MMSB	MMSB-BWBK-SB-MM102-0109	-0.7416976	-0.78702	-0.57689	-0.6603	-0.43326	-0.720122	-0.07442	-0.938311	-0.38476	0.967808	-0.5832	0.05327	0.73355	-0.9828	-0.8675	MMSB
MMSB	MMSB-BWBK-SB-MM103-0107	-1.4486327	-0.63111	-0.79086	-1.1175	-0.54604	0.4223349	-0.29243	-1.049257	-0.01469	-0.42735	-0.34266	-0.75149	0.62577	-1.5789	-0.9821	MMSB
MMSB	MMSB-BWBK-SB-MM104-0110	0.64003916	-0.4752	-0.23126	-1.0601	0.16822	-0.274285	5.194364	0.072532	0.461128	3.051486	-0.32471	-0.76861	2.24246	-0.3325	-0.1722	MMSB
MMSB	MMSB-BWBK-SB-MM105-0110	-2.2776747	-0.7202	-1.51505	-1.0649	-2.08732	-1.305284	-0.83748	-1.40675	-0.27903	-1.69568	-0.77348	-1.2138	-0.3442	-1.8769	-1.3795	MMSB
MMSB	MMSB-BWBK-SB-MM106-0110	1.08990693	-0.77588	1.13484	-0.1457	0.69451	-0.35788	0.288948	-0.223324	0.038183	2.924654	0.088158	-0.25494	1.94068	0.5887	0.12585	MMSB
MMSB	MMSB-BWBK-SB-MM107-0110	-1.7057	-0.77588	-0.65919	-0.8614	1.03284	-0.887311	-0.32877	-1.073912	-0.75484	-0.44547	-0.64782	-1.02545	1.05689	-1.1996	-1.0432	MMSB
MMSB	MMSB-BWBK-SB-MM108-0110	-0.9826982	-0.81486	-0.74148	-0.853	-1.27909	-0.956973	-0.61946	-0.969129	-0.5698	-0.06497	-0.68372	-1.09394	0.88444	-0.9422	-0.9516	MMSB
MMSB	MMSB-BWBK-SB-MM109-0110	0.31870503	-0.82043	1.3488	-1.3425	-0.09493	-0.636528	-0.23793	-0.691764	0.40826	-0.10121	-0.48627	-0.683	1.66045	-0.0345	-0.707	MMSB
MMSB	MMSB-BWBK-SB-MM110-0109	-0.5231904	-0.73134	-0.31355	-0.9045	0.39377	-0.998771	-0.20159	-0.80271	-0.12042	-0.17369	-0.66577	-0.92271	0.92755	-0.5493	-0.9286	MMSB
MMSB	MMSB-BWBK-SB-MM111-0110	-0.1954296	-0.77588	0.64107	-0.725	-0.62122	-0.831582	-0.38328	-0.519181	0.619732	0.677905	-0.52217	-0.70012	2.00535	-0.6577	-0.7223	MMSB
MMSB	MMSB-BWBK-SB-MM112-0110	0.02950432	-0.84827	0.32835	-0.8339	-0.45206	-0.887311	-1.07367	-0.476035	-0.93988	0.686964	0.876197	-0.55458	1.44489	0.43968	-0.8102	MMSB
MMSB	MMSB-BWBK-SB-MM113-0110	-0.9087913	-0.85384	-0.67565	-0.8351	2.08542	-0.831582	-0.05625	-0.901329	-0.86058	0.58731	-0.56525	-0.47753	0.906	-0.9557	-0.7758	MMSB
MMSB	MMSB-BWBK-SB-MM114-0110	-1.4550594	-0.64225	-0.42876	-0.1505	-1.67381	-1.193824	-0.92832	-1.320459	-0.91344	-1.07963	-0.48986	-1.05969	0.66888	-1.6873	-1.3336	MMSB
MMSB	MMSB-BWBK-SB-MM115-0110	0.2544382	-0.88725	2.83011	-0.0739	-1.29788	-1.026635	-1.03733	-0.876674	-1.33639	1.004046	-0.40369	-1.31653	3.60048	-0.0345	-0.7452	MMSB
MMSB	MMSB-BWBK-SB-MM116-0110	-1.1754987	-0.82043	0.0074	-0.5957	-0.60243	-0.845514	-0.39236	-0.962966	-0.12042	0.143396	-0.38036	-0.75149	1.15389	-1.5653	-0.7376	MMSB
MMSB	MMSB-BWBK-SB-MM117-0110	-2.0784476	-0.82043	-1.12004	-1.3282	-2.38806	-0.859447	-0.54679	-1.22184	-0.80771	-1.04339	-0.61551	-1.16243	0.48135	-1.9853	-1.2343	MMSB
MMSB	MMSB-BWBK-SB-MM118-0110	-1.5514596	-0.80929	-0.72502	-0.9954	-1.41066	-0.385745	0.743153	-1.049257	0.513996	0.279288	0.407682	0.892273	0.73355	-1.2809	-0.7834	MMSB
MMSB	MMSB-BWBK-SB-MM119-0110	-1.5193262	-0.77588	-0.70857	-0.5909	-1.14751	-1.026635	-0.76481	-0.938311	-0.70197	0.496715	-0.44318	-0.93984	1.33711	-1.0912	-0.8981	MMSB
MMSB	MMSB-BWBK-SB-MM120-0110	-3.0745833	-0.94293	-1.82777	-1.4502	-2.6512	-1.444608	-1.00099	-1.579333	-1.54786	-1.84063	-0.83451	-1.6761	0.35417	-2.2292	-1.7157	MMSB
NESB	NESB-BWBK-SB-NE01-0108	1.28270741	-0.64225	-1.18588	-0.6316	0.61932	-0.051367	0.252611	0.03555	-0.43763	1.801279	-0.23855	0.275863	-0.6094	-0.739	0.05708	NESB
NESB	NESB-BWBK-SB-NE02-0109	0.51150551	-0.57543	1.79319	-0.7106	0.13062	-0.134961	0.034593	-0.14936	-0.38476	1.076521	0.748746	0.070393	-0.7021	-1.1996	-0.0346	NESB
NESB	NESB-BWBK-SB-NE03-0105	0.51150551	-0.60884	-1.08712	-1.0146	-0.32048	-0.525069	-0.12892	-0.137033	-0.70197	0.224931	-0.44677	-0.3063	-0.465	-1.0912	-0.4931	NESB
NESB	NESB-BWBK-SB-NE04-0110	0.2544382	-0.70907	-0.87316	-0.8758	-0.50845	-0.41361	-0.12892	-0.420562	-0.4905	0.659786	-0.2924	-0.3063	-0.5943	-1.0641	-0.4014	NESB
NESB	NESB-BWBK-SB-NE05-0108	0.80070622	-0.67009	-1.48214	-0.5837	0.13062	-0.232488	0.143602	-0.063069	-0.54337	1.130878	-0.29958	0.061831	-0.6837	-0.7119	-0.0499	NESB
NESB	NESB-BWBK-SB-NE06-0109	0.12590455	-0.67566	-1.36692	-0.6053	-0.47085	-0.30215	-0.01991	-0.284961	-0.6491	0.58731	-0.38215	-0.08371	-0.6719	-0.9557	-0.3326	NESB
NESB	NESB-BWBK-SB-NE07-0107	1.28270741	-0.64225	-0.90607	-0.8399	0.50655	-0.218556	0.216275	-0.038414	-0.22616	1.185235	-0.45036	0.241618	-0.6891	-0.8744	0.03415	NESB
NESB	NESB-BWBK-SB-NE08-0104	-0.0026291	-0.73134	-1.53151	-0.4808	-0.54604	-0.441474	-0.38328	-0.642454	-0.91344	-0.1918	-0.61192	-0.32343	-0.7085	-0.8202	-0.6306	NESB
NESB	NESB-BWBK-SB-NE09-0110	0.02950432	-0.7202	-1.39161	-0.3863	-0.32048	-0.427542	-0.21068	-0.358925	-0.91344	0.469537	-0.36779	-0.28918	-0.6719	-1.1454	-0.3632	NESB
NESB	NESB-BWBK-SB-NE10-0107	0.64003916	-0.79816	-0.42876	-1.1199	0.05544	-0.943041	-0.47412	-0.642454	-0.38476	-0.11933	-0.63346	-0.76861	-0.4671	0.45322	-0.5924	NESB
NESB	NESB-BWBK-SB-NE101-0110	0.96137328	-0.86497	1.94132	-1.2683	-0.58363	-0.859447	-0.58313	-0.716419	-0.43763	0.07998	-0.655	-0.8371	2.15624	-0.0887	-0.8522	NESB
NESB	NESB-BWBK-SB-NE102-0110	0.31870503	-0.93179	2.28696	-1.3928	-1.2227	-1.165959	-0.91015	-1.110894	-0.86058	-0.48171	-0.70527	-1.09394	1.89757	-0.6035	-1.0432	NESB
NESB	NESB-BWBK-SB-NE103-0110	-0.6195906	-0.95963	0.9291	-1.2504	-1.7114	-1.347081	-0.98283	-1.27115	-1.25709	-1.08869	-0.79502	-1.29085	1.45567	-1.0505	-1.2992	NESB
NESB	NESB-BWBK-SB-NE104-0110	-1.4229259	-0.98747	0.08146	-1.2492	-2.08732	-1.388878	-1.20085	-1.431405	-1.44213	-1.53261	-0.89554	-1.43639	1.14311	-1.3892	-1.4559	NESB
NESB	NESB-BWBK-SB-NE105-0110	0.31870503	-0.80929	2.13883	-1.5077	-0.84678	-1.0545	-0.67397	-0.753401	-0.59624	0.061861	-0.37138	-0.97408	2.73824	-0.17	-0.8293	NESB
NESB	NESB-BWBK-SB-NE106-0110	-0.0668959	-0.93179	1.48047	-1.2755	-1.2227	-1.026635	-0.67397	-1.012275	-0.91344	-0.31864	-0.64064	-0.95696	1.96223	-0.6577	-0.9898	NESB
NESB	NESB-BWBK-SB-NE107-0510	-1.3393791	-1.00974	-0.11604	-0.8255	-2.12491	-1.388878	-0.74664	-1.209513	-1.33639	-0.59042	-0.80938	-1.47063	1.22934	-1.3621	-1.2572	NESB
NESB	NESB-BWBK-SB-NE108-0110	0.12590455	-0.97634	0.82212	-1.1319	-1.29788	-1.0545	-0.21976	-1.012275	-1.07205	-0.48171	-0.78425	-1.24804	1.48801	-0.2241	-1.1273	NESB
NESB	NESB-BWBK-SB-NE109-0110	0.06163773	-0.97634	1.26651	-1.23	-1.37307	-1.138095	-0.63763	-1.049257	-0.96631	-0.53606	-0.75912	-1.23092	1.68201	-0.766	-1.1349	NESB
NESB	NESB-BWBK-SB-NE110-0110	-0.0026291	-0.94293	0.21314	-1.4335	-1.2039	-1.026635	-0.6558	-1.061585	-0.93988	-0.3277	-0.72142	-1.28229	1.59578	-0.6983	-1.1311	NESB
PMSB	PMSB-BWBK-SB-PM01-0105	1.28270741	-0.11884	1.10192	0.18225	0.2434	0.8403071	-0.83748	-0.297288	-0.33189	-0.31864	0.486665	0.66968	-0.6697	0.48032	-0.1263	PMSB
PMSB	PMSB-BWBK-SB-PM02-0104	1.86110884	1.061601	0.82212	-0.6436	3.02523	1.2025496	0.034593	1.884653	0.989809	0.170574	0.813369	0.25874	-0.7366	2.64792	0.34744	PMSB
PMSB	PMSB-BWBK-SB-PM03-0106	0.70430598	0.738649	-1.1365	0.61311	0.92006	2.038494	0.488798	1.440869	-0.54337	0.840975	-0.01955	1.029253	-0.7667	1.04931	0.88232	PMSB
PMSB	PMSB-BWBK-SB-PM04-0105	0.51150551	1.206372	-0.39585	1.66632	0.65692	0.4780645	0.288948	0.528644	1.095545	0.822856	0.325108	0.652558	-0.3874	0.66998	0.40857	PMSB
PMSB	PMSB-BWBK-SB-PM05-0105	0.38297185	0.365584	-0.05844	1.04397	0.60053	0.8124423	-0.05625	0.528644	0.038183	0.542013	0.820549	0.32723	-0.5641	0.75127	0.29395	PMSB
PMSB	PMSB-BWBK-SB-PM06-0105	0.57577233	0.593878	0.31189	0.61311	0.31859	0.3387404	-0.41961	0.849156	-0.86058	0.641667	3.929621	0.275863	-0.7732	0.42613	0.17169	PMSB
PMSB	PMSB-BWBK-SB-PM07-0105	-0.6581507	0.61615	0.60815	0.37374	-0.09493	1.1189552	-0.89199	0.393043	-0.91344	-1.29706	1.524219	-0.40904	-0.7085	0.77836	-0.6077	PMSB

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN	GROUP
PMSB	PMSB-BWBK-SB-PM08-0106	0.12590455	0.783194	-0.08313	0.5413	0.16822	1.1189552	-0.51045	0.171151	-0.27903	-0.30052	0.633861	0.156005	-0.6503	0.64289	-0.0805	PMSB
PMSB	PMSB-BWBK-SB-PM09-0106	-1.2301255	0.415698	-1.23525	0.68492	-0.50845	0.2272812	-0.80114	-0.38358	-1.60073	-0.86221	0.030716	-0.13508	-0.771	-0.4409	-0.5695	PMSB
PMSB	PMSB-BWBK-SB-PM10-0105	-0.3046832	0.382289	-0.01729	0.20618	1.48395	0.5895237	0.016425	0.282097	-0.17329	-1.09775	0.461534	-0.39192	-0.6934	3.16272	-0.1951	PMSB
PMSB	PMSB-BWBK-SB-PM11-0104	-0.38823	0.304335	1.23359	0.18225	0.01785	1.2025496	-0.14709	0.639591	-0.4905	-0.84409	3.391098	0.635435	-0.577	0.53451	-0.0728	PMSB
PMSB	PMSB-BWBK-SB-PM12-0105	-1.0823118	-0.63111	-0.79086	1.42696	0.43136	-0.803717	-1.07367	-1.049257	-1.12492	-1.02528	-0.24573	-0.80286	-0.7172	-0.1429	-0.8446	PMSB
PMSB	PMSB-BWBK-SB-PM13-0106	0.19017138	-0.10771	1.26651	-0.2893	0.76969	-0.915176	-1.56421	0.109514	-0.6491	-1.42389	0.61232	-1.02545	-0.7301	1.45574	-0.7529	PMSB
PMSB	PMSB-BWBK-SB-PM14-0106	-0.9280714	-0.43066	-0.1325	0.94822	-0.50845	-0.803717	-1.12817	-0.864347	-0.91344	-1.47825	0.522567	-0.95696	-0.6978	0.29065	-0.8751	PMSB
PMSB	PMSB-BWBK-SB-PM15-0105	-0.0026291	-0.16339	0.34481	0.5413	0.35618	-0.35788	-0.36511	-0.050741	-0.12042	-0.5723	-0.10571	-0.37479	-0.7064	0.50741	-0.2333	PMSB
PMSB	PMSB-BWBK-SB-PM16-0106	-0.3625233	-0.37498	-0.33001	0.46949	-0.47085	-0.887311	-0.63763	-0.580818	-0.75484	-0.9528	0.027126	-0.64875	-0.6934	0.12809	-0.6001	PMSB
PMSB	PMSB-BWBK-SB-PM17-0105	0.15803797	0.031497	-0.10781	0.7687	0.14942	1.6205218	0.370705	0.22046	0.619732	0.143396	0.154576	-0.10939	-0.4768	1.37445	0.01505	PMSB
PMSB	PMSB-BWBK-SB-PM18-0105	0.64003916	0.660695	-0.37939	0.46949	0.65692	0.0879571	0.724985	1.317595	0.355391	0.696024	-0.19187	0.652558	-0.6072	-0.0616	0.75242	PMSB
PMSB	PMSB-BWBK-SB-PM19-0105	0.38297185	0.048201	0.55877	-0.0882	0.2434	-0.274285	0.379789	0.306752	0.196787	-0.11933	0.109699	0.138883	-0.7021	0.31775	0.23282	PMSB
PMSB	PMSB-BWBK-SB-PM20-0106	0.06163773	-0.05759	0.04032	0.56523	0.07424	-0.30215	-0.19251	-0.106214	-0.25259	-0.39111	-0.20982	-0.10939	-0.6406	0.3313	-0.0575	PMSB
PMSB	PMSB-BWBK-SB-SO01-0107-PM	0.76857281	0.215245	-0.54398	-0.4473	-0.05734	0.700983	0.833994	0.725882	1.25415	-0.08309	-0.655	1.063498	-0.6245	0.15518	1.17268	PMSB
PMSB	PMSB-BWBK-SB-SO02-0109-PM	0.96137328	1.050465	-0.97191	-0.6292	0.50655	0.2272812	0.070929	1.416214	1.624227	0.116217	-0.4755	0.652558	-0.8853	0.50741	1.11156	PMSB
PMSB	PMSB-BWBK-SB-SO13-0104-PM	-0.2532697	0.872285	0.01563	-0.6244	0.43136	1.7041163	1.942255	1.29294	1.359886	-0.22804	-0.75912	1.405948	-0.5878	0.61579	0.81355	PMSB
PMSB	PMSB-BWBK-SB-SO14-0105-PM	0.64003916	1.395689	0.18022	-0.7369	0.54414	1.4254681	1.288199	1.564142	1.359886	0.551072	-0.51499	1.662786	-0.5555	0.0468	1.5471	PMSB
SESB	SESB-BWBK-SB-SO03-0108	2.37524344	1.518188	0.69044	0.32587	1.25839	2.2056829	2.796161	2.155855	2.470117	1.728803	0.091748	3.375037	-0.5188	0.50741	2.54809	SESB
SESB	SESB-BWBK-SB-SO04-0108	0.19017138	1.373416	0.19668	-0.3061	0.61932	1.3976033	1.506218	1.255958	1.359886	0.07998	-0.57602	1.611418	-0.2968	0.18228	1.55474	SESB
SESB	SESB-BWBK-SB-SO05-0106	1.34697423	1.106146	0.49294	0.09129	0.95765	0.3944701	0.97934	1.009411	1.148413	0.206812	-0.34984	1.234723	-0.493	0.5887	1.33315	SESB
SESB	SESB-BWBK-SB-SO06-0108	2.0217759	2.364544	-0.37116	0.90035	1.35237	1.9409672	1.542554	2.371584	2.734458	1.221473	-0.60654	2.227829	-0.77	1.17124	2.16603	SESB
SESB	SESB-BWBK-SB-SO07-0106	0.06163773	0.493652	-0.82378	0.8046	0.46895	2.0942237	1.48805	0.701227	2.522985	-0.10121	2.206348	2.005236	-0.59	0.80546	1.5089	SESB
SESB	SESB-BWBK-SB-SO08-0107	1.79684201	1.562733	0.46002	1.40302	1.52154	1.9548996	2.123937	2.032582	2.787326	1.27583	0.389731	2.330564	-0.1998	1.15769	2.3647	SESB
SESB	SESB-BWBK-SB-SO09-0106	0.83283963	1.061601	0.73982	-0.5406	0.76969	0.5337941	0.652312	0.6889	0.936941	0.369883	-0.82374	1.063498	-0.5964	0.42613	0.99694	SESB
SESB	SESB-BWBK-SB-SO11-0106	1.47550789	1.406825	-0.16542	1.11578	0.95765	1.3976033	0.852162	1.403887	1.307018	1.330187	3.247492	1.679908	-0.3421	0.72417	1.46305	SESB
SESB	SESB-BWBK-SB-SO12-0106	0.28657162	1.301031	-0.81555	0.58917	0.67571	1.2722117	1.742405	1.416214	1.492056	0.143396	0.023535	1.577173	-0.5188	0.48032	1.71903	SESB
SESB	SESB-BWBK-SB-SO15-0103	0.44723868	-0.06316	-0.05021	-0.6005	0.05544	-0.218556	-0.7103	-0.087723	0.196787	-0.88032	-0.01237	-0.28918	-0.771	1.1035	-0.2027	SESB
SESB	SESB-BWBK-SB-SO16-0105	-0.7802577	-0.16339	-0.67565	0.61311	0.01785	0.255146	-0.29243	0.183478	-0.33189	-0.68102	-0.38933	0.5327	-0.4994	0.29065	0.32452	SESB
SESB	SESB-BWBK-SB-SO17-0106	-0.7481243	-0.64225	-0.14896	1.11578	-0.05734	0.0043627	-0.43778	-0.654782	-0.38476	-0.84409	-0.84169	0.070393	-0.2623	-0.1158	-0.134	SESB
SESB	SESB-BWBK-SB-SO18-0105	-0.6452974	-0.73134	-0.24772	0.87641	-0.2453	0.1158219	-0.72847	-1.03693	-0.59624	-0.93468	-0.63705	-0.39192	-0.4434	-0.3596	-0.5389	SESB
SESB	SESB-BWBK-SB-SO19-0104	-0.7995377	-0.7202	0.04855	0.75673	-0.05734	2.2056829	-0.38328	-0.864347	-0.12042	-0.6629	-0.3283	-0.1522	-0.3227	0.45322	0.08	SESB
SESB	SESB-BWBK-SB-SO20-0104	-0.6452974	-0.09657	-0.51106	0.5413	0.16822	0.7288478	1.088349	0.775191	0.619732	-0.37299	0.493845	0.618313	-0.5512	0.01971	1.10391	SESB

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
AL	0.4442	0.4407	0.2559	0.5674	-0.0834

10304.0909	**Mean**
1556.0128	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	0.0000	0.0000	0.0000	0.0000	0.0000
AS	-0.0736	0.0815	-0.0050	0.1350	0.0638
BA	0.0162	0.1094	0.9234	0.2953	0.0899
CA	-0.0581	-0.1426	-0.0083	-0.2499	0.0598
CR	-0.0510	-0.0814	-0.1062	-0.6660	-0.0374
CO	0.0773	-0.0158	0.0827	0.3393	0.1163
CU	0.2036	-0.0875	0.0250	0.2504	-0.0991
FE	0.4128	-0.2820	0.0891	-0.8026	-0.2542
PB	0.1840	-0.0164	0.0678	0.1058	-0.1754
MG	-0.4254	0.9613	0.1549	0.2232	0.1984
MN	-0.0150	-0.0044	-0.0043	0.1107	0.0955
NI	0.3304	-0.0810	-0.0058	0.5187	0.1092
K	0.1902	-0.1882	-0.0376	0.2560	-0.1004
V	-0.1802	0.1753	0.0155	-0.7168	0.1158
ZN	0.3538	0.1089	-0.1076	0.4672	0.1828

ARSENIC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
AS	0.7235	0.0521	-0.0727	0.3817	0.1549

10.9672	**Mean**
8.9797	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0172	-0.4356	-0.1715	0.3208	-1.0704
AS	0.0000	0.0000	0.0000	0.0000	0.0000
BA	0.0153	0.2336	1.0647	-0.1229	0.4282
CA	-0.0550	-0.3045	-0.0095	0.1040	0.2848
CR	-0.0482	-0.1738	-0.1225	0.2773	-0.1780
CO	0.0731	-0.0337	0.0953	-0.1413	0.5540
CU	0.1925	-0.1869	0.0288	-0.1043	-0.4721
FE	0.3903	-0.6021	0.1027	0.3341	-1.2106
PB	0.1740	-0.0350	0.0782	-0.0441	-0.8355
MG	-0.4023	2.0526	0.1786	-0.0929	0.9451
MN	-0.0142	-0.0093	-0.0050	-0.0461	0.4551
NI	0.3124	-0.1730	-0.0067	-0.2159	0.5200
K	0.1798	-0.4018	-0.0433	-0.1066	-0.4780
V	-0.1704	0.3742	0.0178	0.2984	0.5516
ZN	0.3346	0.2326	-0.1240	-0.1945	0.8708

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	5527.29687	-1.52808	-1.54725	-1.91465	-4.12131	-0.84339	-0.402068	-1.47551	-1.98768	-1.9832	-1.84496	-3.26183
MAXIMUM DOMAIN VALUE	15463.562	2.99014	2.651374	2.585931	3.126961	1.138696	27.807411	2.892493	5.321303	2.932854	2.372431	4.627639
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	**AS predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	10594.0498	0.64289	-0.23645	-0.69369	0.415114	0.635706	18.735186	0.618113	-0.62128	-0.83133	-0.10096	2.765487
MASB-BWBK-SB-MA02-0107	10915.635	0.46882	0.545133	0.096355	-0.06195	0.53881	17.551966	0.427606	0.866182	-0.00999	0.248824	1.828083
MASB-BWBK-SB-MA03-0108	13122.5496	1.6091	-0.41656	0.333221	2.227242	0.826856	22.913599	1.573101	-0.7369	0.488341	-1.08229	4.386489
MASB-BWBK-SB-MA04-0106	11859.4829	-0.07865	1.920282	0.54081	0.255413	1.138696	18.773625	-0.07693	3.76932	0.503545	0.127343	4.627639
MASB-BWBK-SB-MA05-0108	10533.7329	0.15827	0.540699	-0.14488	-0.14033	0.530674	16.503774	0.286564	0.751916	-0.17724	0.21103	1.786236
MASB-BWBK-SB-MA06-0105	10324.1198	0.30325	0.352803	-0.29728	-0.30195	0.358051	16.023371	0.264815	0.686398	-0.38784	0.193144	1.509589
MASB-BWBK-SB-MA07-0108	9498.18378	0.04318	0.155234	-1.11953	-0.55123	0.074249	13.599199	0.085723	0.220466	-1.28668	0.264821	0.160887
MASB-BWBK-SB-MA08-0108	9054.33472	1.35232	1.446984	-0.81297	-3.19307	0.258326	26.636143	1.489769	1.37915	-1.34045	2.326748	-2.52047
MASB-BWBK-SB-MA09-0108	11645.0261	1.3606	0.046066	-0.43434	0.619831	0.041477	19.308735	1.524263	-0.70978	-0.55737	0.083402	-1.35086
MASB-BWBK-SB-MA10-0104	8441.69892	0.30073	-0.80435	-1.88109	-0.93724	-0.44626	12.475202	0.3171	-1.28427	-1.9832	0.056472	-1.03576
MASB-BWBK-SB-MA11-0108	10797.6601	1.3318	0.273081	-0.18741	-0.62579	-0.1	19.486666	1.28511	0.212495	-0.32284	0.495471	-1.32139
MASB-BWBK-SB-MA12-0108	11687.0544	0.93078	0.506663	-0.14107	0.591737	0.570619	20.43048	1.088667	0.377256	-0.21069	0.050073	1.369926
MASB-BWBK-SB-MA13-0105	7547.26539	-1.03554	-0.8478	0.939958	-2.06832	0.060494	6.8188286	-1.00569	-1.34296	1.224147	0.559198	1.363306
MASB-BWBK-SB-MA14-0104	9971.06713	0.71917	-0.54665	2.259589	-1.55561	-0.14162	13.934735	0.724739	-1.76966	2.434499	1.026911	-2.04395
MASB-BWBK-SB-MA15-0105	8677.6207	-0.18383	-0.5505	1.913006	-2.13343	0.000501	10.288156	-0.17293	-1.69924	2.020371	1.25366	-1.24987
MASB-BWBK-SB-MA16-0104	8759.82869	-0.14301	-0.88245	0.460666	-1.17654	-0.11587	10.292857	-0.14107	-1.41308	0.692893	0.165858	0.566007
MASB-BWBK-SB-MA17-0104	8761.26976	-0.35406	-0.87885	0.981197	-1.24111	-0.07393	8.1860233	-0.36363	-1.98768	1.063808	0.621595	-0.66509
MASB-BWBK-SB-MA18-0104	5527.29687	-1.52808	-0.14506	-0.06929	-4.02749	0.288598	8.9434111	-1.47551	-0.35527	-0.12567	1.737194	1.216007
MASB-BWBK-SB-MA19-0103	7562.27265	-1.01892	-1.08324	0.328804	-1.60381	0.074434	6.5986317	-0.97834	-1.87471	0.520445	0.375208	1.378972
MASB-BWBK-SB-MA20-0103	10113.3576	0.4788	-0.40283	-0.18033	-0.17255	0.164019	15.179758	0.430459	-0.5908	-0.13388	-0.09548	1.3894
MMSB-BWBK-SB-MM101-0110	11258.5515	-0.14411	-0.3861	-0.3242	1.522998	-0.79474	3.3813707	-0.15843	0.021196	-0.09478	-1.2045	-1.79741
MMSB-BWBK-SB-MM102-0109	11289.5126	-0.79558	0.814774	-0.44567	1.292464	-0.09963	5.0558343	-0.79439	2.199741	-0.39115	-0.82023	0.558355
MMSB-BWBK-SB-MM103-0107	10876.6054	-0.34151	-0.46902	-0.72937	1.544955	-0.43521	4.6341928	-0.34199	-0.26051	-0.59612	-1.14338	-0.33054
MMSB-BWBK-SB-MM104-0110	13964.4858	0.11368	2.093211	0.332412	2.197158	-0.57133	6.141438	0.063409	4.273175	0.270788	-0.73604	-3.26183
MMSB-BWBK-SB-MM105-0110	9406.67307	-0.58986	-1.35033	-1.55799	1.077883	-0.80812	1.5279382	-0.56879	-1.76557	-1.40984	-1.21992	-1.19211
MMSB-BWBK-SB-MM106-0110	12408.6465	-1.02775	2.651374	1.316392	0.602263	0.455117	7.7122367	-1.04466	5.321303	1.32644	0.055345	1.236547
MMSB-BWBK-SB-MM107-0110	8676.29497	-0.76536	-0.60368	-0.94213	-0.43337	-0.56209	4.1711246	-0.74846	-0.41083	-0.79817	-0.41041	-0.61568
MMSB-BWBK-SB-MM108-0110	10177.2397	-0.86438	0.024139	-0.70349	0.773448	-0.39498	2.9611526	-0.85724	0.621473	-0.64724	-0.68304	-0.58186
MMSB-BWBK-SB-MM109-0110	11315.7266	-0.24636	0.063764	1.181758	0.697977	-0.39503	4.7131802	-0.29558	0.140155	1.303213	-0.23442	-1.9734
MMSB-BWBK-SB-MM110-0109	9266.28317	-0.66461	-0.1965	-0.44963	-0.37912	-0.53998	4.2004539	-0.67042	-0.06432	-0.43287	-0.05112	-1.78964
MMSB-BWBK-SB-MM111-0110	11738.4247	-0.36879	0.483128	0.688802	1.161319	-0.44875	4.0448268	-0.39941	1.251745	0.823268	-0.58975	-1.69244
MMSB-BWBK-SB-MM112-0110	10055.7844	-1.09714	0.798571	0.301454	-0.1566	0.148841	5.8726422	-1.09709	1.839873	0.33767	0.026992	0.934876
MMSB-BWBK-SB-MM113-0110	8824.56023	-0.94116	0.275424	-0.91221	-0.7836	-0.28719	5.7842544	-0.93383	1.132586	-0.90079	-0.01333	-0.13577
MMSB-BWBK-SB-MM114-0110	9964.22247	-0.78399	-0.97086	-0.58193	1.177563	-0.46006	1.6657203	-0.76108	-1.32726	-0.42508	-0.99312	-0.4386
MMSB-BWBK-SB-MM115-0110	12683.4433	-1.14549	1.038511	2.585931	1.647759	0.198014	1.7068774	-1.14939	2.260978	2.932854	-0.65419	0.94014
MMSB-BWBK-SB-MM116-0110	11312.3676	-0.50201	0.017685	-0.05381	1.489548	-0.38022	3.8808529	-0.51165	0.692645	0.134869	-1.04332	-0.30348
MMSB-BWBK-SB-MM117-0110	10788.6577	-0.50777	-0.86555	-1.08213	2.013394	-0.63343	1.8482564	-0.50156	-0.79984	-0.89592	-1.55108	-0.54293
MMSB-BWBK-SB-MM118-0110	13108.3543	0.22356	0.086488	-0.50609	3.126961	-0.239	7.5706525	0.181728	1.001377	-0.32207	-1.84496	0.768107
MMSB-BWBK-SB-MM119-0110	10572.1142	-0.99505	0.41108	-0.64502	1.016132	-0.25875	3.3799362	-0.96887	1.674604	-0.48757	-0.95404	0.629495
MMSB-BWBK-SB-MM120-0110	9157.69352	-0.88899	-1.54725	-1.91465	1.338661	-0.84339	-0.402068	-0.85347	-1.80009	-1.68568	-1.59666	-0.43947
NESB-BWBK-SB-NE01-0108	10724.9799	-0.61934	1.535117	-0.89303	0.198483	0.179021	9.4223422	-0.65246	2.830718	-1.2533	0.292802	-0.32535
NESB-BWBK-SB-NE02-0109	12945.927	-0.40531	1.231518	1.775647	1.608187	0.381551	8.2198224	-0.43215	2.506803	1.956296	-0.53772	1.444419
NESB-BWBK-SB-NE03-0105	9924.2953	-0.40646	0.157494	-0.97266	0.163706	-0.27696	6.9052954	-0.43556	0.219458	-1.21267	0.061739	-1.6817
NESB-BWBK-SB-NE04-0110	10682.1712	-0.64795	0.69939	-0.69534	0.696076	-0.06692	6.5239627	-0.66649	1.505895	-0.84941	-0.24799	-0.37576
NESB-BWBK-SB-NE05-0108	10129.8582	-0.53777	0.955557	-1.23624	0.044143	0.033887	9.1438725	-0.56897	1.8081	-1.56652	0.200852	-0.49219
NESB-BWBK-SB-NE06-0109	10217.1825	-0.5227	0.513291	-1.15936	0.425543	-0.06464	7.9389483	-0.54351	1.158725	-1.36218	-0.17473	-0.23746
NESB-BWBK-SB-NE07-0107	10752.7481	-0.35378	1.02806	-0.7189	0.311496	0.003688	9.0936955	-0.40133	1.748095	-1.05253	0.245755	-1.1604
NESB-BWBK-SB-NE08-0104	9138.90838	-0.68674	-0.11211	-1.45727	-0.06029	-0.15354	6.7040561	-0.70029	-0.1109	-1.68395	-0.01684	-0.50637
NESB-BWBK-SB-NE09-0110	9777.57571	-0.66256	0.374151	-1.25613	0.188828	-0.06472	7.4019907	-0.67721	0.911393	-1.45748	-0.10961	-0.12111
NESB-BWBK-SB-NE10-0107	8664.35476	-0.96508	0.340261	-0.48474	-1.17186	-0.16746	5.8173937	-0.97922	0.586657	-0.67322	0.648329	-1.24027
NESB-BWBK-SB-NE101-0110	11704.5353	-0.53901	0.27752	1.719609	0.981842	-0.23852	2.9685154	-0.58647	0.324357	1.81288	-0.14892	-1.90235
NESB-BWBK-SB-NE102-0110	11983.8042	-0.68873	-0.05	1.947655	1.567051	-0.23694	1.0967772	-0.72166	-0.08335	2.185651	-0.60247	-1.18666
NESB-BWBK-SB-NE103-0110	10748.0743	-0.75947	-0.71068	0.631442	1.299411	-0.44237	0.5670362	-0.77436	-1.08042	0.828827	-0.79364	-1.15224
NESB-BWBK-SB-NE104-0110	10053.8994	-0.81142	-1.13941	-0.19107	1.239565	-0.56638	0.1752545	-0.81161	-1.64102	0.018092	-1.02802	-0.87456
NESB-BWBK-SB-NE105-0110	12130.7817	-0.49897	0.254461	1.870353	1.381004	-0.25324	2.799144	-0.53369	0.545376	2.097222	-0.51814	-1.30146
NESB-BWBK-SB-NE106-0110	11703.9633	-0.6029	-0.07523	1.239771	1.516214	-0.27493	2.181333	-0.63386	0.030739	1.435597	-0.70502	-0.95487
NESB-BWBK-SB-NE107-0510	10518.7178	-0.96381	-0.40595	-0.21294	1.341725	-0.45652	0.5173297	-0.95871	-0.10752	-0.02158	-1.045	-0.43398
NESB-BWBK-SB-NE108-0110	10567.6725	-0.79527	-0.18428	0.653527	0.717762	-0.35122	1.84594	-0.82219	-0.27831	0.726343	-0.31327	-1.51105
NESB-BWBK-SB-NE109-0110	11220.988	-0.70562	-0.25502	1.035718	1.26555	-0.38192	1.0912298	-0.73631	-0.40137	1.178028	-0.56193	-1.58848
NESB-BWBK-SB-NE110-0110	10521.0142	-0.85071	-0.11659	0.092344	0.898286	-0.42319	1.3420617	-0.87009	-0.08362	0.101538	-0.42778	-1.72638
PMSB-BWBK-SB-PM01-0105	10639.9257	-0.19488	0.048123	0.981077	0.135969	0.563998	11.844602	-0.21462	-0.43531	0.910512	0.348238	1.349227
PMSB-BWBK-SB-PM02-0104	7411.77645	0.38473	0.232362	0.825793	-4.12131	0.057778	18.248008	0.405743	-0.49941	0.639016	2.372431	-2.03927
PMSB-BWBK-SB-PM03-0106	9534.07194	0.55627	0.450633	-0.80914	-1.21872	0.502136	20.193372	0.565365	0.526755	-1.0495	0.774813	1.413326
PMSB-BWBK-SB-PM04-0105	10003.4233	0.10077	0.5356	-0.18362	-0.71229	0.273616	14.951037	0.170504	0.71072	-0.29255	0.528417	0.389315
PMSB-BWBK-SB-PM05-0105	9647.75445	-0.11608	0.428836	0.066968	-0.95158	0.436116	14.701791	-0.0909	0.685141	0.013622	0.539549	1.556131
PMSB-BWBK-SB-PM06-0105	9926.03334	-0.36169	0.591452	0.378847	-0.65788	0.798047	15.015796	-0.31057	0.908614	0.341455	0.491965	3.004188
PMSB-BWBK-SB-PM07-0105	8405.00962	-0.24963	-0.9811	0.507599	-1.37945	0.292497	12.451954	-0.18184	-1.91534	0.701648	0.397737	1.910432

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	5527.29687	-1.52808	-1.54725	-1.91465	-4.12131	-0.84339	-0.402068	-1.47551	-1.98768	-1.9832	-1.84496	-3.26183
MAXIMUM DOMAIN VALUE	15463.562	2.99014	2.651374	2.585931	3.126961	1.138696	27.807411	2.892493	5.321303	2.932854	2.372431	4.627639
SAMPLE	AL predict	D1	D2	D3	D4	D5	AS predict	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	9429.5346	-0.19535	-0.13081	-0.03409	-0.66213	0.397723	13.274446	-0.13236	-0.4705	-0.05643	0.360045	1.521628
PMSB-BWBK-SB-PM09-0106	8346.26728	-0.60993	-0.76884	-1.28784	-0.53274	0.198831	10.285401	-0.52668	-1.17809	-1.27153	-0.14951	2.13743
PMSB-BWBK-SB-PM10-0105	6018.3966	-0.42289	-0.57034	-0.18853	-3.96704	0.189036	15.087645	-0.36805	-1.15157	-0.16293	1.575204	1.110352
PMSB-BWBK-SB-PM11-0104	10632.2977	0.50907	-0.72952	1.142206	0.105571	0.550873	16.27562	0.509264	-1.44148	1.385273	-0.1514	2.946753
PMSB-BWBK-SB-PM12-0105	6729.76083	-1.22697	-0.85717	-1.08532	-1.92937	0.021258	6.8392836	-1.18562	-1.24883	-1.06935	0.420501	1.451363
PMSB-BWBK-SB-PM13-0106	6626.63716	-0.8672	-0.73833	0.855221	-3.30379	-0.03623	8.6051881	-0.83084	-1.64051	0.952833	1.430318	-0.34341
PMSB-BWBK-SB-PM14-0106	7393.91664	-1.00614	-1.03219	-0.40853	-1.51803	0.030389	6.9210702	-0.96549	-1.7246	-0.31432	0.31001	1.268891
PMSB-BWBK-SB-PM15-0105	8598.77484	-0.36417	-0.35078	0.198944	-1.465	-0.00936	10.237441	-0.35571	-0.71937	0.228899	0.599851	0.007862
PMSB-BWBK-SB-PM16-0106	8184.08845	-0.73473	-0.62523	-0.50036	-1.12209	-0.05047	7.6360731	-0.71467	-1.11174	-0.51688	0.329746	0.261506
PMSB-BWBK-SB-PM17-0105	9627.39135	-0.0831	0.216894	0.142739	-0.89582	0.260779	13.482027	-0.07911	0.388768	0.137653	0.425401	1.063271
PMSB-BWBK-SB-PM18-0105	10311.525	0.7323	0.252208	-0.2146	-0.67345	-0.06494	16.122034	0.727502	0.144662	-0.35342	0.52282	-1.19498
PMSB-BWBK-SB-PM19-0105	10280.1833	0.20381	0.025914	0.504556	-0.43304	0.008687	12.320305	0.1895	-0.11988	0.516344	0.305846	-0.38319
PMSB-BWBK-SB-PM20-0106	9171.89499	-0.2531	-0.22508	-0.0551	-0.8744	0.068761	10.887787	-0.24442	-0.49738	-0.07443	0.38055	0.278998
PMSB-BWBK-SB-SO01-0107-PM	11698.7765	1.42342	-0.17359	-0.38156	0.752599	-0.13335	17.442948	1.347831	-0.7429	-0.57052	-0.05464	-1.52311
PMSB-BWBK-SB-SO02-0109-PM	10007.4478	1.13992	0.029572	-0.75658	-0.95455	-0.30275	17.501272	1.134583	-0.53852	-1.0312	0.764834	-2.78992
PMSB-BWBK-SB-SO13-0104-PM	11907.9073	1.89946	-0.47974	0.270175	0.544452	-0.24316	19.836055	1.86132	-1.06585	0.359926	-0.25889	-1.15187
PMSB-BWBK-SB-SO14-0105-PM	13086.55	1.93957	0.274195	0.422509	1.233693	0.028502	21.079271	1.92033	0.063642	0.385354	-0.22982	-0.97314
SESB-BWBK-SB-SO03-0108	15463.562	2.99014	0.974537	1.106566	2.309535	0.426506	27.807411	2.892493	0.781768	0.877179	-0.11411	-0.97211
SESB-BWBK-SB-SO04-0108	12770.6702	2.03947	-0.19768	0.321105	1.204438	-0.00879	21.356271	2.020984	-0.74403	0.34546	-0.36322	-0.66248
SESB-BWBK-SB-SO05-0106	11513.2082	1.32734	0.099169	0.482711	0.047252	0.079124	18.667816	1.309062	-0.56759	0.331874	0.474625	-1.40082
SESB-BWBK-SB-SO06-0108	12184.7098	2.27917	0.61687	0.083204	-0.1491	0.147696	25.840833	2.285187	0.024725	-0.2373	0.843568	-2.17864
SESB-BWBK-SB-SO07-0106	12329.9213	2.04709	-0.45815	-0.54021	1.335652	0.301312	23.613678	1.969144	-1.09101	-0.63061	-0.50851	1.219166
SESB-BWBK-SB-SO08-0107	13199.5898	2.48009	0.552117	0.78214	0.602047	0.310668	26.514572	2.423217	0.12405	0.602568	0.413649	-0.91823
SESB-BWBK-SB-SO09-0106	11931.9704	0.92575	0.475318	0.762394	0.425616	0.133375	16.483507	0.935038	0.467243	0.742265	0.149664	-0.57859
SESB-BWBK-SB-SO11-0106	12081.4896	1.14393	0.82463	0.128811	0.528028	0.741118	22.195958	1.154345	0.873014	-0.0965	0.332611	1.523142
SESB-BWBK-SB-SO12-0106	11582.723	2.01722	-0.33961	-0.60512	0.40541	-0.00194	22.894059	1.993253	-1.07646	-0.73941	-0.00372	-0.71105
SESB-BWBK-SB-SO15-0103	8506.08655	-0.26364	-0.34873	-0.14409	-1.50197	-0.05309	10.625844	-0.2614	-0.9284	-0.2432	0.765202	-0.71239
SESB-BWBK-SB-SO16-0105	9188.81713	0.37839	-0.71673	-0.741	-0.6591	0.064023	14.938452	0.359867	-1.16197	-0.72149	0.014878	1.189704
SESB-BWBK-SB-SO17-0106	9279.08767	-0.12834	-0.79292	-0.33755	-0.28643	0.040553	10.673303	-0.15323	-1.25528	-0.26456	-0.15686	1.188935
SESB-BWBK-SB-SO18-0105	9046.5301	-0.59816	-0.72994	-0.41842	-0.19137	0.061695	7.8421365	-0.60548	-1.15008	-0.37595	-0.16845	1.206615
SESB-BWBK-SB-SO19-0104	10304.0548	-0.1518	-0.38688	0.046011	0.4663	0.461207	12.377577	-0.17996	-0.35237	0.186058	-0.4911	3.271063
SESB-BWBK-SB-SO20-0104	10752.6337	1.30851	-0.67364	-0.45648	0.20466	-0.05478	18.390939	1.241761	-1.1404	-0.4162	-0.29765	0.459133

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

BARIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
BA	0.0165	0.1764	1.0703	-0.1558	0.2338

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177

25.7051	**Mean**
6.0757	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0189	-0.4898	-13.9982	0.2565	-1.6246
AS	-0.0764	0.1958	-0.4661	-0.0449	0.4609
BA	0.0000	0.0000	0.0000	0.0000	0.0000
CA	-0.0603	-0.3424	-0.7766	0.0832	0.4323
CR	-0.0529	-0.1954	-9.9955	0.2217	-0.2701
CO	0.0802	-0.0379	7.7816	-0.1129	0.8409
CU	0.2111	-0.2102	2.3526	-0.0834	-0.7165
FE	0.4280	-0.6771	8.3817	0.2671	-1.8374
PB	0.1908	-0.0394	6.3849	-0.0352	-1.2681
MG	-0.4412	2.3081	14.5809	-0.0743	1.4345
MN	-0.0156	-0.0105	-0.4082	-0.0368	0.6907
NI	0.3426	-0.1946	-0.5481	-0.1726	0.7893
K	0.1972	-0.4518	-3.5356	-0.0852	-0.7254
V	-0.1869	0.4208	1.4546	0.2386	0.8372
ZN	0.3669	0.2616	-10.1243	-0.1555	1.3216

CALCIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
CA	0.3201	0.0079	-0.1341	0.3607	0.6105

953.8636	**Mean**
417.7679	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0175	-0.2303	-0.1709	0.8060	-1.0179
AS	-0.0707	0.0921	-0.0057	-0.1412	0.2888
BA	0.0156	0.1235	1.0609	-0.3089	0.4072
CA	0.0000	0.0000	0.0000	0.0000	0.0000
CR	-0.0490	-0.0919	-0.1220	0.6966	-0.1692
CO	0.0742	-0.0178	0.0950	-0.3549	0.5268
CU	0.1955	-0.0988	0.0287	-0.2619	-0.4490
FE	0.3964	-0.3184	0.1023	0.8394	-1.1513
PB	0.1767	-0.0185	0.0780	-0.1107	-0.7945
MG	-0.4085	1.0854	0.1780	-0.2334	0.8988
MN	-0.0144	-0.0049	-0.0050	-0.1158	0.4327
NI	0.3172	-0.0915	-0.0067	-0.5425	0.4945
K	0.1826	-0.2125	-0.0432	-0.2677	-0.4545
V	-0.1731	0.1979	0.0178	0.7497	0.5246
ZN	0.3398	0.1230	-0.1236	-0.4886	0.8281

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CALCIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-184.4886	-1.59435	-2.65628	-35.7553	-1.50997	-5.01942	-28.59096	-1.36807	-1.27222	-1.9803	-4.26048	-2.95198
MAXIMUM DOMAIN VALUE	276.26815	3.044301	5.533885	42.42012	1.929895	6.80938	1876.9806	2.84798	2.718977	2.926942	5.978357	3.917495
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CA predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	3.9967379	0.675545	-0.4661	-3.51038	-0.16227	4.768246	1553.3536	0.708354	-0.03857	-0.8135	-0.72265	2.227791
MASB-BWBK-SB-MA02-0107	3.864716	0.472336	0.955418	-3.57937	0.204428	2.729781	1332.6699	0.557616	0.79867	0.010681	0.071778	1.142417
MASB-BWBK-SB-MA03-0108	140.05572	1.675817	-0.77269	19.63103	-0.86941	6.782169	1660.3361	1.643055	-0.08208	0.498145	-3.21327	3.917495
MASB-BWBK-SB-MA04-0106	47.437993	-0.10202	4.15334	3.921454	0.137627	6.80938	1876.9806	0.03458	2.358969	0.521795	-0.27264	3.846405
MASB-BWBK-SB-MA05-0108	1.9446971	0.163974	1.271328	-3.88277	0.065975	3.717611	1426.1021	0.24813	0.86522	-0.17127	-0.21233	1.798057
MASB-BWBK-SB-MA06-0105	-8.73463	0.314667	0.800466	-5.72137	0.13656	2.367947	1287.1531	0.371748	0.584926	-0.37061	0.122862	0.950227
MASB-BWBK-SB-MA07-0108	37.404517	0.065604	0.698451	2.02176	0.061372	1.343846	1098.4074	0.100449	0.345912	-1.27583	0.298377	0.05295
MASB-BWBK-SB-MA08-0108	58.517705	1.3783	2.616	5.533242	1.564797	-1.27568	1528.2223	1.329042	1.276813	-1.34396	4.986626	-1.70321
MASB-BWBK-SB-MA09-0108	93.495156	1.413842	0.068996	11.57761	-0.158	0.012379	981.30395	1.335595	0.055433	-0.5692	-0.46054	-0.44642
MASB-BWBK-SB-MA10-0104	91.858654	0.36565	-0.88089	11.16794	-0.15986	-0.18304	915.15167	0.290612	-0.70922	-1.9803	0.192426	-0.84379
MASB-BWBK-SB-MA11-0108	80.052427	1.375911	0.450438	9.232943	0.331925	-1.49468	885.43489	1.351334	0.402243	-0.3105	0.778577	-1.51035
MASB-BWBK-SB-MA12-0108	67.041557	0.962974	1.106917	7.180789	-0.12792	3.695701	1421.8536	0.985444	0.767578	-0.21082	-0.77075	1.717302
MASB-BWBK-SB-MA13-0105	-116.2682	-1.0821	-2.00091	-24.1713	0.614109	0.868707	1167.632	-0.92681	-0.61145	1.232193	1.239778	0.870247
MASB-BWBK-SB-MA14-0104	-106.9804	0.683667	-2.48257	-22.614	1.030713	-4.3422	912.40174	0.635548	-0.96054	2.414585	2.62736	-1.50526
MASB-BWBK-SB-MA15-0105	-182.2595	-0.24992	-2.46061	-35.3914	1.216058	-3.26414	1053.1867	-0.22586	-0.96003	2.006549	3.251554	-0.96005
MASB-BWBK-SB-MA16-0104	23.751063	-0.14138	-1.82425	-0.4347	0.211582	0.284551	1015.3683	-0.08512	-0.67404	0.698326	0.295234	0.273504
MASB-BWBK-SB-MA17-0104	-160.5769	-0.39733	-2.65628	-31.6619	0.645517	-2.04396	966.4761	-0.38246	-1.18372	1.055824	1.774229	-0.55101
MASB-BWBK-SB-MA18-0104	-184.4886	-1.59435	-0.55051	-35.7553	1.434787	1.480788	1508.5185	-1.36807	0.076787	-0.10548	3.931519	0.544898
MASB-BWBK-SB-MA19-0103	-109.7403	-1.05351	-2.38892	-23.0453	0.393169	1.40807	1124.5354	-0.89615	-0.83486	0.532499	0.685156	0.862063
MASB-BWBK-SB-MA20-0103	30.005533	0.507146	-0.71388	0.787654	-0.07001	1.996433	1168.8162	0.540524	-0.14155	-0.11857	-0.52075	0.84283
MMSB-BWBK-SB-MM101-0110	219.42185	-0.11054	0.003009	32.72222	-0.97579	-2.76248	126.3867	-0.17159	-0.2346	-0.10086	-2.63297	-1.61779
MMSB-BWBK-SB-MM102-0109	135.12551	-0.80131	2.471077	18.57276	-0.67713	0.859693	728.9962	-0.78786	0.984416	-0.39156	-1.77688	0.48257
MMSB-BWBK-SB-MM103-0107	146.00892	-0.31352	-0.20878	20.3631	-0.96353	-0.27852	512.61257	-0.36502	-0.37582	-0.60104	-2.4912	-0.19388
MMSB-BWBK-SB-MM104-0110	276.26815	0.109709	4.772941	42.42012	-0.58985	-5.01942	-28.59096	0.03882	2.045169	0.262494	-1.50491	-2.95198
MMSB-BWBK-SB-MM105-0110	126.05	-0.54324	-1.72846	16.91941	-1.0919	-1.15656	277.47932	-0.58608	-1.17141	-1.41091	-2.68467	-1.0532
MMSB-BWBK-SB-MM106-0110	84.464056	-1.10539	5.533885	10.01151	0.190658	0.78162	1049.0222	-1.01406	2.718977	1.324833	0.286647	0.99133
MMSB-BWBK-SB-MM107-0110	-18.48438	-0.75041	-0.44074	-7.50357	-0.35807	-0.86361	644.58972	-0.75323	-0.42739	-0.79913	-0.69636	-0.57622
MMSB-BWBK-SB-MM108-0110	96.734469	-0.86534	0.734078	11.98587	-0.58238	-0.77675	525.6362	-0.86047	0.116246	-0.64842	-1.37795	-0.55759
MMSB-BWBK-SB-MM109-0110	-35.64986	-0.28416	-0.3573	-10.4572	-0.01798	-4.24995	373.68587	-0.31706	-0.21761	1.290594	-0.12219	-1.74992
MMSB-BWBK-SB-MM110-0109	-19.56532	-0.67405	-0.13315	-7.74376	-0.03883	-2.84953	492.97351	-0.67954	-0.24699	-0.43577	0.211229	-1.66809
MMSB-BWBK-SB-MM111-0110	96.028559	-0.38952	1.087314	11.84997	-0.37364	-3.34298	261.51331	-0.39118	0.47374	0.81793	-1.18256	-1.63714
MMSB-BWBK-SB-MM112-0110	22.45488	-1.14379	1.816639	-0.57661	0.091966	0.814572	1073.4913	-1.10058	0.760535	0.333409	0.405508	0.869948
MMSB-BWBK-SB-MM113-0110	-59.59254	-0.94746	1.283907	-14.4125	-0.03871	-0.16045	888.51844	-0.93448	0.385821	-0.90069	0.305311	-0.14949
MMSB-BWBK-SB-MM114-0110	42.90615	-0.77833	-1.50564	2.862655	-0.8073	-0.68302	376.79593	-0.73581	-0.78521	-0.42137	-2.36492	-0.5618
MMSB-BWBK-SB-MM115-0110	-10.47939	-1.24025	1.625431	-6.13645	-0.20497	-0.82143	587.13097	-1.10852	1.102009	2.926942	-1.49888	0.657848
MMSB-BWBK-SB-MM116-0110	89.068521	-0.49854	0.616319	10.74788	-0.79656	-0.84354	433.908	-0.49478	0.194805	0.133418	-2.34951	-0.36416
MMSB-BWBK-SB-MM117-0110	171.03072	-0.46852	-0.76587	24.58704	-1.31334	-0.47418	313.90707	-0.52543	-0.71236	-0.90071	-3.43366	-0.39347
MMSB-BWBK-SB-MM118-0110	244.04892	0.273271	1.15805	37.09412	-1.50997	1.264062	551.40532	0.186196	0.294713	-0.32577	-4.26048	0.766375
MMSB-BWBK-SB-MM119-0110	156.39948	-0.99128	1.91732	22.13971	-0.79756	1.05838	669.83357	-0.96195	0.718931	-0.48705	-2.13277	0.534636
MMSB-BWBK-SB-MM120-0110	154.09096	-0.83315	-1.72875	21.68435	-1.41384	0.086388	323.30876	-0.88092	-1.27222	-1.68816	-3.49895	-0.29739
NESB-BWBK-SB-NE01-0108	31.639411	-0.64648	3.368918	1.054353	0.146383	-0.01904	1007.9623	-0.65237	1.336026	-1.25125	0.991324	-0.32378
NESB-BWBK-SB-NE02-0109	49.60203	-0.46011	2.235268	4.117132	-0.22779	0.761603	983.79159	-0.43779	1.158174	1.94599	-1.08389	1.399902
NESB-BWBK-SB-NE03-0105	0.9661801	-0.41285	0.413128	-4.22601	-0.03015	-2.12645	654.27302	-0.45586	-0.10339	-1.21458	0.506236	-1.50024
NESB-BWBK-SB-NE04-0110	66.283244	-0.66202	1.783918	6.877127	-0.25224	-0.32959	785.97592	-0.67552	0.59	-0.8507	-0.294	-0.32488
NESB-BWBK-SB-NE05-0108	32.909553	-0.54782	2.291337	1.247103	0.044998	-0.09254	953.67935	-0.56295	0.800419	-1.56276	0.751747	-0.50345
NESB-BWBK-SB-NE06-0109	72.379148	-0.52142	1.529756	7.91628	-0.24371	0.216631	866.11853	-0.53791	0.453052	-1.35931	-0.18537	-0.25698
NESB-BWBK-SB-NE07-0107	-15.0829	-0.37581	2.078003	-6.87306	0.136272	-1.46831	829.64972	-0.40899	0.730007	-1.05316	0.927564	-1.06148
NESB-BWBK-SB-NE08-0104	2.1150838	-0.68632	0.134383	-4.01818	-0.13115	-0.11019	840.13287	-0.68623	-0.2034	-1.67845	0.186607	-0.56249
NESB-BWBK-SB-NE09-0110	39.250008	-0.66421	1.249391	2.304168	-0.19207	0.388748	881.66191	-0.65829	0.353433	-1.45194	-0.07275	-0.21852
NESB-BWBK-SB-NE10-0107	-76.03428	-1.00563	0.616058	-17.3185	0.512056	-1.97162	882.49546	-1.0004	0.056394	-0.67695	2.034118	-1.1066
NESB-BWBK-SB-NE101-0110	-93.90021	-0.60972	-0.31451	-20.3264	0.110629	-4.54776	346.21029	-0.60516	-0.11236	1.799435	0.079509	-1.71532
NESB-BWBK-SB-NE102-0110	-91.52698	-0.75867	-0.87685	-19.9048	-0.21502	-3.71694	317.86283	-0.74465	-0.35415	2.170101	-1.01795	-1.02029
NESB-BWBK-SB-NE103-0110	-48.55767	-0.79149	-1.64686	-12.6407	-0.50008	-2.79498	305.10729	-0.78825	-0.86102	0.819533	-1.53151	-1.03418
NESB-BWBK-SB-NE104-0110	-4.27726	-0.81596	-2.06007	-5.1422	-0.76954	-1.83544	321.62655	-0.82404	-1.15983	0.011804	-2.11669	-0.77848
NESB-BWBK-SB-NE105-0110	-58.56713	-0.5594	-0.10695	-14.3072	-0.16766	-3.73845	370.4484	-0.56885	-0.02891	2.080195	-0.79335	-1.06297
NESB-BWBK-SB-NE106-0110	-39.30763	-0.64883	-0.53672	-11.0421	-0.37628	-2.84095	377.42018	-0.64895	-0.27493	1.423784	-1.30622	-0.83164
NESB-BWBK-SB-NE107-0510	77.953253	-0.97224	-0.28812	8.793555	-0.80153	-1.04863	363.215	-0.94818	-0.28275	-0.02358	-2.26694	-0.48069
NESB-BWBK-SB-NE108-0110	-42.83522	-0.84087	-0.72005	-11.701	-0.12579	-3.27774	387.87527	-0.82903	-0.41933	0.718626	-0.35333	-1.41231
NESB-BWBK-SB-NE109-0110	-53.27754	-0.75417	-0.97516	-13.4511	-0.28091	-3.68408	271.0946	-0.7473	-0.5002	1.1678	-0.95237	-1.45936
NESB-BWBK-SB-NE110-0110	-31.71444	-0.8857	-0.33462	-9.79419	-0.2787	-3.19336	352.94189	-0.89685	-0.36187	0.092957	-0.56689	-1.52575
PMSB-BWBK-SB-PM01-0105	-100.6618	-0.24481	-0.80221	-21.3832	0.392074	1.27685	1308.6142	-0.19936	-0.21178	0.909731	0.843984	1.19939
PMSB-BWBK-SB-PM02-0104	-89.87355	0.350037	-0.56969	-19.7788	1.929895	-3.14022	1487.1944	0.301019	-0.26998	0.624637	5.978357	-1.45841
PMSB-BWBK-SB-PM03-0106	100.82919	0.582679	1.03547	12.75455	0.474569	3.224205	1696.534	0.556084	0.44528	-1.04422	1.681957	1.391257
PMSB-BWBK-SB-PM04-0105	84.557923	0.10151	1.139372	9.95817	0.329364	1.40416	1173.2945	0.180842	0.755224	-0.28259	0.721651	0.267245
PMSB-BWBK-SB-PM05-0105	61.317067	-0.12661	0.857373	6.019711	0.409205	2.568324	1434.1245	-0.05988	0.56407	0.021393	1.030976	1.302631
PMSB-BWBK-SB-PM06-0105	28.382091	-0.39116	1.056096	0.490362	0.397307	4.630663	1773.0382	-0.32314	0.633876	0.342694	0.991826	2.862311
PMSB-BWBK-SB-PM07-0105	50.838389	-0.25668	-2.19293	4.13475	0.350092	2.7883	1489.6612	-0.20736	-0.89591	0.699231	0.814527	1.89345

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CALCIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-184.4886	-1.59435	-2.65628	-35.7553	-1.50997	-5.01942	-28.59096	-1.36807	-1.27222	-1.9803	-4.26048	-2.95198
MAXIMUM DOMAIN VALUE	276.26815	3.044301	5.533885	42.42012	1.929895	6.80938	1876.9806	2.84798	2.718977	2.926942	5.978357	3.917495
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CA predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	39.151772	-0.20355	-0.35391	2.253026	0.244501	2.724469	1423.016	-0.15957	-0.08953	-0.05555	0.652459	1.526563
PMSB-BWBK-SB-PM09-0106	45.534481	-0.58852	-0.91894	3.364539	-0.25963	4.238575	1362.0236	-0.52598	-0.4744	-1.26295	-0.61331	1.96715
PMSB-BWBK-SB-PM10-0105	-44.07759	-0.43249	-1.21557	-11.9745	1.240513	1.872687	1772.4498	-0.38925	-0.54054	-0.16258	3.849359	1.110454
PMSB-BWBK-SB-PM11-0104	59.427019	0.51446	-1.8854	5.728409	-0.01346	3.810983	1595.3907	0.505778	-0.70488	1.380423	-0.47094	2.840784
PMSB-BWBK-SB-PM12-0105	-81.71054	-1.23863	-1.32015	-18.263	0.286808	2.425998	1189.9921	-1.07964	-0.48869	-1.04849	0.772503	0.811454
PMSB-BWBK-SB-PM13-0106	-163.4083	-0.92416	-2.19852	-32.2369	1.272883	-1.39403	1267.6961	-0.8522	-0.92399	0.947369	3.684058	-0.27932
PMSB-BWBK-SB-PM14-0106	-55.98923	-1.02362	-1.98884	-13.9405	0.254179	1.813529	1147.8868	-0.89701	-0.79891	-0.30178	0.591759	0.825482
PMSB-BWBK-SB-PM15-0105	-39.91358	-0.38339	-0.9315	-11.2043	0.52082	-0.28748	1058.732	-0.31943	-0.30827	0.23416	1.388527	-0.18632
PMSB-BWBK-SB-PM16-0106	-52.58042	-0.74951	-1.2369	-13.3363	0.248042	0.438581	1008.2468	-0.67298	-0.5468	-0.50849	0.75861	0.01324
PMSB-BWBK-SB-PM17-0105	147.84508	-0.08734	0.471659	20.58999	0.328098	1.698393	1278.7829	-0.03965	0.332264	0.144281	0.863326	0.812023
PMSB-BWBK-SB-PM18-0105	48.238595	0.753693	0.391676	3.813586	0.351023	-1.26262	962.09466	0.718219	0.212927	-0.35149	1.097445	-1.07277
PMSB-BWBK-SB-PM19-0105	-12.18022	0.194722	-0.27214	-6.43464	0.297287	-0.92256	984.41533	0.184091	-0.07317	0.513427	0.784604	-0.32658
PMSB-BWBK-SB-PM20-0106	-30.48487	-0.2643	-0.58118	-9.5518	0.310803	0.370708	1076.0994	-0.21257	-0.17729	-0.06848	0.816408	0.095589
PMSB-BWBK-SB-SO01-0107-PM	28.776935	1.470714	-0.65038	0.604009	-0.10682	-1.85897	831.91136	1.32845	-0.44505	-0.57399	-0.05073	-1.26512
PMSB-BWBK-SB-SO02-0109-PM	24.616828	1.180292	-0.14463	-0.19996	0.468761	-3.11863	886.75922	1.042698	-0.28938	-1.03954	1.937579	-2.17936
PMSB-BWBK-SB-SO13-0104-PM	188.6544	1.974211	-1.03189	27.61344	-0.24464	-1.35643	908.3335	1.793519	-0.58386	0.347783	-0.61032	-0.67438
PMSB-BWBK-SB-SO14-0105-PM	114.32754	1.996185	0.29748	15.14207	-0.22873	-0.9509	1005.4118	1.810151	0.043477	0.369076	-0.58176	-0.3228
SESB-BWBK-SB-SO03-0108	88.523073	3.044301	0.994989	10.89009	-0.09157	-1.22451	1053.2645	2.84798	0.605642	0.86856	-0.58617	-0.57431
SESB-BWBK-SB-SO04-0108	86.614043	2.107983	-0.61944	10.46591	-0.33277	-0.50035	1000.2544	1.937982	-0.31628	0.333533	-1.02636	-0.1505
SESB-BWBK-SB-SO05-0106	-70.85739	1.342731	-0.55117	-16.2636	0.378225	-1.93671	990.98459	1.256148	-0.1836	0.325283	1.012338	-1.03744
SESB-BWBK-SB-SO06-0108	94.842659	2.331571	0.588227	11.78279	0.531724	-1.97568	1080.4583	2.20352	0.375753	-0.24139	1.550081	-1.63289
SESB-BWBK-SB-SO07-0106	142.0656	2.135479	-0.91383	19.88406	-0.50971	2.613346	1298.0001	2.009544	-0.4019	-0.62359	-1.55748	1.084003
SESB-BWBK-SB-SO08-0107	74.921226	2.530177	0.324622	8.478926	0.305726	-0.97243	1109.7353	2.428433	0.435404	0.60487	0.451847	-0.80196
SESB-BWBK-SB-SO09-0106	0.3770548	0.931834	0.53894	-4.19994	0.144686	-0.86976	1057.37	0.844229	0.257749	0.728501	0.367431	-0.09723
SESB-BWBK-SB-SO11-0106	59.262103	1.161186	1.300595	5.842997	0.186461	3.06767	1561.4497	1.134967	0.770842	-0.09359	0.34535	1.552481
SESB-BWBK-SB-SO12-0106	83.448175	2.100127	-0.74156	9.912302	-0.14159	0.05047	1087.2338	1.964911	-0.35457	-0.73864	-0.34701	-0.46008
SESB-BWBK-SB-SO15-0103	-65.02308	-0.28098	-1.04317	-15.4582	0.609687	-1.07773	1105.1344	-0.29449	-0.59345	-0.24768	2.088203	-0.53305
SESB-BWBK-SB-SO16-0105	24.890226	0.418462	-1.16117	-0.09976	-0.04718	2.169538	1266.1423	0.411196	-0.53075	-0.71222	-0.09981	0.918124
SESB-BWBK-SB-SO17-0106	-23.67439	-0.11648	-1.49819	-8.3498	-0.1112	1.605354	1033.9542	-0.0479	-0.54323	-0.2494	-0.59504	0.642962
SESB-BWBK-SB-SO18-0105	-26.24113	-0.60394	-1.3714	-8.81831	-0.12617	1.655315	999.13955	-0.51419	-0.53436	-0.36216	-0.54902	0.698885
SESB-BWBK-SB-SO19-0104	92.194798	-0.14316	-0.55	11.30356	-0.35551	4.601253	1418.0809	-0.08957	-0.13078	0.19668	-1.32986	2.697741
SESB-BWBK-SB-SO20-0104	87.115593	1.377658	-1.16707	10.4846	-0.28387	0.984518	1083.5437	1.297971	-0.52476	-0.40906	-0.87561	0.26212

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

CHROMIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
CR	0.4495	0.2470	0.0211	0.6804	0.1800
13.2525	Mean				
2.6601	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0176	-0.2644	-0.1548	-1.2696	-0.4616
AS	-0.0712	0.1057	-0.0052	0.2224	0.1309
BA	0.0157	0.1418	0.9611	0.4865	0.1847
CA	-0.0562	-0.1848	-0.0086	-0.4117	0.1228
CR	0.0000	0.0000	0.0000	0.0000	0.0000
CO	0.0748	-0.0205	0.0861	0.5590	0.2389
CU	0.1969	-0.1134	0.0260	0.4126	-0.2036
FE	0.3992	-0.3654	0.0927	-1.3223	-0.5221
PB	0.1780	-0.0213	0.0706	0.1743	-0.3603
MG	-0.4114	1.2457	0.1613	0.3676	0.4076
MN	-0.0145	-0.0057	-0.0045	0.1823	0.1962
NI	0.3195	-0.1050	-0.0061	0.8545	0.2243
K	0.1839	-0.2439	-0.0391	0.4217	-0.2061
V	-0.1743	0.2271	0.0161	-1.1809	0.2379
ZN	0.3422	0.1412	-0.1120	0.7697	0.3755

COBALT

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
9.7843	Mean				
3.5888	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0202	-0.3141	-0.1891	0.2431	-3.4041
AS	-0.0817	0.1255	-0.0063	-0.0426	0.9657
BA	0.0180	0.1684	1.1741	-0.0932	1.3619
CA	-0.0645	-0.2196	-0.0105	0.0788	0.9058
CR	-0.0566	-0.1253	-0.1351	0.2101	-0.5660
CO	0.0000	0.0000	0.0000	0.0000	0.0000
CU	0.2260	-0.1348	0.0318	-0.0790	-1.5014
FE	0.4581	-0.4341	0.1132	0.2532	-3.8501
PB	0.2042	-0.0253	0.0863	-0.0334	-2.6571
MG	-0.4722	1.4799	0.1970	-0.0704	3.0058
MN	-0.0167	-0.0067	-0.0055	-0.0349	1.4472
NI	0.3666	-0.1247	-0.0074	-0.1636	1.6539
K	0.2110	-0.2897	-0.0478	-0.0808	-1.5200
V	-0.2000	0.2698	0.0197	0.2262	1.7543
ZN	0.3927	0.1677	-0.1368	-0.1474	2.7692

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	CHROMIUM						COBALT					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.7360085	-1.41837	-1.47176	-1.86004	-6.15125	-1.45597	-3.3384	-1.61297	-1.48531	-2.15373	-1.40502	-10.3491
MAXIMUM DOMAIN VALUE	23.950901	2.912077	3.220832	2.508701	5.573227	2.101551	28.733226	3.08139	3.730608	3.347985	1.881444	13.95826
SAMPLE	**CR predict**	D1	D2	D3	D4	D5	**CO predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	16.273004	0.645234	-0.29928	-0.69132	1.039473	1.259636	21.983253	0.651914	-0.40735	-0.98881	-0.01267	7.795351
MASB-BWBK-SB-MA02-0107	14.839184	0.490101	0.625171	0.101275	0.095789	0.857923	17.640153	0.453136	0.633012	-0.0756	0.256875	4.675766
MASB-BWBK-SB-MA03-0108	23.950901	1.569239	-0.37864	0.443913	4.475814	1.973679	26.322349	1.555885	-0.3882	0.238461	-0.54376	9.557447
MASB-BWBK-SB-MA04-0106	17.263385	-0.03195	2.422986	0.580511	0.783612	2.101551	28.733226	-0.1449	2.747256	0.50127	0.144818	13.95826
MASB-BWBK-SB-MA05-0108	15.470634	0.192518	0.756479	-0.07689	0.536014	1.09666	20.259955	0.158392	0.797002	-0.22608	0.093246	7.306965
MASB-BWBK-SB-MA06-0105	14.143504	0.323059	0.463157	-0.27204	-0.05842	0.671244	16.773533	0.321489	0.466023	-0.43831	0.169522	4.352994
MASB-BWBK-SB-MA07-0108	11.073868	0.025073	0.166066	-1.20236	-1.27703	0.127673	12.938587	0.088237	0.228383	-1.3737	0.123026	1.960472
MASB-BWBK-SB-MA08-0108	4.4235126	1.365379	1.437602	-1.00245	-6.15125	-0.45317	7.3691024	1.375297	1.472724	-1.59396	1.702733	-6.05509
MASB-BWBK-SB-MA09-0108	15.306515	1.303299	-0.06856	-0.53182	0.349146	-0.12854	11.42691	1.455215	-0.05656	-0.693	-0.02967	-1.83469
MASB-BWBK-SB-MA10-0104	11.16087	0.27912	-0.82339	-1.86004	-0.85972	-0.46762	7.4980675	0.383782	-0.90837	-2.15373	-0.00122	-2.51544
MASB-BWBK-SB-MA11-0108	13.373571	1.323969	0.285665	-0.18829	-0.79273	-0.42733	8.318916	1.431311	0.228968	-0.40083	0.395269	-4.38837
MASB-BWBK-SB-MA12-0108	17.695334	0.931392	0.636482	-0.12103	1.333154	1.05427	19.688724	0.9269	0.687589	-0.37238	0.029192	5.318608
MASB-BWBK-SB-MA13-0105	8.3303885	-0.96917	-0.83947	1.147487	-1.95252	0.538446	13.869816	-1.05385	-1.06418	1.449949	0.350794	5.381637
MASB-BWBK-SB-MA14-0104	8.7338499	0.735837	-0.85471	2.323913	-2.56658	-0.6735	3.8909755	0.759156	-1.15846	2.656787	0.762977	-6.0123
MASB-BWBK-SB-MA15-0105	4.9348069	-0.16084	-0.92427	1.903352	-4.09506	-0.44588	5.4265423	-0.19053	-1.19982	2.269849	0.893785	-2.9738
MASB-BWBK-SB-MA16-0104	10.889134	-0.13178	-0.91326	0.604187	-0.95525	0.186336	11.965107	-0.11116	-1.06696	0.800856	0.103963	2.073146
MASB-BWBK-SB-MA17-0104	6.6450939	-0.36495	-1.27389	0.92656	-2.88247	-0.35322	6.549579	-0.35802	-1.48531	1.227493	0.431442	-1.54748
MASB-BWBK-SB-MA18-0104	1.7360085	-1.41837	-0.11855	0.03176	-5.53592	0.574758	13.22337	-1.61297	-0.32819	-0.02829	1.222584	5.313896
MASB-BWBK-SB-MA19-0103	7.7281089	-0.99389	-1.23178	0.419938	-2.09472	0.503604	14.498803	-1.02106	-1.43068	0.690408	0.186348	5.887337
MASB-BWBK-SB-MA20-0103	14.514527	0.475485	-0.39426	-0.10835	0.384146	0.549919	15.774212	0.516112	-0.47315	-0.17469	-0.02372	3.504131
MMSB-BWBK-SB-MM101-0110	18.0304	-0.17806	-0.20865	-0.23361	3.09857	-0.97554	2.1325511	-0.06006	-0.09469	-0.01838	-0.96497	-5.05015
MMSB-BWBK-SB-MM102-0109	17.840219	-0.77773	1.206191	-0.39694	2.595459	0.104478	10.486527	-0.80621	1.469723	-0.3507	-0.66517	2.284455
MMSB-BWBK-SB-MM103-0107	19.3597	-0.33174	-0.28239	-0.59525	3.785178	-0.26709	4.911466	-0.38601	-0.25678	-0.69785	-0.79441	-2.40475
MMSB-BWBK-SB-MM104-0110	19.795537	0.106986	2.560972	0.265498	2.991598	-1.45597	-3.3384	0.136783	3.014676	0.330466	-0.56692	-10.3491
MMSB-BWBK-SB-MM105-0110	15.446407	-0.63335	-1.36781	-1.49976	2.377098	-0.7686	4.5023372	-0.49671	-1.39515	-1.41305	-1.03356	-2.18696
MMSB-BWBK-SB-MM106-0110	15.172827	-0.97886	3.220832	1.278209	0.370491	0.484956	12.521229	-1.13192	3.730608	1.505359	0.036674	3.813807
MMSB-BWBK-SB-MM107-0110	16.824681	-0.65925	-0.22238	-0.60236	2.584856	-0.28784	5.8979471	-0.73888	-0.41519	-0.78208	-0.37297	-1.14396
MMSB-BWBK-SB-MM108-0110	14.065971	-0.88175	0.156167	-0.72149	1.118326	-0.4558	5.830576	-0.85739	0.322521	-0.60805	-0.58538	-0.95131
MMSB-BWBK-SB-MM109-0110	13.711351	-0.24854	-0.01164	1.170199	0.641068	-0.96574	0.9070176	-0.22524	-0.01742	1.509322	-0.21085	-5.94671
MMSB-BWBK-SB-MM110-0109	12.902575	-0.61413	-0.07478	-0.34347	0.471722	-0.83732	1.7272675	-0.64137	-0.16247	-0.36777	-0.11451	-4.63804
MMSB-BWBK-SB-MM111-0110	15.490988	-0.38386	0.612193	0.678522	1.479644	-0.87913	2.3443742	-0.33401	0.784896	1.000249	-0.50292	-4.6665
MMSB-BWBK-SB-MM112-0110	11.305205	-1.08387	0.979329	0.259227	-0.79146	0.257388	11.781321	-1.14212	1.1985	0.471029	-0.03841	3.717304
MMSB-BWBK-SB-MM113-0110	16.698866	-0.79136	0.817116	-0.57823	2.151089	-0.01031	7.6242671	-0.95485	0.689196	-0.90061	-0.06276	0.208803
MMSB-BWBK-SB-MM114-0110	14.894211	-0.81517	-1.04994	-0.56547	1.950663	-0.40171	6.9684416	-0.73832	-1.06663	-0.33923	-0.85307	0.088286
MMSB-BWBK-SB-MM115-0110	14.578637	-1.1763	1.141572	2.508701	0.967405	0.189639	11.32175	-1.18837	1.493839	3.347985	-0.56788	3.941874
MMSB-BWBK-SB-MM116-0110	18.651709	-0.49454	0.270144	0.059384	3.285264	-0.28454	7.5718758	-0.4609	0.375849	0.242803	-0.84624	-0.26775
MMSB-BWBK-SB-MM117-0110	17.75199	-0.5723	-0.824	-1.06855	3.335345	-0.52485	6.1829185	-0.44787	-0.70059	-0.89252	-1.23254	-1.0047
MMSB-BWBK-SB-MM118-0110	23.823946	0.17391	0.373446	-0.44252	5.573227	0.117004	12.896633	0.312508	0.611028	-0.30953	-1.40502	2.340881
MMSB-BWBK-SB-MM119-0110	16.849903	-0.9922	0.813321	-0.563	2.34378	0.081798	10.832141	-0.98561	1.085037	-0.42488	-0.79987	3.061489
MMSB-BWBK-SB-MM120-0110	16.607782	-0.93645	-1.47176	-1.80996	3.199725	-0.51646	6.6831252	-0.80066	-1.45139	-1.7012	-1.3245	0.237021
NESB-BWBK-SB-NE01-0108	12.403031	-0.59098	1.715456	-1.05963	-0.62197	-0.17688	6.5459127	-0.70884	1.959104	-1.37274	0.243748	-1.5644
NESB-BWBK-SB-NE02-0109	17.995747	-0.39453	1.474384	1.783436	2.143261	0.557573	14.138997	-0.44857	1.731912	2.175288	-0.39745	4.275712
NESB-BWBK-SB-NE03-0105	10.99166	-0.41789	0.035056	-1.12701	-0.73135	-0.82955	2.1097308	-0.41638	0.069032	-1.27833	0.016508	-5.01107
NESB-BWBK-SB-NE04-0110	13.278176	-0.65619	0.785395	-0.81935	0.265803	-0.29392	6.5203639	-0.68877	0.986695	-0.8888	-0.20202	-1.15101
NESB-BWBK-SB-NE05-0108	11.63887	-0.52772	1.04033	-1.39627	-0.80051	-0.28998	6.3315031	-0.59304	1.213885	-1.69895	0.155863	-1.80278
NESB-BWBK-SB-NE06-0109	12.864033	-0.53095	0.582188	-1.27827	0.024558	-0.22702	7.3053373	-0.55673	0.743287	-1.46624	-0.13599	-0.87532
NESB-BWBK-SB-NE07-0107	12.209901	-0.33972	1.046504	-0.89086	-0.55953	-0.54564	3.9965739	-0.39977	1.174456	-1.13375	0.190197	-3.9255
NESB-BWBK-SB-NE08-0104	10.776121	-0.69103	-0.20217	-1.57676	-0.69512	-0.35604	5.8392807	-0.72424	-0.1825	-1.80609	-0.02888	-1.5388
NESB-BWBK-SB-NE09-0110	12.459078	-0.65709	0.443232	-1.34744	-0.07803	-0.17113	7.6303602	-0.69925	0.556316	-1.55787	-0.09817	-0.32737
NESB-BWBK-SB-NE10-0107	7.1163086	-0.94186	0.277559	-0.5975	-2.68227	-0.63512	3.3847156	-1.0031	0.299854	-0.63828	0.424369	-3.05363
NESB-BWBK-SB-NE101-0110	11.782971	-0.56697	0.043901	1.576501	-0.24343	-0.97844	0.7884572	-0.54388	0.104379	2.095119	-0.16802	-5.37103
NESB-BWBK-SB-NE102-0110	13.461655	-0.73198	-0.27801	1.842712	0.83535	-0.7276	3.6955585	-0.67078	-0.20542	2.538872	-0.54171	-2.61942
NESB-BWBK-SB-NE103-0110	13.240365	-0.808	-0.93763	0.563969	1.049456	-0.75391	3.9582676	-0.71482	-0.93222	1.061736	-0.70479	-2.21775
NESB-BWBK-SB-NE104-0110	13.842687	-0.86266	-1.32045	-0.20933	1.558284	-0.66666	4.946577	-0.75268	-1.34093	0.172198	-0.8857	-1.2879
NESB-BWBK-SB-NE105-0110	14.175985	-0.52993	0.156169	1.80381	0.941333	-0.73221	3.8478409	-0.46974	0.265981	2.428859	-0.47108	-3.06262
NESB-BWBK-SB-NE106-0110	14.358773	-0.64219	-0.20876	1.165607	1.241151	-0.62764	4.6672255	-0.57969	-0.11978	1.697037	-0.60451	-2.12775
NESB-BWBK-SB-NE107-0510	14.39377	-1.01336	-0.39607	-0.24918	1.579266	-0.48246	6.5822303	-0.92349	-0.23806	0.128588	-0.89762	0.091749
NESB-BWBK-SB-NE108-0110	10.866426	-0.83533	-0.40897	0.517253	-0.40149	-0.87909	1.9675255	-0.79469	-0.34887	0.918057	-0.30872	-3.89048
NESB-BWBK-SB-NE109-0110	12.548105	-0.75121	-0.49158	0.916696	0.500032	-0.91825	1.9105624	-0.68673	-0.43963	1.42498	-0.50611	-3.98942
NESB-BWBK-SB-NE110-0110	11.847214	-0.88206	-0.27737	-0.03657	0.162207	-0.96037	0.9063179	-0.85602	-0.20363	0.225858	-0.39394	-4.59211
PMSB-BWBK-SB-PM01-0105	11.118729	-0.19902	-0.25108	0.849477	-1.13743	0.584966	12.600535	-0.31425	-0.30834	0.916544	0.358922	2.695603
PMSB-BWBK-SB-PM02-0104	3.1717053	0.488557	0.12816	0.905831	-5.83288	-0.50824	1.7937596	0.28627	-0.19756	0.571608	1.881444	-7.57896
PMSB-BWBK-SB-PM03-0106	11.159613	0.57097	0.494786	-0.84953	-1.89236	0.776828	13.993806	0.428289	0.522102	-1.37641	0.773945	1.616479
PMSB-BWBK-SB-PM04-0105	11.984239	0.120861	0.628104	-0.19769	-1.10203	0.37628	12.546052	0.060506	0.675501	-0.3805	0.400257	1.560816
PMSB-BWBK-SB-PM05-0105	11.331791	-0.08938	0.51779	0.076801	-1.39492	0.765037	14.881291	-0.20625	0.559647	-0.0727	0.480293	3.870515
PMSB-BWBK-SB-PM06-0105	11.302999	-0.3442	0.647804	0.340403	-1.46521	1.397762	21.698231	-0.44209	0.737909	0.337213	0.383802	9.530763
PMSB-BWBK-SB-PM07-0105	9.9196411	-0.23453	-1.10735	0.619736	-1.5411	0.897265	14.957046	-0.35975	-1.27642	0.652276	0.394964	4.699214

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	CHROMIUM						COBALT					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.7360085	-1.41837	-1.47176	-1.86004	-6.15125	-1.45597	-3.3384	-1.61297	-1.48531	-2.15373	-1.40502	-10.3491
MAXIMUM DOMAIN VALUE	23.950901	2.912077	3.220832	2.508701	5.573227	2.101551	28.733226	3.08139	3.730608	3.347985	1.881444	13.95826
SAMPLE	**CR predict**	D1	D2	D3	D4	D5	**CO predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	11.35022	-0.18284	-0.18505	-0.03638	-1.06606	0.771665	13.975222	-0.31533	-0.2137	-0.18481	0.359285	3.624033
PMSB-BWBK-SB-PM09-0106	12.676135	-0.59332	-0.7247	-1.20621	0.126215	0.937172	16.848184	-0.67159	-0.7917	-1.4288	-0.10668	6.798565
PMSB-BWBK-SB-PM10-0105	4.6549536	-0.33043	-0.50199	0.014994	-4.52025	0.642784	12.941258	-0.51376	-0.76796	-0.24408	1.240579	2.86171
PMSB-BWBK-SB-PM11-0104	15.238738	0.500028	-0.84081	1.250947	0.686387	1.311997	20.761254	0.469651	-0.97187	1.399376	0.001033	7.546575
PMSB-BWBK-SB-PM12-0105	9.1852304	-1.1463	-0.77912	-0.91441	-1.33107	0.576357	13.534499	-1.27093	-0.99919	-1.09084	0.259512	5.422287
PMSB-BWBK-SB-PM13-0106	2.9273605	-0.80406	-0.92584	0.945806	-4.83957	-0.10313	8.1910099	-0.88778	-1.2186	1.147718	0.990571	0.416269
PMSB-BWBK-SB-PM14-0106	8.1194698	-0.98181	-1.14581	-0.33774	-1.88044	0.451789	13.45547	-1.02897	-1.31706	-0.25943	0.167241	5.035557
PMSB-BWBK-SB-PM15-0105	8.942532	-0.33458	-0.41629	0.246854	-2.01929	0.00933	9.5606105	-0.37341	-0.54789	0.291094	0.423239	0.497757
PMSB-BWBK-SB-PM16-0106	8.4170907	-0.72741	-0.76401	-0.51673	-1.90492	0.027534	10.417234	-0.73199	-0.87023	-0.47438	0.170879	2.032871
PMSB-BWBK-SB-PM17-0105	10.826965	-0.07578	0.255036	0.140621	-1.51247	0.474123	10.33143	-0.23443	0.323676	-0.01877	0.494517	0.556736
PMSB-BWBK-SB-PM18-0105	11.904527	0.729359	0.226897	-0.24983	-1.20123	-0.3784	7.9442229	0.792267	0.18938	-0.40318	0.377494	-3.31728
PMSB-BWBK-SB-PM19-0105	11.739717	0.202372	-0.04199	0.492784	-0.93253	-0.14026	9.6068039	0.241989	-0.08706	0.597978	0.200368	-0.68883
PMSB-BWBK-SB-PM20-0106	10.21777	-0.2422	-0.30012	-0.05869	-1.43729	0.118472	10.996625	-0.25622	-0.3732	-0.04995	0.258504	1.364016
PMSB-BWBK-SB-SO01-0107-PM	14.625543	1.360259	-0.43418	-0.52248	0.201159	-0.63305	6.1156326	1.504111	-0.49157	-0.70425	0.024467	-5.87105
PMSB-BWBK-SB-SO02-0109-PM	9.8835936	1.110503	-0.16241	-0.88033	-2.23726	-1.02671	2.6733799	1.226217	-0.25089	-1.16776	0.559217	-8.25866
PMSB-BWBK-SB-SO13-0104-PM	18.060825	1.862713	-0.50921	0.36811	1.691784	-0.34941	7.282821	1.967003	-0.61754	0.212276	-0.05092	-5.82332
PMSB-BWBK-SB-SO14-0105-PM	18.891719	1.89135	0.243494	0.400834	1.81686	-0.19514	9.6995345	2.017386	0.255761	0.266318	-0.08101	-4.25852
SESB-BWBK-SB-SO03-0108	21.159268	2.912077	0.767612	0.923153	2.169938	-0.12384	11.207506	3.08139	0.807892	0.725917	0.084981	-5.51159
SESB-BWBK-SB-SO04-0108	19.862469	1.999582	-0.24111	0.373246	2.422303	-0.05831	11.173231	2.139725	-0.33005	0.225392	-0.18414	-3.24295
SESB-BWBK-SB-SO05-0106	13.517997	1.307225	-0.12659	0.399762	-0.58147	-0.38575	8.4449559	1.412096	-0.26079	0.317561	0.354811	-4.08176
SESB-BWBK-SB-SO06-0108	13.532718	2.235352	0.407497	-0.0769	-1.32854	-0.52611	6.2061907	2.322187	0.361861	-0.48066	0.74637	-8.06494
SESB-BWBK-SB-SO07-0106	20.320804	2.001801	-0.56052	-0.51998	2.636658	0.626394	16.281789	2.091025	-0.67372	-0.91876	-0.18221	0.66422
SESB-BWBK-SB-SO08-0107	17.127939	2.441959	0.400897	0.704112	0.380077	-0.07457	10.789805	2.548514	0.333163	0.449154	0.456198	-4.85536
SESB-BWBK-SB-SO09-0106	15.565801	0.918616	0.476933	0.749689	0.488345	-0.05143	10.267293	0.964825	0.483134	0.755787	0.125354	-1.75537
SESB-BWBK-SB-SO11-0106	15.637386	1.127585	0.779504	0.011504	0.047381	0.914568	18.385338	1.119895	0.840046	-0.26222	0.341766	3.740141
SESB-BWBK-SB-SO12-0106	17.145261	1.979158	-0.44457	-0.5995	1.045466	-0.08441	11.384451	2.123852	-0.58187	-0.9574	0.07796	-3.2464
SESB-BWBK-SB-SO15-0103	7.0138601	-0.2601	-0.56428	-0.21309	-2.98132	-0.31123	6.6867835	-0.28288	-0.68263	-0.24483	0.559194	-1.94152
SESB-BWBK-SB-SO16-0105	13.296832	0.380549	-0.72059	-0.6485	-0.07563	0.493029	15.077883	0.413811	-0.85209	-0.82148	0.045546	3.176241
SESB-BWBK-SB-SO17-0106	13.507926	-0.1138	-0.83576	-0.24186	0.415014	0.424221	13.346231	-0.12772	-0.98559	-0.28818	-0.09106	3.153213
SESB-BWBK-SB-SO18-0105	12.632325	-0.57923	-0.80115	-0.36273	0.234832	0.405754	11.59681	-0.66077	-0.91821	-0.42218	-0.08412	2.927032
SESB-BWBK-SB-SO19-0104	16.646912	-0.13558	-0.29601	0.165336	1.720345	1.311923	16.442636	-0.34155	-0.29082	-0.02218	-0.10539	5.821187
SESB-BWBK-SB-SO20-0104	16.841419	1.285113	-0.68459	-0.35663	1.340984	0.198264	13.543299	1.402719	-0.81663	-0.53503	-0.14344	0.082768

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COPPER

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
15.1096	Mean				
5.5041	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0236	-0.2605	-0.1771	0.2718	-0.3426
AS	-0.0956	0.1041	-0.0059	-0.0476	0.0972
BA	0.0211	0.1397	1.0997	-0.1041	0.1371
CA	-0.0755	-0.1821	-0.0098	0.0881	0.0912
CR	-0.0662	-0.1039	-0.1265	0.2349	-0.0570
CO	0.1004	-0.0202	0.0985	-0.1197	0.1773
CU	0.0000	0.0000	0.0000	0.0000	0.0000
FE	0.5360	-0.3601	0.1061	0.2830	-0.3875
PB	0.2390	-0.0210	0.0808	-0.0373	-0.2674
MG	-0.5524	1.2275	0.1845	-0.0787	0.3025
MN	-0.0195	-0.0056	-0.0052	-0.0390	0.1456
NI	0.4290	-0.1035	-0.0069	-0.1829	0.1665
K	0.2469	-0.2403	-0.0447	-0.0903	-0.1530
V	-0.2340	0.2238	0.0184	0.2528	0.1766
ZN	0.4594	0.1391	-0.1281	-0.1648	0.2787

IRON

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
23411.6162	Mean				
8112.0401	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0329	-0.1782	-0.1906	-0.6880	-0.2080
AS	-0.1331	0.0712	-0.0063	0.1205	0.0590
BA	0.0293	0.0955	1.1830	0.2636	0.0832
CA	-0.1051	-0.1245	-0.0106	-0.2231	0.0553
CR	-0.0922	-0.0711	-0.1361	-0.5946	-0.0346
CO	0.1397	-0.0138	0.1059	0.3029	0.1076
CU	0.3680	-0.0764	0.0320	0.2236	-0.0917
FE	0.0000	0.0000	0.0000	0.0000	0.0000
PB	0.3326	-0.0143	0.0869	0.0945	-0.1623
MG	-0.7689	0.8395	0.1985	0.1992	0.1836
MN	-0.0272	-0.0038	-0.0056	0.0988	0.0884
NI	0.5970	-0.0708	-0.0075	0.4631	0.1010
K	0.3437	-0.1643	-0.0481	0.2285	-0.0929
V	-0.3257	0.1531	0.0198	-0.6399	0.1072
ZN	0.6395	0.0951	-0.1378	0.4171	0.1692

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COPPER						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	7.0733037	-1.74478	-1.40494	-2.02908	-1.45864	-0.78106	-8032.21	-2.19878	-1.19226	-2.254	-4.31905	-0.64475
MAXIMUM DOMAIN VALUE	29.316978	3.087341	3.133883	3.065511	1.962112	1.617916	56947.361	3.717658	2.0661	3.364503	3.106968	1.058081
SAMPLE	**CU predict**	D1	D2	D3	D4	D5	**FE predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	17.184658	0.677051	-0.28667	-0.87709	-0.04351	0.991487	31641.648	0.825627	-0.13143	-0.97543	0.556699	0.652773
MASB-BWBK-SB-MA02-0107	18.097621	0.477313	0.561143	-0.02294	0.251598	0.64568	26540.924	0.310214	0.52019	-0.08937	-0.04623	0.514173
MASB-BWBK-SB-MA03-0108	21.35633	1.829957	-0.2633	0.470133	-0.85373	1.617916	50772.268	2.385889	-0.08035	0.456027	2.912523	1.058081
MASB-BWBK-SB-MA04-0106	18.740105	-0.2576	2.327213	0.503677	0.147708	1.573856	23472.954	-0.56887	1.684588	0.496917	0.131091	1.034503
MASB-BWBK-SB-MA05-0108	16.915155	0.097322	0.702099	-0.2067	0.118842	0.825944	24890.554	-0.0665	0.564724	-0.26289	0.122736	0.574744
MASB-BWBK-SB-MA06-0105	17.150017	0.272946	0.432753	-0.41205	0.213975	0.524258	25601.415	0.320058	0.33525	-0.46294	-0.23363	0.347673
MASB-BWBK-SB-MA07-0108	16.727293	0.229519	0.125596	-1.3133	0.135751	0.014989	21967.167	-0.34384	0.275306	-1.49832	-0.08499	0.202304
MASB-BWBK-SB-MA08-0108	24.62902	1.568405	1.258397	-1.42059	1.840815	-0.37913	17790.829	-0.23872	1.681928	-1.91043	-2.05218	0.545282
MASB-BWBK-SB-MA09-0108	20.834804	1.309921	0.130988	-0.64675	0.05203	0.165056	38325.307	1.378574	0.312321	-0.80468	1.269226	0.281393
MASB-BWBK-SB-MA10-0104	16.426894	0.598898	-0.82416	-2.02908	-0.023	-0.41626	26027.553	0.258057	-0.40482	-2.254	0.211622	-0.08806
MASB-BWBK-SB-MA11-0108	21.751741	1.455305	0.291432	-0.36573	0.481092	-0.22373	33690.845	1.550097	0.40032	-0.4899	-0.1962	0.037884
MASB-BWBK-SB-MA12-0108	20.331474	0.974277	0.642441	-0.26121	-0.02933	0.867397	34489.85	0.73263	0.68348	-0.39701	1.1647	0.743823
MASB-BWBK-SB-MA13-0105	7.936374	-1.10344	-0.95784	1.292835	0.427634	0.252795	6670.2245	-1.14397	-0.82207	1.470997	-1.94214	0.009572
MASB-BWBK-SB-MA14-0104	15.707145	0.878868	-0.95219	2.505894	0.837549	-0.54968	19934.026	0.535991	-0.4191	2.587758	-1.39311	-0.11417
MASB-BWBK-SB-MA15-0105	11.384773	-0.1727	-1.02563	2.095541	1.017858	-0.42506	8625.1553	-0.45894	-0.64488	2.229245	-2.56703	-0.19755
MASB-BWBK-SB-MA16-0104	12.557324	-0.03783	-0.93133	0.7317	0.113819	0.078487	19672.328	-0.03293	-0.66477	0.801636	-0.58065	0.029907
MASB-BWBK-SB-MA17-0104	11.47724	-0.03601	-1.40494	1.149442	0.39717	-0.49125	12532.721	-0.41229	-0.91495	1.220812	-1.60209	-0.22379
MASB-BWBK-SB-MA18-0104	7.0733037	-1.74478	-0.35528	-0.09995	1.407372	0.212487	-8032.21	-2.19878	-0.36056	-0.04988	-4.31905	0.034031
MASB-BWBK-SB-MA19-0103	8.1490019	-0.90893	-1.33157	0.584457	0.206072	0.175213	8555.5613	-1.04956	-1.04891	0.697865	-1.58929	0.002173
MASB-BWBK-SB-MA20-0103	16.402668	0.546256	-0.36181	-0.14543	-0.03165	0.452	29377.467	0.770701	-0.23622	-0.16274	0.257817	0.279012
MMSB-BWBK-SB-MM101-0110	14.962865	-0.07083	-0.09558	-0.08491	-1.01156	-0.69002	32487.896	0.401845	-0.24371	-0.00771	1.911464	-0.58377
MMSB-BWBK-SB-MM102-0109	14.085108	-0.99587	1.225276	-0.39716	-0.66389	0.090977	23450.613	-0.71346	0.612569	-0.32256	0.991721	-0.15866
MMSB-BWBK-SB-MM103-0107	13.575717	-0.33193	-0.2542	-0.60332	-0.96429	-0.21132	30275.158	0.213164	-0.40986	-0.53865	1.623969	-0.34827
MMSB-BWBK-SB-MM104-0110	17.220834	-1.24083	3.086699	0.12786	-0.14213	-0.3053	32348.892	0.130316	1.731694	0.295626	1.573053	-0.64475
MMSB-BWBK-SB-MM105-0110	11.114076	-0.49073	-1.22449	-1.42707	-1.07302	-0.5781	27856.729	0.058271	-1.11978	-1.40146	1.52121	-0.60502
MMSB-BWBK-SB-MM106-0110	15.909714	-1.43667	3.133883	1.366076	0.109329	0.364034	13448.161	-1.72665	2.0661	1.50428	-0.37219	0.141954
MMSB-BWBK-SB-MM107-0110	11.196688	-0.86663	-0.36323	-0.81008	-0.33975	-0.32215	19189.88	-0.52601	-0.48772	-0.75943	0.017106	-0.41801
MMSB-BWBK-SB-MM108-0110	12.233402	-0.93542	0.217579	-0.64529	-0.5945	-0.35904	20505.471	-0.80689	-0.04249	-0.60343	0.672112	-0.38909
MMSB-BWBK-SB-MM109-0110	13.776447	-0.26452	-0.0282	1.358034	-0.18053	-0.74731	22149.448	0.060357	-0.17144	1.532205	-0.09184	-0.59456
MMSB-BWBK-SB-MM110-0109	11.931045	-0.79735	-0.13715	-0.43681	-0.02629	-0.67435	16689.17	-0.58511	-0.27604	-0.38476	-0.55367	-0.57969
MMSB-BWBK-SB-MM111-0110	15.009665	-0.37292	0.624968	0.866355	-0.49647	-0.67502	24421.388	-0.27276	0.328853	0.978938	0.799153	-0.49674
MMSB-BWBK-SB-MM112-0110	12.413652	-1.14147	0.891985	0.385754	-0.03158	0.054544	11551.824	-1.62869	0.57486	0.434902	-0.50119	0.019625
MMSB-BWBK-SB-MM113-0110	12.005163	-1.18577	0.582145	-0.92373	0.024383	-0.13494	14472.176	-0.99866	0.180466	-0.89265	-0.72013	-0.28877
MMSB-BWBK-SB-MM114-0110	10.287093	-0.73822	-0.9644	-0.40765	-0.89264	-0.34308	23434.985	-0.38398	-0.91372	-0.31759	1.106096	-0.43372
MMSB-BWBK-SB-MM115-0110	11.870314	-1.21917	1.143827	3.065511	-0.60351	0.057931	16320.257	-1.42458	0.645655	3.364503	0.667752	-0.07589
MMSB-BWBK-SB-MM116-0110	13.795068	-0.52038	0.284949	0.155829	-0.87935	-0.23616	27559.544	-0.15026	-0.01226	0.264943	1.448431	-0.33388
MMSB-BWBK-SB-MM117-0110	12.372569	-0.4657	-0.62489	-0.90429	-1.3231	-0.33613	31661.576	0.062138	-0.68642	-0.85088	2.351774	-0.4413
MMSB-BWBK-SB-MM118-0110	17.215721	0.130438	0.597672	-0.35002	-1.45864	0.279487	43509.346	1.237783	0.093548	-0.23301	3.106968	-0.14531
MMSB-BWBK-SB-MM119-0110	13.033272	-1.054	0.835208	-0.47627	-0.83874	0.010507	22063.038	-1.04842	0.398588	-0.42977	1.280018	-0.14418
MMSB-BWBK-SB-MM120-0110	9.7353313	-0.81711	-1.2866	-1.7058	-1.39598	-0.38356	27892.935	-0.32741	-1.19226	-1.68685	2.178591	-0.51252
NESB-BWBK-SB-NE01-0108	15.679593	-0.90129	1.654258	-1.29829	0.300899	-0.12838	15195.991	-1.188	1.120747	-1.39259	-0.6798	-0.09275
NESB-BWBK-SB-NE02-0109	15.470471	-0.54752	1.443129	2.023056	-0.42503	0.411614	23802.223	-0.6379	0.947495	2.194434	0.976713	0.211568
NESB-BWBK-SB-NE03-0105	13.774078	-0.50578	0.053441	-1.24515	0.069891	-0.61691	18165.618	-0.64916	0.012659	-1.32796	-0.30394	-0.39491
NESB-BWBK-SB-NE04-0110	14.0589	-0.81329	0.812351	-0.86935	-0.1877	-0.20866	19146.968	-0.86565	0.461839	-0.89133	0.145	-0.21377
NESB-BWBK-SB-NE05-0108	14.975263	-0.75516	1.027603	-1.61841	0.214711	-0.20096	16601.651	-0.95116	0.676243	-1.72919	-0.55664	-0.15
NESB-BWBK-SB-NE06-0109	14.31867	-0.67644	0.620392	-1.40244	-0.1176	-0.14468	19880.196	-0.73623	0.355621	-1.47679	0.089083	-0.15303
NESB-BWBK-SB-NE07-0107	15.636173	-0.54685	1.002741	-1.08983	0.257838	-0.40115	17944.005	-0.65288	0.659756	-1.16106	-0.63191	-0.27239
NESB-BWBK-SB-NE08-0104	12.157674	-0.79033	-0.18531	-1.72365	-0.0133	-0.29107	16462.296	-0.76176	-0.25563	-1.79317	-0.51235	-0.29266
NESB-BWBK-SB-NE09-0110	13.427671	-0.80533	0.446514	-1.49493	-0.07717	-0.14059	17692.412	-0.93064	0.233081	-1.57395	-0.10891	-0.15045
NESB-BWBK-SB-NE10-0107	11.311982	-1.14293	0.214744	-0.67656	0.545294	-0.54619	7459.1559	-1.28593	0.0249	-0.66968	-1.94678	-0.4392
NESB-BWBK-SB-NE101-0110	12.535054	-0.56843	0.038735	1.895018	-0.13646	-0.78106	17768.478	-0.47127	-0.10535	2.101617	-0.29823	-0.58918
NESB-BWBK-SB-NE102-0110	11.379262	-0.6612	-0.2486	2.290189	-0.54635	-0.6079	20109.651	-0.42645	-0.37399	2.561256	0.383667	-0.54685
NESB-BWBK-SB-NE103-0110	10.271078	-0.71169	-0.85592	0.89103	-0.71338	-0.61057	21180.438	-0.40391	-0.82322	1.072082	0.675429	-0.5795
NESB-BWBK-SB-NE104-0110	9.7650836	-0.70254	-1.21845	0.060263	-0.92984	-0.55735	22896.485	-0.35185	-1.09395	0.189696	1.059843	-0.56489
NESB-BWBK-SB-NE105-0110	13.084163	-0.47725	0.166557	2.191095	-0.45989	-0.59705	21615.98	-0.3502	-0.0201	2.42143	0.473735	-0.47784
NESB-BWBK-SB-NE106-0110	12.061069	-0.60309	-0.15397	1.508414	-0.61236	-0.49802	22310.477	-0.33223	-0.30305	1.71658	0.674227	-0.47862
NESB-BWBK-SB-NE107-0510	10.633911	-1.02248	-0.2529	0.005896	-0.90305	-0.34986	21916.639	-0.79554	-0.41371	0.120438	1.252556	-0.4284
NESB-BWBK-SB-NE108-0110	10.468063	-0.97753	-0.29267	0.762554	-0.2383	-0.61174	16752.451	-0.68623	-0.43261	0.928775	-0.17119	-0.58931
NESB-BWBK-SB-NE109-0110	11.012779	-0.74912	-0.41297	1.241548	-0.48583	-0.69966	19648.819	-0.49451	-0.49205	1.434885	0.335533	-0.61305
NESB-BWBK-SB-NE110-0110	11.079164	-0.9312	-0.22149	0.129966	-0.37539	-0.7433	17498.05	-0.74542	-0.36275	0.239937	0.043057	-0.64078
PMSB-BWBK-SB-PM01-0105	13.595335	-0.06192	-0.36632	0.966117	0.226676	0.293747	17926.408	-0.17257	-0.2597	1.046391	-0.97409	0.185215
PMSB-BWBK-SB-PM02-0104	16.180674	0.446486	-0.18427	0.652759	1.962112	-0.5443	5013.5007	-0.77183	0.335428	0.488263	-3.60907	0.109716
PMSB-BWBK-SB-PM03-0106	18.549954	0.576462	0.44657	-1.10296	0.66432	0.59801	22738.471	-0.09272	0.622839	-1.33525	-0.54007	0.657116
PMSB-BWBK-SB-PM04-0105	16.577762	0.042378	0.58295	-0.3179	0.415695	0.285516	20741.21	-0.22907	0.506752	-0.39304	-0.60897	0.271169
PMSB-BWBK-SB-PM05-0105	15.321663	-0.1449	0.441522	0.013589	0.43466	0.5251	17623.391	-0.61675	0.436421	-0.0475	-0.73416	0.448276
PMSB-BWBK-SB-PM06-0105	14.445078	-0.3723	0.558321	0.361684	0.351399	0.955859	14936.144	-1.30608	0.622999	0.278748	-0.37496	0.818495
PMSB-BWBK-SB-PM07-0105	11.694892	-0.07278	-1.18101	0.747666	0.228806	0.536569	15898.666	-0.72275	-0.64269	0.73088	-0.49703	0.500004

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COPPER						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	7.0733037	-1.74478	-1.40494	-2.02908	-1.45864	-0.78106	-8032.21	-2.19878	-1.19226	-2.254	-4.31905	-0.64475
MAXIMUM DOMAIN VALUE	29.316978	3.087341	3.133883	3.065511	1.962112	1.617916	56947.361	3.717658	2.0661	3.364503	3.106968	1.058081
SAMPLE	**CU predict**	D1	D2	D3	D4	D5	**FE predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	13.880909	-0.12168	-0.25689	-0.04771	0.222621	0.486011	18301.722	-0.48487	-0.09452	-0.0872	-0.55506	0.382121
PMSB-BWBK-SB-PM09-0106	11.455905	-0.55114	-0.75082	-1.29198	-0.21718	0.603468	18602.672	-0.77574	-0.54668	-1.37173	0.095859	0.349604
PMSB-BWBK-SB-PM10-0105	11.211014	-0.54627	-0.64705	-0.17104	1.317543	0.395025	4875.1864	-0.96472	-0.37429	-0.21566	-3.12964	0.304653
PMSB-BWBK-SB-PM11-0104	15.306553	0.709078	-0.84682	1.433456	-0.15572	0.950515	28960.082	0.455636	-0.41038	1.464337	0.819614	0.740958
PMSB-BWBK-SB-PM12-0105	8.0617146	-1.2838	-0.93258	-1.06886	0.291412	0.240961	6726.9574	-1.39914	-0.81407	-1.06448	-1.72958	-0.00204
PMSB-BWBK-SB-PM13-0106	9.1931806	-0.71699	-1.16716	1.031402	1.078552	-0.35674	-356.1365	-1.65523	-0.65165	1.046929	-3.00165	-0.04732
PMSB-BWBK-SB-PM14-0106	8.415536	-0.98629	-1.20233	-0.28854	0.183464	0.193803	9419.6132	-1.14307	-0.94884	-0.2479	-1.336	0.017823
PMSB-BWBK-SB-PM15-0105	12.360397	-0.37628	-0.48804	0.248267	0.483643	-0.06853	13605.449	-0.62022	-0.31834	0.261168	-1.34235	-0.02005
PMSB-BWBK-SB-PM16-0106	10.368208	-0.7769	-0.77519	-0.5127	0.240853	-0.04909	12270.449	-0.88265	-0.62441	-0.50568	-1.16846	-0.10793
PMSB-BWBK-SB-PM17-0105	14.690052	-0.20965	0.277218	0.130962	0.391577	0.399396	18950.491	-0.31985	0.215531	0.127598	-0.75046	0.26031
PMSB-BWBK-SB-PM18-0105	18.769688	0.744105	0.236347	-0.39054	0.475435	-0.20871	26109.368	0.319491	0.430662	-0.54724	-0.09742	0.116724
PMSB-BWBK-SB-PM19-0105	15.488662	0.155188	-0.02422	0.521749	0.290315	-0.06057	22457.263	0.126906	0.029938	0.538429	-0.43025	0.000545
PMSB-BWBK-SB-PM20-0106	13.213671	-0.27921	-0.32497	-0.07081	0.308088	0.054612	17163.891	-0.38022	-0.23368	-0.07022	-0.89909	0.025827
PMSB-BWBK-SB-SO01-0107-PM	21.133269	1.609673	-0.32865	-0.6154	0.017126	-0.34056	39124.528	2.005751	-0.10977	-0.71813	0.66321	-0.1125
PMSB-BWBK-SB-SO02-0109-PM	20.930871	1.43874	-0.20476	-1.07346	0.604122	-0.78015	28576.874	0.972045	0.203286	-1.31408	-0.49876	-0.14698
PMSB-BWBK-SB-SO13-0104-PM	22.145997	1.958926	-0.32949	0.308805	-0.08929	0.009584	45675.036	2.476633	-0.05543	0.24687	1.586698	0.131784
PMSB-BWBK-SB-SO14-0105-PM	24.45474	2.162834	0.327379	0.351454	-0.14734	0.018828	46366.68	2.317432	0.510573	0.240857	1.781743	0.261185
SESB-BWBK-SB-SO03-0108	29.316978	3.087341	0.938166	0.813851	0.078008	0.258925	56947.361	3.717658	0.958706	0.719055	1.97237	0.407798
SESB-BWBK-SB-SO04-0108	23.725937	2.245532	-0.13359	0.303887	-0.24002	0.149041	48754.102	2.742673	0.102772	0.231835	1.844299	0.247741
SESB-BWBK-SB-SO05-0106	20.511747	1.432824	-0.1148	0.307116	0.435871	-0.19287	33410.966	1.601574	0.095191	0.246566	-0.16122	0.03052
SESB-BWBK-SB-SO06-0108	26.244411	2.503942	0.433416	-0.30498	0.738227	-0.23442	40709.971	2.283425	0.762474	-0.54928	0.175296	0.274047
SESB-BWBK-SB-SO07-0106	23.300163	2.263273	-0.43473	-0.69859	-0.32283	0.663047	50844.68	3.174521	-0.23838	-0.78385	1.652381	0.430955
SESB-BWBK-SB-SO08-0107	26.425601	2.616432	0.474318	0.549952	0.463569	0.178924	46613.614	2.906833	0.662525	0.427705	0.757684	0.391898
SESB-BWBK-SB-SO09-0106	19.963593	1.009961	0.462884	0.741015	0.13385	0.016555	32505.483	1.131792	0.436327	0.739426	0.3006	0.112259
SESB-BWBK-SB-SO11-0106	21.568647	1.225251	0.763838	-0.13334	0.290033	0.753005	33497.434	0.971584	0.802926	-0.27634	0.462197	0.709176
SESB-BWBK-SB-SO12-0106	23.262311	2.15193	-0.31353	-0.8233	0.088792	0.162149	45452.603	2.579755	0.001121	-0.99145	1.179512	0.271729
SESB-BWBK-SB-SO15-0103	13.082828	-0.1651	-0.6412	-0.22969	0.588449	-0.34148	13413.146	-0.42573	-0.4058	-0.25982	-1.71135	-0.16278
SESB-BWBK-SB-SO16-0105	15.921842	0.587085	-0.74461	-0.73557	-0.00545	0.320718	27302.302	0.572628	-0.44168	-0.82158	0.079874	0.264679
SESB-BWBK-SB-SO17-0106	13.02885	-0.03325	-0.86652	-0.25645	-0.14096	0.25197	23439.179	0.28111	-0.72036	-0.21518	-0.21019	0.039099
SESB-BWBK-SB-SO18-0105	10.974598	-0.56887	-0.84538	-0.36232	-0.17221	0.205045	18583.027	-0.28627	-0.77778	-0.29478	-0.46989	-0.05261
SESB-BWBK-SB-SO19-0104	13.769504	-0.07691	-0.32856	0.207841	-0.41556	0.919053	26907.707	0.396743	-0.40824	0.309932	0.346993	0.389764
SESB-BWBK-SB-SO20-0104	19.630479	1.426592	-0.57041	-0.46174	-0.15142	0.302024	39777.452	1.807748	-0.2824	-0.5503	1.182085	0.265855

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LEAD

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
8.2278	Mean				
1.8915	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0230	-0.3135	-0.1859	0.3362	-0.2598
AS	-0.0932	0.1253	-0.0062	-0.0589	0.0737
BA	0.0205	0.1681	1.1540	-0.1288	0.1040
CA	-0.0735	-0.2192	-0.0103	0.1090	0.0691
CR	-0.0645	-0.1251	-0.1327	0.2905	-0.0432
CO	0.0978	-0.0243	0.1033	-0.1480	0.1345
CU	0.2576	-0.1345	0.0312	-0.1092	-0.1146
FE	0.5222	-0.4333	0.1113	0.3501	-0.2939
PB	0.0000	0.0000	0.0000	0.0000	0.0000
MG	-0.5383	1.4773	0.1936	-0.0973	0.2294
MN	-0.0190	-0.0067	-0.0054	-0.0483	0.1105
NI	0.4180	-0.1245	-0.0073	-0.2263	0.1262
K	0.2406	-0.2892	-0.0470	-0.1117	-0.1160
V	-0.2280	0.2694	0.0193	0.3127	0.1339
ZN	0.4476	0.1674	-0.1345	-0.2038	0.2114

MAGNESIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
2895.8586	Mean				
551.9086	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0128	0.1744	-0.2067	0.2819	1.4147
AS	-0.0518	-0.0697	-0.0069	-0.0494	-0.4013
BA	0.0114	-0.0935	1.2829	-0.1080	-0.5660
CA	-0.0409	0.1219	-0.0115	0.0914	-0.3764
CR	-0.0359	0.0696	-0.1476	0.2437	0.2352
CO	0.0544	0.0135	0.1149	-0.1241	-0.7322
CU	0.1432	0.0748	0.0347	-0.0916	0.6240
FE	0.2903	0.2411	0.1237	0.2936	1.6000
PB	0.1294	0.0140	0.0943	-0.0387	1.1042
MG	0.0000	0.0000	0.0000	0.0000	0.0000
MN	-0.0106	0.0037	-0.0060	-0.0405	-0.6014
NI	0.2323	0.0693	-0.0081	-0.1898	-0.6873
K	0.1337	0.1609	-0.0522	-0.0937	0.6317
V	-0.1267	-0.1499	0.0215	0.2623	-0.7291
ZN	0.2488	-0.0931	-0.1495	-0.1709	-1.1508

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	5.97408551	-1.78799	-1.47501	-2.17214	-1.86174	-0.73332	2266.2294	-1.27066	-0.72631	-2.20945	-1.5586	-6.04897
MAXIMUM DOMAIN VALUE	13.312917	3.153254	3.733721	3.297905	2.468971	1.127074	3891.9158	2.589429	1.002073	3.324042	2.046414	8.313388
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	9.03111133	0.70162	-0.41135	-0.94143	-0.09586	0.779078	3177.3664	0.527767	0.450004	-1.0593	-0.07693	-3.4062
MASB-BWBK-SB-MA02-0107	9.26392229	0.555735	0.619208	-0.01823	0.267979	0.458403	3330.2416	0.669819	0.616069	-0.26291	0.316526	-0.93731
MASB-BWBK-SB-MA03-0108	10.6218679	2.028099	-0.45367	0.517946	-1.16477	1.127074	3053.5272	1.135825	0.244962	0.586645	-0.98132	-6.04897
MASB-BWBK-SB-MA04-0106	8.62008267	-0.05074	2.723118	0.568633	0.112465	1.0769	3172.9445	0.642602	0.423233	0.097178	0.298052	-3.21953
MASB-BWBK-SB-MA05-0108	8.6741738	0.213067	0.789736	-0.19875	0.100413	0.56712	3044.2651	0.350429	0.221111	-0.40054	0.152537	-2.157
MASB-BWBK-SB-MA06-0105	8.95739478	0.381233	0.462023	-0.41759	0.21656	0.344867	3143.1749	0.423634	0.32972	-0.61933	0.24051	-1.00176
MASB-BWBK-SB-MA07-0108	8.50779616	0.08273	0.236341	-1.38848	0.233999	0.062102	3058.5316	0.143763	0.178285	-1.63644	0.231863	0.002267
MASB-BWBK-SB-MA08-0108	11.3481477	1.165096	1.501692	-1.65359	2.320562	0.082361	3877.256	1.569322	0.979817	-2.10797	2.042418	4.584501
MASB-BWBK-SB-MA09-0108	10.4342028	1.431401	-0.03913	-0.72784	-0.06457	0.175384	3219.2765	1.023741	0.238401	-0.74819	-0.08082	0.675216
MASB-BWBK-SB-MA10-0104	8.64155227	0.347099	-0.89247	-2.17214	0.058676	-0.18575	2843.2001	-0.02729	-0.19374	-2.20945	-0.02937	0.232624
MASB-BWBK-SB-MA11-0108	10.1219785	1.033551	0.287959	-0.58507	0.614332	0.272675	3414.5857	1.147377	0.480038	-0.55027	0.469181	2.449573
MASB-BWBK-SB-MA12-0108	9.95490868	1.098346	0.666168	-0.27315	-0.11541	0.621563	3281.2692	0.955405	0.473767	-0.49516	-0.02506	-1.77317
MASB-BWBK-SB-MA13-0105	6.45361611	-1.06586	-1.06446	1.412493	0.575849	0.091724	2267.73	-1.16511	-0.65125	1.801227	0.398225	-3.43556
MASB-BWBK-SB-MA14-0104	9.4354977	0.661971	-1.13731	2.551674	1.067776	-0.23484	2804.3392	0.188578	-0.18898	3.146143	0.775315	1.072979
MASB-BWBK-SB-MA15-0105	8.049321	-0.26653	-1.18671	2.185018	1.298715	-0.27487	2547.0478	-0.54207	-0.4351	2.719592	0.978942	-0.12678
MASB-BWBK-SB-MA16-0104	7.61078028	-0.24174	-1.04811	0.72291	0.208986	0.185943	2509.3688	-0.47098	-0.46309	1.112429	0.057107	-2.21748
MASB-BWBK-SB-MA17-0104	7.49033054	-0.4164	-1.47501	1.169796	0.662096	-0.22013	2386.0889	-0.78283	-0.6351	1.664685	0.417672	-1.20151
MASB-BWBK-SB-MA18-0104	5.97408551	-1.78799	-0.31906	-0.07886	1.812315	0.135899	2502.9012	-1.27066	-0.36156	-0.01005	1.492537	-2.26205
MASB-BWBK-SB-MA19-0103	6.23868852	-1.09407	-1.42093	0.630744	0.382993	0.150731	2266.2294	-1.22389	-0.64356	1.002827	0.209053	-3.81753
MASB-BWBK-SB-MA20-0103	9.0146548	0.631755	-0.4809	-0.13673	-0.0778	0.291834	2937.05	0.268745	0.064281	-0.10537	-0.08274	-1.97095
MMSB-BWBK-SB-MM101-0110	7.13198791	-0.43635	-0.04406	-0.20459	-1.16143	-0.23546	2688.8624	-0.2162	-0.33148	-0.01138	-1.0598	2.099038
MMSB-BWBK-SB-MM102-0109	6.85187177	-0.89989	1.474927	-0.38649	-0.83084	-0.00051	2845.3103	-0.26042	-0.03053	-0.67424	-0.60294	0.786819
MMSB-BWBK-SB-MM103-0107	7.12083678	-0.39532	-0.26696	-0.64102	-1.16153	-0.12974	2712.9284	-0.34947	-0.20294	-0.62199	-1.00853	0.156313
MMSB-BWBK-SB-MM104-0110	8.9122264	0.02174	3.027682	0.257365	-0.72194	-0.73332	3646.5813	0.984651	0.830092	-0.32729	-0.37423	8.313388
MMSB-BWBK-SB-MM105-0110	6.50990074	-0.62891	-1.36805	-1.50009	-1.24868	-0.39907	2397.18	-0.89294	-0.63652	-1.32888	-1.17495	-0.25355
MMSB-BWBK-SB-MM106-0110	7.01454857	-1.33424	3.733721	1.439373	0.105435	0.250727	3123.4709	0.13832	0.327085	0.974135	0.325733	2.330379
MMSB-BWBK-SB-MM107-0110	6.85639884	-0.75332	-0.41196	-0.79638	-0.41918	-0.35974	2727.3403	-0.64965	-0.14754	-0.86056	-0.35873	0.568638
MMSB-BWBK-SB-MM108-0110	6.63179462	-0.93831	0.33082	-0.64822	-0.69401	-0.31688	2680.8525	-0.61469	-0.24546	-0.76032	-0.56533	1.014876
MMSB-BWBK-SB-MM109-0110	7.59550943	-0.41407	0.008365	1.383092	-0.17847	-0.45672	2828.6589	-0.20759	-0.08211	1.597793	-0.17376	2.810961
MMSB-BWBK-SB-MM110-0109	7.0366531	-0.80077	-0.14097	-0.45448	-0.01606	-0.51277	2831.2818	-0.51261	-0.06602	-0.47919	-0.02299	2.441808
MMSB-BWBK-SB-MM111-0110	7.33162223	-0.60637	0.819343	0.844644	-0.54364	-0.34234	2974.2413	-0.05402	0.110034	0.851447	-0.42462	3.394967
MMSB-BWBK-SB-MM112-0110	6.68386331	-1.16991	1.194238	0.450967	0.034842	-0.02621	2739.2182	-0.56635	-0.11299	0.264853	0.121697	-0.03704
MMSB-BWBK-SB-MM113-0110	6.92956985	-0.96944	0.686473	-0.89816	-0.00342	-0.27044	2916.4158	-0.47448	0.088722	-1.20599	0.078401	1.255733
MMSB-BWBK-SB-MM114-0110	6.45588693	-0.74572	-1.05881	-0.37934	-1.04492	-0.33908	2553.714	-0.85567	-0.31112	-0.2754	-0.92919	-0.51118
MMSB-BWBK-SB-MM115-0110	6.50793597	-1.14394	1.482441	3.297905	-0.69489	-0.10822	2717.0312	-0.50837	-0.01828	3.324042	-0.44912	0.367726
MMSB-BWBK-SB-MM116-0110	7.03485675	-0.58005	0.392683	0.161482	-1.05043	-0.15857	2776.7271	-0.29508	-0.10231	0.137295	-0.86466	0.90947
MMSB-BWBK-SB-MM117-0110	6.87483619	-0.40654	-0.69886	-0.89757	-1.61417	-0.35609	2502.08	-0.64262	-0.48012	-0.84933	-1.40778	-0.25652
MMSB-BWBK-SB-MM118-0110	7.93519239	0.198852	0.632288	-0.38768	-1.86174	0.231052	2828.7608	0.26059	-0.11502	-0.44264	-1.5586	-0.34151
MMSB-BWBK-SB-MM119-0110	6.45146023	-1.06051	1.090357	-0.46418	-0.98635	-0.04675	2688.7084	-0.53168	-0.20823	-0.6891	-0.75955	0.099872
MMSB-BWBK-SB-MM120-0110	6.23898746	-0.6936	-1.45281	-1.69012	-1.68888	-0.49012	2284.126	-1.13646	-0.72631	-1.62853	-1.50687	-1.33995
NESB-BWBK-SB-NE01-0108	7.77409007	-0.71119	1.945879	-1.31745	0.324406	-0.21508	3228.9624	0.086967	0.391769	-1.89354	0.436096	2.937776
NESB-BWBK-SB-NE02-0109	7.68444149	-0.43497	1.722449	2.156734	-0.54729	0.230183	2792.7617	0.030508	-0.07889	2.129552	-0.35624	-0.33336
NESB-BWBK-SB-NE03-0105	7.84380448	-0.36256	0.063954	-1.25119	0.068134	-0.59549	3020.5093	-0.22506	0.139447	-1.50548	0.102687	2.747912
NESB-BWBK-SB-NE04-0110	7.31598034	-0.71142	0.982636	-0.87474	-0.24073	-0.24296	2898.0858	-0.2615	-0.01129	-1.16067	-0.12905	1.605338
NESB-BWBK-SB-NE05-0108	7.78792411	-0.57227	1.203698	-1.64782	0.224822	-0.27908	3122.084	-0.05007	0.252185	-2.12646	0.301931	2.332038
NESB-BWBK-SB-NE06-0109	7.59876326	-0.51307	0.732948	-1.41733	-0.17326	-0.2391	2960.1274	-0.19346	0.065832	-1.76319	-0.07224	1.318622
NESB-BWBK-SB-NE07-0107	8.05513783	-0.42444	1.171999	-1.11775	0.284872	-0.3749	3185.8416	0.089407	0.318951	-1.519	0.344454	3.271893
NESB-BWBK-SB-NE08-0104	7.23032405	-0.6561	-0.1945	-1.74335	-0.01675	-0.36209	2831.3532	-0.54025	-0.06226	-1.98282	0.005657	0.723148
NESB-BWBK-SB-NE09-0110	7.4011056	-0.62625	0.542683	-1.49793	-0.11461	-0.26775	2939.1604	-0.32581	0.071179	-1.85236	-0.02243	1.035605
NESB-BWBK-SB-NE10-0107	6.86607633	-1.14613	0.312522	-0.69218	0.70854	-0.43795	2701.9393	-0.72251	-0.27736	-0.78005	0.59943	1.810454
NESB-BWBK-SB-NE101-0110	7.37416112	-0.60215	0.114026	2.007552	-0.1253	-0.61432	2835.8511	-0.36738	-0.00384	2.173242	-0.08162	2.96127
NESB-BWBK-SB-NE102-0110	6.9619305	-0.67831	-0.19846	2.447896	-0.61612	-0.53129	2578.7805	-0.63248	-0.2976	2.743794	-0.52277	1.340568
NESB-BWBK-SB-NE103-0110	6.76426745	-0.65391	-0.92959	1.010947	-0.83309	-0.6054	2502.4795	-0.85182	-0.39528	1.239682	-0.73896	0.548054
NESB-BWBK-SB-NE104-0110	6.55869531	-0.65807	-1.34123	0.148005	-1.08557	-0.57758	2397.7559	-1.01088	-0.53373	0.358501	-0.9798	-0.36227
NESB-BWBK-SB-NE105-0110	7.39398291	-0.49979	0.276081	2.328871	-0.52277	-0.49651	2749.8	-0.33643	-0.11113	2.519388	-0.41033	2.122127
NESB-BWBK-SB-NE106-0110	7.14331054	-0.54854	-0.11768	1.639351	-0.72601	-0.48574	2660.8621	-0.51841	-0.20925	1.804884	-0.59958	1.237923
NESB-BWBK-SB-NE107-0510	6.45416047	-0.87741	-0.23763	0.096176	-1.09716	-0.45082	2530.8984	-0.83724	-0.37184	0.108038	-0.91669	0.241286
NESB-BWBK-SB-NE108-0110	6.95299203	-0.75943	-0.3497	0.884273	-0.32024	-0.65621	2666.2879	-0.70493	-0.21642	0.985647	-0.26642	1.78718
NESB-BWBK-SB-NE109-0110	6.97109504	-0.66915	-0.4356	1.364915	-0.5759	-0.65356	2656.9863	-0.65733	-0.21182	1.541624	-0.48938	1.821606
NESB-BWBK-SB-NE110-0110	6.80169173	-0.85739	-0.20205	0.195595	-0.43609	-0.67921	2715.4162	-0.6962	-0.17012	0.19938	-0.35613	2.250742
PMSB-BWBK-SB-PM01-0105	7.8967742	-0.19879	-0.33657	1.015836	0.356554	0.251454	2755.9827	-0.24876	-0.0793	1.166566	0.285889	-2.13352
PMSB-BWBK-SB-PM02-0104	9.51246906	0.213474	-0.20145	0.602168	2.468971	-0.21604	3186.5727	0.297769	0.266175	0.725986	2.046414	2.482218
PMSB-BWBK-SB-PM03-0106	9.86715782	0.814092	0.457985	-1.09612	0.743263	0.287332	3263.4609	0.633745	0.428797	-1.45075	0.713096	-1.11386
PMSB-BWBK-SB-PM04-0105	8.29546058	-0.13936	0.690341	-0.41747	0.533205	0.405627	3138.2123	0.310488	0.307626	-0.53795	0.471984	0.029178
PMSB-BWBK-SB-PM05-0105	8.21669379	-0.16456	0.539902	0.009265	0.545566	0.412447	2975.8502	0.07563	0.145651	-0.10277	0.500358	-1.52632
PMSB-BWBK-SB-PM06-0105	8.00270011	-0.27047	0.706684	0.439417	0.440782	0.598511	2893.8007	-0.06973	0.122156	0.26924	0.455404	-3.40727
PMSB-BWBK-SB-PM07-0105	7.80250412	-0.08801	-1.32439	0.834198	0.3383	0.323918	2522.9861	-0.55515	-0.34207	1.120442	0.213211	-4.39238

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	5.97408551	-1.78799	-1.47501	-2.17214	-1.86174	-0.73332	2266.2294	-1.27066	-0.72631	-2.20945	-1.5586	-6.04897
MAXIMUM DOMAIN VALUE	13.312917	3.153254	3.733721	3.297905	2.468971	1.127074	3891.9158	2.589429	1.002073	3.324042	2.046414	8.313388
SAMPLE	**PB predict**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	7.90875654	-0.18508	-0.24754	-0.04235	0.318255	0.370519	2756.378	-0.22888	-0.1132	-0.00869	0.253198	-2.70075
PMSB-BWBK-SB-PM09-0106	7.29013128	-0.37067	-0.83621	-1.24513	-0.25502	0.224854	2590.3432	-0.67111	-0.2659	-1.34945	-0.22232	-4.06876
PMSB-BWBK-SB-PM10-0105	7.82071526	-0.48767	-0.7853	-0.16428	1.619961	0.262574	2533.7263	-0.62188	-0.4678	0.037337	1.275799	-2.99215
PMSB-BWBK-SB-PM11-0104	8.95337489	0.767188	-1.01174	1.541287	-0.19919	0.638283	2697.4179	0.110408	-0.13777	1.848844	-0.21699	-5.07107
PMSB-BWBK-SB-PM12-0105	6.12009495	-1.2655	-1.0063	-1.05984	0.425826	0.077649	2525.3177	-1.15567	-0.29863	-1.06352	0.316998	-2.94561
PMSB-BWBK-SB-PM13-0106	7.02298837	-0.9504	-1.21062	1.088539	1.475039	-0.22295	2439.4741	-1.03821	-0.50591	1.4554	1.146042	-1.28153
PMSB-BWBK-SB-PM14-0106	6.34561031	-1.03891	-1.31828	-0.26059	0.308015	0.09102	2390.3405	-1.13787	-0.4944	-0.05759	0.173016	-3.35072
PMSB-BWBK-SB-PM15-0105	7.65358021	-0.43264	-0.54128	0.25934	0.632574	-0.03456	2730.1617	-0.42726	-0.17094	0.400138	0.488498	-0.6597
PMSB-BWBK-SB-PM16-0106	6.98556104	-0.74546	-0.8662	-0.49395	0.332737	-0.11725	2590.2073	-0.79705	-0.31181	-0.41516	0.230511	-1.3853
PMSB-BWBK-SB-PM17-0105	7.99267214	-0.25307	0.299392	0.096467	0.472478	0.386125	2858.9461	-0.01756	-0.04001	0.134787	0.383998	-1.23878
PMSB-BWBK-SB-PM18-0105	9.84018265	0.829013	0.195876	-0.41732	0.525305	-0.1693	3331.9928	0.714981	0.468099	-0.58024	0.483658	2.183611
PMSB-BWBK-SB-PM19-0105	8.66403204	0.20322	-0.07528	0.542712	0.326705	-0.04956	2885.7011	0.102717	-0.05343	0.647545	0.256658	0.338037
PMSB-BWBK-SB-PM20-0106	7.86497397	-0.26282	-0.37158	-0.0589	0.390464	0.012252	2779.3316	-0.29577	-0.11828	-0.0051	0.305343	-0.83417
PMSB-BWBK-SB-SO01-0107-PM	10.5032699	1.49118	-0.4761	-0.7261	-0.01203	-0.09951	3217.3209	0.966238	0.214192	-0.67107	-0.06543	1.822831
PMSB-BWBK-SB-SO02-0109-PM	10.2182409	1.041901	-0.215	-1.26201	0.814502	-0.27041	3273.6102	0.824046	0.237937	-1.27484	0.629756	3.410875
PMSB-BWBK-SB-SO13-0104-PM	11.2794462	2.092338	-0.62354	0.269438	-0.25985	0.060486	3198.3486	1.270681	0.178566	0.476794	-0.28921	0.887446
PMSB-BWBK-SB-SO14-0105-PM	11.5288631	2.122525	0.255	0.29376	-0.2602	0.142455	3334.9593	1.520542	0.330158	0.336122	-0.2259	1.41439
SESB-BWBK-SB-SO03-0108	13.312917	3.153254	0.815222	0.731981	-0.09494	0.376908	3891.9158	2.589429	1.002073	0.674408	-0.03411	2.835007
SESB-BWBK-SB-SO04-0108	11.5293239	2.259263	-0.32911	0.250654	-0.39867	0.216227	3266.268	1.455607	0.267929	0.389609	-0.38049	0.424286
SESB-BWBK-SB-SO05-0106	10.5523177	1.380931	-0.24094	0.255513	0.485185	-0.0256	3264.2252	0.978007	0.320158	0.347775	0.379365	1.665795
SESB-BWBK-SB-SO06-0108	12.1151002	2.200353	0.383068	-0.50372	0.870874	0.20002	3758.9447	1.94224	0.829225	-0.56514	0.724292	3.456226
SESB-BWBK-SB-SO07-0106	10.8835552	2.00106	-0.65975	-0.90055	-0.44542	0.844048	3263.0522	1.408408	0.319287	-0.7415	-0.47953	-1.93584
SESB-BWBK-SB-SO08-0107	12.2778829	2.447411	0.355415	0.407141	0.470063	0.457607	3759.318	2.102658	0.890031	0.440704	0.39051	2.180093
SESB-BWBK-SB-SO09-0106	9.8523924	0.933919	0.492958	0.718568	0.137558	0.127826	3044.8446	0.750976	0.042901	0.807498	0.1093	0.800683
SESB-BWBK-SB-SO11-0106	10.1575409	1.108998	0.837605	-0.22413	0.326003	0.738532	3436.1885	1.183464	0.645657	-0.41229	0.33143	-0.91606
SESB-BWBK-SB-SO12-0106	11.52895	2.198133	-0.57411	-0.93606	-0.01163	0.225907	3410.7387	1.457706	0.458222	-0.9308	-0.05581	0.596745
SESB-BWBK-SB-SO15-0103	7.78844478	-0.38966	-0.67116	-0.27992	0.814566	-0.13768	2658.4765	-0.45447	-0.3474	-0.10312	0.603712	-0.13276
SESB-BWBK-SB-SO16-0105	8.88502045	0.573958	-0.86517	-0.75291	0.009889	0.209446	2835.2964	0.07232	-0.08306	-0.72167	-0.03446	-2.35747
SESB-BWBK-SB-SO17-0106	7.79869682	-0.05558	-0.99367	-0.25017	-0.1443	0.163239	2715.7094	-0.3332	-0.14634	-0.13268	-0.17505	-2.36797
SESB-BWBK-SB-SO18-0105	6.94847623	-0.6031	-0.93445	-0.35243	-0.16096	0.118074	2597.948	-0.69198	-0.25672	-0.24678	-0.18823	-2.46875
SESB-BWBK-SB-SO19-0104	7.55702966	-0.14563	-0.3469	0.216348	-0.47772	0.716547	2545.7078	-0.29484	-0.35355	0.371847	-0.45014	-4.86219
SESB-BWBK-SB-SO20-0104	10.2921109	1.526035	-0.81727	-0.5031	-0.27758	0.230029	3095.0965	0.816783	0.156825	-0.42057	-0.28726	-1.03397

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MANGANESE

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
MN	0.2451	0.0708	0.0765	0.1408	0.5193

425.4444	Mean
278.5397	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0182	-0.3247	-0.1716	0.3335	-1.8284
AS	-0.0739	0.1298	-0.0057	-0.0584	0.5187
BA	0.0163	0.1741	1.0654	-0.1278	0.7315
CA	-0.0583	-0.2270	-0.0095	0.1082	0.4865
CR	-0.0512	-0.1295	-0.1225	0.2882	-0.3040
CO	0.0775	-0.0251	0.0954	-0.1468	0.9464
CU	0.2043	-0.1393	0.0288	-0.1084	-0.8065
FE	0.4141	-0.4488	0.1028	0.3473	-2.0680
PB	0.1846	-0.0261	0.0783	-0.0458	-1.4272
MG	-0.4268	1.5300	0.1788	-0.0966	1.6145
MN	0.0000	0.0000	0.0000	0.0000	0.0000
NI	0.3314	-0.1290	-0.0067	-0.2245	0.8883
K	0.1908	-0.2995	-0.0433	-0.1108	-0.8164
V	-0.1808	0.2790	0.0178	0.3102	0.9423
ZN	0.3550	0.1734	-0.1241	-0.2022	1.4874

NICKEL

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
NI	0.8610	0.2286	-0.1004	0.2071	0.2630

17.3889	Mean
5.8403	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0285	-0.2646	-0.1713	0.2005	-2.6272
AS	-0.1153	0.1058	-0.0057	-0.0351	0.7453
BA	0.0254	0.1419	1.0637	-0.0768	1.0511
CA	-0.0910	-0.1850	-0.0095	0.0650	0.6991
CR	-0.0798	-0.1056	-0.1223	0.1733	-0.4368
CO	0.1210	-0.0205	0.0952	-0.0883	1.3598
CU	0.3188	-0.1135	0.0288	-0.0652	-1.1587
FE	0.6462	-0.3657	0.1026	0.2088	-2.9714
PB	0.2881	-0.0213	0.0782	-0.0275	-2.0507
MG	-0.6661	1.2468	0.1785	-0.0581	2.3198
MN	-0.0235	-0.0057	-0.0050	-0.0288	1.1169
NI	0.0000	0.0000	0.0000	0.0000	0.0000
K	0.2977	-0.2441	-0.0433	-0.0666	-1.1731
V	-0.2821	0.2273	0.0178	0.1865	1.3539
ZN	0.5539	0.1413	-0.1239	-0.1216	2.1372

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-335.1515	-1.55042	-1.52548	-1.98909	-1.85104	-5.56596	7.4121634	-2.04629	-1.36933	-1.98435	-1.19093	-7.37904
MAXIMUM DOMAIN VALUE	1511.8892	2.957982	3.866591	2.937826	2.443095	7.034157	39.87241	2.868067	3.123532	2.926368	1.51027	9.906392
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	**NI predict**	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	616.37971	0.713249	-0.40502	-0.80918	0.111553	1.127673	29.705787	0.601576	-0.27581	-0.82648	0.034369	5.945602
MASB-BWBK-SB-MA02-0107	865.3208	0.46604	0.642861	-0.00687	0.288786	2.656066	24.243588	0.172739	0.630624	-0.00266	0.298544	3.11252
MASB-BWBK-SB-MA03-0108	1402.3493	1.655173	-0.45837	0.495249	-1.0642	6.250682	39.87241	1.82643	-0.24066	0.493703	-0.51213	9.458097
MASB-BWBK-SB-MA04-0106	1511.8892	-0.07348	2.83602	0.509155	0.1824	7.034157	31.957474	-0.77292	2.432128	0.510465	0.239081	9.906392
MASB-BWBK-SB-MA05-0108	1034.2654	0.157764	0.820274	-0.18834	0.106764	4.021395	25.277438	-0.17301	0.752727	-0.18305	0.170613	4.842955
MASB-BWBK-SB-MA06-0105	812.53987	0.299203	0.47871	-0.38678	0.214241	2.468503	22.827861	0.076887	0.469624	-0.38097	0.231503	2.552945
MASB-BWBK-SB-MA07-0108	564.15602	0.034953	0.244041	-1.29399	0.210935	1.042666	19.023269	-0.08385	0.232819	-1.28719	0.182426	0.500877
MASB-BWBK-SB-MA08-0108	220.96639	1.315998	1.502426	-1.36069	2.219823	-2.641	20.569452	1.341772	1.365937	-1.35083	1.51027	-5.21365
MASB-BWBK-SB-MA09-0108	391.90171	1.362181	-0.06947	-0.57612	-0.1023	-0.75256	24.149442	1.753301	0.015386	-0.57223	0.023407	-1.58863
MASB-BWBK-SB-MA10-0104	222.62304	0.311032	-0.9356	-1.98909	0.014031	-1.13195	17.582488	0.642147	-0.78712	-1.98435	-0.00859	-2.04284
MASB-BWBK-SB-MA11-0108	245.97924	1.324407	0.226768	-0.32609	0.484007	-1.97978	20.316901	1.596454	0.280394	-0.31944	0.413866	-4.01122
MASB-BWBK-SB-MA12-0108	1020.2812	0.932667	0.684726	-0.22654	-0.10986	3.641919	28.883109	0.807699	0.68555	-0.21983	0.089463	4.08814
MASB-BWBK-SB-MA13-0105	782.82286	-1.03818	-1.08391	1.223478	0.569389	2.773705	16.095317	-1.14668	-0.96938	1.220514	0.252487	4.021187
MASB-BWBK-SB-MA14-0104	102.00359	0.703009	-1.20298	2.431046	1.015834	-3.0374	14.291453	1.104578	-0.98196	2.427039	0.608311	-4.3306
MASB-BWBK-SB-MA15-0105	210.52894	-0.20672	-1.23117	2.019285	1.279063	-1.8647	11.480473	-0.11612	-1.04355	2.014262	0.720695	-2.35726
MASB-BWBK-SB-MA16-0104	528.52036	-0.1254	-1.09449	0.695397	0.193219	0.766198	18.962913	0.076796	-0.94772	0.690525	0.043492	1.826351
MASB-BWBK-SB-MA17-0104	268.23551	-0.36732	-1.52548	1.064633	0.64856	-1.03816	13.953729	-0.07027	-1.34174	1.058225	0.270543	-0.6489
MASB-BWBK-SB-MA18-0104	747.67054	-1.55042	-0.31935	-0.12782	1.787406	2.536955	13.449714	-2.04629	-0.32724	-0.12799	1.006678	3.576936
MASB-BWBK-SB-MA19-0103	687.6596	-1.01013	-1.45338	0.522134	0.404484	2.301063	16.481591	-1.10295	-1.27832	0.516282	0.127012	4.227846
MASB-BWBK-SB-MA20-0103	809.38595	0.480903	-0.4998	-0.13403	-0.09825	2.541937	22.815735	0.442503	-0.33944	-0.12715	0.038896	2.299996
MMSB-BWBK-SB-MM101-0110	-82.26695	-0.12131	-0.08155	-0.09297	-1.23143	-3.09394	11.903376	0.298609	-0.16085	-0.09674	-0.8518	-3.77478
MMSB-BWBK-SB-MM102-0109	504.9902	-0.79345	1.533563	-0.38982	-0.83459	0.998893	13.522072	-1.25196	1.258579	-0.38594	-0.47778	0.71589
MMSB-BWBK-SB-MM103-0107	249.02178	-0.32137	-0.27848	-0.59462	-1.16809	-0.62563	15.351118	-0.10475	-0.30397	-0.59701	-0.79382	-0.32243
MMSB-BWBK-SB-MM104-0110	-335.1515	0.097483	3.121435	0.272056	-0.75291	-5.56596	11.32717	0.557279	2.46467	0.268092	-0.54703	-7.37904
MMSB-BWBK-SB-MM105-0110	17.927416	-0.56191	-1.41496	-1.41052	-1.26309	-1.80869	11.323797	-0.23085	-1.27622	-1.41257	-0.90091	-1.9134
MMSB-BWBK-SB-MM106-0110	700.10983	-1.04967	3.866591	1.332184	0.107076	1.641299	17.503478	-1.50818	3.123532	1.327928	0.027432	2.782169
MMSB-BWBK-SB-MM107-0110	195.69163	-0.74652	-0.41145	-0.7975	-0.41233	-0.95059	12.513662	-0.61931	-0.43938	-0.79989	-0.36763	-0.78051
MMSB-BWBK-SB-MM108-0110	204.64848	-0.85959	0.352758	-0.64643	-0.69518	-0.88514	12.544146	-0.75948	0.176361	-0.64933	-0.54589	-0.63913
MMSB-BWBK-SB-MM109-0110	-67.66538	-0.26031	-0.00538	1.306323	-0.21905	-3.41855	9.0235829	-0.04152	-0.07341	1.302106	-0.20986	-4.58325
MMSB-BWBK-SB-MM110-0109	-56.10553	-0.66728	-0.14749	-0.43231	-0.04231	-2.9189	8.6672953	-0.54837	-0.21339	-0.43449	-0.13079	-3.75984
MMSB-BWBK-SB-MM111-0110	-7.088278	-0.3743	0.828765	0.825629	-0.59274	-2.88759	10.235508	-0.20969	0.604726	0.822236	-0.43581	-3.83859
MMSB-BWBK-SB-MM112-0110	457.11387	-1.08806	1.267504	0.347123	0.119575	0.475876	14.892938	-1.43165	0.96962	0.338476	-0.02818	2.370259
MMSB-BWBK-SB-MM113-0110	323.06239	-0.93619	0.729524	-0.89933	0.008944	-0.23543	12.004728	-1.20059	0.547493	-0.89828	-0.04279	-0.36008
MMSB-BWBK-SB-MM114-0110	201.35958	-0.7674	-1.07614	-0.42414	-1.0183	-0.70158	11.909069	-0.63789	-0.98553	-0.42813	-0.74112	-0.20257
MMSB-BWBK-SB-MM115-0110	625.54785	-1.15997	1.567452	2.937826	-0.64754	1.459536	16.004401	-1.11968	1.141216	2.926368	-0.55535	3.326701
MMSB-BWBK-SB-MM116-0110	267.95651	-0.48795	0.407198	0.137743	-1.05483	-0.64831	14.334628	-0.36381	0.254996	0.134384	-0.72464	-0.39712
MMSB-BWBK-SB-MM117-0110	170.5744	-0.4808	-0.70699	-0.8949	-1.59391	-0.87454	14.277065	-0.13457	-0.69479	-0.89821	-1.09743	-0.4603
MMSB-BWBK-SB-MM118-0110	459.7153	0.258741	0.644261	-0.31561	-1.85104	0.575405	17.061408	-0.06732	0.616464	-0.31117	-1.0042	0.143191
MMSB-BWBK-SB-MM119-0110	480.1736	-0.97728	1.144527	-0.48567	-0.96764	1.017353	16.107204	-1.02849	0.836395	-0.48899	-0.69583	2.16642
MMSB-BWBK-SB-MM120-0110	152.57863	-0.8484	-1.47002	-1.68557	-1.64462	-0.59111	13.462326	-0.43738	-1.36933	-1.68998	-1.19093	0.358015
NESB-BWBK-SB-NE01-0108	305.67371	-0.64837	2.025099	-1.25165	0.330458	-0.70347	12.377818	-1.1488	1.680566	-1.24663	0.242773	-1.62933
NESB-BWBK-SB-NE02-0109	685.54732	-0.40468	1.799179	1.964614	-0.48948	1.586871	19.033577	-0.68551	1.469278	1.95824	-0.30635	3.026516
NESB-BWBK-SB-NE03-0105	-35.62688	-0.42386	0.081468	-1.21222	0.078342	-2.8412	9.256586	-0.49247	0.036727	-1.21013	0.01863	-4.19041
NESB-BWBK-SB-NE04-0110	260.47864	-0.65913	1.028486	-0.84738	-0.23037	-0.78238	12.787621	-0.86323	0.807562	-0.84663	-0.17142	-1.05976
NESB-BWBK-SB-NE05-0108	249.73851	-0.55865	1.258768	-1.56522	0.233579	-0.95547	12.622117	-0.89668	1.033946	-1.56083	0.157402	-1.78639
NESB-BWBK-SB-NE06-0109	302.64997	-0.53248	0.773406	-1.36112	-0.16047	-0.45904	13.480809	-0.77861	0.623604	-1.35763	-0.09677	-0.97955
NESB-BWBK-SB-NE07-0107	127.11473	-0.38513	1.216604	-1.05181	0.271407	-1.96525	10.434561	-0.71534	1.019336	-1.04627	0.208749	-3.63519
NESB-BWBK-SB-NE08-0104	226.95565	-0.69817	-0.18183	-1.68393	-0.00409	-0.76866	11.42443	-0.90778	-0.1787	-1.68038	-0.02849	-1.37508
NESB-BWBK-SB-NE09-0110	314.00861	-0.67081	0.583355	-1.45616	-0.08949	-0.29455	13.556975	-0.88855	0.447059	-1.45396	-0.08224	-0.4649
NESB-BWBK-SB-NE10-0107	82.027106	-0.98948	0.329322	-0.67227	0.69022	-2.04024	8.6641293	-1.13159	0.19117	-0.6732	0.329485	-2.65795
NESB-BWBK-SB-NE101-0110	-38.79165	-0.56819	0.124974	1.815733	-0.13565	-3.18913	7.4121634	-0.43827	0.017573	1.810521	-0.17566	-4.24537
NESB-BWBK-SB-NE102-0110	112.52876	-0.70743	-0.18796	2.188879	-0.60562	-1.96216	9.143417	-0.52154	-0.26414	2.181604	-0.49143	-2.21071
NESB-BWBK-SB-NE103-0110	73.666931	-0.76264	-0.93545	0.830875	-0.80702	-1.84804	9.4971671	-0.50374	-0.89345	0.824874	-0.6365	-1.89565
NESB-BWBK-SB-NE104-0110	113.51711	-0.80163	-1.35765	0.019265	-1.05384	-1.31001	10.679097	-0.48693	-1.25222	0.014073	-0.80164	-1.04908
NESB-BWBK-SB-NE105-0110	80.676823	-0.51202	0.298927	2.101363	-0.50912	-2.35427	10.471778	-0.28645	0.143322	2.093362	-0.42685	-2.55418
NESB-BWBK-SB-NE106-0110	150.5941	-0.61331	-0.10247	1.438657	-0.70912	-1.61645	10.619085	-0.44703	-0.18045	1.433164	-0.53703	-1.81664
NESB-BWBK-SB-NE107-0510	221.76945	-0.95474	-0.21683	-0.01987	-1.06606	-0.63594	12.500983	-0.71017	-0.32666	-0.02566	-0.81609	0.059411
NESB-BWBK-SB-NE108-0110	8.395116	-0.812	-0.33963	0.728474	-0.30618	-2.478	8.6261307	-0.60314	-0.40348	0.722868	-0.32992	-2.84341
NESB-BWBK-SB-NE109-0110	-9.57629	-0.7205	-0.43118	1.180581	-0.56346	-2.62979	8.4237189	-0.46981	-0.47643	1.17425	-0.48302	-3.0553
NESB-BWBK-SB-NE110-0110	-67.93572	-0.86433	-0.18973	0.103382	-0.42416	-2.87734	8.0213123	-0.66857	-0.28528	0.098221	-0.40728	-3.30332
PMSB-BWBK-SB-PM01-0105	708.98169	-0.21158	-0.33653	0.914223	0.392246	1.864818	17.132585	-0.68796	-0.20661	0.914839	0.312184	2.368222
PMSB-BWBK-SB-PM02-0104	39.525905	0.364307	-0.22884	0.637439	2.443095	-3.56509	13.69686	0.41552	-0.1639	0.634103	1.480316	-4.54432
PMSB-BWBK-SB-PM03-0106	886.5019	0.544953	0.488389	-1.05451	0.761337	2.812585	25.158699	0.318508	0.506262	-1.04584	0.597189	2.705669
PMSB-BWBK-SB-PM04-0105	608.82706	0.096673	0.688621	-0.29801	0.494394	1.038063	19.447342	-0.1943	0.627886	-0.29478	0.375939	1.021713
PMSB-BWBK-SB-PM05-0105	771.70205	-0.11107	0.563878	0.015648	0.578809	2.209992	22.304433	-0.36187	0.489238	0.013719	0.368519	3.674209
PMSB-BWBK-SB-PM06-0105	798.16604	-0.3141	0.781708	0.357949	0.664928	2.385236	26.259995	-0.7253	0.64373	0.339601	0.323832	7.464084
PMSB-BWBK-SB-PM07-0105	763.97359	-0.21545	-1.3372	0.706215	0.450464	2.398201	23.568924	-0.16053	-1.14129	0.694739	0.171732	5.670352

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-335.1515	-1.55042	-1.52548	-1.98909	-1.85104	-5.56596	7.4121634	-2.04629	-1.36933	-1.98435	-1.19093	-7.37904
MAXIMUM DOMAIN VALUE	1511.8892	2.957982	3.866591	2.937826	2.443095	7.034157	39.87241	2.868067	3.123532	2.926368	1.51027	9.906392
SAMPLE	**MN predict**	D1	D2	D3	D4	D5	**NI predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	784.0529	-0.18873	-0.24467	-0.05777	0.358879	2.512785	21.805736	-0.3901	-0.18658	-0.05979	0.218563	4.119322
PMSB-BWBK-SB-PM09-0106	890.69195	-0.58903	-0.82402	-1.27458	-0.17823	3.842919	21.593414	-0.85001	-0.68585	-1.27363	-0.12627	5.728419
PMSB-BWBK-SB-PM10-0105	693.33517	-0.41176	-0.80559	-0.16291	1.637203	1.736244	20.789175	-0.45069	-0.70027	-0.16759	0.918128	3.510456
PMSB-BWBK-SB-PM11-0104	843.35475	0.568962	-1.01145	1.401412	-0.01273	2.555544	28.138775	0.479379	-0.77665	1.386517	-0.01955	6.648351
PMSB-BWBK-SB-PM12-0105	656.76049	-1.21495	-1.01453	-1.06768	0.462207	2.342877	15.92353	-1.47485	-0.90971	-1.07015	0.176614	4.116695
PMSB-BWBK-SB-PM13-0106	260.4649	-0.86428	-1.23261	0.957137	1.522438	-1.11846	12.668157	-0.83271	-1.11567	0.945686	0.759291	0.385746
PMSB-BWBK-SB-PM14-0106	562.31104	-0.98463	-1.33783	-0.30945	0.372441	1.537942	16.946713	-1.05382	-1.19371	-0.31799	0.079725	4.014927
PMSB-BWBK-SB-PM15-0105	420.48064	-0.36691	-0.55818	0.229454	0.628027	0.01085	15.681445	-0.37621	-0.49364	0.227105	0.330043	0.375917
PMSB-BWBK-SB-PM16-0106	395.10798	-0.73011	-0.87721	-0.51494	0.365975	0.23112	14.590626	-0.80441	-0.78316	-0.51861	0.131697	1.190464
PMSB-BWBK-SB-PM17-0105	693.75691	-0.08393	0.294963	0.138337	0.447769	1.712468	21.782818	-0.07802	0.227988	0.136612	0.24999	2.772836
PMSB-BWBK-SB-PM18-0105	266.07308	0.72013	0.192249	-0.35839	0.495689	-1.54942	17.318897	0.790742	0.226329	-0.35249	0.391605	-3.27353
PMSB-BWBK-SB-PM19-0105	357.59862	0.199141	-0.08235	0.516956	0.320367	-0.71484	16.793208	0.236338	-0.05313	0.516523	0.208192	-1.08186
PMSB-BWBK-SB-PM20-0106	502.18678	-0.25822	-0.3797	-0.0752	0.388896	0.609814	16.7618	-0.34142	-0.31972	-0.07477	0.225089	0.781491
PMSB-BWBK-SB-SO01-0107-PM	208.0576	1.404185	-0.5304	-0.5754	-0.10074	-1.98099	18.168124	1.656538	-0.31674	-0.56409	0.101817	-4.93542
PMSB-BWBK-SB-SO02-0109-PM	-54.84988	1.118945	-0.26841	-1.04026	0.710911	-3.85127	14.98022	1.419746	-0.14745	-1.03186	0.529166	-6.89771
PMSB-BWBK-SB-SO13-0104-PM	401.20057	1.898855	-0.68659	0.351379	-0.35643	-0.9251	21.859922	2.253781	-0.40743	0.364049	-0.0027	-3.97167
PMSB-BWBK-SB-SO14-0105-PM	478.00828	1.926475	0.224996	0.375054	-0.34509	-0.53807	23.202828	2.1583	0.361018	0.388189	0.031755	-3.47073
SESB-BWBK-SB-SO03-0108	516.72024	2.957982	0.780429	0.869537	-0.20291	-0.9444	24.465667	2.868067	0.990145	0.890347	0.330836	-5.56246
SESB-BWBK-SB-SO04-0108	548.99635	2.033987	-0.38038	0.334955	-0.48538	0.028494	24.683708	2.354071	-0.13735	0.348115	-0.05776	-2.65926
SESB-BWBK-SB-SO05-0106	308.00933	1.301838	-0.28197	0.324019	0.412004	-1.54718	18.184572	1.401092	-0.09803	0.333539	0.424405	-4.18983
SESB-BWBK-SB-SO06-0108	314.43037	2.240608	0.321091	-0.254	0.709719	-2.0236	21.077874	2.358406	0.499227	-0.23562	0.74481	-6.4287
SESB-BWBK-SB-SO07-0106	612.55106	2.08595	-0.73387	-0.62281	-0.45176	0.623601	29.262277	2.16599	-0.39977	-0.61939	-0.06453	0.800752
SESB-BWBK-SB-SO08-0107	472.59557	2.461312	0.297997	0.595983	0.357373	-1.06088	25.269837	2.626221	0.48556	0.608729	0.51815	-4.06382
SESB-BWBK-SB-SO09-0106	543.48125	0.901165	0.480349	0.732563	0.05411	0.20261	19.224227	0.875573	0.507866	0.742655	0.199774	-1.98638
SESB-BWBK-SB-SO11-0106	653.49838	1.169738	0.855935	-0.08835	0.41912	0.807215	27.536795	0.880043	0.855642	-0.09316	0.385172	2.642683
SESB-BWBK-SB-SO12-0106	451.01223	2.018958	-0.63341	-0.74721	-0.07874	-0.55807	25.005314	2.334218	-0.35053	-0.73557	0.164826	-2.78871
SESB-BWBK-SB-SO15-0103	239.76634	-0.27285	-0.70034	-0.24306	0.798526	-1.24006	13.684956	-0.27592	-0.60102	-0.24456	0.441415	-1.42648
SESB-BWBK-SB-SO16-0105	744.68342	0.387995	-0.89008	-0.72298	0.006362	2.250146	21.982908	0.3391	-0.66712	-0.71632	0.086926	2.118328
SESB-BWBK-SB-SO17-0106	724.56059	-0.12781	-1.02493	-0.26527	-0.16586	2.352076	18.886057	-0.21604	-0.82304	-0.26018	-0.06598	2.349648
SESB-BWBK-SB-SO18-0105	666.26474	-0.59795	-0.95666	-0.3752	-0.1629	2.176997	17.240518	-0.71539	-0.81714	-0.37406	-0.13248	2.916746
SESB-BWBK-SB-SO19-0104	1184.792	-0.14267	-0.35842	0.188652	-0.48415	5.469276	27.626475	-0.13618	-0.30621	0.188973	-0.30217	7.686123
SESB-BWBK-SB-SO20-0104	530.28301	1.332017	-0.85919	-0.41345	-0.28011	0.350326	25.851994	1.74713	-0.63796	-0.41112	-0.09919	0.265712

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

POTASSIUM

Factor Pattern Coefficients (FPC) after Varimax rotation

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893

769.6970
463.9115

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0232	-0.2102	-0.1657	0.2698	-0.3408
AS	-0.0939	0.0840	-0.0055	-0.0473	0.0967
BA	0.0207	0.1127	1.0290	-0.1034	0.1364
CA	-0.0741	-0.1470	-0.0092	0.0875	0.0907
CR	-0.0650	-0.0839	-0.1184	0.2332	-0.0567
CO	0.0986	-0.0163	0.0921	-0.1188	0.1764
CU	0.2597	-0.0902	0.0279	-0.0877	-0.1503
FE	0.5265	-0.2906	0.0992	0.2810	-0.3855
PB	0.2347	-0.0169	0.0756	-0.0370	-0.2661
MG	-0.5426	0.9905	0.1726	-0.0781	0.3010
MN	-0.0192	-0.0045	-0.0048	-0.0387	0.1449
NI	0.4213	-0.0835	-0.0065	-0.1816	0.1656
K	0.0000	0.0000	0.0000	0.0000	0.0000
V	-0.2299	0.1806	0.0172	0.2509	0.1757
ZN	0.4513	0.1122	-0.1199	-0.1636	0.2773

VANADIUM

Factor Pattern Coefficients (FPC) after Varimax rotatio

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
V	-0.1837	0.2826	0.0179	0.3783	0.3012

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
V	0.3202	-0.0584	0.2699	0.7700	0.1938

16.8273
3.6907

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0156	-0.6943	-0.1753	-0.9659	-3.3350
AS	-0.0630	0.2775	-0.0058	0.1692	0.9461
BA	0.0139	0.3723	1.0883	0.3702	1.3342
CA	-0.0498	-0.4854	-0.0097	-0.3132	0.8874
CR	-0.0437	-0.2770	-0.1252	-0.8348	-0.5545
CO	0.0662	-0.0538	0.0975	0.4253	1.7261
CU	0.1743	-0.2979	0.0295	0.3139	-1.4709
FE	0.3534	-0.9597	0.1050	-1.0060	-3.7719
PB	0.1576	-0.0559	0.0800	0.1326	-2.6031
MG	-0.3643	3.2715	0.1826	0.2797	2.9448
MN	-0.0129	-0.0149	-0.0051	0.1387	1.4178
NI	0.2829	-0.2758	-0.0069	0.6501	1.6203
K	0.1628	-0.6404	-0.0443	0.3208	-1.4892
V	0.0000	0.0000	0.0000	0.0000	0.0000
ZN	0.3029	0.3707	-0.1268	0.5856	2.7130

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	POTASSIUM						VANADIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	45.02076	-2.3401	-1.187	-1.9613	-1.4474	-0.9216	-1.63714	-1.0573	-3.7247	-2.0209	-4.5841	-10.041
MAXIMUM DOMAIN VALUE	1905.876	3.8844	2.87909	2.99011	1.87877	1.45483	38.2754	2.60148	7.91503	3.00376	4.26695	14.8935
SAMPLE	K predict	D1	D2	D3	D4	D5	V predict	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	336.6333	0.8504	-0.3115	-0.8105	-0.1069	0.87741	24.198	0.55888	-0.9808	-0.8523	0.40299	8.67198
MASB-BWBK-SB-MA02-0107	603.4908	0.61909	0.38367	-0.0158	0.19784	0.55358	18.8133	0.38512	1.38672	-0.0093	-0.7889	5.7058
MASB-BWBK-SB-MA03-0108	459.219	2.18702	-0.4026	0.44778	-0.9829	1.37823	38.2754	1.32719	-0.7791	0.50276	3.0115	14.8935
MASB-BWBK-SB-MA04-0106	918.5413	-0.0656	1.78972	0.47708	0.08172	1.45483	26.1898	0.00417	5.72709	0.50418	0.12007	13.6295
MASB-BWBK-SB-MA05-0108	652.229	0.25001	0.48982	-0.1911	0.06422	0.72985	21.1965	0.16167	1.64392	-0.1961	-0.1337	7.14148
MASB-BWBK-SB-MA06-0105	577.4413	0.41888	0.27965	-0.38	0.1603	0.43245	18.3607	0.29635	0.86676	-0.3998	-0.3874	4.01157
MASB-BWBK-SB-MA07-0108	473.4555	0.18803	0.05426	-1.27	0.14315	0.03011	13.7433	-0.0143	0.72845	-1.3129	-0.9871	1.68206
MASB-BWBK-SB-MA08-0108	45.02076	1.80557	0.86094	-1.3394	1.7335	-0.5374	-1.63714	1.46317	1.87925	-1.432	-4.3877	-8.2387
MASB-BWBK-SB-MA09-0108	376.7777	1.91509	-0.1986	-0.5909	-0.1666	-0.2089	18.1577	1.17357	-0.214	-0.5922	0.43561	-1.0496
MASB-BWBK-SB-MA10-0104	249.8044	0.66033	-0.804	-1.9613	-0.0552	-0.4681	12.3355	0.21038	-1.7435	-2.0209	-0.5073	-2.3228
MASB-BWBK-SB-MA11-0108	404.6558	1.77821	0.07131	-0.3312	0.35682	-0.4291	12.499	1.25879	-0.0117	-0.3482	-0.6545	-5.0493
MASB-BWBK-SB-MA12-0108	517.6332	1.2037	0.42119	-0.2251	-0.1132	0.71889	23.3587	0.78565	1.4789	-0.2328	0.34076	7.24944
MASB-BWBK-SB-MA13-0105	919.7004	-1.1133	-0.8477	1.15387	0.42846	0.2594	16.4619	-0.7451	-2.7999	1.23958	-1.0348	2.2618
MASB-BWBK-SB-MA14-0104	821.6606	1.06712	-0.9177	2.31793	0.75707	-0.6734	10.3274	0.79724	-3.3357	2.46001	-1.7907	-7.7213
MASB-BWBK-SB-MA15-0105	864.4683	-0.1004	-0.9237	1.92356	0.98199	-0.4707	9.02539	0.1088	-3.7247	2.03014	-2.078	-6.7813
MASB-BWBK-SB-MA16-0104	737.8988	0.02201	-0.8545	0.63995	0.0872	0.03496	18.3803	-0.0126	-2.7082	0.69892	-0.0001	0.40306
MASB-BWBK-SB-MA17-0104	774.1863	-0.2091	-1.187	0.98651	0.44492	-0.4004	11.8554	-0.235	-3.5432	1.08054	-1.4939	-3.1998
MASB-BWBK-SB-MA18-0104	654.4978	-1.8102	-0.3186	-0.1444	1.42504	0.26019	6.50651	-0.9497	-2.072	-0.1691	-3.1824	-0.6048
MASB-BWBK-SB-MA19-0103	785.3515	-1.0936	-1.089	0.47312	0.26643	0.28153	17.1669	-0.7852	-3.391	0.5257	-0.7691	3.07403
MASB-BWBK-SB-MA20-0103	532.8022	0.76985	-0.4403	-0.1527	-0.1149	0.30739	20.9929	0.43248	-1.1214	-0.1362	0.30534	3.74793
MMSB-BWBK-SB-MM101-0110	1078.346	-0.2243	0.01228	-0.074	-0.9494	-0.5931	19.6289	-0.335	0.74993	-0.0646	2.12157	-3.643
MMSB-BWBK-SB-MM102-0109	1163.425	-1.1754	1.13767	-0.343	-0.5868	0.21335	20.6958	-0.8213	3.87394	-0.3773	1.45331	2.68422
MMSB-BWBK-SB-MM103-0107	948.0975	-0.5537	-0.0574	-0.5464	-0.8755	-0.071	21.7952	-0.5135	0.35144	-0.5769	1.91704	1.0867
MMSB-BWBK-SB-MM104-0110	1448.906	-0.4137	2.45706	0.35821	-0.3955	-0.7433	13.7105	0.03606	6.87738	0.28563	1.83684	-10.041
MMSB-BWBK-SB-MM105-0110	758.1287	-0.616	-0.9793	-1.373	-1.0226	-0.5016	19.4033	-0.7592	-1.8944	-1.4027	1.86462	-1.1697
MMSB-BWBK-SB-MM106-0110	1607.934	-1.8068	2.87909	1.36748	0.2571	0.6141	17.6767	-0.8061	7.91503	1.34969	0.23103	2.10686
MMSB-BWBK-SB-MM107-0110	883.6595	-1.1929	-0.0585	-0.7229	-0.2137	-0.1102	14.7654	-0.8139	-0.1546	-0.7895	0.02661	-0.5906
MMSB-BWBK-SB-MM108-0110	1048.614	-1.2941	0.40294	-0.584	-0.4566	-0.1295	17.2326	-0.8702	1.32642	-0.6397	1.0721	-0.9645
MMSB-BWBK-SB-MM109-0110	1249.675	-0.7243	0.32066	1.33355	-0.0096	-0.455	14.5075	-0.2212	0.01629	1.33756	0.53599	-6.8654
MMSB-BWBK-SB-MM110-0109	938.4842	-1.0605	0.08737	-0.3755	0.07469	-0.4994	10.5083	-0.6457	0.02219	-0.4282	-0.4633	-5.3238
MMSB-BWBK-SB-MM111-0110	1330.05	-0.9522	0.92772	0.88389	-0.2796	-0.3087	16.2299	-0.4142	2.17211	0.85805	1.05342	-4.8768
MMSB-BWBK-SB-MM112-0110	1193.165	-1.7504	1.09679	0.39151	0.19225	0.43558	17.0654	-0.872	2.43487	0.34211	0.17026	1.35458
MMSB-BWBK-SB-MM113-0110	915.5373	-1.399	0.6505	-0.8279	0.11032	0.01209	11.9193	-0.9391	2.13833	-0.8984	-0.963	0.41174
MMSB-BWBK-SB-MM114-0110	976.2481	-1.1284	-0.5648	-0.3793	-0.7448	-0.1	20.1744	-0.909	-1.2873	-0.4	1.3654	0.92574
MMSB-BWBK-SB-MM115-0110	1905.876	-2.3401	1.7147	2.99011	-0.1855	0.76157	24.5411	-0.9901	3.37807	3.00376	1.78848	2.14904
MMSB-BWBK-SB-MM116-0110	1181.229	-0.8929	0.48907	0.18318	-0.7351	-0.0004	21.0641	-0.6531	1.81003	0.17117	1.59595	0.9686
MMSB-BWBK-SB-MM117-0110	964.2722	-0.7162	-0.3616	-0.8412	-1.2224	-0.179	23.6698	-0.7087	-0.3183	-0.8748	2.74734	0.94436
MMSB-BWBK-SB-MM118-0110	1049.311	0.1432	0.55749	-0.2761	-1.4474	0.27798	30.953	0.01792	2.1355	-0.3012	4.26695	3.82892
MMSB-BWBK-SB-MM119-0110	1191.382	-1.5582	1.00221	-0.411	-0.6458	0.32894	21.7309	-0.9967	3.10468	-0.474	1.76071	3.10268
MMSB-BWBK-SB-MM120-0110	825.3575	-1.1484	-0.8792	-1.6091	-1.2663	-0.1772	22.9343	-1.0573	-1.8011	-1.677	2.64474	1.56993
NESB-BWBK-SB-NE01-0108	810.8666	-0.6719	1.19394	-1.2332	0.22195	-0.2584	8.80204	-0.6643	4.77436	-1.2639	-1.6541	-0.3513
NESB-BWBK-SB-NE02-0109	1393.407	-0.3585	1.02527	1.86447	-0.4879	0.29746	22.7905	-0.5401	4.55137	2.02493	0.4438	6.01765
NESB-BWBK-SB-NE03-0105	691.6287	-0.4175	-0.0354	-1.1881	0.03902	-0.6651	8.39144	-0.5244	0.83172	-1.2162	-1.2693	-3.9403
NESB-BWBK-SB-NE04-0110	892.6855	-0.6882	0.55192	-0.8419	-0.2283	-0.2787	13.5745	-0.7229	2.83816	-0.8447	-0.3294	-0.0127
NESB-BWBK-SB-NE05-0108	683.7392	-0.5386	0.68368	-1.5389	0.13929	-0.3256	9.35414	-0.5827	3.12055	-1.5844	-1.3577	-0.944
NESB-BWBK-SB-NE06-0109	726.6172	-0.5066	0.37214	-1.3409	-0.1752	-0.2432	13.1938	-0.597	2.22944	-1.3711	-0.4469	0.26349
NESB-BWBK-SB-NE07-0107	756.2049	-0.3138	0.65602	-1.0425	0.17524	-0.5365	7.96972	-0.4578	3.12961	-1.0562	-1.6342	-2.7202
NESB-BWBK-SB-NE08-0104	594.0931	-0.704	-0.2523	-1.6531	-0.0431	-0.3398	11.3467	-0.7145	0.10956	-1.7021	-0.81	-0.8599
NESB-BWBK-SB-NE09-0110	703.943	-0.6828	0.24903	-1.4327	-0.1183	-0.2105	12.3888	-0.7445	1.93599	-1.4648	-0.8209	0.90985
NESB-BWBK-SB-NE10-0107	807.1713	-1.1324	0.12548	-0.6658	0.54102	-0.5432	6.50206	-0.7663	0.44323	-0.6918	-1.6798	-5.3984
NESB-BWBK-SB-NE101-0110	1418.58	-1.2327	0.50195	1.84712	0.10887	-0.3612	13.9457	-0.4901	0.32985	1.85979	0.22233	-6.5931
NESB-BWBK-SB-NE102-0110	1527.891	-1.346	0.24942	2.19693	-0.2925	-0.1792	18.896	-0.6878	-0.0315	2.2506	1.11403	-3.5416
NESB-BWBK-SB-NE103-0110	1239.615	-1.3073	-0.3198	0.86726	-0.4916	-0.2382	18.7617	-0.8027	-1.3617	0.87196	1.28321	-2.6924
NESB-BWBK-SB-NE104-0110	1079.803	-1.2791	-0.6533	0.07079	-0.7154	-0.2	20.1372	-0.887	-2.0609	0.04956	1.67985	-1.2714
NESB-BWBK-SB-NE105-0110	1537.597	-1.3079	0.72614	2.14598	-0.1521	-0.0759	18.6392	-0.4584	0.74606	2.15159	1.27035	-4.5285
NESB-BWBK-SB-NE106-0110	1391.337	-1.2433	0.31702	1.47474	-0.373	-0.0955	19.4933	-0.6166	0.18271	1.48488	1.37408	-2.7263
NESB-BWBK-SB-NE107-0510	1200.359	-1.4963	0.10164	0.03618	-0.7208	-0.0487	20.5608	-1.0145	0.36092	0.00865	1.75154	0.03363
NESB-BWBK-SB-NE108-0110	1217.56	-1.3781	0.07218	0.76966	-0.084	-0.3491	14.7401	-0.7175	-0.5808	0.75225	0.57661	-5.2464
NESB-BWBK-SB-NE109-0110	1326.955	-1.3093	0.05041	1.21432	-0.2757	-0.3442	16.4131	-0.7233	-0.4537	1.22383	0.83838	-4.5563
NESB-BWBK-SB-NE110-0110	1163.328	-1.472	0.18984	0.17014	-0.1722	-0.398	13.753	-0.8361	0.02159	0.12202	0.50101	-5.0708
PMSB-BWBK-SB-PM01-0105	804.0386	-0.1159	-0.3499	0.85259	0.23843	0.31622	18.3572	-0.1127	-1.0133	0.92267	-0.637	3.26582
PMSB-BWBK-SB-PM02-0104	416.7758	0.62616	-0.2946	0.58089	1.87877	-0.6588	-1.39841	0.70903	-2.0808	0.59877	-4.5841	-9.9003
PMSB-BWBK-SB-PM03-0106	279.5706	0.8791	0.1676	-1.0505	0.54792	0.40478	15.1508	0.62724	0.41865	-1.0962	-1.265	3.29887
PMSB-BWBK-SB-PM04-0105	631.2788	0.21061	0.36924	-0.3056	0.35262	0.18167	15.1246	0.1817	1.06793	-0.3183	-0.7849	1.20282
PMSB-BWBK-SB-PM05-0105	664.831	-0.0201	0.25197	-0.0125	0.38587	0.44502	16.9465	0.01058	0.74535	-0.0019	-0.8876	3.90311
PMSB-BWBK-SB-PM06-0105	733.5547	-0.2871	0.33846	0.29436	0.31634	0.89639	20.3091	-0.2529	1.35884	0.3378	-0.9978	9.18961
PMSB-BWBK-SB-PM07-0105	637.8079	-0.1313	-1.0099	0.64505	0.24184	0.56009	20.7447	-0.0834	-3.3461	0.69945	-0.3939	5.19749

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	POTASSIUM						VANADIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	45.02076	-2.3401	-1.187	-1.9613	-1.4474	-0.9216	-1.63714	-1.0573	-3.7247	-2.0209	-4.5841	-10.041
MAXIMUM DOMAIN VALUE	1905.876	3.8844	2.87909	2.99011	1.87877	1.45483	38.2754	2.60148	7.91503	3.00376	4.26695	14.8935
SAMPLE	**K predict**	D1	D2	D3	D4	D5	**V predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	620.6995	-0.0943	-0.2874	-0.0861	0.20747	0.46129	18.9364	-0.07	-0.9161	-0.074	-0.3739	4.37697
PMSB-BWBK-SB-PM09-0106	491.0614	-0.5624	-0.6831	-1.2635	-0.2145	0.60348	21.1262	-0.5711	-1.4994	-1.2941	0.12433	7.81066
PMSB-BWBK-SB-PM10-0105	392.8381	-0.3641	-0.6581	-0.1886	1.24435	0.285	11.1624	0.13069	-3.6159	-0.2264	-1.8362	-1.6145
PMSB-BWBK-SB-PM11-0104	693.1769	0.79822	-0.782	1.31298	-0.1934	0.87996	28.314	0.52439	-2.5319	1.40451	0.98755	8.55045
PMSB-BWBK-SB-PM12-0105	573.0277	-1.3659	-0.7947	-1.06	0.31915	0.29199	13.6621	-1.0557	-2.0804	-1.0868	-1.5011	4.17046
PMSB-BWBK-SB-PM13-0106	739.2023	-0.9334	-0.9423	0.89091	1.14239	-0.2309	6.71286	-0.5208	-3.513	0.94809	-3.0166	-3.6738
PMSB-BWBK-SB-PM14-0106	660.5383	-1.0925	-1.0037	-0.3306	0.2185	0.25622	16.2736	-0.8022	-3.0417	-0.3241	-0.7451	3.04649
PMSB-BWBK-SB-PM15-0105	701.3945	-0.2931	-0.4979	0.19255	0.44883	-0.1208	12.4661	-0.2335	-1.4946	0.22569	-1.3777	-1.0022
PMSB-BWBK-SB-PM16-0106	652.0104	-0.7605	-0.7025	-0.5265	0.23286	-0.0585	13.5051	-0.6037	-1.9524	-0.5285	-0.9411	0.23987
PMSB-BWBK-SB-PM17-0105	700.6901	0.00599	0.09781	0.1129	0.3135	0.26906	17.7332	0.13848	-0.1915	0.11549	-0.0405	0.98036
PMSB-BWBK-SB-PM18-0105	503.6579	1.06641	0.00758	-0.3706	0.354	-0.4091	10.6324	0.60753	0.45065	-0.364	-1.5176	-2.9923
PMSB-BWBK-SB-PM19-0105	749.1396	0.42133	-0.1899	0.46937	0.19199	-0.2242	14.689	0.21757	-0.3672	0.52174	-0.6272	-1.6944
PMSB-BWBK-SB-PM20-0106	670.1801	-0.1689	-0.3691	-0.0984	0.26531	-0.0142	14.5036	-0.1665	-1.0064	-0.0818	-0.8578	0.24539
PMSB-BWBK-SB-SO01-0107-PM	370.3728	1.94907	-0.4615	-0.5787	-0.1121	-0.5592	15.4869	1.23072	-1.2169	-0.5873	0.34033	-4.8086
PMSB-BWBK-SB-SO02-0109-PM	265.3801	1.64628	-0.3433	-1.0395	0.51417	-0.9216	6.30404	1.03933	-0.8695	-1.0695	-1.6691	-8.5708
PMSB-BWBK-SB-SO13-0104-PM	439.8253	2.57103	-0.5551	0.31843	-0.3116	-0.3719	21.0829	1.72529	-1.8241	0.35161	1.48029	-3.822
PMSB-BWBK-SB-SO14-0105-PM	511.685	2.59362	0.04027	0.34147	-0.309	-0.2595	20.5459	1.65792	0.46082	0.38491	0.97009	-1.792
SESB-BWBK-SB-SO03-0108	417.8247	3.8844	0.40422	0.81766	-0.2142	-0.2417	21.722	2.60148	1.36467	0.87854	1.05631	-2.4646
SESB-BWBK-SB-SO04-0108	444.835	2.66873	-0.3012	0.31387	-0.3969	-0.1233	22.9206	1.77136	-0.9135	0.34179	1.48967	-1.078
SESB-BWBK-SB-SO05-0106	480.2818	1.78122	-0.2766	0.294	0.30266	-0.4141	13.6555	1.20634	-0.9489	0.32206	-0.7129	-4.3298
SESB-BWBK-SB-SO06-0108	187.5626	3.04673	0.0613	-0.2746	0.52861	-0.5823	11.2489	2.10069	-0.0031	-0.2777	-1.0874	-6.5639
SESB-BWBK-SB-SO07-0106	169.0067	2.75254	-0.5994	-0.6369	-0.5038	0.34617	27.5393	1.87605	-2.0824	-0.6622	2.33818	2.88125
SESB-BWBK-SB-SO08-0107	341.5056	3.16992	0.15242	0.56537	0.25608	-0.1717	17.8673	2.27413	-0.0592	0.58573	0.05915	-3.3722
SESB-BWBK-SB-SO09-0106	729.7971	1.30605	0.19903	0.68654	0.02224	-0.1724	17.6222	0.84542	0.78514	0.74478	0.11187	-1.5307
SESB-BWBK-SB-SO11-0106	452.064	1.50772	0.47318	-0.1153	0.18256	0.56899	20.8149	1.06821	1.34991	-0.12	-0.1127	4.832
SESB-BWBK-SB-SO12-0106	158.165	2.69197	-0.5108	-0.7435	-0.1111	-0.1796	19.1245	1.79681	-1.6412	-0.7722	0.66287	-1.81
SESB-BWBK-SB-SO15-0103	580.9671	-0.1596	-0.6028	-0.267	0.57733	-0.3503	10.204	-0.0624	-2.1555	-0.2683	-1.323	-4.1759
SESB-BWBK-SB-SO16-0105	400.951	0.62183	-0.6713	-0.7173	-0.0245	0.28703	19.7045	0.38098	-2.0707	-0.7418	0.1887	3.05263
SESB-BWBK-SB-SO17-0106	620.0059	-0.0827	-0.7106	-0.2631	-0.1251	0.27657	19.9762	-0.1161	-2.1099	-0.2646	0.2596	3.29571
SESB-BWBK-SB-SO18-0105	700.7297	-0.6404	-0.7024	-0.3779	-0.1468	0.24603	18.9964	-0.5576	-1.8215	-0.3735	0.06033	3.68562
SESB-BWBK-SB-SO19-0104	738.6111	-0.0968	-0.2931	0.17028	-0.4078	0.92288	28.4367	-0.0476	-1.0318	0.18614	1.76392	8.73131
SESB-BWBK-SB-SO20-0104	348.4068	1.81753	-0.6653	-0.4248	-0.2951	0.05298	21.6275	1.13344	-1.8562	-0.4252	0.89751	1.30529

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ZINC

Factor Pattern Coefficients (FPC) after Varimax rotatio

0.0000	D1	D2	D3	D4	D5
AL	-0.0185	-0.3290	-0.1724	0.4067	-0.5844
AS	-0.0751	0.1315	-0.0057	-0.0712	0.1658
BA	0.0165	0.1764	1.0703	-0.1558	0.2338
CA	-0.0592	-0.2300	-0.0096	0.1319	0.1555
CR	-0.0520	-0.1312	-0.1231	0.3515	-0.0972
CO	0.0788	-0.0255	0.0958	-0.1791	0.3025
CU	0.2075	-0.1412	0.0290	-0.1322	-0.2578
FE	0.4207	-0.4547	0.1032	0.4236	-0.6610
PB	0.1876	-0.0265	0.0786	-0.0558	-0.4562
MG	-0.4336	1.5501	0.1796	-0.1178	0.5160
MN	-0.0153	-0.0070	-0.0050	-0.0584	0.2485
NI	0.3367	-0.1307	-0.0068	-0.2737	0.2839
K	0.1938	-0.3034	-0.0435	-0.1351	-0.2610
V	-0.1837	0.2826	0.0179	0.3783	0.3012
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754
ZN	0.3606	0.1757	-0.1247	-0.2466	0.4754

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.4442	0.4407	0.2559	0.5674	-0.0834
AS	0.7235	0.0521	-0.0727	0.3817	0.1549
BA	-0.0872	-0.0379	0.9763	0.1247	-0.0177
CA	0.3201	0.0079	-0.1341	0.3607	0.6105
CR	0.4495	0.2470	0.0211	0.6804	0.1800
CO	0.7759	0.0699	-0.0294	0.2110	0.3714
CU	0.7309	0.4143	-0.0594	-0.0231	-0.0526
FE	0.8105	0.1932	-0.0448	0.4700	0.1003
PB	0.8402	0.1329	-0.0051	0.2038	-0.1224
MG	0.3039	0.9491	-0.0410	0.0630	0.0341
MN	0.2451	0.0708	0.0765	0.1408	0.5193
NI	0.8610	0.2286	-0.1004	0.2071	0.2630
K	-0.3567	0.3148	0.4044	-0.4632	-0.2893
V	0.3202	-0.0584	0.2699	0.7700	0.1938
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
ZN	0.8625	0.2402	-0.0744	0.3095	0.2200
41.1530					
13.0870					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.0296	-0.4888	-0.1546	0.2111	1.9357
AS	-0.1198	0.1954	-0.0051	-0.0370	-0.5491
BA	0.0264	0.2621	0.9599	-0.0809	-0.7744
CA	-0.0946	-0.3417	-0.0086	0.0685	-0.5151
CR	-0.0830	-0.1950	-0.1104	0.1825	0.3218
CO	0.1258	-0.0379	0.0860	-0.0930	-1.0019
CU	0.3314	-0.2098	0.0260	-0.0686	0.8538
FE	0.6718	-0.6757	0.0926	0.2199	2.1893
PB	0.2995	-0.0393	0.0705	-0.0290	1.5109
MG	-0.6924	2.3034	0.1611	-0.0611	-1.7092
MN	-0.0245	-0.0105	-0.0045	-0.0303	-0.8229
NI	0.5377	-0.1942	-0.0061	-0.1421	-0.9405
K	0.3095	-0.4509	-0.0391	-0.0701	0.8643
V	-0.2933	0.4200	0.0161	0.1964	-0.9976
ZN	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ZINC					
	PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC					
MINIMUM DOMAIN VALUE	11.775	-2.1578	-2.238	-1.7621	-1.2845	-5.9958
MAXIMUM DOMAIN VALUE	94.2914	3.3289	5.78709	2.56536	1.69241	6.21884
SAMPLE	ZN predic	D1	D2	D3	D4	D5
MASB-BWBK-SB-MA01-0105	34.3682	0.5106	-0.8998	-0.6475	0.04425	-3.6576
MASB-BWBK-SB-MA02-0107	41.2103	0.11528	0.67771	0.113	0.30501	-1.5631
MASB-BWBK-SB-MA03-0108	37.4949	1.66613	-1.1506	0.6256	-0.5186	-5.6059
MASB-BWBK-SB-MA04-0106	24.7261	-1.0442	3.85092	0.62713	0.27773	-5.9958
MASB-BWBK-SB-MA05-0108	33.6632	-0.2806	0.99171	-0.0663	0.18383	-2.8653
MASB-BWBK-SB-MA06-0105	40.1304	-0.0485	0.47868	-0.2446	0.25524	-1.1297
MASB-BWBK-SB-MA07-0108	41.5722	-0.2771	0.21573	-1.0958	0.22769	0.30562
MASB-BWBK-SB-MA08-0108	80.9967	0.79687	1.65553	-0.9688	1.69241	6.19886
MASB-BWBK-SB-MA09-0108	63.8825	1.36747	-0.4861	-0.3587	0.10993	2.78827
MASB-BWBK-SB-MA10-0104	48.9918	0.38282	-1.4641	-1.7621	0.06039	2.13966
MASB-BWBK-SB-MA11-0108	70.3386	1.24889	-0.0664	-0.1191	0.50655	4.56046
MASB-BWBK-SB-MA12-0108	45.749	0.66543	0.64688	-0.0431	0.10504	-1.8815
MASB-BWBK-SB-MA13-0105	13.5764	-1.1918	-1.4092	1.01563	0.28549	-3.4251
MASB-BWBK-SB-MA14-0104	57.4636	1.00385	-1.8729	2.21669	0.67299	3.57771
MASB-BWBK-SB-MA15-0105	40.0783	-0.1135	-1.753	1.7777	0.76613	1.50942
MASB-BWBK-SB-MA16-0104	31.7828	-0.0394	-1.5733	0.59426	0.08425	-1.2998
MASB-BWBK-SB-MA17-0104	32.5486	-0.4664	-2.238	0.9372	0.39394	1.04683
MASB-BWBK-SB-MA18-0104	11.9587	-2.1578	-0.3193	-0.1768	1.08222	-2.914
MASB-BWBK-SB-MA19-0103	11.775	-1.1868	-1.9833	0.38461	0.16313	-3.485
MASB-BWBK-SB-MA20-0103	39.6965	0.44718	-0.9036	-0.0514	0.02984	-1.3319
MMSB-BWBK-SB-MM101-0110	48.4134	0.35788	0.12836	-0.1873	-0.8866	2.16262
MMSB-BWBK-SB-MM102-0109	32.7332	-0.7733	2.54119	-0.4456	-0.6217	-1.9436
MMSB-BWBK-SB-MM103-0107	36.6772	0.05261	-0.1593	-0.644	-0.8548	-0.6022
MMSB-BWBK-SB-MM104-0110	73.823	0.26522	4.74742	0.22733	-0.4888	5.88858
MMSB-BWBK-SB-MM105-0110	33.1216	-0.0982	-1.762	-1.4216	-0.9527	0.37908
MMSB-BWBK-SB-MM106-0110	33.7892	-1.7774	5.78709	1.21393	0.08122	-1.612
MMSB-BWBK-SB-MM107-0110	32.3678	-0.5944	-0.3403	-0.8323	-0.3749	-0.1033
MMSB-BWBK-SB-MM108-0110	32.7391	-0.8298	0.78657	-0.6857	-0.5412	0.0013
MMSB-BWBK-SB-MM109-0110	48.1131	-0.0032	0.18153	1.10008	-0.2144	2.90587
MMSB-BWBK-SB-MM110-0109	41.473	-0.5314	0.02732	-0.4903	-0.1255	2.17569
MMSB-BWBK-SB-MM111-0110	47.9556	-0.1785	1.44164	0.66544	-0.4519	2.34924
MMSB-BWBK-SB-MM112-0110	25.2556	-1.3199	2.11043	0.21819	-0.0546	-2.5006
MMSB-BWBK-SB-MM113-0110	32.4177	-1.0581	1.30665	-0.8945	-0.0765	-0.5073
MMSB-BWBK-SB-MM114-0110	26.4481	-0.4649	-1.2668	-0.5291	-0.8005	-0.9542
MMSB-BWBK-SB-MM115-0110	21.5453	-1.4427	2.55842	2.56536	-0.4931	-2.3865
MMSB-BWBK-SB-MM116-0110	36.113	-0.3575	0.80951	0.04333	-0.7507	-0.1622
MMSB-BWBK-SB-MM117-0110	33.0227	-0.0541	-0.7357	-0.9415	-1.1484	-0.5113
MMSB-BWBK-SB-MM118-0110	43.4399	0.86091	1.17011	-0.3738	-1.2845	-2.1783
MMSB-BWBK-SB-MM119-0110	26.8935	-1.0574	1.96204	-0.536	-0.7141	-2.1265
MMSB-BWBK-SB-MM120-0110	24.1371	-0.3679	-1.7565	-1.7067	-1.2355	-1.3891
NESB-BWBK-SB-NE01-0108	43.4854	-1.0788	3.03623	-1.1202	0.22374	1.03092
NESB-BWBK-SB-NE02-0109	32.431	-0.6549	2.70972	1.7628	-0.337	-2.3506
NESB-BWBK-SB-NE03-0105	46.1227	-0.3927	0.25602	-1.1453	2.9E-05	2.59907
NESB-BWBK-SB-NE04-0110	38.2603	-0.8309	1.65614	-0.807	-0.1884	0.43682
NESB-BWBK-SB-NE05-0108	42.7212	-0.8702	1.91114	-1.4144	0.15057	1.17947
NESB-BWBK-SB-NE06-0109	39.1043	-0.6629	1.25512	-1.2618	-0.1326	0.27667
NESB-BWBK-SB-NE07-0107	48.6451	-0.6334	1.8273	-0.9418	0.18985	2.50493
NESB-BWBK-SB-NE08-0104	34.5283	-0.7545	-0.1027	-1.5849	-0.0648	0.32427
NESB-BWBK-SB-NE09-0110	35.4682	-0.8701	0.97684	-1.3509	-0.092	0.04259
NESB-BWBK-SB-NE10-0107	36.3507	-1.2485	0.65703	-0.6691	0.38033	1.74833
NESB-BWBK-SB-NE101-0110	42.9772	-0.4149	0.41743	1.54356	-0.1751	2.57323
NESB-BWBK-SB-NE102-0110	34.2692	-0.5296	-0.0033	1.85862	-0.4955	1.01484
NESB-BWBK-SB-NE103-0110	30.9075	-0.4695	-1.0608	0.60689	-0.6531	0.5648
NESB-BWBK-SB-NE104-0110	27.2885	-0.4401	-1.6545	-0.1414	-0.8263	-0.1687
NESB-BWBK-SB-NE105-0110	40.2287	-0.344	0.67035	1.80219	-0.4172	1.4921
NESB-BWBK-SB-NE106-0110	35.4286	-0.4093	0.11078	1.18839	-0.5562	0.6799
NESB-BWBK-SB-NE107-0510	27.1192	-0.805	0.0102	-0.1548	-0.8113	-0.6404
NESB-BWBK-SB-NE108-0110	35.6787	-0.6489	-0.2088	0.5338	-0.3143	1.49358
NESB-BWBK-SB-NE109-0110	36.275	-0.4967	-0.3449	0.94017	-0.479	1.62156
NESB-BWBK-SB-NE110-0110	36.7263	-0.7331	0.01717	-0.0301	-0.3914	1.85863
PMSB-BWBK-SB-PM01-0105	29.1455	-0.2824	-0.4787	0.80736	0.21739	-2.5736
PMSB-BWBK-SB-PM02-0104	60.2109	0.37101	-0.4437	0.6095	1.56645	3.652
PMSB-BWBK-SB-PM03-0106	45.7053	0.37642	0.50514	-0.8513	0.59551	-1.5721
PMSB-BWBK-SB-PM04-0105	42.667	-0.0864	0.92662	-0.2243	0.35542	-0.7231
PMSB-BWBK-SB-PM05-0105	33.529	-0.3695	0.76356	0.04327	0.37917	-2.552
PMSB-BWBK-SB-PM06-0105	21.8243	-0.7046	1.09086	0.32398	0.32377	-5.4886
PMSB-BWBK-SB-PM07-0105	21.2879	-0.0369	-1.8704	0.56145	0.16117	-4.7501

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ZINC					
	PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC					
MINIMUM DOMAIN VALUE	11.775	-2.1578	-2.238	-1.7621	-1.2845	-5.9958
MAXIMUM DOMAIN VALUE	94.2914	3.3289	5.78709	2.56536	1.69241	6.21884
SAMPLE	ZN predic	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM08-0106	28.2704	-0.2753	-0.354	-0.0639	0.19767	-3.3085
PMSB-BWBK-SB-PM09-0106	16.6844	-0.6283	-1.0922	-1.2122	-0.1867	-4.9904
PMSB-BWBK-SB-PM10-0105	28.0229	-0.5669	-1.1667	-0.1707	0.99749	-2.5251
PMSB-BWBK-SB-PM11-0104	28.4235	0.88194	-1.5392	1.23919	-0.1202	-5.6107
PMSB-BWBK-SB-PM12-0105	11.7807	-1.4785	-1.3043	-1.0553	0.19195	-3.6081
PMSB-BWBK-SB-PM13-0106	26.0438	-0.9835	-1.6655	0.77539	0.84887	-0.5054
PMSB-BWBK-SB-PM14-0106	13.9501	-1.1061	-1.791	-0.379	0.10792	-3.4363
PMSB-BWBK-SB-PM15-0105	34.0189	-0.4583	-0.7783	0.18112	0.37093	-0.2919
PMSB-BWBK-SB-PM16-0106	25.6687	-0.8395	-1.1642	-0.5312	0.15406	-1.2119
PMSB-BWBK-SB-PM17-0105	36.3517	-0.1486	0.4385	0.12562	0.28071	-1.9164
PMSB-BWBK-SB-PM18-0105	60.3047	0.73961	0.09503	-0.2379	0.41593	2.98304
PMSB-BWBK-SB-PM19-0105	46.096	0.18629	-0.1859	0.4913	0.22929	1.03312
PMSB-BWBK-SB-PM20-0106	34.5558	-0.3806	-0.5544	-0.0732	0.24519	-0.5635
PMSB-BWBK-SB-SO01-0107-PM	69.6829	1.61862	-1.0977	-0.3843	0.10619	4.48283
PMSB-BWBK-SB-SO02-0109-PM	73.5322	1.18671	-0.6892	-0.8108	0.60675	6.21884
PMSB-BWBK-SB-SO13-0104-PM	74.4604	2.63044	-1.238	0.41098	-0.0985	2.88516
PMSB-BWBK-SB-SO14-0105-PM	75.6821	2.24685	-0.0597	0.51324	-0.0048	3.42964
SESB-BWBK-SB-SO03-0108	94.2914	3.3289	0.50883	1.06796	0.19492	4.93676
SESB-BWBK-SB-SO04-0108	72.8869	2.41835	-0.9724	0.47824	-0.0908	2.8921
SESB-BWBK-SB-SO05-0106	66.9531	1.35272	-0.7688	0.44259	0.44208	4.02514
SESB-BWBK-SB-SO06-0108	88.4575	2.40226	-0.0756	0.01611	0.74494	6.05228
SESB-BWBK-SB-SO07-0106	63.6061	2.46097	-1.5217	-0.4023	-0.1598	-0.0998
SESB-BWBK-SB-SO08-0107	84.5477	2.62151	-0.1727	0.79964	0.5171	4.52608
SESB-BWBK-SB-SO09-0106	58.7397	0.90794	0.47154	0.77521	0.18684	2.03325
SESB-BWBK-SB-SO11-0106	52.7548	0.9756	0.87268	0.06937	0.35413	-1.2231
SESB-BWBK-SB-SO12-0106	73.1266	2.28469	-1.4025	-0.4811	0.16947	3.27838
SESB-BWBK-SB-SO15-0103	39.3989	-0.3256	-1.0013	-0.2416	0.47995	1.00376
SESB-BWBK-SB-SO16-0105	38.1552	0.45206	-1.4206	-0.6133	0.05737	-1.5507
SESB-BWBK-SB-SO17-0106	29.2731	-0.1096	-1.4992	-0.2502	-0.0966	-2.0083
SESB-BWBK-SB-SO18-0105	22.0156	-0.6441	-1.2928	-0.3954	-0.1528	-2.6291
SESB-BWBK-SB-SO19-0104	19.4962	-0.2695	-0.557	0.1804	-0.2863	-5.394
SESB-BWBK-SB-SO20-0104	56.0487	1.51304	-1.5868	-0.2513	-0.051	0.96106

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SUMMARY OF FACTOR ANALYSIS ANALYTE BACK-PREDICTION ERRORS (BEFORE REGRESSIONS)
Extent of Severe Overprediction or Underprediction Errors from Analyte Back-Prediction
No. of Samples With % Prediction Errors (OBSERVED - PREDICTED) / (OBSERVED)*100 > 100 or < -50

ALL SOIL TYPES:

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples)														
3 / 270	22 / 270	85 / 270	9 / 270	13 / 270	19 / 270	1 / 270	16 / 270	0 / 270	0 / 270	34 / 270	5 / 270	18 / 270	18 / 270	4 / 270

SOIL TYPE: MASB

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASB)														
0 / 20	4 / 20	15 / 20	0 / 20	1 / 20	8 / 20	1 / 20	2 / 20	0 / 20	0 / 20	9 / 20	1 / 20	6 / 20	2 / 20	0 / 20

SOIL TYPE: MMSB

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSB)														
3 / 20	5 / 20	19 / 20	2 / 20	9 / 20	5 / 20	0 / 20	8 / 20	0 / 20	0 / 20	9 / 20	2 / 20	0 / 20	10 / 20	4 / 20

SOIL TYPE: NESB

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESB)														
0 / 20	7 / 20	17 / 20	1 / 20	3 / 20	1 / 20	0 / 20	3 / 20	0 / 20	0 / 20	4 / 20	0 / 20	7 / 20	3 / 20	0 / 20

SOIL TYPE: PMSB

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSB)														
0 / 24	0 / 24	21 / 24	5 / 24	0 / 24	5 / 24	0 / 24	1 / 24	0 / 24	0 / 24	6 / 24	1 / 24	5 / 24	2 / 24	0 / 24

SOIL TYPE: SESB

AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESB)														
0 / 15	6 / 15	13 / 15	1 / 15	0 / 15	0 / 15	0 / 15	2 / 15	0 / 15	0 / 15	6 / 15	1 / 15	0 / 15	1 / 15	0 / 15

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100% or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MINIMUM DOMAIN VALUE															
MAXIMUM DOMAIN VALUE															
SAMPLE															
MASB-BWBK-SB-MA01-0105	0	-48	81	6	-11	-80	6	-17	1	-5	65	-36	52	-42	35
MASB-BWBK-SB-MA02-0107	4	-67	85	28	7	-47	-3	9	-10	6	-48	-3	14	-13	26
MASB-BWBK-SB-MA03-0108	-40	-41	-417	-3	-79	-32	-3	-73	-27	-6	-43	-57	15	-149	41
MASB-BWBK-SB-MA04-0106	-4	-54	-68	0	-6	-148	-4	16	-12	25	-98	-30	-37	-39	60
MASB-BWBK-SB-MA05-0108	0	43	92	16	0	-95	2	9	-7	9	-130	-14	3	-21	37
MASB-BWBK-SB-MA06-0105	4	-84	137	19	6	-64	2	1	-9	5	-94	-5	17	-3	25
MASB-BWBK-SB-MA07-0108	8	19	-106	21	10	-60	-46	22	-6	2	-109	0	8	12	15
MASB-BWBK-SB-MA08-0108	36	39	-233	-2	76	43	-38	66	7	5	56	19	91	107	-13
MASB-BWBK-SB-MA09-0108	-6	55	-333	20	-18	2	15	-10	1	-6	25	-12	7	-6	-6
MASB-BWBK-SB-MA10-0104	2	3	-575	-11	4	13	-45	3	1	-17	5	-11	13	19	-11
MASB-BWBK-SB-MA11-0108	4	-24	-245	44	15	26	-6	-4	25	-4	42	11	31	37	-14
MASB-BWBK-SB-MA12-0108	-7	47	-181	16	-16	-42	-3	-3	-13	5	-91	-17	28	-40	24
MASB-BWBK-SB-MA13-0105	16	-20	438	14	41	-113	24	58	-1	-10	-399	-31	-124	17	56
MASB-BWBK-SB-MA14-0104	16	27	360	-35	47	63	0	36	6	-20	76	17	-88	52	-30
MASB-BWBK-SB-MA15-0105	28	24	559	-45	68	35	14	65	3	-18	45	24	-86	62	-11
MASB-BWBK-SB-MA16-0104	1	-27	20	17	14	-39	-1	8	15	-15	-21	-33	-75	4	15
MASB-BWBK-SB-MA17-0104	20	-1	572	-41	46	18	-88	40	5	-24	19	-18	-168	36	15
MASB-BWBK-SB-MA18-0104	48	-18	771	13	90	-117	29	147	15	2	-292	0	-33	75	64
MASB-BWBK-SB-MA19-0103	16	8	462	23	36	-146	-18	43	8	-17	-87	-36	-90	8	62
MASB-BWBK-SB-MA20-0103	-5	-114	-21	22	-8	-46	3	-19	-11	-6	-184	-9	-10	-22	19
MMSB-BWBK-SB-MM101-0110	-46	24	-858	74	-88	70	-11	-93	33	-2	128	1	-17	-76	-68
MMSB-BWBK-SB-MM102-0109	-23	-30	-509	-8	-47	-46	4	-48	9	17	-92	24	-5	-57	-10
MMSB-BWBK-SB-MM103-0107	-35	13	-599	-5	-64	57	-1	-103	13	-2	25	-18	11	-98	-30
MMSB-BWBK-SB-MM104-0110	-24	8	-1037	106	-45	138	61	-35	2	20	200	12	20	12	-90
MMSB-BWBK-SB-MM105-0110	-39	66	-664	46	-101	12	-6	-132	16	-22	92	-10	-24	-96	-43
MMSB-BWBK-SB-MM106-0110	-3	-93	-159	-18	-1	-47	5	38	16	31	-56	-10	4	7	21
MMSB-BWBK-SB-MM107-0110	-13	-4	185	-9	-5	11	16	-31	-1	-3	20	-10	30	-19	-18
MMSB-BWBK-SB-MM108-0110	-16	19	-356	12	-43	8	-5	-32	7	6	13	-14	11	-29	-14
MMSB-BWBK-SB-MM109-0110	-5	-31	205	5	-6	88	0	-24	16	0	123	33	19	13	-51
MMSB-BWBK-SB-MM110-0109	2	5	182	14	10	72	15	1	12	-1	123	28	22	29	-43
MMSB-BWBK-SB-MM111-0110	-17	-1	-224	60	-34	66	-16	-27	22	9	103	23	22	-13	-51
MMSB-BWBK-SB-MM112-0110	3	-75	19	-77	6	-79	-35	41	-4	16	32	-5	17	8	17
MMSB-BWBK-SB-MM113-0110	1	-75	376	-47	11	-12	19	10	-5	9	-21	18	23	10	-5
MMSB-BWBK-SB-MM114-0110	-24	68	-86	58	-69	-27	-3	-85	1	-11	30	-6	10	-90	-12
MMSB-BWBK-SB-MM115-0110	-19	43	124	36	-49	-86	-26	0	-14	21	-100	-65	22	-47	31
MMSB-BWBK-SB-MM116-0110	-34	-8	-246	39	-60	-12	-7	-77	12	7	16	-10	10	-91	-15
MMSB-BWBK-SB-MM117-0110	-53	49	-805	21	-157	8	-2	-135	-3	-8	33	-35	3	-149	-32
MMSB-BWBK-SB-MM118-0110	-66	-105	-1046	-3	-151	-54	10	-192	14	7	15	25	6	-156	-41
MMSB-BWBK-SB-MM119-0110	-33	16	-631	5	-65	-78	-20	-40	7	15	-59	-35	14	-70	9
MMSB-BWBK-SB-MM120-0110	-66	116	-955	7	-168	-45	-1	-163	-18	-22	21	-77	12	-167	-29
NESB-BWBK-SB-NE01-0108	13	-81	-71	-46	17	32	5	36	-5	17	15	35	-67	38	-4
NESB-BWBK-SB-NE02-0109	-17	-42	-36	-50	-32	-52	-1	-7	-3	20	-8	-7	-214	-84	20
NESB-BWBK-SB-NE03-0105	11	-26	95	-23	11	73	4	19	-14	0	112	41	-25	34	-33
NESB-BWBK-SB-NE04-0110	0	-42	-225	-34	-12	21	2	4	0	11	24	18	-81	-5	-7
NESB-BWBK-SB-NE05-0108	12	-85	-97	-34	14	29	6	28	-8	11	27	29	-51	34	-6
NESB-BWBK-SB-NE06-0109	3	-62	-316	-24	-7	16	5	6	-9	8	5	20	-59	1	-6
NESB-BWBK-SB-NE07-0107	13	-75	175	-38	16	56	4	22	-3	10	58	45	-68	41	-17
NESB-BWBK-SB-NE08-0104	11	-52	87	-12	9	29	7	10	-11	-2	11	26	-35	18	-5
NESB-BWBK-SB-NE09-0110	6	-65	-128	-11	-1	8	4	14	-14	7	3	14	-54	2	3
NESB-BWBK-SB-NE10-0107	23	-53	429	-82	47	47	10	59	9	5	67	33	-46	65	-9
NESB-BWBK-SB-NE101-0110	1	7	350	18	-1	88	-5	-1	0	4	116	41	20	16	-43
NESB-BWBK-SB-NE102-0110	-11	58	331	15	-35	34	-13	-40	-6	2	51	17	7	-29	-25
NESB-BWBK-SB-NE103-0110	-15	76	255	29	-52	20	-6	-62	-16	-9	64	4	14	-45	-28
NESB-BWBK-SB-NE104-0110	-24	92	116	26	-80	-3	-15	-94	-19	-17	36	-19	17	-72	-24
NESB-BWBK-SB-NE105-0110	-12	24	251	-14	-29	36	-15	-25	-4	6	75	11	25	-15	-33
NESB-BWBK-SB-NE106-0110	-15	16	213	10	-44	24	-6	-47	-10	2	39	10	17	-35	-26
NESB-BWBK-SB-NE107-0510	-28	73	-212	40	-89	-37	3	-61	-13	2	-11	-42	10	-74	-10
NESB-BWBK-SB-NE108-0110	-1	16	240	19	-11	67	25	-10	-12	-1	96	15	17	8	-35
NESB-BWBK-SB-NE109-0110	-8	50	260	38	-31	67	5	-32	-9	-2	105	17	14	-17	-38
NESB-BWBK-SB-NE110-0110	-2	46	218	1	-18	85	4	-18	-6	0	130	19	23	4	-39
PMSB-BWBK-SB-PM01-0105	14	-20	411	-27	20	2	-30	15	-4	-1	-26	20	-75	1	26
PMSB-BWBK-SB-PM02-0104	44	11	393	-117	85	87	-6	87	6	-7	94	28	3	105	-32
PMSB-BWBK-SB-PM03-0106	16	-15	-436	-40	29	18	-4	35	-37	3	-111	-8	33	27	13
PMSB-BWBK-SB-PM04-0105	10	31	-263	29	20	-9	1	25	20	6	-18	8	-7	22	8
PMSB-BWBK-SB-PM05-0105	12	-3	-142	-3	24	-17	-4	36	1	7	-18	-16	-31	14	26
PMSB-BWBK-SB-PM06-0105	11	8	-3	-47	20	-97	-13	51	-21	11	48	-38	-79	-10	50
PMSB-BWBK-SB-PM07-0105	9	25	-73	-34	24	-8	-15	40	-20	-16	10	-57	-45	-5	36

APPENDIX F, TABLE F4-3
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SUBSURFACE SOIL, OMIT Be, Cd, Hg, Na, Se
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE															
MAXIMUM DOMAIN VALUE															
SAMPLE	AL	AS	BA	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
PMSB-BWBK-SB-PM08-0106	10	26	-55	-21	17	-1	-13	26	-3	-1	-30	-19	-33	1	30
PMSB-BWBK-SB-PM09-0106	1	30	-150	-10	-7	-59	-7	8	-40	-7	-105	-30	-19	-39	51
PMSB-BWBK-SB-PM10-0105	39	-5	272	-70	73	-9	26	81	1	-11	-25	-38	12	61	27
PMSB-BWBK-SB-PM11-0104	-10	-19	-79	-55	-15	-47	-7	-1	-23	-11	38	-33	-38	-51	29
PMSB-BWBK-SB-PM12-0105	22	-29	491	23	36	-96	12	55	0	-8	-84	-25	-31	16	61
PMSB-BWBK-SB-PM13-0106	38	14	589	-52	81	-26	-41	102	0	-16	56	-11	-72	70	17
PMSB-BWBK-SB-PM14-0106	17	3	325	15	32	-95	5	43	2	-15	2	-44	-48	9	53
PMSB-BWBK-SB-PM15-0105	17	-8	244	10	37	-13	6	41	4	-6	-6	-3	-59	33	11
PMSB-BWBK-SB-PM16-0106	16	-1	322	12	30	-58	11	34	-3	-9	9	-7	-46	22	23
PMSB-BWBK-SB-PM17-0105	9	-20	-490	0	21	34	14	25	15	4	-48	-30	-28	19	12
PMSB-BWBK-SB-PM18-0105	9	5	-106	16	21	21	2	23	-11	-2	29	18	-3	36	-18
PMSB-BWBK-SB-PM19-0105	6	-8	142	-7	16	-9	10	13	-1	-2	22	8	-69	18	-4
PMSB-BWBK-SB-PM20-0106	12	-4	218	10	24	-26	6	24	-2	-4	-37	0	-42	20	15
PMSB-BWBK-SB-SO01-0107-PM	-2	-35	-29	-9	-12	50	-7	-34	1	-13	14	23	23	11	-23
PMSB-BWBK-SB-SO02-0109-PM	15	14	-24	-28	32	75	-35	18	10	-11	119	29	26	66	-32
PMSB-BWBK-SB-SO13-0104-PM	-20	-6	-631	-31	-25	54	14	-35	-4	-16	-88	15	12	-10	-44
PMSB-BWBK-SB-SO14-0105-PM	-16	10	-327	-56	-29	35	-10	-28	-7	-4	-70	14	0	-21	-23
SESB-BWBK-SB-SO03-0108	-11	-13	-196	3	-28	37	4	-39	-3	-1	-15	34	21	-16	-27
SESB-BWBK-SB-SO04-0108	-21	8	-222	-21	-33	25	-1	-45	-7	-11	-107	8	30	-31	-19
SESB-BWBK-SB-SO05-0106	7	11	347	0	14	25	0	-6	-2	-8	6	26	11	28	-14
SESB-BWBK-SB-SO06-0108	9	20	-304	19	20	63	-11	5	10	-5	-23	31	55	47	-27
SESB-BWBK-SB-SO07-0106	-19	-53	-586	-1	-40	6	0	-75	16	-15	41	-1	66	-39	-4
SESB-BWBK-SB-SO08-0107	-1	-6	-163	28	1	36	1	-17	9	-4	12	19	50	15	-17
SESB-BWBK-SB-SO09-0106	-3	20	99	-45	-2	12	-7	-12	2	2	-177	19	-48	4	-8
SESB-BWBK-SB-SO11-0106	4	6	-140	-10	1	-24	-9	4	5	5	51	-1	26	-7	13
SESB-BWBK-SB-SO12-0106	-8	-1	-302	9	-14	21	6	-30	-4	-15	-4	6	70	-3	-15
SESB-BWBK-SB-SO15-0103	23	-2	356	-57	48	26	-17	41	9	-10	43	13	-41	51	-2
SESB-BWBK-SB-SO16-0105	-1	-57	-15	-5	0	-41	-18	-10	-17	-13	-135	-7	26	-10	16
SESB-BWBK-SB-SO17-0106	-2	-105	196	27	-3	-36	-3	-30	-4	-12	-279	-6	4	-22	26
SESB-BWBK-SB-SO18-0105	3	-78	208	24	0	-14	1	-24	2	-9	-169	-14	-24	-23	35
SESB-BWBK-SB-SO19-0104	-14	-175	-255	-12	-27	7	-6	-64	6	-1	-255	-67	-19	-54	54
SESB-BWBK-SB-SO20-0104	-16	-82	-286	8	-23	-9	7	-34	-10	-15	6	-23	32	-28	-1

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

FACTOR PATTERN MATRIX (FPM) after Varimax rotation: USED TO PREDICT CASE VALUES
(PREDICT each sample and metal from SUMPRODUCT of (FACTOR SCORES ON ONE SAMPLE) X (FACTOR PATTERN MATRIX)

	D1	D2	D3	D4	D5
AL	0.25451296	0.58803	0.67154	0.01622	-0.0104
AS_log	0.71765601	0.49941	0.14665	0.31133	-0.00701
BA	0.1345528	0.74314	0.15427	-0.2926	0.05866
CR	0.74119667	0.42996	0.30006	-0.0879	-0.00344
CO_log	0.95087037	0.16663	-0.04809	-0.0643	0.13072
FE_log	0.88833517	0.27065	0.2193	0.26456	0.06713
PB_log	-0.0250621	0.90952	0.11823	0.07278	-0.11002
MG	0.81680837	-0.34149	0.18529	-0.19	-0.02804
MN_log	0.80186429	-0.07918	-0.02389	-0.0171	0.33419
NI_log	0.96851481	0.01559	0.13309	-0.0039	-0.10374
V	0.19228113	0.90332	0.09586	0.09639	0.06423
ZN_log	0.8192005	0.44691	0.03306	-0.0053	-0.22342

FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	D1	D2	D3	D4	D5
AL	-0.1221807	0.07638	0.77633	-0.3284	0.14081
AS_log	-0.0385376	0.1761	-0.22203	0.21019	-0.07952
BA	0.00042182	0.11067	0.07896	-0.2479	0.06688
CR	0.03882061	0.05778	0.22863	-0.2551	0.1106
CO_log	0.25638627	0.32683	-0.86388	-0.817	1.22781
FE_log	0.28087953	-0.2557	0.574	1.85038	0.6099
PB_log	-0.0457207	0.27609	-0.0339	0.13737	-0.16503
MG	0.06538372	-0.14617	0.19888	-0.5348	0.00409
MN_log	0.04762689	-0.03724	-0.02739	-0.0831	0.36869
NI_log	0.33974895	-0.41998	0.44545	0.12916	-1.39105
V	-0.0424994	0.34248	-0.18079	-0.1461	0.11139
ZN_log	0.13337986	0.26052	-0.51317	-0.347	-0.91695

TRANSPOSE FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
D1	-0.1222	-0.0385	0.0004	0.0388	0.2564	0.2809	-0.0457	0.0654	0.0476	0.3397	-0.0425	0.1334
D2	0.0764	0.1761	0.1107	0.0578	0.3268	-0.2557	0.2761	-0.1462	-0.0372	-0.4200	0.3425	0.2605
D3	0.7763	-0.2220	0.0790	0.2286	-0.8639	0.5740	-0.0339	0.1989	-0.0274	0.4454	-0.1808	-0.5132
D4	-0.3284	0.2102	-0.2479	-0.2551	-0.8170	1.8504	0.1374	-0.5348	-0.0831	0.1292	-0.1461	-0.3470
D5	0.1408	-0.0795	0.0669	0.1106	1.2278	0.6099	-0.1650	0.0041	0.3687	-1.3910	0.1114	-0.9169
0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

FACTOR PATTERN COEFFICIENT MATRIX (FPC) IS MULTIPLIED BY STANDARDIZED CONCENTRATIONS FOR EACH CASE (SAMPLE), WHERE CONCENTRATIONS ARE NORMALIZED FROM RAW CONCENTRATIONS AS (VALUE - MEAN)/(STANDARD DEVIATION), YIELDING FACTOR SCORES FOR THAT CASE (ONE SAMPLE). FACTOR SCORES FOR EACH CASE (SAMPLE) ARE THEN MULTIPLIED BY THE FACTOR PATTERN MATRIX, WHICH YIELDS PREDICTED CASE VALUES FOR EACH METAL

STANDARDIZATION OF VARIABLES FOR THE ENTIRE DATA SET:

Variable	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
Mean	10708.224	1.842	27.709	12.147	1.739	9.776	2.400	2246.451	5.407	2.459	18.794	3.536
Std. deviation	2684.688	0.852	10.480	3.425	0.653	0.426	0.623	809.651	0.695	0.471	6.601	0.409

ADJUSTED FACTOR PATTERN COEFFICIENTS (FPC) MATRICES ELIMINATE THE INFLUENCE OF THE METAL TO BE PREDICTED FROM THE PREDICTION EQUATION FOR THAT METAL:

IN EACH FPC MATRIX, EACH "D" LOADING COEFFICIENT COLUMN VALUE IS MULTIPLIED BY THE SUM OF ENTIRE COLUMN VALUES, THEN DIVIDED BY AN ADJUSTED SUM OF THE VALUES IN THAT "D" COLUMN, LESS THE METAL IN QUESTION.
THE ADJUSTED FACTOR PATTERN COEFFICIENT (FPC) MATRIX ALSO ZEROES OUT THE ROW FOR THE METAL TO BE PREDICTED.

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log	GROUP
BASS	BASS-BWBK-SS-BA101-0001	-2.2156111	-1.94843	-1.92823	-1.9115	-1.67961	-1.543288	-2.08955	-0.094425	-0.72192	-1.45206	-1.8927	-1.13358	BASS
BASS	BASS-BWBK-SS-BA102-0001	-2.5992683	-2.29938	-2.03319	-2.1451	-1.94273	-2.036931	-2.31935	-0.724326	-1.11094	-1.7203	-2.05934	-1.56626	BASS
BASS	BASS-BWBK-SS-BA103-0001	-2.4502752	-2.21047	-1.88053	-2.0867	-1.76239	-1.919265	-2.25874	-0.551412	-1.0164	-1.5253	-1.93814	-1.48644	BASS
BASS	BASS-BWBK-SS-BA104-0001	-2.2044366	-1.85443	-1.79465	-1.678	-1.32192	-1.629791	-1.88855	0.066138	-0.97771	-1.05882	-1.58971	-1.26151	BASS
BASS	BASS-BWBK-SS-BA105-0001	-2.5284966	-1.94843	-2.04273	-1.8823	-1.45514	-1.725155	-1.88855	-0.600816	-0.85578	-1.27928	-1.92299	-1.1909	BASS
BASS	BASS-BWBK-SS-BA106-0001	-2.2007117	-2.01901	-1.9664	-1.3714	-1.42074	-1.583522	-1.70993	0.047612	-0.73261	-0.84553	-1.67303	-1.02282	BASS
BASS	BASS-BWBK-SS-BA107-0001	-2.5694697	-2.31265	-1.94732	-2.1451	-1.94273	-2.040108	-2.14399	-0.711975	-1.04278	-1.7203	-1.95329	-1.55278	BASS
BASS	BASS-BWBK-SS-BA108-0001	-2.5471207	-2.26045	-2.01411	-2.0283	-1.84991	-2.107847	-2.08955	-0.625518	-1.06966	-1.5629	-2.01389	-1.55278	BASS
BASS	BASS-BWBK-SS-BA109-0001	-2.4391007	-2.23519	-2.02365	-1.5028	-1.60107	-1.895227	-2.25874	0.053787	-1.00338	-0.75288	-1.92299	-1.37139	BASS
BASS	BASS-BWBK-SS-BA110-0001	-2.0181952	-2.05061	-1.26032	-1.5028	-1.25942	-1.348291	-2.08955	0.152596	-0.76517	-0.94241	-1.66546	-1.32195	BASS
BASS	BASS-BWBK-SS-BA111-0001	-2.4055773	-2.1983	-2.00457	-1.8239	-1.76239	-1.842024	-2.14399	-0.415551	-0.90331	-1.5253	-1.93814	-1.4604	BASS
BASS	BASS-BWBK-SS-BA112-0001	-2.4130269	-2.38134	-1.95686	-2.0283	-1.84991	-1.853743	-2.25874	-0.378498	-0.96504	-1.7203	-1.96844	-1.51276	BASS
BASS	BASS-BWBK-SS-BA113-0001	-2.606718	-2.11647	-1.97594	-1.8385	-1.63984	-1.896722	-1.35159	-0.730501	-1.11864	-1.5629	-1.93057	0.06515	BASS
MASB	MASB-BWBK-SB-MA01-0105	-0.0403117	0.82213	-0.62103	0.74522	1.16759	1.0044462	-0.30756	0.980113	2.962171	1.33362	-0.25658	1.07253	MASB
MASB	MASB-BWBK-SB-MA02-0107	0.25767453	0.59874	-0.17257	1.09556	1.14228	1.1723548	-0.4361	1.597663	1.381633	1.48339	-0.31718	1.17171	MASB
MASB	MASB-BWBK-SB-MA03-0108	-0.4910158	1.1152	-0.05807	0.36569	1.91672	1.1965374	-0.4361	0.794848	2.129905	1.64853	-0.51412	1.49411	MASB
MASB	MASB-BWBK-SB-MA04-0106	0.25767453	0.77496	0.05642	1.21234	1.09037	1.0730561	-0.57583	2.412829	1.768535	1.5719	0.00096	1.42737	MASB
MASB	MASB-BWBK-SB-MA05-0108	-0.07756	1.7877	-0.26799	0.97878	0.92318	1.0217874	-0.4945	1.350643	1.006099	1.35293	-0.19598	1.07713	MASB
MASB	MASB-BWBK-SB-MA06-0105	-0.0030634	0.37791	-0.36341	0.862	0.89345	0.8976223	-0.4748	1.288888	0.903228	1.3239	-0.15054	1.07713	MASB
MASB	MASB-BWBK-SB-MA07-0108	-0.1520565	1.14718	-0.90728	0.05914	0.54049	1.0899	-0.51445	1.060394	0.274772	1.04306	-0.48382	0.87375	MASB
MASB	MASB-BWBK-SB-MA08-0108	1.28200214	2.27195	-0.9693	1.91301	1.25893	2.5308738	0.16322	2.283144	1.176529	1.64434	0.94778	1.79269	MASB
MASB	MASB-BWBK-SB-MA09-0108	0.10868142	2.24336	-0.58286	0.24891	1.10351	1.614225	-0.07776	0.967762	1.225466	1.29447	-0.24143	1.37101	MASB
MASB	MASB-BWBK-SB-MA10-0104	-0.7741027	0.83134	-1.34619	-0.1598	0.6322	0.9957274	-0.37975	0.226702	0.075136	0.64019	-0.52927	0.62445	MASB
MASB	MASB-BWBK-SB-MA11-0108	0.22042625	1.07116	-0.4302	1.06636	1.03664	1.440092	0.31388	1.301239	0.923722	1.40982	0.1676	1.43135	MASB
MASB	MASB-BWBK-SB-MA12-0108	0.07143314	2.1306	-0.36341	0.92039	1.36732	1.5183047	-0.36139	1.498855	1.2527	1.58055	-0.31718	1.37508	MASB
MASB	MASB-BWBK-SB-MA13-0105	-0.6362841	-0.11866	0.63846	0.59924	0.20356	-0.254597	-0.87279	-0.217935	-0.50483	0.10832	0.1676	-0.28911	MASB
MASB	MASB-BWBK-SB-MA14-0104	0.44391591	1.29519	1.28252	1.24153	0.9451	1.3554414	-0.1481	0.109367	0.940579	0.83283	0.41756	0.62169	MASB
MASB	MASB-BWBK-SB-MA15-0105	0.48116419	0.89387	1.14417	0.89119	0.57784	0.7665282	-0.45533	-0.106776	0.769959	0.54394	0.72812	0.13024	MASB
MASB	MASB-BWBK-SB-MA16-0104	-0.703331	0.29399	0.19001	0.16132	0.6322	0.4472575	-0.34325	-0.069723	0.970433	0.42832	0.0464	0.21005	MASB
MASB	MASB-BWBK-SB-MA17-0104	0.07143314	0.29399	0.6003	0.07374	0.52147	0.391442	-0.53465	-0.4032	0.567671	0.02018	-0.02934	0.27464	MASB
MASB	MASB-BWBK-SB-MA18-0104	-0.0030634	0.21917	-0.01991	1.32911	0.10631	-0.055107	-0.72889	0.362563	-0.22296	0.29025	1.01595	-0.05948	MASB
MASB	MASB-BWBK-SB-MA19-0103	-0.6362841	0.15568	0.24726	-0.043	0.05527	-0.361075	-0.77544	-0.378498	0.716127	0.0735	-0.02934	-0.24931	MASB
MASB	MASB-BWBK-SB-MA20-0103	-0.4090696	0.13925	-0.26799	0.39488	0.98096	0.7857097	-0.4945	0.634285	0.352516	1.24449	-0.24143	0.87125	MASB
MASS	MASS-BWBK-SS-MA01-0001	-0.7927269	-1.13445	0.45717	-1.1816	-1.52637	-2.137486	-0.03252	-1.403631	-2.19988	-1.67984	-0.7868	-1.27348	MASS
MASS	MASS-BWBK-SS-MA02-0001	0.74190213	-1.13445	2.20329	-0.1306	-1.03217	-1.733512	-0.00305	-1.008399	-1.80193	-0.62716	-0.69591	-0.32956	MASS
MASS	MASS-BWBK-SS-MA03-0001	-0.5357138	-0.13945	0.76251	-0.4518	-1.03217	-0.940505	0.02588	-0.761379	-1.41274	-0.80533	-0.60501	-0.71775	MASS
MASS	MASS-BWBK-SS-MA04-0001	-0.1148082	-0.69138	0.877	-0.2766	-0.65917	-0.920676	0.08224	-0.353796	-0.92769	-0.26859	-0.74136	-0.26515	MASS
MASS	MASS-BWBK-SS-MA05-0001	0.55566074	-0.34519	0.55259	0.48246	-0.02463	0.0122245	0.31388	0.399616	-0.82112	0.36806	0.1676	0.49978	MASS
MASS	MASS-BWBK-SS-MA06-0001	1.15163317	1.49374	3.17654	1.06636	-0.29288	0.3458149	0.53728	0.560179	-0.17121	0.27434	0.31909	0.21659	MASS
MASS	MASS-BWBK-SS-MA07-0001	-1.9511483	-0.6583	-1.21261	-2.1451	-2.91118	-2.553331	0.15	-2.089112	-2.98901	-3.03513	-1.08979	-2.89903	MASS
MASS	MASS-BWBK-SS-MA08-0001	0.10868142	0.52964	0.65755	-0.5102	-0.26065	0.1663598	1.65039	-0.823134	-0.58004	-0.44032	0.50088	0.07554	MASS
MASS	MASS-BWBK-SS-MA09-0001	2.26908147	0.63182	2.48	1.53348	0.42266	0.391442	1.81855	0.066138	0.129177	0.52983	1.62192	1.27551	MASS
MASS	MASS-BWBK-SS-MA10-0001	1.33787455	0.75555	1.16325	0.92039	0.33874	0.4801212	1.57022	0.004383	0.226024	0.32172	1.31894	0.97874	MASS
MASS	MASS-BWBK-SS-MA11-0001	1.33787455	0.84955	2.15558	1.12475	0.40211	0.9693751	1.01999	0.189649	0.357553	0.22588	1.75826	0.66826	MASS
MASS	MASS-BWBK-SS-MA12-0001	-0.07756	-0.76048	0.23772	-0.1014	-0.98027	-0.392405	0.15	-0.205584	-1.20318	0.02018	-0.48382	0.18374	MASS
MASS	MASS-BWBK-SS-MA13-0001	0.66740557	-0.2041	2.63266	0.42408	-0.65917	-0.330158	0.407	-0.625518	-1.13914	-0.62716	0.83416	-0.26515	MASS
MASS	MASS-BWBK-SS-MA14-0001	-0.271251	-0.79662	1.42088	-0.5977	-1.19937	-1.46483	1.18144	-1.39128	-1.34545	-1.15051	0.78871	-0.62396	MASS
MASS	MASS-BWBK-SS-MA15-0001	0.2949228	-0.62613	1.57354	-0.2182	-1.19937	-1.214775	0.77886	-1.168962	-1.94667	-1.08895	0.53118	-0.72733	MASS
MASS	MASS-BWBK-SS-MA16-0001	-0.2861503	0.08855	0.57167	-0.1306	-0.93006	-0.376688	0.558	-0.823134	-1.46535	-0.62716	0.66752	-0.4551	MASS
MASS	MASS-BWBK-SS-MA17-0001	0.22042625	0.01736	0.58121	0.01535	-0.29288	-0.392405	0.50569	-0.909591	-0.54194	-0.55516	0.56148	-0.24142	MASS
MASS	MASS-BWBK-SS-MA18-0001	-0.1148082	0.20362	0.39992	-0.5102	-1.0859	-0.712935	0.84907	-1.230717	-1.75092	-0.83204	1.07655	-0.47234	MASS
MASS	MASS-BWBK-SS-MA19-0001	0.1459297	0.13925	0.90563	0.01535	-0.32581	-0.345566	0.77886	-0.958995	-0.71131	-0.50848	0.90991	-0.21015	MASS
MASS	MASS-BWBK-SS-MA20-0001	-0.2265531	0.17188	0.74342	0.01535	-0.19815	-0.027943	0.58859	-0.452604	-0.26111	0.12552	0.34939	0.11668	MASS
MMSB	MMSB-BWBK-SB-MM101-0110	-1.1074748	-0.40938	-0.45882	-0.7437	0.31702	-0.110397	-0.06254	0.492248	0.421471	0.05587	-1.15796	-0.42947	MMSB
MMSB	MMSB-BWBK-SB-MM102-0109	-0.5804117	-0.56431	-0.52561	-0.0138	0.36016	-0.254597	-0.61809	1.461802	0.237001	0.88138	-0.8474	-0.34593	MMSB
MMSB	MMSB-BWBK-SB-MM103-0107	-0.9901427	-0.2041	-0.64966	-0.1014	1.05025	-0.392405	-0.4748	0.510775	0.56332	0.22588	-1.18068	-0.47234	MMSB
MMSB	MMSB-BWBK-SB-MM104-0110	0.22042625	0.07116	-0.32524	0.45327	0.6674	0.727689	-0.30756	2.882168	0.584943	0.20948	-0.48382	0.3063	MMSB
MMSB	MMSB-BWBK-SB-MM105-0110	-1.4706455	-0.39626	-1.06949	-1.2984	-0.16783	-0.901013	-0.57583	-0.353796	-0.0866	-0.26859	-1.34732	-0.96926	MMSB
MMSB	MMSB-BWBK-SB-MM106-0110	0.48116419	-0.53457	0.46671	0.862	0.61429	0.4801212	-0.45533	2.795711	1.009298	0.65359	0.03125	0.54014	MMSB
MMSB	MMSB-BWBK-SB-MM107-0110	-1.1391359	-0.53457	-0.57332	1.12475	0.22693	-0.424159	-0.77544	0.498424	0.135058	-0.05307	-0.96859	-0.54252	MMSB
MMSB	MMSB-BWBK-SB-MM108-0110	-0.7200927	-0.6421	-0.62103	-0.6707	0.16781	-0.292074	-0.69484	0.757795	0.075136	-0.12894	-0.82468	-0.43799	MMSB
MMSB	MMSB-BWBK-SB-MM109-0110	0.03418487	-0.6583	0.59076	0.24891	0.42266	0.0254624	-0.32531	0.733093	0.377524	0.29025	-0.31718	-0.17926	MMSB
MMSB	MMSB-BWBK-SB-MM110-0109	-0.4537676	-0.42265	-0.37295	0.62844	0.13121	-0.096452	-0.51445	0.683689	0.105409	0.05587	-0.60501	-0.41254	MMSB
MMSB	MMSB-BWBK-SB-MM111-0110	-0.2638013	-0.53457	0.18047	-0.1598	0.27264	0.203364	-0.25547	1.264186	0.327065	0.27434	-0.66561	-0.19466	MMSB
MMSB	MMSB-BWBK-SB-MM112-0110	-0.1334324	-0.74282	-0.00082	-0.0284	0.22693	0.2458117	-0.8603	1.270361	1.58056	0.40592	-0.05207	-0.2851	MMSB
MMSB	MMSB-BWBK-SB-MM113-0110	-0.6772572	-0.76048	-0.58286	1.94221	0.27264	-0.210401	-0.82338	1.202431	0.264081	0.47242	-0.83225	-0.24931	MMSB
MMSB	MMSB-BWBK-SB-MM114-0110	-0.9938676	-0.22647	-0.43974	-0.9773	-0.05222	-0.767795	-0.8479	0.066138	0.372557	-0.09067	-1.24128	-0.9065	MMSB

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log	GROUP
MMSB	MMSB-BWBK-SB-MM115-0110	-0.0030634	-0.87241	1.4495	-0.6853	0.10631	-0.181391	-1.05881	1.486504	0.487269	-0.39607	-0.31718	-0.21793	MMSB
MMSB	MMSB-BWBK-SB-MM116-0110	-0.8318376	-0.6583	-0.18689	-0.1452	0.26134	-0.28453	-0.51445	0.899831	0.516824	0.22588	-1.17311	-0.21015	MMSB
MMSB	MMSB-BWBK-SB-MM117-0110	-1.3551759	-0.6583	-0.84049	-1.532	0.24996	-0.624256	-0.79923	0.09084	0.186932	-0.20761	-1.40792	-0.7758	MMSB
MMSB	MMSB-BWBK-SB-MM118-0110	-1.04974	-0.62613	-0.61149	-0.7729	0.59617	-0.392405	-0.29001	0.992464	1.268797	1.40045	-1.01404	-0.25721	MMSB
MMSB	MMSB-BWBK-SB-MM119-0110	-1.0311158	-0.53457	-0.60195	-0.5685	0.10631	-0.254597	-0.75199	1.140676	0.435826	0.0381	-0.908	-0.37901	MMSB
MMSB	MMSB-BWBK-SB-MM120-0110	-1.9325241	-1.08651	-1.25078	-1.7363	-0.32581	-1.192502	-1.17565	-0.452604	-0.20798	-0.91427	-1.54426	-1.48644	MMSB
MMSS	MMSS-BWBK-SS-MM101-0001	1.67310905	-0.09824	0.31405	-0.0138	-0.78863	0.0254624	0.38422	-0.341445	-0.45091	-0.41808	0.44028	-0.41254	MMSS
MMSS	MMSS-BWBK-SS-MM102-0001	0.25767453	-0.62613	-0.83095	-0.7437	-1.19937	-0.522078	-0.55511	-0.921942	-0.44211	-0.75288	-0.31718	-1.13358	MMSS
MMSS	MMSS-BWBK-SS-MM103-0001	1.30062628	-0.05843	-0.25845	0.01535	-0.88145	-0.027943	0.51629	-0.600816	-0.53258	-0.50848	0.51603	-0.67041	MMSS
MMSS	MMSS-BWBK-SS-MM104-0001	1.263378	-0.05843	0.38084	0.07374	-0.4651	0.0517165	0.51629	-0.069723	-0.23051	-0.20761	0.27364	-0.47234	MMSS
MMSS	MMSS-BWBK-SS-MM105-0001	-0.1148082	-0.44965	-0.87865	-1.0649	-1.14159	-0.901013	0.01148	-1.378929	-0.71131	-1.18198	-0.31718	-1.35894	MMSS
MMSS	MMSS-BWBK-SS-MM106-0001	1.22612972	-0.18215	0.18047	0.862	-0.32581	0.0386261	-0.00305	-0.131478	-0.20055	-0.31024	0.34939	-0.4897	MMSS
MMSS	MMSS-BWBK-SS-MM107-0001	1.63586077	-0.37045	0.19001	0.13213	-0.70112	0.0254624	-0.00305	0.053787	-0.34057	-0.26859	0.24334	-0.37901	MMSS
MMSS	MMSS-BWBK-SS-MM108-0001	1.78485388	-0.39626	-0.01991	-0.0722	-1.14159	-0.31485	0.18933	-0.958995	-0.97771	-0.67656	0.59177	-0.87571	MMSS
MMSS	MMSS-BWBK-SS-MM109-0001	1.33787455	-0.39626	-0.71645	-0.189	-1.0859	-0.299641	-0.32531	-0.65022	-0.80976	-0.75288	0.22819	-1.06652	MMSS
MMSS	MMSS-BWBK-SS-MM110-0001	-0.4090696	-0.99613	-0.84049	-1.4736	-2.04154	-1.357785	0.12324	-1.797628	-1.4318	-1.93503	-0.54442	-2.00979	MMSS
MMSS	MMSS-BWBK-SS-MM111-0001	0.07143314	-1.04045	-0.94545	-1.2692	-1.67961	-1.23726	-0.10864	-1.490088	-1.18985	-1.67984	-0.74136	-1.82263	MMSS
MMSS	MMSS-BWBK-SS-MM112-0001	-0.4761165	-0.87241	-1.06949	-1.678	-2.26064	-1.545863	0.09602	-1.69388	-1.46714	-1.89031	-0.908	-1.76329	MMSS
MMSS	MMSS-BWBK-SS-MM113-0001	1.03988834	-0.56431	-0.19166	-0.5685	-1.38708	-0.522078	0.8231	-0.983697	-0.89128	-0.99981	0.40998	-0.96926	MMSS
MMSS	MMSS-BWBK-SS-MM114-0001	-0.8076262	-1.13445	-1.1172	-1.8531	-2.04154	-1.784288	-0.68365	-1.827271	-1.24242	-2.02739	-1.21098	-1.93006	MMSS
MMSS	MMSS-BWBK-SS-MM115-0001	-0.1893048	-0.95343	-0.61149	-1.4736	-2.04154	-1.105466	-0.37975	-1.64077	-0.65939	-1.60117	-0.80195	-1.52603	MMSS
MMSS	MMSS-BWBK-SS-MM116-0001	-0.4425931	-0.87241	-0.90728	-1.5028	-1.76239	-1.282887	-0.10864	-1.580251	-0.97771	-1.80361	-0.68076	-1.79278	MMSS
MMSS	MMSS-BWBK-SS-MM117-0001	0.7791504	-0.59481	-0.00082	-0.5394	-0.98027	-0.376688	0.27752	-0.711975	-0.69031	-0.7017	-0.15054	-0.89619	MMSS
MMSS	MMSS-BWBK-SS-MM118-0001	-0.5431634	-0.39626	-0.79278	-0.8021	-0.32581	-0.69493	-0.94989	0.016734	-0.32432	-0.55516	-0.92315	-1.1909	MMSS
MMSS	MMSS-BWBK-SS-MM119-0001	-0.8970221	-0.72542	-0.83095	-1.3276	-0.5398	-1.021538	-1.17565	-0.440253	-0.29237	-0.53169	-1.15038	-1.3965	MMSS
MMSS	MMSS-BWBK-SS-MM120-0001	-0.6735324	-0.6583	-1.15536	0.19052	-0.4651	-0.001088	-0.72889	-0.847836	-0.38201	-0.57889	-0.66561	-0.79546	MMSS
NESB	NESB-BWBK-SB-NE01-0108	0.59290902	-0.22647	-0.87865	0.80361	0.80062	0.6981324	-0.63965	2.029948	0.684436	1.03191	-0.71106	0.48813	NESB
NESB	NESB-BWBK-SB-NE02-0109	0.1459297	-0.09824	0.84838	0.42408	0.75201	0.5445012	-0.61809	1.535908	1.502219	0.89334	-0.96859	0.41701	NESB
NESB	NESB-BWBK-SB-NE03-0105	0.1459297	-0.16061	-0.8214	0.07374	0.50221	0.5550617	-0.75199	0.955411	0.431057	0.61313	-0.908	0.02666	NESB
NESB	NESB-BWBK-SB-NE04-0110	-0.0030634	-0.37045	-0.69736	-0.0722	0.57784	0.2992843	-0.6615	1.251835	0.623064	0.61313	-0.89285	0.10987	NESB
NESB	NESB-BWBK-SB-NE05-0108	0.31354694	-0.28433	-1.0504	0.42408	0.69328	0.6174474	-0.68365	1.572961	0.61468	0.88737	-0.69591	0.40495	NESB
NESB	NESB-BWBK-SB-NE06-0109	-0.07756	-0.29626	-0.98361	-0.043	0.6499	0.4250901	-0.72889	1.202431	0.514572	0.78314	-0.83225	0.17047	NESB
NESB	NESB-BWBK-SB-NE07-0107	0.59290902	-0.22647	-0.71645	0.71602	0.70181	0.6378798	-0.55511	1.610014	0.426272	1.00944	-0.7868	0.47054	NESB
NESB	NESB-BWBK-SB-NE08-0104	-0.1520565	-0.42265	-1.07903	-0.1014	0.55928	0.0776806	-0.8479	0.671338	0.192582	0.59947	-0.7565	-0.10371	NESB
NESB	NESB-BWBK-SB-NE09-0110	-0.1334324	-0.39626	-0.99792	0.07374	0.56859	0.357305	-0.8479	1.122149	0.532491	0.6267	-0.9383	0.14372	NESB
NESB	NESB-BWBK-SB-NE10-0107	0.22042625	-0.59481	-0.43974	0.36569	0.17982	0.0776806	-0.61809	0.720742	0.158345	0.20948	-0.04449	-0.0668	NESB
NESB	NESB-BWBK-SB-NE101-0110	0.40666763	-0.79662	0.93425	-0.1306	0.24996	-0.001088	-0.63965	0.856603	0.123272	0.14258	-0.34748	-0.32956	NESB
NESB	NESB-BWBK-SB-NE102-0110	0.03418487	-1.04045	1.13463	-0.6269	-0.02463	-0.472608	-0.82338	0.473722	0.037946	-0.12894	-0.63531	-0.54252	NESB
NESB	NESB-BWBK-SB-NE103-0110	-0.50964	-1.15917	0.34744	-1.0065	-0.21353	-0.69493	-1.01709	0.059963	-0.12828	-0.36348	-0.88527	-0.86046	NESB
NESB	NESB-BWBK-SB-NE104-0110	-0.9752434	-1.29126	-0.14395	-1.2984	-0.26065	-0.940505	-1.11616	-0.242637	-0.34057	-0.55516	-1.07464	-1.07757	NESB
NESB	NESB-BWBK-SB-NE105-0110	0.03418487	-0.62613	1.04875	-0.335	0.081	-0.041486	-0.70611	0.844252	0.528032	0.0021	-0.39292	-0.30521	NESB
NESB	NESB-BWBK-SB-NE106-0110	-0.1893048	-1.04045	0.66709	-0.6269	0.10631	-0.345566	-0.8479	0.584881	0.146748	0.02018	-0.66561	-0.481	NESB
NESB	NESB-BWBK-SB-NE107-0510	-0.9268207	-1.40879	-0.25845	-1.3276	-0.26065	-0.606915	-1.05881	0.399616	-0.15675	-0.60289	-1.05949	-0.80535	NESB
NESB	NESB-BWBK-SB-NE108-0110	-0.07756	-1.23663	0.28542	-0.6853	0.081	-0.345566	-0.92378	0.473722	-0.10729	-0.31024	-0.42322	-0.64244	NESB
NESB	NESB-BWBK-SB-NE109-0110	-0.1148082	-1.23663	0.54305	-0.7437	0.00247	-0.392405	-0.87279	0.436669	-0.05947	-0.28931	-0.72621	-0.65172	NESB
NESB	NESB-BWBK-SB-NE110-0110	-0.1520565	-1.08651	-0.06762	-0.6123	0.10631	-0.408229	-0.8603	0.578705	0.009409	-0.35272	-0.68833	-0.64708	NESB
NESS	NESS-BKG-SS03-NEB-0016	1.71035732	-0.01992	0.46671	-0.043	-0.08031	0.0122245	2.22317	-0.304392	-0.12828	-0.03452	0.65237	0.39284	NESS
NESS	NESS-BKG-SS09-NEB-0018	0.81639868	0.63182	-0.63057	-0.2182	-0.70112	-0.589701	0.51629	-0.835485	-0.31627	-0.97092	0.0161	-0.78561	NESS
NESS	NESS-BWBK-SS-NE01-0001	2.3808263	0.97778	0.65755	1.44589	0.31702	0.6276858	0.93273	0.32551	0.377524	0.42832	0.63722	1.18932	NESS
NESS	NESS-BWBK-SS-NE02-0001	1.78485388	1.17146	-0.23937	1.4167	0.20356	0.5864616	0.64808	0.658987	-0.00669	0.73226	0.12215	1.65158	NESS
NESS	NESS-BWBK-SS-NE03-0001	2.00834354	0.36433	-0.0867	0.68683	-0.35946	0.2637715	0.17633	-0.304392	-0.21545	0.02018	0.107	0.06862	NESS
NESS	NESS-BWBK-SS-NE04-0001	1.97109526	0.07116	-0.06762	1.03717	0.40211	0.391442	0.08224	0.560179	0.18126	0.3984	0.27364	0.04773	NESS
NESS	NESS-BWBK-SS-NE05-0001	1.44961938	0.46879	-0.07716	1.32911	-0.19815	0.1287634	0.73336	-0.106776	-0.10036	0.0735	0.12215	0.34995	NESS
NESS	NESS-BWBK-SS-NE06-0001	1.56136421	-0.13945	-0.39203	0.89119	0.15571	0.1910939	-0.18855	0.44902	-0.27665	0.45782	0.107	-0.09629	NESS
NESS	NESS-BWBK-SS-NE07-0001	1.59861249	0.72582	0.15184	0.65763	-0.32581	0.203364	1.26312	-0.267339	-0.33242	-0.01613	0.63722	0.36228	NESS
NESS	NESS-BWBK-SS-NE08-0001	1.71035732	0.01736	-0.04853	0.59924	-0.22908	0.1787594	0.04016	-0.082074	-0.26886	0.22588	0.0464	-0.0815	NESS
NESS	NESS-BWBK-SS-NE09-0001	2.67881252	0.32264	0.81976	0.51166	-0.4651	0.0122245	0.73336	-0.613167	-0.02626	-0.16791	0.31909	-0.0668	NESS
NESS	NESS-BWBK-SS-NE10-0001	1.07713662	0.3084	0.06597	0.19052	-0.35946	-0.027943	1.39675	-0.168531	-0.20798	0.02018	0.40998	0.19693	NESS
NESS	NESS-BWBK-SS-NE101-0001	1.22612972	-0.8339	-0.06762	-0.5394	-0.78863	-0.677061	-0.4748	-0.884889	-0.60928	-0.77894	-0.22628	-1.20253	NESS
NESS	NESS-BWBK-SS-NE102-0001	-0.0030634	-1.13445	-0.49699	-1.24	-1.38708	-1.170439	0.22772	-1.243068	-0.79848	-1.27928	-0.45352	-1.40915	NESS
NESS	NESS-BWBK-SS-NE103-0001	-0.5133648	-0.95343	-0.71645	-1.1232	-1.60107	-1.360165	0.08224	-1.317174	-1.09705	-1.31273	-0.57471	-1.70536	NESS
NESS	NESS-BWBK-SS-NE104-0001	0.10868142	-1.13445	-0.90728	-1.24	-1.38708	-0.842992	1.10274	-0.884889	-0.74338	-0.99981	-0.51412	-1.30974	NESS
NESS	NESS-BWBK-SS-NE105-0001	-0.4202441	-1.23663	-0.7737	-1.6196	-1.84991	-1.525341	-0.4171	-1.5679	-0.90331	-1.7203	-0.95344	-1.70536	NESS
NESS	NESS-BWBK-SS-NE106-0001	-0.1520565	-1.18443	-0.73553	-1.4736	-1.67961	-1.306037	1.27633	-1.230717	-0.77619	-1.64014	-0.65046	-1.60717	NESS
NESS	NESS-BWBK-SS-NE107-0001	-0.0030634	-1.18443	-0.59241	-1.6196	-2.04154	-1.494891	0.16322	-1.623479	-0.44211	-1.93503	-0.60501	-1.59346	NESS
NESS	NESS-BWBK-SS-NE108-0001	-0.07756	-1.13445	-0.15349	-1.4736	-1.60107	-1.306037	0.36112	-1.218366	-0.78729	-1.5629	-0.52927	-1.37139	NESS
NESS	NESS-BWBK-SS-NE109-0001	-0.3680965	-1.5394	-0.64011	-1.7071	-2.04154	-1.57177	-0.4361	-1.540727	-0.90331	-1.98071	-0.95344	-1.77799	NESS
NESS	NESS-BWBK-SS-NE110-0001	-0.5394386	-0.87241	-0.7737	-1.6196	-1.84991	-1.430239	0.76986	-1.588896	-1.3787	-1.93503	-0.22628	-1.93006	NESS

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log	GROUP
PMSB	PMSB-BWBK-SB-PM01-0105	0.59290902	0.52964	0.44763	0.51166	1.24109	0.4139275	-0.59682	0.584881	1.326321	1.27462	-0.02934	0.34376	PMSB
PMSB	PMSB-BWBK-SB-PM02-0104	0.92814351	1.38442	0.28542	2.67208	1.38919	1.850352	-0.14013	0.918358	1.542475	1.0207	1.18259	0.70061	PMSB
PMSB	PMSB-BWBK-SB-PM03-0106	0.25767453	1.20531	-0.85003	1.03717	1.68455	1.6209289	-0.68365	1.375345	0.910092	1.47433	0.28879	1.04942	PMSB
PMSB	PMSB-BWBK-SB-PM04-0105	0.1459297	1.45663	-0.42066	0.8328	1.07711	1.0645886	-0.10864	1.362994	1.206091	1.26462	0.0767	0.74308	PMSB
PMSB	PMSB-BWBK-SB-PM05-0105	0.07143314	0.95736	-0.22505	0.78901	1.22908	1.0645886	-0.45533	1.171553	1.546879	1.06519	0.12215	0.66283	PMSB
PMSB	PMSB-BWBK-SB-PM06-0105	0.18317797	1.1152	-0.01037	0.57005	1.00905	1.2753945	-0.82338	1.239484	2.759561	1.03191	-0.05964	0.57422	PMSB
PMSB	PMSB-BWBK-SB-PM07-0105	-0.5319889	1.12952	0.16138	0.24891	1.35627	0.9693751	-0.8479	-0.082074	1.923799	0.52983	0.1373	-0.0815	PMSB
PMSB	PMSB-BWBK-SB-PM08-0106	-0.07756	1.2317	-0.23937	0.45327	1.35627	0.8047359	-0.57583	0.597232	1.427747	0.95218	0.06155	0.38066	PMSB
PMSB	PMSB-BWBK-SB-PM09-0106	-0.8634986	0.99387	-0.90728	-0.0722	0.95234	0.3342684	-1.20624	0.214351	0.957241	0.7451	-0.54442	-0.04491	PMSB
PMSB	PMSB-BWBK-SB-PM10-0105	-0.3271234	0.96966	-0.2012	1.47509	1.12946	0.8884972	-0.53465	0.053787	1.308266	0.54394	1.47043	0.28735	PMSB
PMSB	PMSB-BWBK-SB-PM11-0104	-0.3755462	0.91114	0.52396	0.33649	1.38919	1.1397193	-0.6615	0.226702	2.610161	1.25458	0.00096	0.38676	PMSB
PMSB	PMSB-BWBK-SB-PM12-0105	-0.7778276	-0.2041	-0.64966	0.65763	0.29499	-0.392405	-0.94989	0.103191	0.676403	0.17629	-0.37777	-0.32142	PMSB
PMSB	PMSB-BWBK-SB-PM13-0106	-0.0403117	0.54145	0.54305	0.92039	0.20356	0.7568785	-0.72889	-0.168531	1.413344	-0.05307	0.51603	-0.22574	PMSB
PMSB	PMSB-BWBK-SB-PM14-0106	-0.6884317	0.13925	-0.26799	-0.0722	0.29499	-0.16702	-0.8479	-0.205584	1.351727	0.02018	-0.13539	-0.35416	PMSB
PMSB	PMSB-BWBK-SB-PM15-0105	-0.1520565	0.48121	0.00872	0.59924	0.61429	0.6276858	-0.51445	0.411967	0.825484	0.55796	-0.01419	0.25544	PMSB
PMSB	PMSB-BWBK-SB-PM16-0106	-0.3606469	0.21917	-0.38249	-0.043	0.22693	0.1413625	-0.77544	0.152596	0.953924	0.32172	-0.22628	-0.07414	PMSB
PMSB	PMSB-BWBK-SB-PM17-0105	-0.0589358	0.67976	-0.25368	0.43867	1.54398	0.8423323	-0.25547	0.899831	1.06723	0.7642	0.47058	0.45579	PMSB
PMSB	PMSB-BWBK-SB-PM18-0105	0.22042625	1.15765	-0.41111	0.8328	0.87836	1.5530132	-0.34325	1.276537	0.735585	1.26462	-0.33233	0.96917	PMSB
PMSB	PMSB-BWBK-SB-PM19-0105	0.07143314	0.69532	0.13276	0.51166	0.6674	0.9067122	-0.39831	0.720742	1.028344	0.94054	-0.12024	0.61892	PMSB
PMSB	PMSB-BWBK-SB-PM20-0106	-0.1148082	0.59314	-0.1678	0.38028	0.6499	0.5812573	-0.56544	0.535477	0.716127	0.7642	-0.11266	0.3989	PMSB
PMSB	PMSB-BWBK-SB-SO01-0107-PM	0.2949228	0.84048	-0.50653	0.2781	1.18008	1.1965374	-0.06254	0.745444	0.123272	1.49241	-0.21113	1.21983	PMSB
PMSB	PMSB-BWBK-SB-SO02-0109-PM	0.40666763	1.37868	-0.75461	0.71602	0.95234	1.6075019	0.04016	0.881305	0.392323	1.26462	-0.01419	1.18493	PMSB
PMSB	PMSB-BWBK-SB-SO13-0104-PM	-0.2973248	1.28276	-0.18212	0.65763	1.57315	1.5391913	-0.03252	0.646636	-0.05947	1.66518	0.0464	1.00726	PMSB
PMSB	PMSB-BWBK-SB-SO14-0105-PM	0.22042625	1.54481	-0.0867	0.74522	1.47369	1.6869367	-0.03252	1.177729	0.3373	1.78613	-0.27173	1.42339	PMSB
PMSS	PMSS-DABK-S-SO21-0001	-0.5282641	0.87634	0.92471	0.10293	0.10631	0.3458149	1.89197	-1.057803	-0.17849	-0.07179	1.33409	1.56284	PMSS
PMSS	PMSS-DABK-S-SO22-0001	0.51841247	0.84048	1.24913	0.8328	0.59617	0.6782194	2.15228	-0.872538	0.426272	0.09098	2.43998	2.45793	PMSS
PMSS	PMSS-DABK-S-SO23-0001	0.51841247	0.39133	1.11555	0.42408	0.29499	0.0776806	1.72676	-0.353796	-0.17849	0.32172	1.75826	0.59667	PMSS
PMSS	PMSS-DABK-S-SO24-0001	0.36941936	0.74572	1.35409	0.59924	0.33874	0.8884972	1.48582	-1.094856	0.175565	-0.33137	1.83401	1.18932	PMSS
PMSS	PMSS-DABK-S-SO25-0001	0.87227109	1.42938	1.25867	0.71602	0.48271	2.1142563	1.72427	-0.693448	1.020439	-0.17777	2.57632	0.79	PMSS
PMSS	PMSS-DABK-S-SO26-0001	0.6301573	1.01759	1.6785	0.89119	0.31702	0.7857097	2.24132	-0.353796	0.18126	0.44312	2.48543	2.20209	PMSS
PMSS	PMSS-DABK-S-SO27-0001	0.10868142	0.24967	0.97242	-0.043	-0.08031	-0.225041	2.2085	-0.699624	-0.48663	-0.05307	1.74311	0.74834	PMSS
PMSS	PMSS-DABK-S-SO28-0001	0.03418487	0.51772	1.54492	0.54085	0.83219	0.0905558	1.92307	-0.810783	0.514572	-0.10972	1.9249	1.76164	PMSS
PMSS	PMSS-DABK-S-SO29-0001	1.44961938	0.60987	1.98383	1.12475	0.36016	0.5017778	1.75142	-0.539061	-0.65939	-0.01613	2.27334	1.28396	PMSS
PMSS	PMSS-DABK-S-SO30-0001	1.22612972	0.3367	2.42275	0.89119	0.54049	0.0517165	1.40892	-0.810783	0.203816	-0.10972	1.51588	1.49798	PMSS
PMSS	PMSS-DABK-S-SO31-0001	-0.3457476	-0.11866	0.04688	-0.1598	0.22693	-0.152736	0.81435	-1.070154	0.906664	-0.94241	1.24319	0.08244	PMSS
PMSS	PMSS-DABK-S-SO32-0001	0.36941936	0.84955	2.00292	0.862	1.35627	0.6480298	2.41232	-0.724326	1.093084	-0.03452	2.31878	1.79954	PMSS
PMSS	PMSS-DABK-S-SO33-0001	0.18317797	-0.34519	1.97429	0.36569	0.24996	-0.767795	1.62411	-0.699624	-0.65939	-0.44032	1.81886	0.9402	PMSS
PMSS	PMSS-DABK-S-SO34-0001	-0.595311	-0.07816	0.8293	-0.043	0.46295	-0.31485	1.18144	-1.033101	0.953924	-0.7017	1.16744	-0.29714	PMSS
PMSS	PMSS-DABK-S-SO35-0001	-0.325261	0.20362	1.00105	0.35109	0.32792	0.0320535	1.80676	-0.563763	0.217736	-0.34202	1.69009	0.27464	PMSS
PMSS	PMSS-DABK-S-SO36-0001	-0.0403117	-0.09824	0.41901	0.07374	-0.35946	-0.505472	1.77089	-0.699624	-1.13914	-0.80533	1.40983	-0.56937	PMSS
PMSS	PMSS-DABK-S-SO37-0001	0.25767453	0.60987	0.45717	0.51166	0.22693	0.3110036	0.92456	-0.860187	0.478052	-0.67656	1.83401	0.13024	PMSS
PMSS	PMSS-DABK-S-SO38-0001	-0.4761165	-0.18215	0.03734	-0.2766	0.13121	-0.589701	1.20913	-1.008399	0.61468	-0.88651	1.48558	-0.68924	PMSS
PMSS	PMSS-DABK-S-SO39-0001	-0.3047745	0.1226	0.90563	0.04454	0.10631	0.1538944	0.77886	-0.847836	0.739445	-0.60289	1.10685	-0.43799	PMSS
PMSS	PMSS-DABK-S-SO40-0001	-0.1520565	-0.00113	0.72434	0.01535	0.05527	-0.456347	1.01999	-0.872538	0.847107	-0.72713	1.54617	-0.21015	PMSS
SESB	SESB-BWBK-SB-SO03-0108	1.22612972	1.59853	0.20909	1.29992	1.73735	1.9802692	0.25282	1.980544	1.01249	2.45323	-0.01419	1.89671	SESB
SESB	SESB-BWBK-SB-SO04-0108	-0.0403117	1.53477	-0.07716	0.80361	1.46338	1.5183047	-0.03252	0.856603	0.247894	1.76248	-0.19598	1.42737	SESB
SESB	SESB-BWBK-SB-SO05-0106	0.6301573	1.40712	0.09459	1.06636	1.03664	1.3741049	-0.09313	0.94306	0.554579	1.58055	0.03125	1.30915	SESB
SESB	SESB-BWBK-SB-SO06-0108	1.0212642	1.91468	-0.40634	1.37291	1.65288	2.0787159	0.31388	1.634716	0.201016	2.03019	0.35696	1.72668	SESB
SESB	SESB-BWBK-SB-SO07-0106	-0.1148082	1.0485	-0.66874	0.68683	1.70235	1.1804434	0.26522	0.733093	2.213885	1.93736	0.15245	1.40338	SESB
SESB	SESB-BWBK-SB-SO08-0107	0.89089523	1.61747	0.07551	1.50428	1.65745	1.9221048	0.32582	1.671769	1.255396	2.0717	0.34939	1.81657	SESB
SESB	SESB-BWBK-SB-SO09-0106	0.33217108	1.38442	0.23772	0.92039	1.10351	1.1723548	-0.15611	1.054219	-0.1858	1.49241	-0.05964	1.11811	SESB
SESB	SESB-BWBK-SB-SO11-0106	0.70465385	1.54979	-0.28707	1.06636	1.46338	1.6007595	-0.04746	1.708822	2.567553	1.79395	0.107	1.37914	SESB
SESB	SESB-BWBK-SB-SO12-0106	0.01556073	1.50154	-0.66397	0.8474	1.4161	1.6075019	0.00423	0.899831	0.950599	1.74657	-0.02934	1.51147	SESB
SESB	SESB-BWBK-SB-SO15-0103	0.10868142	0.5875	-0.22028	0.36569	0.70181	0.5968356	-0.39831	0.202	0.916923	0.6267	0.31909	0.281	SESB
SESB	SESB-BWBK-SB-SO16-0105	-0.6027607	0.48121	-0.58286	0.33649	0.96672	0.8141916	-0.59682	0.337861	0.505529	1.1933	-0.13539	0.68449	SESB
SESB	SESB-BWBK-SB-SO17-0106	-0.5841365	-0.22647	-0.27753	0.2781	0.83219	0.0647344	-0.61809	0.226702	-0.22296	0.89334	-0.36263	0.33756	SESB
SESB	SESB-BWBK-SB-SO18-0105	-0.5245393	-0.42265	-0.33478	0.13213	0.89345	-0.376688	-0.70611	0.164947	0.152558	0.54394	-0.49897	-0.01603	SESB
SESB	SESB-BWBK-SB-SO19-0104	-0.6139351	-0.39626	-0.16303	0.2781	1.73735	-0.16702	-0.51445	0.350212	0.580645	0.73226	-0.04449	0.50559	SESB
SESB	SESB-BWBK-SB-SO20-0104	-0.5245393	0.55313	-0.48745	0.45327	1.19248	1.2283985	-0.25547	0.547828	1.331438	1.24449	-0.28688	1.18053	SESB
SESS	SESS-DABK-S-SO01-0001	1.33787455	0.24967	-0.63057	0.24891	-0.29288	0.1287634	0.57846	-0.588465	-1.25162	-0.18767	0.71297	0.65192	SESS
SESS	SESS-DABK-S-SO02-0001	0.66740557	1.1152	3.13837	4.68652	1.06374	0.7374592	1.79012	0.658987	0.40697	1.04306	0.0161	2.12251	SESS
SESS	SESS-DABK-S-SO03-0001	0.59290902	0.36433	0.06597	-0.0722	-0.65917	0.1910939	1.53699	-0.637869	-1.69327	-0.62716	2.33393	0.38676	SESS
SESS	SESS-DABK-S-SO04-0001	2.2318332	0.23452	0.47626	0.65763	-0.1381	0.1033608	1.13181	-0.810783	-1.708	0.10832	1.75826	1.14952	SESS
SESS	SESS-DABK-S-SO05-0001	0.89089523	0.48121	-0.37295	-0.0722	-0.42907	0.2155704	1.36593	-0.835485	-0.44211	-0.37428	1.62192	0.56291	SESS
SESS	SESS-DABK-S-SO06-0001	1.52411594	2.85475	1.98383	1.06636	1.12946	2.628793	1.35343	0.164947	0.739445	0.48692	2.30363	1.40338	SESS
SESS	SESS-DABK-S-SO07-0001	0.90951937	0.52964	1.83117	0.42408	0.0291	-0.225041	1.20225	0.115542	-1.29539	0.43573	0.81144	1.00726	SESS
SESS	SESS-DABK-S-SO08-0001	0.59290902	0.86748	1.38271	0.16132	0.10631	0.357305	1.44487	-0.193233	-0.11425	0.20948	0.9705	0.70061	SESS
SESS	SESS-DABK-S-SO09-0001	0.18317797	0.81285	-0.39203	-0.2766	-0.4651	0.6276858	1.25647	-0.736677	-1.26089	-0.18767	1.81886	0.281	SESS

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

GROUP	SAMPLE	AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log	GROUP
SESS	SESS-DABK-S-SO10-0001	0.66740557	0.67453	-0.00082	-0.335	-0.57856	0.708026	0.93273	-1.922373	-1.38375	-0.57889	0.65237	0.04773	SESS
SESS	SESS-DABK-S-SO11-0001	-0.919371	-1.02921	0.36653	-1.1232	-0.65917	-1.619134	0.67701	-2.030445	-2.13583	-1.05882	-0.12781	-0.56039	SESS
SESS	SESS-DABK-S-SO12-0001	0.44391591	0.01736	1.4495	-0.2474	-0.32581	-0.456347	0.81435	-0.687273	-1.42658	-0.62716	0.51603	0.26825	SESS
SESS	SESS-DABK-S-SO13-0001	-0.3233986	0.77496	-0.0867	-0.3642	-0.35946	0.1413625	0.36112	-0.711975	-1.35866	0.20948	0.28879	0.95955	SESS
SESS	SESS-DABK-S-SO14-0001	-0.5431634	0.67453	-1.20307	-0.6853	-0.4651	0.0517165	0.99666	-0.699624	-1.68701	-0.14833	0.83416	-0.19466	SESS
SESS	SESS-DABK-S-SO15-0001	0.36941936	0.65337	-0.23937	0.19052	-0.32581	-0.014477	1.16742	-1.953251	-1.0164	-0.35272	1.60677	0.07554	SESS
SESS	SESS-DABK-S-SO16-0001	-0.6288345	-0.56431	0.22817	-1.1232	-0.70112	-1.492371	0.31388	-2.101463	-2.15014	-1.5253	-0.72621	-1.15635	SESS
SESS	SESS-DABK-S-SO17-0001	0.10868142	-0.09824	1.86933	-0.8897	-0.32581	-0.408229	1.07314	-2.179274	-0.95248	-1.67984	0.54633	-1.07757	SESS
SESS	SESS-DABK-S-SO18-0001	-0.5841365	-0.09824	0.63846	-0.6561	-0.16783	-0.69493	0.91634	-0.415551	-1.59225	-0.48551	0.54633	0.01251	SESS
SESS	SESS-DABK-S-SO19-0001	0.85364696	0.44353	1.62125	0.57005	0.42266	-0.041486	1.98774	0.263755	0.152558	0.36806	0.77357	1.13162	SESS
SESS	SESS-DABK-S-SO20-0001	1.67310905	1.54481	1.72621	1.12475	0.24996	0.6782194	1.76605	0.844252	-0.27665	0.50132	1.78856	1.04942	SESS

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169

AL	-0.1222	0.0764	0.7763	-0.3284	0.1408

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234

AL	0.2545	0.5880	0.6715	0.0162	-0.0104

10708.2243	**Mean**
2684.6880	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AS_log	-0.0340	0.1956	0.3248	0.8753	0.1309	
BA	0.0004	0.1229	-0.1155	-1.0325	-0.1101	
CR	0.0342	0.0642	-0.3344	-1.0621	-0.1821	
CO_log	0.2261	0.3629	1.2636	-3.4022	-2.0219	
FE_log	0.2478	-0.2840	-0.8396	7.7051	-1.0043	
PB_log	-0.0403	0.3066	0.0496	0.5720	0.2718	
MG	0.0577	-0.1623	-0.2909	-2.2268	-0.0067	
MN_log	0.0420	-0.0414	0.0401	-0.3460	-0.6071	
NI_log	0.2997	-0.4664	-0.6516	0.5378	2.2907	
V	-0.0375	0.3803	0.2644	-0.6082	-0.1834	
ZN_log	0.1176	0.2893	0.7506	-1.4448	1.5100	

ARSENIC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169

AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234

AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070

1.8415	**Mean**
0.8516	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1172	0.0991	0.5240	-0.2210	0.0738	
AS_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BA	0.0004	0.1436	0.0533	-0.1668	0.0351	
CR	0.0372	0.0750	0.1543	-0.1716	0.0580	
CO_log	0.2460	0.4241	-0.5831	-0.5497	0.6436	
FE_log	0.2695	-0.3318	0.3874	1.2450	0.3197	
PB_log	-0.0439	0.3583	-0.0229	0.0924	-0.0865	
MG	0.0627	-0.1897	0.1342	-0.3598	0.0021	
MN_log	0.0457	-0.0483	-0.0185	-0.0559	0.1933	
NI_log	0.3260	-0.5450	0.3007	0.0869	-0.7292	
V	-0.0408	0.4444	-0.1220	-0.0983	0.0584	
ZN_log	0.1280	0.3381	-0.3464	-0.2334	-0.4807	

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3152.00648	-2.80433	-2.26183	-1.63671	-9.54504	-3.96341	0.0297578	-2.84626	-2.37403	-1.83701	-1.64276	-1.13687
MAXIMUM DOMAIN VALUE	21612.0675	1.97917	3.00632	3.28653	13.2129	3.56574	3.6948724	2.06838	3.35553	1.63742	1.83934	1.26948
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	**AS_log pre**	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	4793.89722	-1.21119	-1.878	-1.10779	-2.58852	0.43166	0.2903417	-1.12988	-1.96888	-0.9418	0.34692	-0.38217
BASS-BWBK-SS-BA102-0001	4450.38066	-1.55755	-1.9454	-1.08736	-3.45968	0.40832	0.0297578	-1.47466	-2.00547	-1.20486	0.34058	-0.41769
BASS-BWBK-SS-BA103-0001	4668.86441	-1.4138	-1.90862	-1.04516	-3.77565	0.4126	0.1158799	-1.33246	-1.96805	-1.13294	0.24402	-0.40434
BASS-BWBK-SS-BA104-0001	5282.00905	-1.06504	-1.73287	-0.96531	-4.71767	0.61128	0.3514946	-0.96872	-1.81967	-0.98761	-0.01286	-0.4346
BASS-BWBK-SS-BA105-0001	5796.31856	-1.2013	-1.71641	-0.67971	-3.18321	0.62185	0.3346598	-1.08243	-1.81108	-1.3033	0.31997	-0.4658
BASS-BWBK-SS-BA106-0001	4722.38561	-0.96275	-1.82997	-1.22292	-4.43812	1.47027	0.4150156	-0.86397	-1.89516	-0.89145	0.05476	-0.71463
BASS-BWBK-SS-BA107-0001	4662.39512	-1.56374	-1.84336	-1.05292	-3.61919	0.40742	0.0680833	-1.48538	-1.88026	-1.20713	0.31009	-0.41575
BASS-BWBK-SS-BA108-0001	4639.84464	-1.50623	-1.87364	-1.03526	-4.49687	0.68291	0.0477801	-1.4235	-1.92535	-1.19575	0.15596	-0.49962
BASS-BWBK-SS-BA109-0001	3152.00648	-1.07069	-2.26183	-1.63671	-5.74542	1.89682	0.1230396	-0.96144	-2.37403	-0.85781	-0.07322	-0.87702
BASS-BWBK-SS-BA110-0001	4196.46124	-0.91566	-1.93661	-1.47452	-3.8558	0.09081	0.4288939	-0.83531	-1.99446	-0.68443	0.11298	-0.26335
BASS-BWBK-SS-BA111-0001	4441.4452	-1.3751	-1.91057	-1.18936	-3.63447	0.30335	0.1526125	-1.29516	-1.96868	-1.04115	0.25524	-0.36576
BASS-BWBK-SS-BA112-0001	4258.85553	-1.45784	-1.95642	-1.22592	-3.55704	-0.01407	0.0969483	-1.39106	-1.98117	-1.05562	0.29528	-0.2729
BASS-BWBK-SS-BA113-0001	8455.91979	-1.25545	-1.06726	0.33344	-5.4151	2.68494	0.4887245	-1.13838	-1.02186	-1.83701	0.0004	-1.13532
MASB-BWBK-SB-MA01-0105	11504.535	1.23906	-0.51437	0.40813	0.2767	-0.49633	2.320988	1.38302	-0.79293	-0.08625	-0.06265	0.18929
MASB-BWBK-SB-MA02-0107	9985.34538	1.32791	-0.6758	-0.29484	-0.30173	0.6682	2.3318084	1.43649	-0.901	0.36081	-0.19037	-0.16873
MASB-BWBK-SB-MA03-0108	13832.8759	1.54647	-0.29264	1.40786	-0.36965	-0.28165	2.5336239	1.78111	-0.64547	-0.73985	-0.10893	0.0999
MASB-BWBK-SB-MA04-0106	9944.33496	1.40325	-0.63384	-0.29552	-3.64072	1.10155	2.2440818	1.52495	-0.89222	0.38754	-0.7548	-0.29933
MASB-BWBK-SB-MA05-0108	11048.5225	1.11418	-0.38199	0.0909	1.18611	1.19978	2.2746861	1.28725	-0.86257	0.18533	-0.04403	-0.31313
MASB-BWBK-SB-MA06-0105	10085.3416	1.1015	-0.60129	-0.20444	-0.53972	1.22516	2.2306659	1.21259	-0.78929	0.14937	-0.13997	-0.37448
MASB-BWBK-SB-MA07-0108	9855.685	0.8819	-0.75559	-0.24922	5.27926	1.53556	2.191856	1.01961	-1.16016	0.20725	0.72437	-0.45222
MASB-BWBK-SB-MA08-0108	11404.6546	1.74231	-0.07087	-0.40815	8.4953	0.583	3.1108526	1.82906	-0.47492	1.20062	0.76804	0.00375
MASB-BWBK-SB-MA09-0108	12680.3564	1.25023	-0.20534	0.63729	7.22318	0.76824	2.6322637	1.43026	-0.74181	0.09906	0.82582	-0.14302
MASB-BWBK-SB-MA10-0104	11088.6368	0.67213	-0.54195	0.27163	6.82463	0.36405	2.2364502	0.85266	-0.89999	-0.4064	1.1562	-0.13837
MASB-BWBK-SB-MA11-0108	11497.2444	1.27695	-0.14054	0.01592	3.3691	1.32686	2.6611569	1.40289	-0.38716	0.26869	0.34417	-0.36146
MASB-BWBK-SB-MA12-0108	11948.748	1.44529	-0.3697	0.3938	3.38788	0.74815	2.5413814	1.64265	-0.9118	0.17501	0.2303	-0.14407
MASB-BWBK-SB-MA13-0105	10350.3556	0.00133	-0.04187	-0.08508	-3.51905	-0.49923	1.7006019	0.07166	-0.08487	-0.31194	-0.41121	0.10701
MASB-BWBK-SB-MA14-0104	11926.9197	0.90736	0.29687	-0.05352	4.36132	-1.3121	2.648188	0.98292	0.09493	0.45142	0.42342	0.50443
MASB-BWBK-SB-MA15-0105	11473.5437	0.51672	0.27145	-0.07808	1.96722	-1.39083	2.3112755	0.53876	0.16063	0.42213	0.08512	0.51552
MASB-BWBK-SB-MA16-0104	11659.1974	0.4513	-0.06176	0.37592	0.70689	-1.13141	2.1060312	0.58427	-0.20905	-0.49797	0.22806	0.3205
MASB-BWBK-SB-MA17-0104	12345.6312	0.26928	0.15104	0.63052	0.82865	-1.50947	2.0627133	0.29543	0.1164	-0.20947	0.07653	0.49803
MASB-BWBK-SB-MA18-0104	10316.704	0.13128	0.14063	-0.30605	-3.50856	-0.04723	1.845484	0.15127	0.11395	0.17247	-0.59722	0.02394
MASB-BWBK-SB-MA19-0103	10838.4786	-0.05031	-0.14283	0.26695	-2.47447	-0.59377	1.6146976	0.02563	-0.26553	-0.43328	-0.28123	0.14854
MASB-BWBK-SB-MA20-0103	10715.8442	0.98102	-0.53676	0.10834	0.43591	1.06123	2.2378012	1.12029	-0.6996	-0.24348	0.14114	-0.36221
MASS-BWBK-SS-MA01-0001	9801.88635	-1.67227	0.23615	0.08897	-6.20347	0.95882	0.7025949	-1.76817	0.45662	-0.62647	-0.66672	-0.41102
MASS-BWBK-SS-MA02-0001	9661.58947	-0.96235	0.32794	-0.22978	-9.54504	2.75389	1.0633764	-1.17581	0.71598	0.32479	-1.54577	-0.86917
MASS-BWBK-SS-MA03-0001	9212.15521	-0.88428	0.0577	-0.50474	-0.99369	1.06387	1.2962786	-0.9043	0.0462	-0.0687	-0.02245	-0.38401
MASS-BWBK-SS-MA04-0001	9112.00012	-0.5094	-0.13535	-0.44348	-4.22281	1.82899	1.3511127	-0.56625	-0.01155	0.04088	-0.55916	-0.61951
MASS-BWBK-SS-MA05-0001	10258.0602	0.16463	0.12095	-0.33259	-2.25933	1.99176	1.9567193	0.10118	0.27529	0.39292	-0.43903	-0.60741
MASS-BWBK-SS-MA06-0001	10044.7583	0.10554	0.68336	-0.97377	-0.6841	1.03954	2.1136486	0.03503	0.57134	1.27669	-0.57628	-0.18365
MASS-BWBK-SS-MA07-0001	7186.5388	-2.80433	-0.07584	-0.88244	2.17557	-0.37208	0.1895005	-2.84626	-0.13157	-0.71387	0.87579	-0.05301
MASS-BWBK-SS-MA08-0001	13436.2927	-0.3332	1.0911	0.57174	4.82225	0.26953	2.2842764	-0.35562	1.16475	-0.12751	0.68024	-0.0557
MASS-BWBK-SS-MA09-0001	15013.6254	0.40846	1.84918	0.72856	-3.75408	1.5401	2.7206177	0.20168	2.24137	0.94751	-1.19736	-0.29643
MASS-BWBK-SS-MA10-0001	14583.4712	0.31036	1.44243	0.78761	-0.20328	0.89847	2.6106674	0.20871	1.6455	0.45084	-0.43535	-0.15576
MASS-BWBK-SS-MA11-0001	13597.9315	0.40676	1.3977	0.17414	1.54861	-0.85478	2.7507913	0.31706	1.57175	0.74802	-0.16557	0.40627
MASS-BWBK-SS-MA12-0001	7769.47444	-0.31909	-0.38149	-1.13384	0.50777	3.45382	1.6064294	-0.36614	-0.27969	0.36862	0.20673	-1.13687
MASS-BWBK-SS-MA13-0001	10899.3819	-0.55918	0.97182	-0.48118	-2.09021	0.08686	1.8947753	-0.69409	1.24841	0.54119	-0.45635	0.01311
MASS-BWBK-SS-MA14-0001	12305.6571	-1.25917	1.26085	0.39067	-4.69319	1.16922	1.4905045	-1.36743	1.62853	-0.4418	-0.58571	-0.42542
MASS-BWBK-SS-MA15-0001	10904.035	-1.17021	0.97509	-0.20299	-3.35621	1.14077	1.47003	-1.33073	1.31176	0.15438	-0.51891	-0.36747
MASS-BWBK-SS-MA16-0001	10572.3222	-0.70897	0.6286	-0.40059	2.46123	1.03179	1.8113634	-0.73442	0.68595	0.04818	0.44839	-0.34588
MASS-BWBK-SS-MA17-0001	12534.7304	-0.47474	0.80864	0.48969	-0.41731	-0.34489	1.8742992	-0.54164	0.96282	-0.10787	-0.11859	0.12678
MASS-BWBK-SS-MA18-0001	12152.9032	-0.97049	1.05789	0.21921	1.92058	1.47254	1.7780791	-1.03475	1.17829	-0.1308	0.3069	-0.46874
MASS-BWBK-SS-MA19-0001	12986.2289	-0.49098	1.06566	0.51721	-0.07976	-0.07748	1.9949229	-0.54606	1.22792	-0.14133	-0.06483	0.04124
MASS-BWBK-SS-MA20-0001	11326.9073	-0.07934	0.43479	-0.01352	0.94673	1.08767	2.0373819	-0.05339	0.44635	-0.08672	0.17873	-0.35579
MMSB-BWBK-SB-MM101-0110	9341.8286	0.09086	-0.74495	-0.13236	-0.94682	-0.98203	1.5608021	0.21354	-0.88673	-0.5806	0.14964	0.2138
MMSB-BWBK-SB-MM102-0109	7052.77503	0.41127	-1.24282	-0.95348	-5.32501	0.84437	1.3919675	0.49457	-1.38087	0.05128	-0.65233	-0.33515
MMSB-BWBK-SB-MM103-0107	11105.026	0.27217	-0.57646	0.73572	-6.07878	-2.11977	1.4711208	0.40461	-0.72512	-0.88894	-0.73452	0.59319
MMSB-BWBK-SB-MM104-0110	8575.95304	0.66434	-0.74079	-0.7233	-3.57889	-1.54468	1.7887208	0.69949	-0.86007	0.45994	-0.63704	0.51095
MMSB-BWBK-SB-MM105-0110	9201.89887	-0.4374	-0.88037	0.13554	-1.67129	-0.38659	1.1041246	-0.31806	-1.08397	-0.89257	0.11099	-0.00201
MMSB-BWBK-SB-MM106-0110	8147.57593	0.78597	-0.67707	-0.95022	-7.53881	-0.45092	1.7974541	0.77883	-0.62135	0.61051	-1.24883	0.15677
MMSB-BWBK-SB-MM107-0110	8216.42268	0.02497	-0.72482	-0.64747	-5.36664	-1.30372	1.3791975	0.14095	-0.83774	-0.37825	-0.53979	0.30865
MMSB-BWBK-SB-MM108-0110	8986.40895	-0.02016	-0.82044	-0.16994	-3.07572	-0.98446	1.3732947	0.03875	-0.88336	-0.39514	-0.24703	0.23346
MMSB-BWBK-SB-MM109-0110	9207.90388	0.28205	-0.43619	-0.47437	-4.03341	-0.9469	1.7258485	0.27847	-0.3559	0.13816	-0.56616	0.27651
MMSB-BWBK-SB-MM110-0109	8224.02385	0.09702	-0.66171	-0.78379	-2.70105	-0.8895	1.5549834	0.14311	-0.72164	0.06057	-0.27638	0.23204
MMSB-BWBK-SB-MM111-0110	8097.46953	0.30602	-0.78586	-0.83542	-2.08586	-0.63617	1.6681325	0.34406	-0.82231	0.16717	-0.20313	0.16076
MMSB-BWBK-SB-MM112-0110	7598.95054	0.40091	-0.96155	-0.99238	-2.7031	-1.49074	1.6413732	0.4243	-0.9671	0.27671	-0.30222	0.43373
MMSB-BWBK-SB-MM113-0110	6549.4319	0.35875	-1.00454	-1.40306	-6.79486	-0.26286	1.4569146	0.44154	-1.0672	0.1786	-0.84068	0.00199
MMSB-BWBK-SB-MM114-0110	8722.73677	-0.26159	-0.9401	-0.11324	-3.18991	-0.73238	1.1130538	-0.17642	-1.14531	-0.50248	-0.26376	0.15034

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3152.00648	-2.80433	-2.26183	-1.63671	-9.54504	-3.96341	0.0297578	-2.84626	-2.37403	-1.83701	-1.64276	-1.13687
MAXIMUM DOMAIN VALUE	21612.0675	1.97917	3.00632	3.28653	13.2129	3.56574	3.6948724	2.06838	3.35553	1.63742	1.83934	1.26948
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	**AS_log pre**	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	8914.5257	0.00229	-0.53136	-0.38971	-7.08126	-1.95356	1.3761202	-0.02941	-0.42187	0.04749	-1.02011	0.58528
MMSB-BWBK-SB-MM116-0110	8363.50137	0.18724	-0.92282	-0.45621	-4.64873	-0.32616	1.414751	0.27687	-1.01038	-0.32402	-0.47421	0.01498
MMSB-BWBK-SB-MM117-0110	9583.26471	-0.18391	-0.99291	0.35764	-2.60035	-1.3131	1.1842272	-0.06553	-1.14415	-0.97382	-0.02759	0.29053
MMSB-BWBK-SB-MM118-0110	7977.40461	0.58186	-1.33507	-0.41739	-5.22096	1.46462	1.4508966	0.73288	-1.52106	-0.4513	-0.52306	-0.56981
MMSB-BWBK-SB-MM119-0110	8185.04481	0.07473	-1.01059	-0.46693	-3.56663	-0.65451	1.3357058	0.18241	-1.16096	-0.40496	-0.27282	0.10996
MMSB-BWBK-SB-MM120-0110	8512.76622	-0.77051	-1.12653	0.09842	-2.89299	-2.07757	0.7822156	-0.65181	-1.25966	-1.22091	0.11327	0.47342
MMSS-BWBK-SS-MM101-0001	9207.52848	-0.41351	0.16	-0.90194	3.72326	0.24312	1.8286235	-0.64962	0.37524	1.27822	0.24576	0.04201
MMSS-BWBK-SS-MM102-0001	7233.27089	-0.80152	-0.65902	-1.1571	4.47175	-0.16005	1.291749	-0.92529	-0.60148	0.57515	0.75414	0.04387
MMSS-BWBK-SS-MM103-0001	9130.46184	-0.53228	0.16311	-0.94101	5.18174	0.02425	1.8203926	-0.73368	0.33286	1.10703	0.5581	0.08585
MMSS-BWBK-SS-MM104-0001	9308.43705	-0.25028	0.10001	-0.82899	2.39286	-0.13285	1.8511512	-0.42254	0.25543	1.03582	0.11571	0.13311
MMSS-BWBK-SS-MM105-0001	9311.59234	-1.11497	-0.12846	-0.33503	3.42988	-0.81218	1.2458726	-1.21607	-0.05874	0.02706	0.64315	0.23132
MMSS-BWBK-SS-MM106-0001	9209.44921	-0.2079	0.07725	-0.85537	0.83337	-0.97312	1.8135779	-0.37665	0.25341	1.00993	-0.11054	0.39268
MMSS-BWBK-SS-MM107-0001	8197.84396	-0.28034	-0.18972	-1.16832	2.17223	0.27189	1.718667	-0.51045	0.02509	1.34083	0.04187	0.01875
MMSS-BWBK-SS-MM108-0001	8613.22519	-0.75715	0.13191	-1.09121	4.33186	0.25868	1.6485364	-1.04756	0.42159	1.37945	0.36155	0.03288
MMSS-BWBK-SS-MM109-0001	7729.08502	-0.73113	-0.31802	-1.21238	4.51848	-0.41135	1.4662654	-0.96685	-0.14848	1.20114	0.49047	0.21318
MMSS-BWBK-SS-MM110-0001	7363.45455	-1.7797	-0.24526	-1.09341	4.80771	-0.73061	0.9067342	-1.92491	-0.09952	0.14093	1.00809	0.16086
MMSS-BWBK-SS-MM111-0001	7411.70248	-1.5164	-0.42737	-0.97701	3.44295	-0.92361	0.918802	-1.69645	-0.25456	0.33236	0.68766	0.25591
MMSS-BWBK-SS-MM112-0001	7108.58114	-1.82551	-0.39998	-1.05058	4.32042	0.5346	0.7684224	-1.9623	-0.31523	0.10457	0.92667	-0.24169
MMSS-BWBK-SS-MM113-0001	8900.44244	-0.99978	0.26514	-0.96179	4.58725	0.32203	1.5899793	-1.23037	0.54184	0.90418	0.5912	-0.04928
MMSS-BWBK-SS-MM114-0001	7254.8373	-1.84829	-0.64733	-0.7014	1.86861	-0.52375	0.5353803	-1.95791	-0.57724	-0.26955	0.64083	0.05982
MMSS-BWBK-SS-MM115-0001	6658.21523	-1.49016	-0.60573	-1.27997	5.28579	-0.06788	0.943507	-1.63411	-0.50872	0.34858	1.03073	-0.03211
MMSS-BWBK-SS-MM116-0001	7922.436	-1.59226	-0.32663	-0.76124	3.70959	-1.02781	0.9133605	-1.71249	-0.22619	-0.01138	0.82057	0.25815
MMSS-BWBK-SS-MM117-0001	8329.49329	-0.70459	-0.15989	-0.99719	3.47768	-0.05292	1.5376729	-0.87981	0.0263	0.77931	0.47385	0.04956
MMSS-BWBK-SS-MM118-0001	8185.50934	-0.50636	-0.86453	-0.43839	-1.4074	-1.42374	1.0871529	-0.50182	-0.97353	-0.14171	-0.05133	0.39661
MMSS-BWBK-SS-MM119-0001	7620.68776	-0.66704	-1.10543	-0.468	-1.56123	-0.89892	0.8957147	-0.64729	-1.21489	-0.3628	0.04856	0.1897
MMSS-BWBK-SS-MM120-0001	7915.11872	-0.35464	-0.71032	-0.93157	4.83421	-1.41772	1.5879943	-0.33117	-0.74636	-0.02171	1.02303	0.37415
NESB-BWBK-SB-NE01-0108	7770.76618	0.95385	-1.17276	-0.90408	-2.32995	0.22907	1.8530679	0.95975	-1.25992	0.69395	-0.47546	-0.03859
NESB-BWBK-SB-NE02-0109	8372.11363	0.85284	-0.93472	-0.72106	-3.60177	-0.48751	1.8361344	0.90701	-1.05536	0.39449	-0.60032	0.16187
NESB-BWBK-SB-NE03-0105	8073.73889	0.58322	-1.12999	-0.73092	1.33408	-0.37809	1.7779008	0.6114	-1.26929	0.38969	0.20602	0.12443
NESB-BWBK-SB-NE04-0110	8512.42565	0.56987	-1.06355	-0.46185	-1.85488	-0.25977	1.6732401	0.60658	-1.15846	0.156	-0.24664	0.06702
NESB-BWBK-SB-NE05-0108	8202.79174	0.81731	-1.1329	-0.6803	-1.00686	0.18159	1.8376617	0.84183	-1.2278	0.43562	-0.19176	-0.04651
NESB-BWBK-SB-NE06-0109	8483.66452	0.66682	-1.13878	-0.4716	-0.72521	0.02181	1.7445716	0.72353	-1.27071	0.13258	-0.05814	-0.02502
NESB-BWBK-SB-NE07-0107	7925.06345	0.8692	-1.09585	-0.87038	-1.40029	0.60585	1.8736083	0.86766	-1.17004	0.6784	-0.32525	-0.15854
NESB-BWBK-SB-NE08-0104	8912.63019	0.43302	-1.01503	-0.23534	-1.56658	-0.12335	1.6142605	0.47326	-1.1046	-0.03442	-0.15975	0.01043
NESB-BWBK-SB-NE09-0110	8310.37172	0.5939	-1.16217	-0.51534	-1.04413	-0.20045	1.6835565	0.64706	-1.28073	0.1085	-0.08318	0.03744
NESB-BWBK-SB-NE10-0107	8940.06068	0.22222	-0.55067	-0.53504	-2.24528	-0.41945	1.7000328	0.1939	-0.48572	0.27327	-0.32738	0.125
NESB-BWBK-SB-NE101-0110	8463.6495	0.17657	-0.59256	-0.71429	-3.93376	-1.04942	1.6002671	0.11494	-0.47009	0.42333	-0.61281	0.33087
NESB-BWBK-SB-NE102-0110	8374.94712	-0.12487	-0.64832	-0.56193	-5.41213	-0.87056	1.3318132	-0.17832	-0.51646	0.1213	-0.73489	0.23628
NESB-BWBK-SB-NE103-0110	8091.79306	-0.35327	-0.86108	-0.48253	-4.01724	-1.04548	1.1527502	-0.36742	-0.79184	-0.21811	-0.37254	0.24687
NESB-BWBK-SB-NE104-0110	8306.90321	-0.52872	-0.9313	-0.23793	-4.03096	-1.24177	1.0092691	-0.50858	-0.88986	-0.59476	-0.25318	0.26948
NESB-BWBK-SB-NE105-0110	8513.34215	0.09704	-0.58794	-0.66906	-3.65582	-1.16072	1.5514207	0.07841	-0.54057	0.23283	-0.5097	0.34591
NESB-BWBK-SB-NE106-0110	8316.32665	0.00107	-0.78766	-0.53732	-4.68547	-0.84486	1.3812127	-0.01511	-0.70143	-0.00717	-0.56809	0.2116
NESB-BWBK-SB-NE107-0510	7831.23745	-0.38352	-1.05245	-0.47037	-3.30337	-1.37567	1.0997903	-0.36064	-0.99977	-0.47973	-0.1297	0.31078
NESB-BWBK-SB-NE108-0110	8696.11227	-0.14124	-0.681	-0.3928	-4.11487	-1.67745	1.369926	-0.19028	-0.52088	-0.04471	-0.47284	0.47671
NESB-BWBK-SB-NE109-0110	8246.45774	-0.15816	-0.77629	-0.54844	-4.10849	-1.4148	1.3219237	-0.20432	-0.63593	0.0076	-0.46358	0.39035
NESB-BWBK-SB-NE110-0110	8722.09084	-0.14872	-0.74813	-0.31172	-4.35817	-1.73043	1.3040662	-0.18413	-0.64101	-0.09866	-0.51692	0.49433
NESS-BKG-SS03-NEB-0016	13370.9862	-0.11694	1.13224	0.5258	0.92488	1.18246	2.3003895	-0.32846	1.49715	0.65062	-0.2257	-0.25099
NESS-BKG-SS09-NEB-0018	11517.6738	-0.80012	0.48369	0.26332	2.14567	-0.87357	1.5470552	-0.94275	0.50175	0.40098	0.07693	0.36468
NESS-BWBK-SS-NE01-0001	13130.8103	0.48513	0.90578	0.38049	0.20168	1.20307	2.4566672	0.28478	1.07098	1.21854	-0.63182	-0.16648
NESS-BWBK-SS-NE02-0001	12409.2769	0.62069	0.47266	0.3342	0.43305	3.24573	2.343632	0.50928	0.46153	0.95663	-0.49012	-0.85263
NESS-BWBK-SS-NE03-0001	9805.6447	-0.02845	0.06282	-0.62172	3.63415	0.70501	1.9661905	-0.25293	0.18919	1.3939	0.09186	-0.061
NESS-BWBK-SS-NE04-0001	10104.8637	0.37234	-0.03421	-0.43949	-0.60558	-0.53526	2.0182538	0.17659	0.13912	1.24635	-0.54349	0.31885
NESS-BWBK-SS-NE05-0001	10806.218	0.03531	0.41873	-0.33132	0.89624	1.03444	2.0551792	-0.1142	0.52586	0.98276	-0.24183	-0.20275
NESS-BWBK-SS-NE06-0001	8967.37209	0.2614	-0.33595	-0.75506	-0.41289	0.35326	1.8518502	0.09616	-0.20596	1.14571	-0.39203	-0.00302
NESS-BWBK-SS-NE07-0001	12029.6936	-0.09182	0.82587	-0.00615	2.9687	1.35313	2.2161392	-0.26046	0.95765	0.9493	0.02376	-0.28249
NESS-BWBK-SS-NE08-0001	9081.51572	0.05111	-0.17254	-0.80968	2.09536	0.74266	1.8864657	-0.14427	-0.03608	1.27249	-0.04185	-0.10944
NESS-BWBK-SS-NE09-0001	10744.7826	-0.23147	0.53019	-0.40164	2.17524	0.46222	1.976271	-0.55393	0.81132	1.63742	-0.28613	0.06404
NESS-BWBK-SS-NE10-0001	11536.0723	-0.15309	0.62578	-0.04889	1.73036	1.52863	2.0768326	-0.28141	0.76754	0.63321	-0.00206	-0.39424
NESS-BWBK-SS-NE101-0001	8338.65816	-0.76014	-0.34735	-0.75618	0.74474	-1.04076	1.2868087	-1.00149	-0.09382	0.86648	-0.03269	0.38705
NESS-BWBK-SS-NE102-0001	8375.40819	-1.25431	-0.21245	-0.66957	1.33622	-0.30793	1.1035672	-1.40608	0.01067	0.13736	0.37702	0.05051
NESS-BWBK-SS-NE103-0001	7512.234	-1.40323	-0.35673	-0.96581	1.53217	-0.01755	0.9537194	-1.50155	-0.24987	0.03379	0.49584	-0.07205
NESS-BWBK-SS-NE104-0001	7751.94417	-1.08794	-0.27263	-1.07919	4.0103	0.4117	1.3212073	-1.23819	-0.04857	0.38495	0.78439	-0.17032
NESS-BWBK-SS-NE105-0001	7285.71464	-1.60194	-0.56876	-0.83959	1.66117	-0.40472	0.738127	-1.73911	-0.42369	-0.0181	0.53616	0.04627
NESS-BWBK-SS-NE106-0001	8461.14117	-1.52514	0.02048	-0.75222	2.51366	-0.33619	1.1025417	-1.68508	0.27952	0.08994	0.60726	0.04642
NESS-BWBK-SS-NE107-0001	8045.43061	-1.71092	-0.18157	-0.73183	2.21335	-0.56971	0.8607041	-1.90464	0.05817	0.1586	0.52581	0.13176
NESS-BWBK-SS-NE108-0001	8587.38877	-1.42537	-0.07357	-0.59471	0.76927	-0.28386	1.0320324	-1.58343	0.16558	0.06378	0.30187	0.03735
NESS-BWBK-SS-NE109-0001	6849.25253	-1.73368	-0.58334	-1.02092	1.53902	-0.72056	0.6750511	-1.89974	-0.36637	0.04753	0.54772	0.13804
NESS-BWBK-SS-NE110-0001	8870.80801	-1.77785	0.17412	-0.5917	3.36987	-0.80576	1.0171638	-1.90303	0.34936	-0.14037	0.78708	0.18031

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3152.00648	-2.80433	-2.26183	-1.63671	-9.54504	-3.96341	0.0297578	-2.84626	-2.37403	-1.83701	-1.64276	-1.13687
MAXIMUM DOMAIN VALUE	21612.0675	1.97917	3.00632	3.28653	13.2129	3.56574	3.6948724	2.06838	3.35553	1.63742	1.83934	1.26948
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	**AS_log pre**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	11502.4763	0.91993	-0.31462	0.4431	-3.4711	-0.52536	2.0582475	0.95081	-0.42992	0.18559	-0.76678	0.23308
PMSB-BWBK-SB-PM02-0104	11857.0377	1.28452	0.3766	-0.31386	3.76859	-2.80561	2.9057887	1.33973	0.21571	0.83867	0.20802	1.01932
PMSB-BWBK-SB-PM03-0106	11992.7098	1.47635	-0.39576	0.41636	2.92193	-0.81009	2.6071733	1.62039	-0.71236	0.12352	0.24472	0.32714
PMSB-BWBK-SB-PM04-0105	11273.7251	1.08336	-0.27487	0.11087	1.40836	0.07225	2.3394924	1.21528	-0.63959	0.2436	-0.01069	0.04849
PMSB-BWBK-SB-PM05-0105	11506.1771	1.07962	-0.29835	0.26668	0.39	-1.20014	2.3187722	1.20148	-0.56033	0.05784	-0.08816	0.42722
PMSB-BWBK-SB-PM06-0105	10302.3962	1.12543	-0.64814	-0.17098	2.35119	-1.94348	2.2658623	1.24405	-0.99407	0.34202	0.1817	0.67867
PMSB-BWBK-SB-PM07-0105	12893.2469	0.77139	-0.071	0.85366	2.76378	-3.96341	2.2872657	0.94328	-0.3938	-0.50343	0.40438	1.26948
PMSB-BWBK-SB-PM08-0106	12711.9076	0.92512	-0.13883	0.85071	0.2015	-1.72801	2.2303627	1.06102	-0.45137	-0.24862	-0.12449	0.59569
PMSB-BWBK-SB-PM09-0106	11228.0677	0.60122	-0.6828	0.62747	0.51709	-1.1896	1.812515	0.79202	-1.11058	-0.59309	0.13381	0.35637
PMSB-BWBK-SB-PM10-0105	13633.2341	0.71434	0.57908	0.78643	0.59787	-2.82527	2.4958913	0.85129	0.42268	-0.38901	0.03176	0.91564
PMSB-BWBK-SB-PM11-0104	11783.8379	1.14811	-0.3757	0.40029	2.28352	-2.26144	2.4119068	1.32667	-0.68445	-0.24496	0.3231	0.73014
PMSB-BWBK-SB-PM12-0105	9771.50863	0.10056	-0.5139	-0.01501	-4.45178	-0.95898	1.4983897	0.19304	-0.63097	-0.43125	-0.51855	0.23935
PMSB-BWBK-SB-PM13-0106	10206.6779	0.26411	-0.00823	-0.50182	3.52802	-2.94036	2.1377086	0.31205	-0.13734	0.29159	0.50238	0.95559
PMSB-BWBK-SB-PM14-0106	10923.5689	0.0666	-0.3017	0.37044	-1.70533	-1.88121	1.640748	0.15831	-0.4526	-0.51082	-0.1431	0.55383
PMSB-BWBK-SB-PM15-0105	10587.9706	0.57557	-0.27212	-0.08375	0.96458	-0.89685	2.0918293	0.66175	-0.44302	0.03108	0.1214	0.29433
PMSB-BWBK-SB-PM16-0106	9953.41395	0.25359	-0.5242	-0.07191	0.25392	-0.64654	1.7512035	0.32625	-0.69838	-0.12295	0.08973	0.18833
PMSB-BWBK-SB-PM17-0105	13510.9078	0.9217	0.13697	1.08407	-1.42451	-2.30163	2.3321952	1.03471	-0.00112	-0.42927	-0.31328	0.75666
PMSB-BWBK-SB-PM18-0105	9630.2754	1.19623	-0.67157	-0.59235	5.71965	0.58225	2.4698239	1.31827	-1.02746	0.56234	0.71173	-0.12082
PMSB-BWBK-SB-PM19-0105	10262.0478	0.82951	-0.41709	-0.24683	2.13998	0.09686	2.2250418	0.91971	-0.6392	0.25554	0.23165	0.00342
PMSB-BWBK-SB-PM20-0106	10641.1131	0.64771	-0.38316	0.03462	0.69567	-0.08941	2.0564652	0.74	-0.59466	0.01275	0.05389	0.04471
PMSB-BWBK-SB-SO01-0107-PM	11779.8346	1.19343	-0.36022	0.39738	3.59821	1.72989	2.5049352	1.29477	-0.58376	0.09712	0.39735	-0.49387
PMSB-BWBK-SB-SO02-0109-PM	11295.1386	1.1756	-0.28737	-0.0278	7.27292	1.04868	2.6569402	1.28217	-0.61055	0.43254	0.89029	-0.24634
PMSB-BWBK-SB-SO13-0104-PM	12297.5781	1.36783	-0.17548	0.40449	5.09403	0.69143	2.7466417	1.57027	-0.52765	-0.15022	0.70737	-0.18858
PMSB-BWBK-SB-SO14-0105-PM	11756.8004	1.52049	-0.34457	0.21039	4.94603	1.47126	2.7339487	1.68533	-0.73381	0.24993	0.53198	-0.38768
PMSS-DABK-S-SO21-0001	17447.3297	0.05134	1.98412	1.95439	2.3974	2.01224	2.7857146	0.15018	2.06594	-1.04736	0.38017	-0.64302
PMSS-DABK-S-SO22-0001	20436.9641	0.40902	2.77555	2.84258	-0.20066	1.73849	3.2330089	0.41525	3.1027	-0.91414	-0.26585	-0.48011
PMSS-DABK-S-SO23-0001	15105.4145	0.09075	1.61131	1.04856	-1.58579	1.0721	2.5276746	0.05241	1.84486	-0.15357	-0.42613	-0.2867
PMSS-DABK-S-SO24-0001	17066.213	0.14858	2.04344	1.56025	4.52696	-0.73294	2.9800664	0.1459	2.25407	-0.41466	0.54435	0.29167
PMSS-DABK-S-SO25-0001	15910.7525	0.4858	1.94524	0.63241	13.2129	-3.01443	3.5010571	0.47907	2.03293	0.37946	1.74	1.08355
PMSS-DABK-S-SO26-0001	18157.2041	0.45842	2.46713	1.82225	0.73896	2.74166	3.1943747	0.46244	2.7129	-0.35819	-0.16377	-0.78382
PMSS-DABK-S-SO27-0001	16026.166	-0.22658	1.91528	1.4214	-1.38073	1.91083	2.479384	-0.24999	2.19183	-0.56156	-0.28242	-0.58984
PMSS-DABK-S-SO28-0001	20206.7492	0.21165	2.59491	3.039	-4.89739	0.2969	2.8381681	0.24538	2.91737	-1.30688	-0.87208	-0.07041
PMSS-DABK-S-SO29-0001	16973.5257	0.15586	2.31875	1.41927	-0.88404	0.78912	2.8887351	0.02216	2.71389	0.19608	-0.54943	-0.11878
PMSS-DABK-S-SO30-0001	17824.0949	0.14653	2.21842	2.08166	-5.19798	0.46734	2.6398215	0.0281	2.63692	-0.26765	-1.15845	-0.04423
PMSS-DABK-S-SO31-0001	16024.1713	-0.36373	1.42008	1.81715	-0.77842	-2.88127	2.1809731	-0.35954	1.65228	-1.03751	-0.03259	0.88672
PMSS-DABK-S-SO32-0001	21612.0675	0.48995	3.00632	3.28653	-3.27518	-1.44972	3.2407468	0.52109	3.35553	-1.19572	-0.73097	0.52417
PMSS-DABK-S-SO33-0001	17718.6848	-0.33177	2.31518	2.22929	-9.48161	0.86034	2.2665832	-0.39516	2.80245	-0.98448	-1.52367	-0.27474
PMSS-DABK-S-SO34-0001	15877.2174	-0.32797	1.51703	1.68276	-2.89185	-3.23485	2.1714391	-0.28988	1.73159	-1.1002	-0.32465	0.98254
PMSS-DABK-S-SO35-0001	15890.9888	-0.1422	1.81344	1.35878	-1.49198	-1.1589	2.492211	-0.10903	2.04033	-0.76695	-0.19799	0.35339
PMSS-DABK-S-SO36-0001	13615.9576	-0.72129	1.50074	0.58107	-0.77158	-0.6235	2.0501987	-0.78356	1.77214	-0.30399	-0.10187	0.19141
PMSS-DABK-S-SO37-0001	15749.0508	-0.19766	1.65634	1.33857	1.75403	-2.55758	2.4633404	-0.22268	1.8217	-0.39128	0.14022	0.85859
PMSS-DABK-S-SO38-0001	15307.4255	-0.60323	1.45429	1.52097	-2.55442	-3.03235	1.9884123	-0.60713	1.69385	-0.97866	-0.28176	0.92255
PMSS-DABK-S-SO39-0001	13423.6677	-0.26307	1.05425	0.59708	1.662	-2.93827	2.2173051	-0.24591	1.17373	-0.41687	0.31855	0.91795
PMSS-DABK-S-SO40-0001	15297.188	-0.45619	1.52508	1.42706	-3.26396	-2.23393	2.0734578	-0.47847	1.76733	-0.73839	-0.49362	0.69985
SESB-BWBK-SB-SO03-0108	11308.1927	1.97917	-0.39673	-0.10856	3.12188	2.37481	2.9266715	2.06838	-0.70736	0.93216	0.0074	-0.59883
SESB-BWBK-SB-SO04-0108	12320.0129	1.44699	-0.20066	0.44331	4.28259	1.64287	2.7220449	1.63557	-0.58919	0.00431	0.48383	-0.46197
SESB-BWBK-SB-SO05-0106	11266.7251	1.27153	-0.20982	-0.04998	3.65667	1.72683	2.5990916	1.36137	-0.50427	0.56415	0.25258	-0.44453
SESB-BWBK-SB-SO06-0108	12315.5789	1.75879	-0.06678	0.16867	5.88061	1.7603	3.0202963	1.86435	-0.41435	0.74426	0.45371	-0.40516
SESB-BWBK-SB-SO07-0106	13508.1794	1.52962	-0.11925	1.06804	0.85739	0.71036	2.680178	1.71621	-0.39032	-0.39589	0.01562	-0.1909
SESB-BWBK-SB-SO08-0107	12283.8471	1.80506	-0.05333	0.1803	3.21774	1.38752	2.9731234	1.91897	-0.34363	0.62604	0.09429	-0.30851
SESB-BWBK-SB-SO09-0106	11360.0282	1.16486	-0.17993	0.0537	2.11857	1.76004	2.4802328	1.27943	-0.4937	0.35676	0.07312	-0.47805
SESB-BWBK-SB-SO11-0106	11626.5008	1.61543	-0.38233	0.18305	2.06218	0.06285	2.6420195	1.73202	-0.73108	0.51704	-0.04169	0.09661
SESB-BWBK-SB-SO12-0106	12395.1638	1.49022	-0.24864	0.48599	5.11118	1.34422	2.7612292	1.67482	-0.63212	0.00892	0.61006	-0.36416
SESB-BWBK-SB-SO15-0103	11631.1037	0.57418	-0.08595	0.32484	1.30636	-0.84874	2.1586442	0.6336	-0.22391	-0.00491	0.10397	0.30269
SESB-BWBK-SB-SO16-0105	11052.9293	0.92328	-0.505	0.24187	2.11665	0.6141	2.2511162	1.09284	-0.75983	-0.35535	0.40715	-0.21992
SESB-BWBK-SB-SO17-0106	10828.8294	0.57101	-0.45087	0.33259	-3.10746	0.7911	1.8809678	0.68127	-0.533	-0.49351	-0.34098	-0.30439
SESB-BWBK-SB-SO18-0105	11394.3958	0.35171	-0.38174	0.72716	-6.31155	-0.44296	1.6241869	0.42847	-0.40149	-0.67376	-0.84411	0.08467
SESB-BWBK-SB-SO19-0104	14531.4787	0.72038	0.14753	1.91917	-9.2562	-1.47525	1.9351043	0.84097	0.2021	-1.26672	-1.30388	0.40778
SESB-BWBK-SB-SO20-0104	11805.3449	1.19096	-0.40897	0.44052	3.22541	0.20323	2.5035253	1.37752	-0.65628	-0.39526	0.55884	-0.08035
SESS-DABK-S-SO01-0001	12800.901	-0.15065	0.71635	0.54235	3.19173	1.86443	2.1521095	-0.31149	0.91264	0.48821	0.18475	-0.48434
SESS-DABK-S-SO02-0001	13609.4013	1.0916	1.63986	-0.01139	-8.27815	1.88171	2.9119754	1.15047	1.72758	0.52211	-1.64276	-0.50325
SESS-DABK-S-SO03-0001	14405.0237	-0.5164	1.71802	0.65154	4.61246	1.36369	2.4668222	-0.6178	1.98311	0.06463	0.56272	-0.37515
SESS-DABK-S-SO04-0001	14929.4176	-0.05327	1.56709	1.02071	0.65328	3.04525	2.4863478	-0.31092	1.99883	0.73363	-0.42081	-0.79488
SESS-DABK-S-SO05-0001	14426.375	-0.29118	1.35362	0.8887	4.7975	1.10861	2.4114142	-0.4034	1.56011	0.12885	0.51024	-0.26709
SESS-DABK-S-SO06-0001	16842.4836	1.05758	1.94654	0.95551	12.7147	-2.23306	3.6948724	1.07736	1.77334	0.78555	1.31387	0.94234
SESS-DABK-S-SO07-0001	13676.3721	0.07045	1.23049	0.70524	-4.54617	3.44027	2.20042	-0.01041	1.407	0.23053	-1.01045	-1.00592
SESS-DABK-S-SO08-0001	13987.8607	0.12372	1.24019	0.67174	1.35824	1.18118	2.4669103	0.09716	1.30977	0.13071	-0.03424	-0.29608
SESS-DABK-S-SO09-0001	13338.3806	-0.22441	1.16349	0.32732	9.01107	1.28267	2.5597856	-0.23554	1.19201	0.06676	1.30055	-0.36091

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM						ARSENIC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3152.00648	-2.80433	-2.26183	-1.63671	-9.54504	-3.96341	0.0297578	-2.84626	-2.37403	-1.83701	-1.64276	-1.13687
MAXIMUM DOMAIN VALUE	21612.0675	1.97917	3.00632	3.28653	13.2129	3.56574	3.6948724	2.06838	3.35553	1.63742	1.83934	1.26948
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	**AS_log pre**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	12648.1667	-0.38876	0.88641	0.1412	12.8868	0.341	2.48956	-0.47621	0.94783	0.38566	1.83934	-0.03117
SESS-DABK-S-SO11-0001	13452.5405	-1.16612	0.9008	1.29964	-4.35376	1.23457	1.3724484	-1.19882	1.1967	-1.23574	-0.35475	-0.50376
SESS-DABK-S-SO12-0001	13561.3358	-0.5034	1.16357	0.82201	-2.17522	0.97059	1.9345162	-0.59902	1.39973	-0.14411	-0.45202	-0.27548
SESS-DABK-S-SO13-0001	12748.1979	-0.03297	0.51913	0.64128	4.2796	3.56574	2.1656356	0.0307	0.39749	-0.34925	0.65335	-1.12664
SESS-DABK-S-SO14-0001	12168.1898	-0.38925	0.5756	0.31255	6.94714	1.74713	2.101084	-0.33481	0.46465	-0.32777	1.14713	-0.56814
SESS-DABK-S-SO15-0001	14948.0243	-0.45252	1.51087	1.07335	5.70646	0.70936	2.4057629	-0.51141	1.65284	-0.20382	0.74799	-0.17131
SESS-DABK-S-SO16-0001	12566.702	-1.33758	0.64185	1.00762	-1.75511	-0.68002	1.2040541	-1.40222	0.81666	-0.87906	-0.06482	0.14653
SESS-DABK-S-SO17-0001	14579.2321	-1.06089	1.55273	1.05992	3.00921	-3.67866	1.9753923	-1.17045	1.84766	-0.44689	0.47609	1.17495
SESS-DABK-S-SO18-0001	13666.2627	-0.52133	1.00564	1.0579	-3.44286	1.09863	1.8110169	-0.50227	1.1397	-0.809	-0.41331	-0.39694
SESS-DABK-S-SO19-0001	15092.4576	0.24624	1.49794	1.17717	-5.05926	1.81853	2.4072969	0.18419	1.73367	-0.02943	-1.06883	-0.49739
SESS-DABK-S-SO20-0001	14302.5292	0.38369	1.65039	0.43754	-0.3577	1.66788	2.6961642	0.27837	1.74138	0.90633	-0.646	-0.34304

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

BARIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
BA	0.0004	0.1107	0.0790	-0.2479	0.0669

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
27.7086	Mean				
10.4804	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1222	0.0892	0.9367	-0.7703	0.5950	
AS_log	-0.0386	0.2058	-0.2679	0.4930	-0.3360	
BA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CR	0.0388	0.0675	0.2759	-0.5982	0.4674	
CO_log	0.2565	0.3819	-1.0424	-1.9162	5.1885	
FE_log	0.2810	-0.2988	0.6926	4.3398	2.5773	
PB_log	-0.0457	0.3226	-0.0409	0.3222	-0.6974	
MG	0.0654	-0.1708	0.2400	-1.2542	0.0173	
MN_log	0.0476	-0.0435	-0.0331	-0.1949	1.5580	
NI_log	0.3399	-0.4907	0.5375	0.3029	-5.8783	
V	-0.0425	0.4002	-0.2181	-0.3426	0.4707	
ZN_log	0.1334	0.3044	-0.6192	-0.8137	-3.8749	

CHROMIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
CR	0.0388	0.0578	0.2286	-0.2551	0.1106

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
12.1474	Mean				
3.4253	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1276	0.0826	1.5399	-0.8012	-0.5366	
AS_log	-0.0402	0.1904	-0.4404	0.5128	0.3030	
BA	0.0004	0.1197	0.1566	-0.6049	-0.2548	
CR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CO_log	0.2678	0.3534	-1.7135	-1.9932	-4.6786	
FE_log	0.2933	-0.2765	1.1385	4.5141	-2.3241	
PB_log	-0.0477	0.2986	-0.0672	0.3351	0.6289	
MG	0.0683	-0.1581	0.3945	-1.3045	-0.0156	
MN_log	0.0497	-0.0403	-0.0543	-0.2027	-1.4049	
NI_log	0.3548	-0.4542	0.8835	0.3151	5.3007	
V	-0.0444	0.3704	-0.3586	-0.3563	-0.4244	
ZN_log	0.1393	0.2817	-1.0179	-0.8464	3.4941	

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CHROMIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	10.011825	-2.94178	-2.33587	-2.62213	-4.8353	-9.31831	3.119267	-2.98446	-2.31013	-4.3137	-6.26768	-8.94576
MAXIMUM DOMAIN VALUE	52.913067	2.0949	2.9372	2.76259	7.50202	9.80869	18.017468	2.13423	2.90423	4.43763	7.48742	8.27123
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CR predict**	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	11.104746	-1.10214	-1.92439	-0.9779	-0.87254	-1.88115	5.8265024	-1.07387	-1.89236	-1.04265	-0.93063	1.38208
BASS-BWBK-SS-BA102-0001	10.011825	-1.44805	-2.01598	-1.34414	-1.12871	-2.01989	4.3892881	-1.42554	-1.97509	-1.55522	-1.27892	1.43551
BASS-BWBK-SS-BA103-0001	11.259739	-1.30328	-1.98373	-1.25393	-1.33266	-1.98536	5.0636864	-1.27671	-1.93062	-1.4095	-1.54708	1.39007
BASS-BWBK-SS-BA104-0001	15.368677	-0.93779	-1.78797	-1.09769	-2.00268	-2.3732	6.4650065	-0.91171	-1.76471	-1.32458	-2.04162	1.89017
BASS-BWBK-SS-BA105-0001	11.467011	-1.05262	-1.7675	-1.61322	-1.03305	-2.52303	5.0567975	-1.02341	-1.76268	-2.11821	-1.01017	2.00237
BASS-BWBK-SS-BA106-0001	13.795483	-0.82215	-1.8676	-0.86534	-1.94797	-4.52678	6.6640095	-0.8035	-1.87811	-1.10853	-1.69009	4.00509
BASS-BWBK-SS-BA107-0001	10.943255	-1.45875	-1.91707	-1.35282	-1.19156	-2.02411	4.5456911	-1.43667	-1.87327	-1.55604	-1.39625	1.41743
BASS-BWBK-SS-BA108-0001	12.159811	-1.39622	-1.93829	-1.34009	-1.74196	-2.6989	4.7345969	-1.37616	-1.9082	-1.59854	-1.85568	2.09214
BASS-BWBK-SS-BA109-0001	11.263367	-0.91542	-2.33587	-0.74184	-2.53394	-5.74705	6.2399684	-0.89556	-2.31013	-0.8549	-2.34671	5.06467
BASS-BWBK-SS-BA110-0001	13.170583	-0.79135	-2.05482	-0.55408	-1.34998	-1.07776	7.3473964	-0.76571	-1.95867	-0.4267	-1.57692	0.65969
BASS-BWBK-SS-BA111-0001	12.026322	-1.2648	-1.96575	-1.08129	-1.35971	-1.64336	5.2047853	-1.24725	-1.94525	-1.26428	-1.3367	1.22402
BASS-BWBK-SS-BA112-0001	11.749774	-1.35776	-2.02083	-1.06265	-1.28262	-0.8467	5.0985274	-1.33598	-1.97774	-1.1335	-1.41253	0.40737
BASS-BWBK-SS-BA113-0001	15.368068	-1.10451	-1.10008	-2.52864	-2.19104	-7.88274	4.5857632	-1.07932	-1.13972	-3.63241	-2.22779	6.83683
MASB-BWBK-SB-MA01-0105	26.980913	1.41058	-0.46451	-0.31527	-0.17425	1.4252	13.828646	1.44201	-0.55079	-0.95347	0.6581	-0.81282
MASB-BWBK-SB-MA02-0107	25.920792	1.47475	-0.66577	0.50104	-0.4688	-1.51263	15.100424	1.49499	-0.70527	0.29977	0.29846	1.86968
MASB-BWBK-SB-MA03-0108	24.830397	1.81412	-0.34423	-1.61582	0.13627	0.44701	13.37568	1.87889	-0.34838	-2.83109	0.40441	-0.23416
MASB-BWBK-SB-MA04-0106	30.755657	1.5601	-0.65122	0.47979	-2.21626	-2.6894	15.865631	1.57945	-0.6717	0.24775	-1.58502	2.92167
MASB-BWBK-SB-MA05-0108	22.763694	1.27334	-0.37419	-0.12211	0.57196	-3.04928	13.618632	1.28943	-0.43954	-0.68657	1.36605	3.23043
MASB-BWBK-SB-MA06-0105	24.9338	1.2499	-0.58595	0.2004	-0.51296	-3.0431	14.202366	1.26965	-0.63965	-0.11839	0.22262	3.19996
MASB-BWBK-SB-MA07-0108	13.82313	1.01926	-0.69128	0.14959	2.56299	-3.77462	12.790894	1.0612	-0.75205	0.07699	3.25149	3.65983
MASB-BWBK-SB-MA08-0108	23.997607	1.8199	0.16518	1.62996	3.23363	-0.45931	16.791855	1.82179	-0.08265	1.66006	5.1401	1.46742
MASB-BWBK-SB-MA09-0108	15.822712	1.40502	-0.13099	-0.36838	3.64568	-1.74207	13.392129	1.45634	-0.20654	-0.80973	4.29949	1.82432
MASB-BWBK-SB-MA10-0104	12.127317	0.85755	-0.46524	-0.82095	3.65732	-1.01441	10.674257	0.90108	-0.5817	-1.48788	4.519	1.19043
MASB-BWBK-SB-MA11-0108	23.05741	1.42161	-0.07258	0.23434	1.47763	-3.15223	14.580474	1.44059	-0.18528	-0.16575	2.46069	3.40151
MASB-BWBK-SB-MA12-0108	20.907004	1.63073	-0.33563	-0.22332	1.64182	-1.77469	14.125647	1.66483	-0.41163	-0.84141	2.50025	2.0808
MASB-BWBK-SB-MA13-0105	29.323818	0.07902	-0.1834	-0.58668	-1.12063	0.72207	11.297194	0.05848	-0.13077	-1.13618	-1.17894	-0.56127
MASB-BWBK-SB-MA14-0104	24.316233	0.97437	0.18613	0.3378	2.86032	3.2688	14.304792	0.96736	0.24818	0.19313	2.97191	-2.75118
MASB-BWBK-SB-MA15-0105	28.38443	0.52679	0.1806	0.40613	1.40273	3.53208	13.912436	0.51428	0.24839	0.44266	1.32149	-3.10098
MASB-BWBK-SB-MA16-0104	24.042777	0.59778	-0.15232	-0.98705	1.05043	2.43122	11.514979	0.61755	-0.12831	-1.66597	1.07805	-2.17274
MASB-BWBK-SB-MA17-0104	27.95445	0.29644	0.08767	-0.51042	0.76079	3.74644	12.242997	0.30672	0.14838	-0.77847	0.47411	-3.50019
MASB-BWBK-SB-MA18-0104	35.661661	0.14929	0.15027	0.2515	-1.98536	0.125	12.651349	0.10194	0.05365	-0.19244	-1.22602	0.45251
MASB-BWBK-SB-MA19-0103	27.509365	0.02061	-0.23903	-0.83981	-0.75978	1.07525	10.872934	0.02337	-0.18895	-1.32228	-0.96663	-1.05074
MASB-BWBK-SB-MA20-0103	21.193737	1.16283	-0.56663	-0.44704	0.40479	-2.891	13.066799	1.19774	-0.58116	-0.95591	0.82885	2.84162
MASS-BWBK-SS-MA01-0001	30.849506	-1.80005	0.11861	-0.85953	-2.6175	-3.06142	8.1214714	-1.83094	0.23832	-0.80547	-3.73438	2.14608
MASS-BWBK-SS-MA02-0001	37.969315	-1.18316	0.12636	0.67461	-4.66633	-7.24822	12.973377	-1.22882	0.38879	1.51327	-6.26768	5.91942
MASS-BWBK-SS-MA03-0001	22.547194	-0.93783	-0.08569	-0.1581	0.29641	-3.26435	9.9352618	-0.96034	0.04017	0.0644	-0.43402	2.55886
MASS-BWBK-SS-MA04-0001	27.502257	-0.56411	-0.26607	0.17474	-1.77999	-5.0097	11.784493	-0.57727	-0.12401	0.55004	-2.55405	4.17734
MASS-BWBK-SS-MA05-0001	31.091355	0.11857	0.1054	0.74223	-1.37922	-4.93675	14.116494	0.10446	0.13353	1.08786	-1.46864	4.51414
MASS-BWBK-SS-MA06-0001	29.898447	-0.0224	0.41104	1.57944	0.57481	-2.88012	15.859069	-0.06522	0.69394	2.61027	-0.66	2.23701
MASS-BWBK-SS-MA07-0001	15.091864	-2.94178	-0.09711	-0.98425	2.0232	0.13653	3.119267	-2.98446	-0.10097	-0.83509	1.50318	-0.71812
MASS-BWBK-SS-MA08-0001	25.066994	-0.39149	1.07272	-0.43248	3.01472	-0.81282	11.667984	-0.3877	1.10337	-0.3766	2.42059	0.35038
MASS-BWBK-SS-MA09-0001	49.676887	0.18488	1.82749	1.28825	-2.42015	-3.30287	18.017468	0.13191	1.89233	1.81068	-3.06324	2.99258
MASS-BWBK-SS-MA10-0001	40.656237	0.188	1.48669	0.49269	-0.46862	-1.83831	15.455242	0.15944	1.45764	0.5747	-0.61836	1.74911
MASS-BWBK-SS-MA11-0001	37.907115	0.29692	1.3113	0.90422	1.09517	2.38043	16.10019	0.2653	1.40131	1.31394	0.53514	-2.22181
MASS-BWBK-SS-MA12-0001	18.147036	-0.35254	-0.43906	0.84004	0.48398	-8.97649	11.998028	-0.3638	-0.37156	1.46413	0.29651	7.99107
MASS-BWBK-SS-MA13-0001	33.862786	-0.71694	0.74167	0.77131	-0.16043	-0.56978	13.62193	-0.76444	0.97499	1.48792	-1.49543	0.02161
MASS-BWBK-SS-MA14-0001	36.043929	-1.39564	1.11872	-0.71174	-1.60814	-3.56339	10.490811	-1.43204	1.24277	-0.67638	-2.9041	2.59922
MASS-BWBK-SS-MA15-0001	34.593567	-1.36402	0.84883	0.29381	-1.20246	-3.19665	11.538506	-1.41435	0.98754	0.82837	-2.33832	2.38956
MASS-BWBK-SS-MA16-0001	23.234478	-0.76941	0.56195	0.00794	1.93912	-2.9796	10.659391	-0.79763	0.59666	0.16182	1.58991	2.48606
MASS-BWBK-SS-MA17-0001	33.425565	-0.56566	0.79536	-0.25285	-0.06685	0.85197	11.626347	-0.59085	0.8047	-0.33158	-0.41155	-0.9099
MASS-BWBK-SS-MA18-0001	27.098243	-1.0869	1.05115	-0.32648	1.40275	-3.96016	10.311305	-1.11375	1.05257	-0.24269	0.89973	3.25409
MASS-BWBK-SS-MA19-0001	33.09736	-0.57511	1.01719	-0.37624	0.36931	0.02972	11.719677	-0.60057	1.04884	-0.48361	-0.1541	-0.25112
MASS-BWBK-SS-MA20-0001	24.41326	-0.06261	0.34114	-0.2719	1.14007	-3.13607	11.97276	-0.06565	0.40373	-0.33749	0.74572	2.64491
MMSB-BWBK-SB-MM101-0110	21.263971	0.23863	-0.82333	-0.88452	0.053	1.99075	10.562223	0.27905	-0.77044	-1.18861	-0.1301	-1.99164
MMSB-BWBK-SB-MM102-0109	26.192567	0.53765	-1.29151	0.29293	-2.85779	-2.36363	12.913595	0.56157	-1.25734	0.4055	-2.66322	2.25947
MMSB-BWBK-SB-MM103-0107	33.59076	0.43001	-0.6109	-1.47254	-3.03885	5.03416	10.71827	0.45271	-0.6368	-2.47638	-2.83101	-4.41666
MMSB-BWBK-SB-MM104-0110	34.348869	0.72672	-0.71773	0.83414	-2.37469	4.18702	14.735642	0.74009	-0.7315	1.11471	-1.99127	-3.50166
MMSB-BWBK-SB-MM105-0110	19.43786	-0.3159	-0.91927	-1.38754	-0.4304	0.41921	8.4003944	-0.2776	-0.89765	-1.85958	-0.60869	-0.65268
MMSB-BWBK-SB-MM106-0110	39.255128	0.83247	-0.72982	1.19013	-4.34537	1.31156	16.253403	0.83426	-0.67345	1.63857	-4.26578	-0.93833
MMSB-BWBK-SB-MM107-0110	30.358729	0.16781	-0.79018	-0.47834	-2.47859	2.8298	10.253424	0.12933	-0.8702	-1.38618	-1.53146	-1.9316
MMSB-BWBK-SB-MM108-0110	26.550984	0.06542	-0.84721	-0.47518	-1.5388	2.27334	11.116643	0.09521	-0.81651	-0.57422	-1.64229	-2.17436
MMSB-BWBK-SB-MM109-0110	31.999154	0.31548	-0.5323	0.36706	-1.95455	2.28331	13.611491	0.3195	-0.43749	0.58304	-2.23548	-2.10458
MMSB-BWBK-SB-MM110-0109	28.55624	0.16567	-0.68852	0.25704	-1.38866	2.11802	11.808227	0.14729	-0.72112	0.07913	-0.8278	-1.54999
MMSB-BWBK-SB-MM111-0110	25.658892	0.37927	-0.87376	0.42486	-0.86668	1.42456	13.196912	0.40248	-0.77708	0.79914	-1.11008	-1.39792
MMSB-BWBK-SB-MM112-0110	28.181388	0.47104	-1.02354	0.69373	-1.42018	3.74637	13.681252	0.49287	-0.9456	1.15317	-1.4944	-3.39
MMSB-BWBK-SB-MM113-0110	32.663715	0.48995	-1.04203	0.57854	-3.64435	0.43629	12.186635	0.43245	-1.15551	-0.02103	-2.22961	0.57365
MMSB-BWBK-SB-MM114-0110	23.037991	-0.17503	-1.021	-0.79569	-1.2868	1.41231	9.9694386	-0.14328	-0.9365	-0.93367	-1.68057	-1.57333

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CHROMIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	10.011825	-2.94178	-2.33587	-2.62213	-4.8353	-9.31831	3.119267	-2.98446	-2.31013	-4.3137	-6.26768	-8.94576
MAXIMUM DOMAIN VALUE	52.913067	2.0949	2.9372	2.76259	7.50202	9.80869	18.017468	2.13423	2.90423	4.43763	7.48742	8.27123
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CR predict**	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	34.6558	0.00236	-0.7468	0.18051	-3.14313	4.60173	13.817817	0.03088	-0.47487	0.83454	-4.57253	-4.80775
MMSB-BWBK-SB-MM116-0110	26.217341	0.31414	-1.02106	-0.38507	-2.08623	0.39482	11.621422	0.33373	-0.95828	-0.59641	-2.14731	-0.3696
MMSB-BWBK-SB-MM117-0110	21.527405	-0.04259	-1.05699	-1.48441	-0.90946	2.80081	9.2678918	0.01728	-0.98311	-1.87703	-1.39083	-2.95704
MMSB-BWBK-SB-MM118-0110	21.867434	0.78855	-1.41936	-0.58076	-2.48759	-4.21031	12.395403	0.85422	-1.33851	-0.69994	-2.69853	3.62667
MMSB-BWBK-SB-MM119-0110	24.326321	0.21106	-1.07751	-0.52336	-1.56461	1.23617	11.027173	0.24311	-1.03375	-0.69677	-1.6171	-1.20091
MMSB-BWBK-SB-MM120-0110	20.079908	-0.6372	-1.19604	-1.7723	-0.86814	4.53501	6.9812058	-0.59532	-1.14814	-2.32187	-1.22684	-4.50239
MMSS-BWBK-SS-MM101-0001	29.740064	-0.67367	0.27705	2.2814	0.99087	0.28292	14.463019	-0.70254	0.29486	3.80573	0.83208	-0.34098
MMSS-BWBK-SS-MM102-0001	18.917244	-0.94027	-0.56297	1.27507	1.83694	0.79888	10.675225	-0.95175	-0.57401	2.30315	1.95055	-0.82206
MMSS-BWBK-SS-MM103-0001	27.464292	-0.76261	0.32111	2.01925	1.76635	0.78472	13.282259	-0.79682	0.2653	3.2719	2.00315	-0.63528
MMSS-BWBK-SS-MM104-0001	30.142612	-0.43848	0.16873	1.83104	0.59601	0.98505	14.269173	-0.46054	0.19713	3.03616	0.43546	-0.95423
MMSS-BWBK-SS-MM105-0001	22.869683	-1.25024	-0.03179	0.25255	1.50931	2.26421	9.2174303	-1.26232	-0.06804	0.76045	1.43879	-2.26657
MMSS-BWBK-SS-MM106-0001	34.525891	-0.38577	0.16736	1.837	-0.37018	3.17581	13.96539	-0.43757	0.12263	2.65711	0.04216	-2.54643
MMSS-BWBK-SS-MM107-0001	30.285546	-0.51802	-0.0782	2.47806	0.07384	0.22198	14.820685	-0.54603	-0.05789	4.0434	0.04408	-0.1929
MMSS-BWBK-SS-MM108-0001	29.710993	-1.07696	0.30065	2.57402	1.05337	0.40385	13.777494	-1.12131	0.28039	4.26095	1.06276	-0.38953
MMSS-BWBK-SS-MM109-0001	27.004227	-0.99251	-0.12258	2.32163	1.09774	2.05416	12.736669	-1.02872	-0.18738	3.78993	1.45757	-1.74939
MMSS-BWBK-SS-MM110-0001	17.830784	-1.96826	-0.18589	0.59887	2.53422	1.86901	7.7331573	-1.99527	-0.18055	1.52109	2.22745	-2.0922
MMSS-BWBK-SS-MM111-0001	21.88334	-1.7283	-0.32104	0.96296	1.33436	2.67986	8.9551102	-1.75311	-0.33097	2.01047	1.17006	-2.71049
MMSS-BWBK-SS-MM112-0001	15.672803	-2.01192	-0.32505	0.52256	2.17824	-1.35294	7.4306309	-2.03267	-0.32398	1.45244	1.86853	0.78537
MMSS-BWBK-SS-MM113-0001	26.686652	-1.26102	0.39656	1.78578	1.6712	-0.15345	12.222865	-1.2934	0.37961	3.16337	1.50046	-0.0524
MMSS-BWBK-SS-MM114-0001	17.617489	-1.99722	-0.60872	-0.07149	1.02492	1.17921	6.5919505	-2.01024	-0.58129	0.54789	0.58877	-1.55962
MMSS-BWBK-SS-MM115-0001	14.050384	-1.6668	-0.57516	0.93682	2.76737	0.23435	8.6019402	-1.68049	-0.51342	2.11248	2.33144	-0.67653
MMSS-BWBK-SS-MM116-0001	19.435035	-1.75152	-0.26585	0.29981	1.9027	2.6306	7.8891312	-1.76787	-0.26073	1.03225	1.59281	-2.77423
MMSS-BWBK-SS-MM117-0001	24.393336	-0.89441	-0.0986	1.55255	1.35808	0.59967	12.306561	-0.9118	-0.05765	2.79663	1.0775	-0.76784
MMSS-BWBK-SS-MM118-0001	24.960171	-0.50761	-0.85561	-0.07163	-0.83531	3.55443	10.083808	-0.49772	-0.83663	0.12184	-0.88842	-3.34116
MMSS-BWBK-SS-MM119-0001	20.638965	-0.64658	-1.13573	-0.37504	-0.67157	2.00787	9.1818339	-0.6215	-1.06761	-0.14459	-1.02199	-2.15832
MMSS-BWBK-SS-MM120-0001	16.843293	-0.31943	-0.6581	0.24763	2.56975	3.56388	9.2877527	-0.34168	-0.75924	0.13972	3.49033	-2.83895
NESB-BWBK-SB-NE01-0108	30.058437	1.00979	-1.06744	1.38492	-2.28	0.01329	15.277099	1.02115	-1.14328	1.77456	-1.34003	0.55061
NESB-BWBK-SB-NE02-0109	27.414359	0.94913	-1.08019	0.6507	-1.6477	1.09813	14.899889	0.97397	-0.92468	1.0102	-1.96315	-1.02769
NESB-BWBK-SB-NE03-0105	21.905609	0.64402	-1.06973	0.81791	0.16132	1.28922	13.248298	0.66894	-1.09294	1.18244	0.71052	-0.92213
NESB-BWBK-SB-NE04-0110	26.294631	0.64704	-1.02915	0.44457	-1.44791	0.86187	13.369842	0.67806	-1.03143	0.65434	-1.12918	-0.62991
NESB-BWBK-SB-NE05-0108	26.862179	0.88915	-1.02822	0.95499	-1.41947	0.01743	14.248904	0.91051	-1.10382	1.21303	-0.57722	0.43069
NESB-BWBK-SB-NE06-0109	23.988427	0.76623	-1.07794	0.4101	-0.92071	0.17585	13.213811	0.80117	-1.11266	0.5396	-0.3895	0.07395
NESB-BWBK-SB-NE07-0107	27.80219	0.91371	-1.00749	1.34167	-1.66206	-0.99945	14.986429	0.92447	-1.06291	1.76858	-0.8499	1.38558
NESB-BWBK-SB-NE08-0104	25.938453	0.51019	-0.94204	0.15451	-1.39271	0.53102	12.440162	0.53622	-0.99466	0.13099	-0.85906	-0.2466
NESB-BWBK-SB-NE09-0110	24.418374	0.69036	-1.10569	0.3952	-1.06563	0.71702	12.893733	0.71723	-1.14735	0.45992	-0.45891	-0.36118
NESB-BWBK-SB-NE10-0107	31.226944	0.22529	-0.50288	0.68975	-1.69014	1.33184	13.225701	0.22016	-0.54089	0.89914	-1.26447	-0.93478
NESB-BWBK-SB-NE101-0110	31.562336	0.15017	-0.708	0.88117	-1.9856	2.67097	14.320032	0.16247	-0.53528	1.65407	-2.71171	-2.70164
NESB-BWBK-SB-NE102-0110	30.29143	-0.14629	-0.82583	0.38748	-2.41482	1.9337	13.194705	-0.12679	-0.58934	1.09897	-3.58818	-2.29705
NESB-BWBK-SB-NE103-0110	25.806885	-0.33855	-0.99643	-0.11246	-1.66801	2.28145	11.289561	-0.31245	-0.81773	0.32598	-2.57141	-2.56997
NESB-BWBK-SB-NE104-0110	24.271768	-0.48043	-1.04833	-0.70357	-1.60284	2.64699	9.8194795	-0.44893	-0.90633	-0.59027	-2.38804	-2.89741
NESB-BWBK-SB-NE105-0110	28.97603	0.10545	-0.75119	0.48403	-1.47554	2.70258	13.546587	0.12412	-0.54878	1.11185	-2.37759	-2.84544
NESB-BWBK-SB-NE106-0110	28.415677	0.02408	-0.93193	0.20237	-2.10527	1.8669	12.846423	0.05085	-0.74349	0.72145	-2.9834	-2.11766
NESB-BWBK-SB-NE107-0510	23.363623	-0.3216	-1.15667	-0.45555	-1.29692	3.05178	10.385215	-0.282	-1.01847	-0.18727	-2.01875	-3.24554
NESB-BWBK-SB-NE108-0110	30.920276	-0.15084	-0.76037	0.22419	-2.09191	4.17783	12.52394	-0.12955	-0.62674	0.72402	-2.77498	-4.12885
NESB-BWBK-SB-NE109-0110	28.913449	-0.16558	-0.89727	0.29314	-1.90981	3.40886	12.534253	-0.14246	-0.71897	0.90421	-2.77773	-3.5257
NESB-BWBK-SB-NE110-0110	31.499983	-0.15007	-0.792	0.12115	-2.37686	4.36925	12.152981	-0.13186	-0.70283	0.46626	-2.81241	-4.18073
NESS-BKG-SS03-NEB-0016	39.330713	-0.34191	1.28362	1.12395	-0.52519	-2.14859	15.312606	-0.35496	1.24653	1.94023	-0.85536	1.80037
NESS-BKG-SS09-NEB-0018	33.570646	-1.00706	0.66333	0.60761	0.21294	2.90573	11.229496	-1.04269	0.55209	0.99902	0.46713	-2.55146
NESS-BWBK-SS-NE01-0001	42.448176	0.25895	1.08049	1.8537	-1.33802	-1.85645	16.948047	0.21198	0.98835	2.49449	-0.8898	2.11582
NESS-BWBK-SS-NE02-0001	35.512354	0.48594	0.68756	1.41907	-1.27019	-7.19946	15.757108	0.44972	0.51918	1.65278	-0.29489	7.15004
NESS-BWBK-SS-NE03-0001	31.458428	-0.27773	0.25653	2.40244	0.4494	-0.58966	15.04151	-0.3178	0.18413	3.6242	0.94725	0.84327
NESS-BWBK-SS-NE04-0001	40.104457	0.18141	0.14865	2.21541	-1.89878	2.56555	16.27534	0.14729	0.06468	3.16086	-1.28876	-1.8591
NESS-BWBK-SS-NE05-0001	35.606979	-0.13712	0.57993	1.63859	-0.65674	-1.77019	14.355218	-0.19706	0.44444	2.07877	0.19058	2.17605
NESS-BWBK-SS-NE06-0001	35.199776	0.1058	-0.16345	2.12282	-1.66328	0.13331	15.34828	0.07414	-0.25387	3.02405	-0.9384	0.35528
NESS-BWBK-SS-NE07-0001	34.219652	-0.29962	0.992	1.4881	0.52893	-2.56406	14.545048	-0.33936	0.89518	2.17175	0.86753	2.55056
NESS-BWBK-SS-NE08-0001	30.967157	-0.15108	-0.02264	2.27473	-0.16556	-0.87438	15.065196	-0.18202	-0.0642	3.45995	0.23001	1.05337
NESS-BWBK-SS-NE09-0001	37.94121	-0.59034	0.69092	2.76259	-0.36166	0.17618	16.299757	-0.63664	0.70558	4.43763	-0.55366	-0.15214
NESS-BWBK-SS-NE10-0001	32.183831	-0.30533	0.74604	1.04305	0.18322	-3.30046	13.896858	-0.32643	0.68645	1.63854	0.26923	3.03961
NESS-BWBK-SS-NE101-0001	31.064307	-1.01203	-0.24732	1.77881	-0.56437	3.41948	12.771554	-1.03461	-0.20329	3.1581	-0.88173	-3.29353
NESS-BWBK-SS-NE102-0001	24.567612	-1.42211	-0.15955	0.59683	0.46595	0.92883	9.8313826	-1.43447	-0.12966	1.46561	0.01369	-1.2335
NESS-BWBK-SS-NE103-0001	20.998246	-1.52855	-0.32852	0.38409	0.84179	-0.05795	8.6168189	-1.55041	-0.31961	1.02857	0.61003	-0.23855
NESS-BWBK-SS-NE104-0001	20.944754	-1.24689	-0.15984	1.07851	1.64741	-0.73543	10.506642	-1.25174	-0.17903	2.19316	1.49076	0.37177
NESS-BWBK-SS-NE105-0001	19.784894	-1.76529	-0.5359	0.37266	0.80943	1.00719	8.1024419	-1.77745	-0.48738	1.22588	0.30217	-1.39361
NESS-BWBK-SS-NE106-0001	24.198328	-1.71099	0.1031	0.54817	1.10518	0.98011	9.2163324	-1.72666	0.09946	1.45417	0.67755	-1.31739
NESS-BWBK-SS-NE107-0001	23.368909	-1.93997	-0.11472	0.65728	0.9045	1.62757	8.766167	-1.95971	-0.07588	1.72215	0.2914	-1.99923
NESS-BWBK-SS-NE108-0001	24.847277	-1.60717	-0.06448	0.43256	0.40377	0.72568	9.589436	-1.61803	0.01402	1.35529	-0.40409	-1.23629
NESS-BWBK-SS-NE109-0001	20.237693	-1.92115	-0.56386	0.55837	0.77814	1.81097	8.1280287	-1.93654	-0.49179	1.5918	0.13433	-2.18936
NESS-BWBK-SS-NE110-0001	22.374014	-1.95025	0.23512	0.05651	1.86364	1.96541	7.8089897	-1.97052	0.2262	0.70618	1.39872	-2.25766

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CHROMIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	10.011825	-2.94178	-2.33587	-2.62213	-4.8353	-9.31831	3.119267	-2.98446	-2.31013	-4.3137	-6.26768	-8.94576
MAXIMUM DOMAIN VALUE	52.913067	2.0949	2.9372	2.76259	7.50202	9.80869	18.017468	2.13423	2.90423	4.43763	7.48742	8.27123
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CR predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	34.264627	0.97077	-0.33601	0.14723	-2.15146	1.57447	14.999254	0.99282	-0.28938	0.0801	-2.19024	-1.31819
PMSB-BWBK-SB-PM02-0104	34.717641	1.34338	0.44218	1.10115	1.57362	7.67135	15.628455	1.29413	0.27644	0.64306	3.1268	-5.86411
PMSB-BWBK-SB-PM03-0106	26.381562	1.6434	-0.28351	-0.02111	0.95292	2.4724	14.47838	1.6731	-0.42892	-0.63818	2.15071	-1.57572
PMSB-BWBK-SB-PM04-0105	26.501779	1.21114	-0.2218	0.08532	0.4362	0.02031	14.131707	1.23034	-0.30765	-0.3033	1.22636	0.43986
PMSB-BWBK-SB-PM05-0105	28.896961	1.21591	-0.27845	-0.13163	0.03376	3.18589	14.000053	1.23719	-0.33394	-0.60944	0.66219	-2.48295
PMSB-BWBK-SB-PM06-0105	24.335574	1.25412	-0.66428	0.31362	1.17714	5.09928	14.289112	1.28605	-0.65165	0.25541	1.58537	-4.3553
PMSB-BWBK-SB-PM07-0105	25.662774	0.9399	-0.14305	-1.21793	2.06031	9.80869	11.716532	0.97113	-0.12863	-2.08969	2.20029	-8.78105
PMSB-BWBK-SB-PM08-0106	29.671276	1.05889	-0.12204	-0.75162	0.03404	4.4559	13.042022	1.08688	-0.16992	-1.4786	0.46223	-3.76601
PMSB-BWBK-SB-PM09-0106	21.936389	0.78787	-0.67818	-1.24006	0.4288	2.79533	10.69802	0.82497	-0.73172	-2.1478	0.94986	-2.31987
PMSB-BWBK-SB-PM10-0105	35.04123	0.8503	0.60613	-0.93601	0.47173	7.1124	12.209272	0.82773	0.44473	-2.23912	1.53022	-5.74055
PMSB-BWBK-SB-PM11-0104	22.132026	1.34792	-0.49658	-0.73192	1.88015	5.43176	13.262145	1.39367	-0.4179	-1.27371	1.84808	-4.88971
PMSB-BWBK-SB-PM12-0105	31.200335	0.20941	-0.52613	-0.65435	-2.28602	2.18169	10.717676	0.19166	-0.60577	-1.47563	-1.57564	-1.52459
PMSB-BWBK-SB-PM13-0106	25.392101	0.30426	-0.08248	0.32447	2.33396	7.36806	12.23556	0.28054	-0.06886	0.20104	2.67188	-6.39452
PMSB-BWBK-SB-PM14-0106	28.317556	0.15981	-0.34423	-0.92494	-0.58603	4.49365	10.691688	0.16963	-0.34614	-1.52968	-0.49241	-4.01422
PMSB-BWBK-SB-PM15-0105	25.50799	0.67142	-0.30102	-0.07418	0.66549	2.20855	12.699382	0.6766	-0.31499	-0.39234	1.0598	-1.7412
PMSB-BWBK-SB-PM16-0106	23.970198	0.33188	-0.53428	-0.24207	0.1984	1.55264	11.680618	0.34803	-0.53756	-0.43831	0.41094	-1.32073
PMSB-BWBK-SB-PM17-0105	35.461684	1.05274	0.17166	-0.92533	-0.90445	5.94304	13.4473	1.08105	0.1011	-1.75976	-0.51437	-5.10951
PMSB-BWBK-SB-PM18-0105	16.442942	1.33004	-0.63379	0.7343	2.81263	-1.24682	14.228921	1.35447	-0.68781	0.76502	3.69243	1.58004
PMSB-BWBK-SB-PM19-0105	22.02373	0.93208	-0.44965	0.25788	1.22749	-0.24358	13.686253	0.95231	-0.43223	0.21268	1.51484	0.40145
PMSB-BWBK-SB-PM20-0106	24.474219	0.74877	-0.3917	-0.12012	0.38268	0.20855	12.864969	0.76614	-0.40636	-0.39619	0.73617	0.01497
PMSB-BWBK-SB-SO01-0107-PM	20.17632	1.31781	-0.2872	-0.00329	1.50489	-4.12059	14.22527	1.36415	-0.3438	-0.21085	2.04475	3.96196
PMSB-BWBK-SB-SO02-0109-PM	17.345476	1.28403	-0.1685	0.47577	3.34427	-2.23587	14.047182	1.31102	-0.29099	0.3392	4.38053	2.51023
PMSB-BWBK-SB-SO13-0104-PM	17.18022	1.58787	-0.18762	-0.59484	2.99226	-1.8998	13.480888	1.63082	-0.23653	-1.30459	3.63176	2.03668
PMSB-BWBK-SB-SO14-0105-PM	17.492607	1.6977	-0.33167	0.04119	2.56556	-3.61987	14.740814	1.74196	-0.3639	-0.28383	3.18471	3.60031
PMSS-DABK-S-SO21-0001	28.726626	0.12241	1.92096	-2.19519	2.29498	-5.73946	10.997736	0.12402	1.88209	-3.51041	1.89183	4.98319
PMSS-DABK-S-SO22-0001	43.495385	0.40003	2.80515	-1.97833	0.21404	-4.50583	13.516942	0.38438	2.69363	-3.43411	-0.01474	4.09571
PMSS-DABK-S-SO23-0001	39.698709	0.03909	1.59742	-0.48565	-0.64379	-2.75801	14.002272	0.02411	1.58542	-0.81594	-1.08054	2.38143
PMSS-DABK-S-SO24-0001	33.485213	0.1228	2.00796	-1.07006	3.05261	1.718	12.661386	0.10449	1.98298	-1.8187	2.72899	-1.6417
PMSS-DABK-S-SO25-0001	25.747337	0.44386	1.96185	0.17548	7.50202	7.89893	14.076119	0.43487	1.92159	0.16088	7.48742	-7.14171
PMSS-DABK-S-SO26-0001	38.39538	0.44222	2.43509	-1.07285	0.90688	-7.13501	14.584186	0.42624	2.39887	-1.90488	0.48254	6.38171
PMSS-DABK-S-SO27-0001	38.001303	-0.27069	1.8992	-1.1634	-0.2959	-5.11371	12.637254	-0.2804	1.87678	-1.74064	-0.92276	4.34525
PMSS-DABK-S-SO28-0001	48.594419	0.23523	2.53362	-2.62213	-1.8863	-1.17816	12.719572	0.22431	2.49597	-4.3137	-2.55998	0.89662
PMSS-DABK-S-SO29-0001	46.069625	-0.00125	2.31261	-0.00188	-0.46094	-1.72309	15.497831	-0.04603	2.30746	-0.20246	-0.97956	1.52223
PMSS-DABK-S-SO30-0001	49.874235	0.0153	2.13033	-0.79948	-2.4633	-1.15439	15.007999	-0.01909	2.20589	-1.33894	-3.47314	0.79914
PMSS-DABK-S-SO31-0001	40.437244	-0.37032	1.45728	-1.82737	-0.14483	7.1749	10.347383	-0.38007	1.36431	-2.9241	-0.27845	-6.54915
PMSS-DABK-S-SO32-0001	52.20358	0.50972	2.9372	-2.55594	-0.96452	3.37403	13.834273	0.49803	2.90423	-4.27879	-1.6784	-3.18961
PMSS-DABK-S-SO33-0001	52.913067	-0.39954	2.19707	-1.85552	-4.33338	-2.65674	12.998857	-0.43103	2.24682	-2.90682	-5.47403	2.04666
PMSS-DABK-S-SO34-0001	42.047057	-0.29958	1.43585	-2.02483	-0.68795	7.71264	10.657788	-0.31062	1.43082	-3.17911	-1.24398	-7.18421
PMSS-DABK-S-SO35-0001	40.263318	-0.12195	1.74961	-1.52096	-0.00765	2.49751	11.89262	-0.1411	1.71714	-2.50266	-0.395	-2.35923
PMSS-DABK-S-SO36-0001	38.895903	-0.81337	1.52128	-0.55702	-0.15986	1.45762	11.346213	-0.85188	1.45349	-0.88348	-0.37385	-1.39008
PMSS-DABK-S-SO37-0001	39.988219	-0.25588	1.70667	-0.90641	1.0553	6.58737	11.806169	-0.28766	1.60227	-1.65043	1.13951	-5.84092
PMSS-DABK-S-SO38-0001	43.444101	-0.62603	1.48287	-1.70425	-1.05026	7.48772	10.294198	-0.64227	1.39415	-2.67025	-1.28713	-6.87801
PMSS-DABK-S-SO39-0001	32.619047	-0.26151	0.96497	-0.86433	1.69752	7.10287	11.2891	-0.2744	0.99868	-1.2992	1.2456	-6.61691
PMSS-DABK-S-SO40-0001	43.752235	-0.49914	1.49745	-1.38868	-1.30002	5.4375	11.350456	-0.52135	1.47162	-2.1763	-1.78081	-5.0813
SESB-BWBK-SB-SO03-0108	23.819542	2.0949	-0.33505	1.2182	0.93543	-5.42372	17.950401	2.13423	-0.36629	1.44578	1.65537	5.3853
SESB-BWBK-SB-SO04-0108	17.846637	1.6462	-0.20475	-0.39611	2.39829	-4.2181	14.039699	1.68584	-0.24894	-1.02766	3.04128	4.16194
SESB-BWBK-SB-SO05-0106	21.756923	1.36515	-0.17677	0.62251	1.62915	-4.08314	15.16205	1.38188	-0.2189	0.55455	2.30087	4.10721
SESB-BWBK-SB-SO06-0108	22.948732	1.87024	0.07341	0.85624	2.28916	-3.79475	16.508988	1.89648	-0.06647	0.72128	3.48113	4.104
SESB-BWBK-SB-SO07-0106	26.690421	1.74928	-0.04925	-0.92489	0.18246	-1.70225	14.142204	1.79792	-0.16852	-1.93659	1.02166	1.99486
SESB-BWBK-SB-SO08-0107	26.181096	1.93844	0.01363	0.67861	1.16998	-3.05187	16.806742	1.96256	-0.07234	0.44518	2.1073	3.3667
SESB-BWBK-SB-SO09-0106	22.43089	1.28053	-0.19042	0.24421	1.07561	-4.38614	14.649676	1.29952	-0.20529	0.02129	1.5477	4.28244
SESB-BWBK-SB-SO11-0106	27.507323	1.74627	-0.30228	0.53643	0.45174	0.33914	16.071547	1.77956	-0.38074	0.35326	1.30705	0.21676
SESB-BWBK-SB-SO12-0106	18.602116	1.68865	-0.17437	-0.32307	2.4807	-3.25261	13.956903	1.72812	-0.29379	-1.01936	3.50919	3.45932
SESB-BWBK-SB-SO15-0103	27.776989	0.63807	-0.05225	-0.14518	0.52397	2.30496	12.954925	0.65116	-0.09757	-0.43899	0.90579	-1.86821
SESB-BWBK-SB-SO16-0105	19.044906	1.12115	-0.50978	-0.70862	1.31753	-1.76984	12.202871	1.15646	-0.56258	-1.40875	1.93237	1.88627
SESB-BWBK-SB-SO17-0106	26.684925	0.71918	-0.49064	-0.79511	-1.46165	-2.29927	12.092108	0.73935	-0.50468	-1.47663	-1.17942	2.26126
SESB-BWBK-SB-SO18-0105	34.318396	0.46319	-0.40519	-1.05932	-3.34551	0.91922	11.802617	0.47801	-0.42332	-1.85372	-3.19512	-0.68789
SESB-BWBK-SB-SO19-0104	43.408937	0.8922	0.12153	-2.14275	-4.8353	3.46653	12.286058	0.92001	0.07559	-3.67401	-4.75778	-2.96713
SESB-BWBK-SB-SO20-0104	18.803323	1.41517	-0.41409	-0.80832	1.93726	-0.69589	12.711636	1.45869	-0.4699	-1.61065	2.59193	0.94275
SESS-DABK-S-SO01-0001	32.502334	-0.33414	0.95467	0.86592	0.40041	-3.81019	13.317723	-0.35918	0.79253	1.21181	0.95278	3.70137
SESS-DABK-S-SO02-0001	47.630662	1.15523	1.37919	0.33557	-3.35161	-5.31862	16.292726	1.01731	1.35921	-1.08215	-2.46841	5.97131
SESS-DABK-S-SO03-0001	32.593804	-0.65823	1.85207	0.01164	2.17953	-3.16532	12.326921	-0.68416	1.7265	0.06222	2.18219	2.80702
SESS-DABK-S-SO04-0001	42.321491	-0.33343	1.78646	1.20326	-1.07431	-6.62126	15.686011	-0.37452	1.66928	1.75434	-0.99632	6.12639
SESS-DABK-S-SO05-0001	32.523247	-0.43901	1.552	0.13696	1.79897	-2.2094	12.610206	-0.45551	1.39626	0.19949	2.05184	2.05689
SESS-DABK-S-SO06-0001	26.714042	1.01242	1.92761	0.45047	7.14096	6.07672	16.175256	1.01449	1.9548	0.56762	6.89123	-5.53572
SESS-DABK-S-SO07-0001	38.012353	-0.03204	1.13909	0.09575	-2.19631	-8.80469	14.968038	-0.04984	1.24688	0.25187	-3.12825	7.65155
SESS-DABK-S-SO08-0001	31.477148	0.06727	1.17904	-0.13047	1.11236	-3.0691	13.917487	0.06429	1.2466	-0.07107	0.42104	2.48313
SESS-DABK-S-SO09-0001	20.954907	-0.27676	1.29126	-0.06108	4.70627	-3.07178	11.594807	-0.27786	1.16543	-0.03637	4.96025	2.75326

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM						CHROMIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	10.011825	-2.94178	-2.33587	-2.62213	-4.8353	-9.31831	3.119267	-2.98446	-2.31013	-4.3137	-6.26768	-8.94576
MAXIMUM DOMAIN VALUE	52.913067	2.0949	2.9372	2.76259	7.50202	9.80869	18.017468	2.13423	2.90423	4.43763	7.48742	8.27123
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	**CR predict**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	14.548074	-0.52253	0.99235	0.50879	6.74372	-0.4777	11.142817	-0.53188	0.93925	0.98816	6.80655	0.28979
SESS-DABK-S-SO11-0001	31.540264	-1.21043	0.81837	-1.96825	-1.53084	-3.81879	8.3189391	-1.21786	0.87145	-2.66872	-2.51293	2.87674
SESS-DABK-S-SO12-0001	35.163066	-0.62586	1.07648	-0.40037	-0.72419	-2.63622	12.448396	-0.64265	1.18522	-0.31893	-1.78398	1.90351
SESS-DABK-S-SO13-0001	16.766236	0.00217	0.52857	-0.8237	2.60912	-9.31831	10.831149	0.01699	0.50157	-1.20246	2.53971	8.27123
SESS-DABK-S-SO14-0001	17.793794	-0.3746	0.71274	-0.65202	3.63167	-4.46667	9.7945939	-0.36378	0.55849	-0.94945	4.07876	4.0455
SESS-DABK-S-SO15-0001	29.465799	-0.55832	1.65365	-0.51659	2.79031	-1.53289	10.870731	-0.59065	1.4899	-0.97308	3.16567	1.52355
SESS-DABK-S-SO16-0001	29.88143	-1.44037	0.58972	-1.44201	-0.37145	1.3064	7.9058377	-1.45795	0.64328	-1.82533	-1.2233	-1.70956
SESS-DABK-S-SO17-0001	32.616264	-1.21738	1.40174	-0.95066	2.69824	8.97653	10.213524	-1.23391	1.57662	-0.8665	1.12227	-8.94576
SESS-DABK-S-SO18-0001	33.14365	-0.52018	0.92344	-1.48071	-1.11788	-3.34732	10.734585	-0.51613	0.97205	-2.03652	-1.95723	2.57916
SESS-DABK-S-SO19-0001	43.689215	0.17427	1.44266	-0.3259	-2.56433	-4.61693	15.141485	0.15952	1.49359	-0.54032	-3.29325	3.99033
SESS-DABK-S-SO20-0001	41.839148	0.22996	1.66262	1.04187	-0.48646	-3.77239	16.839463	0.19521	1.67507	1.47297	-0.85028	3.4358

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COBALT

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
1.7389	Mean				
0.6531	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1698	0.1330	0.2702	0.3690	-0.0108	
AS_log	-0.0536	0.3066	-0.0773	-0.2361	0.0061	
BA	0.0006	0.1927	0.0275	0.2785	-0.0051	
CR	0.0540	0.1006	0.0796	0.2865	-0.0085	
CO_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FE_log	0.3904	-0.4452	0.1998	-2.0786	-0.0469	
PB_log	-0.0636	0.4807	-0.0118	-0.1543	0.0127	
MG	0.0909	-0.2545	0.0692	0.6007	-0.0003	
MN_log	0.0662	-0.0649	-0.0095	0.0933	-0.0283	
NI_log	0.4723	-0.7313	0.1550	-0.1451	0.1069	
V	-0.0591	0.5963	-0.0629	0.1641	-0.0086	
ZN_log	0.1854	0.4536	-0.1786	0.3898	0.0705	

IRON

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
9.7761	Mean				
0.4256	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1764	0.0573	-3.1705	-0.0622	-0.0236	
AS_log	-0.0556	0.1321	0.9068	0.0398	0.0133	
BA	0.0006	0.0830	-0.3225	-0.0470	-0.0112	
CR	0.0561	0.0433	-0.9337	-0.0483	-0.0186	
CO_log	0.3702	0.2452	3.5280	-0.1547	-0.2060	
FE_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PB_log	-0.0660	0.2071	0.1385	0.0260	0.0277	
MG	0.0944	-0.1097	-0.8122	-0.1013	-0.0007	
MN_log	0.0688	-0.0279	0.1119	-0.0157	-0.0618	
NI_log	0.4905	-0.3150	-1.8192	0.0245	0.2333	
V	-0.0614	0.2569	0.7383	-0.0277	-0.0187	
ZN_log	0.1926	0.1954	2.0958	-0.0657	0.1538	

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-0.059529	-3.05052	-2.95985	-1.27657	-3.90433	-0.27089	8.3912096	-3.21076	-2.0312	-9.58599	-0.67636	-0.41904
MAXIMUM DOMAIN VALUE	3.0825113	2.29161	4.08183	0.87939	3.79602	0.26144	11.314178	2.22035	2.17631	9.5241	1.11496	0.41553
SAMPLE	CO_log pre	D1	D2	D3	D4	D5	FE_log prec	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	0.8672445	-0.93386	-2.28357	-0.83997	1.4224	-0.11434	9.3067901	-0.96589	-1.6916	0.31383	0.56085	-0.06158
BASS-BWBK-SS-BA102-0001	0.6161735	-1.32076	-2.29054	-1.02758	1.75735	-0.1361	9.2023354	-1.26497	-1.8538	0.43007	0.71806	-0.1054
BASS-BWBK-SS-BA103-0001	0.6982414	-1.18379	-2.31569	-0.94315	1.73205	-0.1205	9.2553676	-1.10366	-1.79785	0.35134	0.6532	-0.09645
BASS-BWBK-SS-BA104-0001	0.9233864	-0.8329	-2.25808	-0.76331	1.67261	-0.07234	9.4268014	-0.69354	-1.60952	0.47343	0.49364	-0.0524
BASS-BWBK-SS-BA105-0001	0.8827465	-0.94512	-2.19956	-0.95887	1.26138	-0.08091	9.5390584	-0.82074	-1.63526	2.07475	0.61699	-0.05343
BASS-BWBK-SS-BA106-0001	1.0354812	-0.63712	-2.35361	-0.73073	1.68927	-0.04162	9.4203589	-0.54552	-1.66602	-0.14916	0.48991	0.03974
BASS-BWBK-SS-BA107-0001	0.6225208	-1.33557	-2.12659	-1.02773	1.81138	-0.13647	9.2035996	-1.27907	-1.78378	0.4243	0.71007	-0.10652
BASS-BWBK-SS-BA108-0001	0.6394933	-1.28182	-2.22391	-0.99799	1.9712	-0.1151	9.2261625	-1.1614	-1.81594	0.24397	0.6925	-0.08592
BASS-BWBK-SS-BA109-0001	0.9119505	-0.70246	-2.95985	-0.7509	2.1195	-0.03615	9.2774661	-0.55374	-2.0312	-1.2794	0.5545	0.05693
BASS-BWBK-SS-BA110-0001	1.0017325	-0.6514	-2.58835	-0.57306	1.45146	-0.09274	9.3202285	-0.59603	-1.68248	-0.87892	0.42261	-0.08102
BASS-BWBK-SS-BA111-0001	0.7306854	-1.1304	-2.31281	-0.89677	1.71046	-0.12608	9.2296767	-1.07953	-1.78179	-0.01193	0.62977	-0.10073
BASS-BWBK-SS-BA112-0001	0.6636232	-1.22834	-2.33589	-0.9164	1.76714	-0.14907	9.1669628	-1.20891	-1.81544	-0.11785	0.63786	-0.13408
BASS-BWBK-SS-BA113-0001	0.9855536	-0.95135	-1.08696	-1.27657	2.00412	-0.00122	9.8343381	-0.826	-1.23413	4.74936	0.58047	0.14102
MASB-BWBK-SB-MA01-0105	2.5852799	1.54339	-1.47637	0.24302	-1.16114	0.08743	10.675132	1.628	-0.15711	3.62196	-0.33686	0.05315
MASB-BWBK-SB-MA02-0107	2.609217	1.64183	-1.67547	0.48317	-0.87192	0.13615	10.435001	1.65279	-0.21688	1.10807	-0.44054	0.18191
MASB-BWBK-SB-MA03-0108	2.7928606	1.83742	-1.61496	0.10861	-1.84063	0.17299	11.314178	2.13282	0.0037	8.29257	-0.40553	0.10532
MASB-BWBK-SB-MA04-0106	2.6667736	1.77905	-1.58013	0.46773	0.07647	0.15148	10.463804	1.81637	-0.20758	0.87337	-0.55758	0.2159
MASB-BWBK-SB-MA05-0108	2.5648088	1.44002	-1.13466	0.23496	-1.19589	0.14391	10.549509	1.42312	-0.06649	2.89498	-0.29927	0.22858
MASB-BWBK-SB-MA06-0105	2.4919997	1.41799	-1.45169	0.31641	-0.67554	0.14149	10.405446	1.43958	-0.23418	1.54311	-0.33888	0.2167
MASB-BWBK-SB-MA07-0108	2.421707	1.22301	-1.5126	0.1807	-1.97635	0.12428	10.340568	1.02842	-0.31007	2.3412	-0.13236	0.27151
MASB-BWBK-SB-MA08-0108	3.0690673	2.07934	-0.65707	0.82194	-2.97422	0.1321	10.450581	1.59947	0.51104	0.72867	-0.58021	0.28802
MASB-BWBK-SB-MA09-0108	2.7328982	1.55852	-0.93552	0.20949	-2.9213	0.13878	10.781985	1.3727	0.17715	5.21885	-0.2439	0.24083
MASB-BWBK-SB-MA10-0104	2.3191206	0.96539	-1.31253	-0.0837	-2.70692	0.085	10.589022	0.83297	-0.21946	5.54691	0.0096	0.15723
MASB-BWBK-SB-MA11-0108	2.7275363	1.6055	-0.781	0.36741	-1.77899	0.15732	10.574011	1.46736	0.19392	2.72145	-0.3651	0.27728
MASB-BWBK-SB-MA12-0108	2.7898014	1.77824	-1.34833	0.33667	-2.14253	0.16313	10.815419	1.73748	0.04559	4.43226	-0.38238	0.22985
MASB-BWBK-SB-MA13-0105	1.7141724	0.03762	-0.26611	-0.09047	0.52774	0.00279	9.9504563	0.21768	-0.11357	1.18298	-0.03125	-0.06187
MASB-BWBK-SB-MA14-0104	2.4372956	1.01772	-0.01331	0.4168	-1.88019	0.02314	10.27303	0.85727	0.48597	1.62054	-0.30422	-0.00547
MASB-BWBK-SB-MA15-0105	2.1090823	0.52666	0.16079	0.32229	-0.88351	-0.01559	9.9668185	0.45009	0.35797	0.05334	-0.20905	-0.07462
MASB-BWBK-SB-MA16-0104	2.1022449	0.60535	-0.55015	-0.0894	-1.03043	0.01446	10.427498	0.68143	0.00378	4.32799	-0.08083	-0.05288
MASB-BWBK-SB-MA17-0104	1.8996397	0.22638	-0.05043	0.02606	-0.6758	-0.02201	10.112664	0.26943	0.18121	2.45161	-0.10392	-0.1154
MASB-BWBK-SB-MA18-0104	1.8233019	0.16952	0.15961	0.10395	0.8478	0.00786	9.7687488	0.23778	0.08425	-0.97399	-0.14005	-0.01038
MASB-BWBK-SB-MA19-0103	1.696984	0.00909	-0.34003	-0.2188	0.38205	-0.01561	10.002016	0.17633	-0.2022	1.91627	0.05357	-0.08239
MASB-BWBK-SB-MA20-0103	2.4233484	1.26588	-1.45432	0.15861	-1.16886	0.14649	10.563875	1.35936	-0.23532	3.44133	-0.23004	0.19814
MASS-BWBK-SS-MA01-0001	0.544226	-1.95675	1.1335	-0.69421	2.78194	-0.09068	8.9330391	-1.73067	-0.2959	-2.24894	0.51616	-0.10228
MASS-BWBK-SS-MA02-0001	0.9221012	-1.27474	1.20029	-0.0552	3.79602	0.02309	8.7470653	-1.00315	-0.06848	-7.0575	0.12721	0.08565
MASS-BWBK-SS-MA03-0001	1.188575	-0.93472	0.60663	-0.33495	1.01775	-0.04194	9.246682	-0.97157	-0.17212	-1.91551	0.31768	0.0248
MASS-BWBK-SS-MA04-0001	1.3488679	-0.54835	0.14762	-0.12367	1.70181	0.0244	9.3132514	-0.44021	-0.27461	-3.03249	0.13771	0.09483
MASS-BWBK-SS-MA05-0001	1.8421253	0.17385	0.27757	0.22185	0.83712	0.0846	9.5935089	0.1665	0.11589	-2.66169	-0.14159	0.19101
MASS-BWBK-SS-MA06-0001	1.8864791	0.07512	1.39136	0.45476	0.87826	0.00841	9.239194	-0.17064	0.59394	-5.55946	-0.22391	0.11407
MASS-BWBK-SS-MA07-0001	-0.059529	-3.05052	1.27832	-1.19238	1.36512	-0.27089	8.3941492	-3.21076	-0.65279	-2.2632	1.11496	-0.25303
MASS-BWBK-SS-MA08-0001	1.7104839	-0.45066	1.87367	-0.18503	-1.02157	-0.01319	9.7982419	-0.63205	0.7752	1.64174	0.15424	0.04191
MASS-BWBK-SS-MA09-0001	2.0562092	0.10769	2.96081	0.56676	1.462	0.08718	9.5426428	0.10957	1.45425	-4.24235	-0.449	0.14333
MASS-BWBK-SS-MA10-0001	2.0574902	0.14116	2.24694	0.2759	0.23755	0.0594	9.8251765	0.07731	1.14314	-0.91718	-0.26069	0.10904
MASS-BWBK-SS-MA11-0001	2.1368864	0.27049	2.14073	0.44091	-0.29321	-0.01642	9.7503221	0.03669	1.20677	-1.48315	-0.35245	-0.0195
MASS-BWBK-SS-MA12-0001	1.6227375	-0.14033	-0.05064	-0.04589	0.7341	0.06952	9.2743342	-0.3495	-0.33742	-3.83975	0.16541	0.3135
MASS-BWBK-SS-MA13-0001	1.4153623	-0.75965	1.98773	0.09663	1.41511	-0.06535	9.1102726	-0.89917	0.63139	-4.23349	-0.02088	-0.04069
MASS-BWBK-SS-MA14-0001	1.0026844	-1.51084	2.62354	-0.5268	2.26679	-0.05566	9.2000566	-1.41924	0.55522	-1.48308	0.31671	-0.02435
MASS-BWBK-SS-MA15-0001	0.9859523	-1.46681	2.25075	-0.23259	2.115	-0.06311	8.8917879	-1.47492	0.44258	-4.34951	0.25468	-0.01504
MASS-BWBK-SS-MA16-0001	1.4433153	-0.73722	1.4769	-0.26161	0.08408	-0.0365	9.3823413	-0.95728	0.33598	-1.09425	0.26171	0.07332
MASS-BWBK-SS-MA17-0001	1.4563094	-0.68121	1.46397	-0.14501	0.46272	-0.04611	9.5695205	-0.65685	0.48361	-0.25149	0.10481	-0.08048
MASS-BWBK-SS-MA18-0001	1.2793808	-1.12291	2.26152	-0.40963	0.43618	-0.03249	9.3344542	-1.27923	0.5713	-0.69522	0.34429	0.07977
MASS-BWBK-SS-MA19-0001	1.5061131	-0.68241	1.87581	-0.18158	0.37439	-0.03593	9.6186302	-0.68929	0.66195	0.17133	0.10838	-0.04669
MASS-BWBK-SS-MA20-0001	1.8253868	-0.01593	0.7644	-0.11756	-0.15713	0.03451	9.8463069	-0.07857	0.27537	0.61505	0.06693	0.11328
MMSB-BWBK-SB-MM101-0110	1.7353653	0.2183	-1.49581	-0.17241	-0.44415	-0.00393	10.129322	0.38888	-0.58786	2.88294	0.06451	-0.08517
MMSB-BWBK-SB-MM102-0109	1.8438159	0.61834	-2.23093	0.17832	0.89182	0.07965	9.8587496	0.87885	-0.92164	-1.4188	-0.11685	0.07367
MMSB-BWBK-SB-MM103-0107	1.6913195	0.22278	-1.63328	-0.12681	0.31062	0.01089	10.394193	0.77932	-0.52141	4.2736	-0.07736	-0.23268
MMSB-BWBK-SB-MM104-0110	2.0207236	0.77166	-1.51209	0.43228	0.43425	-0.0115	9.8752752	0.75348	-0.34821	-1.01251	-0.43144	-0.0881
MMSB-BWBK-SB-MM105-0110	1.3528211	-0.37973	-1.48053	-0.48002	0.0623	-0.01796	9.9514333	-0.09115	-0.8518	2.92901	0.33118	-0.09682
MMSB-BWBK-SB-MM106-0110	2.0912817	0.93798	-1.34727	0.54075	1.64746	0.03171	9.771818	1.00697	-0.33771	-3.05312	-0.54099	-0.00818
MMSB-BWBK-SB-MM107-0110	1.6449506	0.15195	-1.41719	-0.08549	0.81918	-0.0271	9.9278176	0.41385	-0.63626	0.80956	-0.02458	-0.14929
MMSB-BWBK-SB-MM108-0110	1.5812415	0.03073	-1.47774	-0.10366	0.41003	-0.02231	9.8838888	0.21249	-0.65151	1.1239	0.00726	-0.11315
MMSB-BWBK-SB-MM109-0110	1.7794637	0.28805	-0.91995	0.24916	0.71278	-0.00468	9.7585695	0.44534	-0.28782	-1.37318	-0.19447	-0.09465
MMSB-BWBK-SB-MM110-0109	1.7011818	0.1832	-1.1726	0.10333	0.44082	-0.02422	9.7241106	0.27798	-0.4915	-0.97583	-0.06081	-0.08976
MMSB-BWBK-SB-MM111-0110	1.8353157	0.4299	-1.4225	0.20946	0.21514	-0.00111	9.7804382	0.46499	-0.50698	-1.01945	-0.14971	-0.03777
MMSB-BWBK-SB-MM112-0110	1.8827704	0.57359	-1.65463	0.26828	0.4717	-0.04671	9.7336941	0.58011	-0.61004	-1.77153	-0.20076	-0.12355
MMSB-BWBK-SB-MM113-0110	1.8414249	0.58323	-1.82038	0.23281	1.33293	0.02078	9.7543646	0.79205	-0.75775	-2.26341	-0.19315	-0.0323
MMSB-BWBK-SB-MM114-0110	1.4105456	-0.22484	-1.57657	-0.25727	0.54177	-0.02835	9.8153818	0.05851	-0.83928	1.03504	0.18578	-0.12967

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-0.059529	-3.05052	-2.95985	-1.27657	-3.90433	-0.27089	8.3912096	-3.21076	-2.0312	-9.58599	-0.67636	-0.41904
MAXIMUM DOMAIN VALUE	3.0825113	2.29161	4.08183	0.87939	3.79602	0.26144	11.314178	2.22035	2.17631	9.5241	1.11496	0.41553
SAMPLE	CO_log pre	D1	D2	D3	D4	D5	FE_log prec	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	1.5336814	-0.03376	-0.8941	0.12385	1.8116	-0.08109	9.584551	0.07785	-0.39392	-1.5036	-0.25827	-0.21748
MMSB-BWBK-SB-MM116-0110	1.7393444	0.34322	-1.70638	-0.03763	0.70731	0.01844	9.9645578	0.56863	-0.72563	0.69659	-0.05997	-0.04268
MMSB-BWBK-SB-MM117-0110	1.4529489	-0.14875	-1.8794	-0.37607	-0.02792	-0.02303	10.122102	0.19118	-0.86812	3.8318	0.18477	-0.16561
MMSB-BWBK-SB-MM118-0110	1.9990024	0.88278	-2.57232	-0.00507	0.47397	0.13594	10.262832	1.29678	-1.03729	1.24296	-0.03464	0.13384
MMSB-BWBK-SB-MM119-0110	1.6863758	0.255	-1.78226	-0.13552	0.48416	-0.00935	9.9638954	0.40748	-0.79059	1.36866	-0.00885	-0.06836
MMSB-BWBK-SB-MM120-0110	1.0563565	-0.76994	-1.83803	-0.64347	0.36646	-0.10677	9.8583852	-0.43673	-1.10046	3.60644	0.40648	-0.28798
MMSS-BWBK-SS-MM101-0001	1.3980267	-0.65476	0.92219	0.42952	0.33669	-0.08116	8.7102239	-0.98236	0.20883	-7.76323	0.05634	-0.01215
MMSS-BWBK-SS-MM102-0001	1.1486213	-0.87946	-0.31655	-0.01566	-0.01048	-0.1234	8.8293708	-1.14575	-0.53056	-5.27152	0.37026	-0.0758
MMSS-BWBK-SS-MM103-0001	1.363692	-0.74559	0.93036	0.31028	-0.109	-0.0961	8.7663525	-1.08942	0.17934	-6.81655	0.16454	-0.03111
MMSS-BWBK-SS-MM104-0001	1.4993823	-0.44324	0.58952	0.39873	0.24748	-0.06374	8.9680242	-0.65354	0.14986	-6.19895	0.01212	-0.03808
MMSS-BWBK-SS-MM105-0001	0.9530855	-1.33075	0.43297	-0.2945	0.08012	-0.14435	8.9997908	-1.43945	-0.26618	-2.6836	0.47883	-0.17219
MMSS-BWBK-SS-MM106-0001	1.4858027	-0.41976	0.46961	0.43682	0.5266	-0.08941	8.9880559	-0.57228	0.12984	-6.18519	-0.0519	-0.12413
MMSS-BWBK-SS-MM107-0001	1.4320103	-0.46976	0.31907	0.50914	0.66105	-0.07116	8.7016989	-0.75781	-0.02955	-8.38888	-0.01188	-0.00834
MMSS-BWBK-SS-MM108-0001	1.1363633	-1.0895	1.09388	0.39863	0.53768	-0.11494	8.3912096	-1.42658	0.13098	-9.44374	0.19631	-0.04802
MMSS-BWBK-SS-MM109-0001	1.1216989	-0.99241	0.29723	0.32344	0.27132	-0.13611	8.5030738	-1.31129	-0.19566	-8.32924	0.22726	-0.10415
MMSS-BWBK-SS-MM110-0001	0.5484289	-2.00762	0.72283	-0.46413	0.42585	-0.22226	8.4727044	-2.29042	-0.44956	-4.93885	0.71984	-0.20367
MMSS-BWBK-SS-MM111-0001	0.6149191	-1.80327	0.29522	-0.2532	0.63911	-0.20232	8.4756654	-1.99306	-0.52193	-5.85475	0.58566	-0.22234
MMSS-BWBK-SS-MM112-0001	0.5387281	-1.99033	0.59601	-0.5583	0.73365	-0.18317	8.4594516	-2.2773	-0.59399	-5.04759	0.76775	-0.09245
MMSS-BWBK-SS-MM113-0001	1.0725225	-1.25784	1.34342	0.09277	0.41925	-0.12708	8.5469998	-1.60827	0.13854	-7.20625	0.32687	-0.04517
MMSS-BWBK-SS-MM114-0001	0.4293377	-2.04802	0.03938	-0.66507	1.07167	-0.2083	8.6098628	-2.15941	-0.82581	-3.58051	0.76041	-0.21681
MMSS-BWBK-SS-MM115-0001	0.7514841	-1.58864	0.18684	-0.36037	0.37796	-0.19372	8.5125558	-1.95755	-0.63207	-5.56502	0.6395	-0.11554
MMSS-BWBK-SS-MM116-0001	0.6420395	-1.80601	0.43193	-0.46829	0.45351	-0.20943	8.6784619	-2.00805	-0.49208	-3.72952	0.64574	-0.22548
MMSS-BWBK-SS-MM117-0001	1.2046653	-0.89334	0.41076	0.15305	0.249	-0.10338	8.7828571	-1.13803	-0.13562	-6.13757	0.24168	-0.06233
MMSS-BWBK-SS-MM118-0001	1.2139836	-0.58962	-1.24243	-0.14039	0.4783	-0.09129	9.4319728	-0.45123	-0.74843	-1.13097	0.21328	-0.20329
MMSS-BWBK-SS-MM119-0001	1.1094256	-0.70647	-1.54545	-0.29328	0.58564	-0.08316	9.4188441	-0.51936	-0.99409	-0.85736	0.34273	-0.17489
MMSS-BWBK-SS-MM120-0001	1.5052368	-0.27874	-0.93869	-0.10015	-1.12575	-0.10274	9.5241442	-0.46126	-0.51863	-0.46813	0.26211	-0.12861
NESB-BWBK-SB-NE01-0108	2.1742567	1.11716	-2.2157	0.61598	0.11248	0.0798	9.8483012	1.17365	-0.62434	-2.76754	-0.38745	0.08075
NESB-BWBK-SB-NE02-0109	2.1638909	1.05121	-1.87423	0.43706	0.33528	0.04662	9.9981229	1.14946	-0.51862	-1.19952	-0.36366	0.0026
NESB-BWBK-SB-NE03-0105	1.9844517	0.71534	-2.03826	0.36431	-0.76699	0.02816	9.8396382	0.70383	-0.6485	-1.20227	-0.1429	0.01483
NESB-BWBK-SB-NE04-0110	1.9477313	0.69265	-1.99693	0.28277	-0.03108	0.04243	9.9318092	0.81199	-0.66122	-0.57823	-0.18903	0.00423
NESB-BWBK-SB-NE05-0108	2.1226985	0.98769	-2.12926	0.45499	-0.24899	0.07048	9.9293373	1.03215	-0.6289	-1.44614	-0.28164	0.07426
NESB-BWBK-SB-NE06-0109	2.0345289	0.83241	-2.16581	0.28663	-0.42946	0.06317	10.023532	0.93282	-0.69218	-0.07434	-0.1771	0.04754
NESB-BWBK-SB-NE07-0107	2.1411373	1.01898	-2.03887	0.57825	-0.04761	0.08806	9.8134628	1.05952	-0.58395	-2.81468	-0.32407	0.11297
NESB-BWBK-SB-NE08-0104	1.84942	0.50891	-1.9301	0.18305	-0.1468	0.04865	9.9546736	0.70414	-0.67949	0.0071	-0.089	-0.00103
NESB-BWBK-SB-NE09-0110	1.9808319	0.75596	-2.16364	0.2575	-0.28941	0.04573	9.9797676	0.8508	-0.72418	-0.17822	-0.16438	0.01929
NESB-BWBK-SB-NE10-0107	1.761455	0.24868	-0.93649	0.24091	0.52199	-0.00499	9.6424495	0.29336	-0.34446	-2.01064	-0.14303	-0.03999
NESB-BWBK-SB-NE101-0110	1.6478017	0.12011	-1.01731	0.35496	0.98183	-0.02978	9.4819996	0.21773	-0.37719	-3.28624	-0.2038	-0.11661
NESB-BWBK-SB-NE102-0110	1.4391198	-0.19381	-0.99803	0.13553	1.49524	-0.04331	9.4351715	-0.01876	-0.52665	-2.78523	-0.08265	-0.13783
NESB-BWBK-SB-NE103-0110	1.3044928	-0.39408	-1.29645	-0.08708	1.09168	-0.06341	9.4910262	-0.20655	-0.74418	-1.36048	0.09251	-0.16555
NESB-BWBK-SB-NE104-0110	1.1872483	-0.5747	-1.44168	-0.28523	0.96683	-0.07198	9.5968823	-0.31201	-0.8654	0.22298	0.20689	-0.19967
NESB-BWBK-SB-NE105-0110	1.6585553	0.11826	-0.96346	0.19277	0.92449	-0.04689	9.5794316	0.16965	-0.40317	-2.07371	-0.15384	-0.12328
NESB-BWBK-SB-NE106-0110	1.5407992	-0.00404	-1.32076	0.10866	1.09658	-0.02734	9.60024	0.1753	-0.60921	-1.71012	-0.08022	-0.11694
NESB-BWBK-SB-NE107-0510	1.3090477	-0.35409	-1.6252	-0.21685	0.78842	-0.07875	9.6194939	-0.21815	-0.88047	0.20247	0.12008	-0.18033
NESB-BWBK-SB-NE108-0110	1.4172212	-0.23828	-1.12424	0.09685	1.0071	-0.06979	9.5179865	-0.07737	-0.53076	-1.6609	-0.06122	-0.20439
NESB-BWBK-SB-NE109-0110	1.4080034	-0.23062	-1.23393	0.10021	1.06372	-0.06454	9.4714981	-0.0795	-0.60625	-2.08717	-0.0422	-0.18155
NESB-BWBK-SB-NE110-0110	1.3984909	-0.24643	-1.25381	0.06504	1.02202	-0.06907	9.5517599	-0.05106	-0.59239	-1.34522	-0.04569	-0.21444
NESS-BKG-SS03-NEB-0016	1.6582659	-0.44615	2.04856	0.31284	0.45525	0.02909	9.3156401	-0.4981	0.86519	-3.926	-0.0686	0.0813
NESS-BKG-SS09-NEB-0018	1.1390372	-1.14971	1.26602	-0.05286	0.36587	-0.11574	9.0686609	-1.2146	0.26041	-3.23557	0.25343	-0.16859
NESS-BWBK-SS-NE01-0001	2.0241738	0.24719	1.55651	0.64801	0.53304	0.06028	9.4166728	0.11956	0.86868	-5.0147	-0.35884	0.13053
NESS-BWBK-SS-NE02-0001	2.190348	0.60248	0.86267	0.46389	0.35488	0.15134	9.6765697	0.46331	0.53405	-3.35103	-0.29681	0.34846
NESS-BWBK-SS-NE03-0001	1.6167529	-0.25782	0.57016	0.58244	0.09052	-0.02274	8.9051122	-0.50783	0.20809	-7.48506	-0.05207	0.05136
NESS-BWBK-SS-NE04-0001	1.7577263	0.10871	-0.02033	0.75798	0.52155	-0.00837	9.1878218	0.10302	0.16491	-6.55889	-0.28729	-0.06103
NESS-BWBK-SS-NE05-0001	1.737412	-0.11994	0.96213	0.4109	0.47493	0.01389	9.2311831	-0.25015	0.39062	-5.21928	-0.09452	0.0843
NESS-BWBK-SS-NE06-0001	1.7091544	0.09128	-0.40774	0.64828	0.54455	0.01428	9.155818	0.07496	-0.10083	-6.61056	-0.18284	0.01866
NESS-BWBK-SS-NE07-0001	1.7238038	-0.30008	1.69301	0.33541	0.08799	0.0151	9.2300862	-0.51478	0.68849	-4.60888	-0.03568	0.12088
NESS-BWBK-SS-NE08-0001	1.6382152	-0.12829	0.08728	0.58586	0.27603	-0.00546	8.9833178	-0.29056	0.01573	-7.26438	-0.07373	0.05354
NESS-BWBK-SS-NE09-0001	1.4302453	-0.65399	1.4523	0.67946	0.82842	-0.05129	8.6083371	-0.85643	0.51398	-9.58599	-0.07197	-0.01494
NESS-BWBK-SS-NE10-0001	1.6847647	-0.29608	1.32906	0.19457	0.26053	0.02576	9.3374791	-0.42928	0.47908	-3.61708	0.02149	0.12741
NESS-BWBK-SS-NE101-0001	0.9862333	-1.1251	0.0672	0.27408	0.97529	-0.13623	8.60194	-1.18601	-0.29427	-7.58596	0.19485	-0.20424
NESS-BWBK-SS-NE102-0001	0.8256261	-1.48184	0.45583	-0.25853	0.91148	-0.14519	8.7562028	-1.578	-0.3682	-4.60353	0.47107	-0.15103
NESS-BWBK-SS-NE103-0001	0.7682361	-1.55358	0.28351	-0.39025	0.86674	-0.14631	8.753379	-1.65479	-0.5313	-4.25747	0.5782	-0.12881
NESS-BWBK-SS-NE104-0001	0.9953367	-1.23863	0.37634	-0.13088	0.23132	-0.11282	8.7395934	-1.45817	-0.33964	-5.33392	0.47099	-0.04687
NESS-BWBK-SS-NE105-0001	0.5888819	-1.79387	0.10504	-0.46992	1.09468	-0.18886	8.6040381	-1.92951	-0.70087	-4.58752	0.63615	-0.18735
NESS-BWBK-SS-NE106-0001	0.7021846	-1.77909	0.96774	-0.36706	0.80735	-0.17249	8.6383981	-1.94005	-0.24539	-4.67977	0.5814	-0.16427
NESS-BWBK-SS-NE107-0001	0.5535117	-1.96817	0.8767	-0.44047	1.27552	-0.21915	8.4469854	-2.19384	-0.40958	-5.53793	0.62465	-0.21089
NESS-BWBK-SS-NE108-0001	0.737445	-1.66249	0.78548	-0.3608	1.23334	-0.16345	8.6980003	-1.78987	-0.30466	-4.47617	0.49744	-0.16069
NESS-BWBK-SS-NE109-0001	0.4945738	-1.94205	0.19817	-0.4703	1.32275	-0.22224	8.4512398	-2.13554	-0.71664	-5.36799	0.64362	-0.2255
NESS-BWBK-SS-NE110-0001	0.5769202	-2.05085	1.25405	-0.5611	0.58974	-0.20628	8.6733579	-2.235	-0.18763	-3.29454	0.68795	-0.21565

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-0.059529	-3.05052	-2.95985	-1.27657	-3.90433	-0.27089	8.3912096	-3.21076	-2.0312	-9.58599	-0.67636	-0.41904
MAXIMUM DOMAIN VALUE	3.0825113	2.29161	4.08183	0.87939	3.79602	0.26144	11.314178	2.22035	2.17631	9.5241	1.11496	0.41553
SAMPLE	CO_log pre	D1	D2	D3	D4	D5	FE_log prec	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	2.1732369	0.90674	-1.12078	0.42788	0.01607	0.08616	10.222599	1.23339	-0.09917	0.32766	-0.33976	-0.02517
PMSB-BWBK-SB-PM02-0104	2.6399948	1.37157	-0.07662	0.74306	-1.94922	-0.00989	10.286567	1.18851	0.66251	0.51859	-0.5347	-0.11841
PMSB-BWBK-SB-PM03-0106	2.7047702	1.68249	-1.54496	0.47698	-2.23927	0.11833	10.769072	1.71384	0.05834	4.14534	-0.45112	0.07722
PMSB-BWBK-SB-PM04-0105	2.4873133	1.29864	-1.02457	0.33686	-1.31468	0.10341	10.462738	1.31589	0.02688	2.34248	-0.31806	0.11282
PMSB-BWBK-SB-PM05-0105	2.4354348	1.25123	-1.15779	0.32535	-1.20692	0.05918	10.517372	1.32291	0.00675	3.01371	-0.35973	-0.01502
PMSB-BWBK-SB-PM06-0105	2.4777628	1.38286	-1.56619	0.39352	-1.49281	0.00253	10.382455	1.29269	-0.1827	1.93163	-0.35136	-0.07182
PMSB-BWBK-SB-PM07-0105	2.2314737	0.82264	-0.95392	0.06091	-2.18665	-0.05123	10.715979	0.96342	0.1075	6.34259	-0.18089	-0.29198
PMSB-BWBK-SB-PM08-0106	2.2975414	0.98773	-0.99983	0.18438	-1.32777	0.04816	10.624787	1.20167	0.05614	4.50761	-0.26799	-0.09186
PMSB-BWBK-SB-PM09-0106	2.0822651	0.75473	-1.72746	-0.09627	-1.33215	0.04368	10.588848	1.00092	-0.4466	5.27328	-0.03991	-0.06658
PMSB-BWBK-SB-PM10-0105	2.2981436	0.77877	0.22174	0.06407	-1.31861	-0.02173	10.627324	0.86669	0.54287	5.31574	-0.26379	-0.18916
PMSB-BWBK-SB-PM11-0104	2.5198915	1.37802	-1.42963	0.22094	-2.0296	0.0296	10.761554	1.4834	-0.05669	4.98005	-0.27215	-0.10489
PMSB-BWBK-SB-PM12-0105	1.7127589	0.18545	-1.07713	-0.11789	0.64322	-0.0085	10.031723	0.46096	-0.46698	1.50433	-0.01657	-0.11946
PMSB-BWBK-SB-PM13-0106	1.9750145	0.35051	-0.13411	0.1697	-1.15345	-0.11756	9.8709426	0.13248	0.13731	0.50096	-0.10226	-0.22113
PMSB-BWBK-SB-PM14-0106	1.7356995	0.11675	-0.7325	-0.18544	-0.0647	-0.0525	10.118034	0.29821	-0.27528	2.82547	0.02379	-0.19245
PMSB-BWBK-SB-PM15-0105	2.1289015	0.71395	-0.7965	0.16352	-0.88012	0.01775	10.178974	0.71443	-0.07213	1.7197	-0.16662	-0.02355
PMSB-BWBK-SB-PM16-0106	1.8833071	0.38002	-0.99907	-0.0121	-0.40984	-0.00486	10.011321	0.42141	-0.34765	1.27403	-0.01555	-0.04288
PMSB-BWBK-SB-PM17-0105	2.2739414	0.91228	-0.67173	0.19033	-1.05454	0.0389	10.690094	1.17754	0.25072	5.18828	-0.35626	-0.14688
PMSB-BWBK-SB-PM18-0105	2.6159818	1.53469	-1.5236	0.46455	-2.26782	0.10765	10.339861	1.28942	-0.14314	1.28783	-0.29777	0.21298
PMSB-BWBK-SB-PM19-0105	2.3297822	1.05726	-1.02432	0.27867	-1.16349	0.06671	10.22422	0.97753	-0.10374	1.20987	-0.22483	0.10094
PMSB-BWBK-SB-PM20-0106	2.1685333	0.80863	-0.98592	0.15613	-0.82651	0.05838	10.230881	0.84478	-0.15391	1.82324	-0.16489	0.05307
PMSB-BWBK-SB-SO01-0107-PM	2.5714216	1.4101	-1.19718	0.33991	-1.94496	0.18885	10.567462	1.41627	0.00308	2.97939	-0.27397	0.29165
PMSB-BWBK-SB-SO02-0109-PM	2.6452395	1.44419	-0.93849	0.40279	-2.68603	0.13437	10.448462	1.20071	0.13752	2.40134	-0.25781	0.26167
PMSB-BWBK-SB-SO13-0104-PM	2.7584003	1.64544	-1.20996	0.29638	-2.92776	0.18389	10.929123	1.66726	0.15967	5.68022	-0.28918	0.23492
PMSB-BWBK-SB-SO14-0105-PM	2.8434033	1.83353	-1.34964	0.45254	-2.60552	0.20529	10.780617	1.7659	0.10345	3.84308	-0.37988	0.31724
PMSS-DABK-S-SO21-0001	2.2125424	0.13273	2.98042	-0.57575	-0.93922	0.10964	10.699453	0.03698	1.37639	7.94234	0.02071	0.25283
PMSS-DABK-S-SO22-0001	2.4319082	0.34407	4.08183	-0.35702	-0.30177	0.13175	10.836048	0.30303	2.03475	7.88297	-0.27901	0.23422
PMSS-DABK-S-SO23-0001	1.9640988	-0.05016	2.42766	-0.02073	0.34832	0.07224	10.04132	0.02559	1.13308	1.46612	-0.13158	0.10491
PMSS-DABK-S-SO24-0001	2.1668355	0.05069	3.06054	-0.16957	-1.39583	-0.00624	10.365682	-0.18228	1.57198	5.26792	-0.12844	0.00751
PMSS-DABK-S-SO25-0001	2.4687873	0.44541	2.8915	0.23031	-3.68565	-0.10455	10.242454	-0.21609	1.76958	3.95643	-0.19421	-0.11136
PMSS-DABK-S-SO26-0001	2.4903896	0.50243	3.77194	-0.16799	-0.25782	0.15101	10.549311	0.32059	1.85342	4.9318	-0.2809	0.34477
PMSS-DABK-S-SO27-0001	1.8537075	-0.34691	3.06339	-0.33296	0.48629	0.08041	10.102803	-0.2988	1.25688	3.09655	0.0093	0.16905
PMSS-DABK-S-SO28-0001	2.1484617	0.03115	3.59986	-0.46362	0.56998	0.09199	10.868902	0.3037	1.77225	8.58901	-0.25657	0.0387
PMSS-DABK-S-SO29-0001	2.0341787	-0.12892	3.62371	0.16224	0.44278	0.05511	9.9190122	-0.20409	1.74567	0.54292	-0.30618	0.09748
PMSS-DABK-S-SO30-0001	1.944234	-0.16995	3.33403	-0.00152	1.35857	0.05953	10.113328	0.00258	1.57876	2.04592	-0.33076	0.02394
PMSS-DABK-S-SO31-0001	1.602712	-0.59537	2.05161	-0.45752	-0.12585	-0.10929	10.240618	-0.47247	0.91019	5.81179	0.03962	-0.30095
PMSS-DABK-S-SO32-0001	2.3364858	0.22603	3.99131	-0.27439	-0.22495	0.05631	11.047399	0.47404	2.17631	9.5241	-0.39898	-0.0901
PMSS-DABK-S-SO33-0001	1.6391513	-0.64304	3.5124	-0.40576	2.39602	0.06174	10.180018	-0.26403	1.42718	3.84371	-0.17354	0.00476
PMSS-DABK-S-SO34-0001	1.5987371	-0.58075	2.03613	-0.42202	0.13559	-0.10082	10.305909	-0.30416	0.93029	5.84778	0.01584	-0.34766
PMSS-DABK-S-SO35-0001	1.8547813	-0.28572	2.61366	-0.31257	-0.01848	-0.01962	10.292212	-0.18839	1.21253	4.9002	-0.05885	-0.10709
PMSS-DABK-S-SO36-0001	1.3752774	-1.00175	2.55241	-0.2572	0.52319	-0.06257	9.5810317	-0.9686	0.91451	0.56527	0.14453	-0.11427
PMSS-DABK-S-SO37-0001	1.7620336	-0.43613	2.50233	-0.18063	-0.58639	-0.10072	10.055184	-0.49514	1.19332	3.64948	-0.04523	-0.23479
PMSS-DABK-S-SO38-0001	1.3898841	-0.91654	2.14238	-0.45105	0.39301	-0.12396	10.033465	-0.66429	0.84201	4.37382	0.12008	-0.35796
PMSS-DABK-S-SO39-0001	1.6820434	-0.40071	1.55207	-0.19244	-0.65838	-0.12377	9.9695905	-0.43927	0.72423	2.99416	0.04061	-0.27635
PMSS-DABK-S-SO40-0001	1.5214485	-0.71279	2.33971	-0.36399	0.77369	-0.09737	9.9931442	-0.53484	0.93398	3.39681	0.02093	-0.27065
SESB-BWBK-SB-SO03-0108	3.0825113	2.29161	-1.44772	0.87939	-1.98435	0.26144	10.619806	2.22035	0.1821	0.45158	-0.62817	0.41553
SESB-BWBK-SB-SO04-0108	2.8236944	1.76566	-1.1528	0.32358	-2.51329	0.21515	10.890349	1.75997	0.15338	4.92478	-0.33475	0.32363
SESB-BWBK-SB-SO05-0106	2.6672728	1.52736	-0.83514	0.49379	-1.7054	0.17155	10.39835	1.41296	0.15794	1.0837	-0.35438	0.30159
SESB-BWBK-SB-SO06-0108	2.9985429	2.00921	-0.90954	0.73269	-2.72664	0.22702	10.673205	1.85582	0.41213	2.10593	-0.52447	0.36785
SESB-BWBK-SB-SO07-0106	2.8304277	1.82337	-1.17105	0.22666	-1.83609	0.19499	11.100217	2.04539	0.13929	6.11326	-0.36749	0.19583
SESB-BWBK-SB-SO08-0107	3.0285357	2.10263	-0.90837	0.69608	-2.06057	0.21147	10.730612	2.01806	0.38371	2.18461	-0.58258	0.31693
SESB-BWBK-SB-SO09-0106	2.5695354	1.38603	-0.86596	0.40872	-1.46178	0.18263	10.451976	1.37273	0.12236	1.84501	-0.3351	0.29137
SESB-BWBK-SB-SO11-0106	2.8377983	1.90458	-1.33858	0.58676	-1.63943	0.13336	10.629939	1.87083	0.08915	2.02946	-0.51095	0.15352
SESB-BWBK-SB-SO12-0106	2.8714916	1.84115	-1.19369	0.31431	-2.67281	0.19615	10.912094	1.78471	0.14128	5.07588	-0.3318	0.30101
SESB-BWBK-SB-SO15-0103	2.1146747	0.6363	-0.51971	0.16306	-0.95644	0.02543	10.204566	0.67868	0.06265	1.96152	-0.15648	-0.02796
SESB-BWBK-SB-SO16-0105	2.4164788	1.21287	-1.42217	0.07024	-1.68066	0.12637	10.644612	1.28748	-0.2195	4.49501	-0.15154	0.16008
SESB-BWBK-SB-SO17-0106	2.0540866	0.70249	-1.25825	0.01324	-0.14102	0.12174	10.383209	1.01149	-0.32562	2.9324	-0.12767	0.101
SESB-BWBK-SB-SO18-0105	1.7910059	0.32494	-1.1768	-0.04612	0.68912	0.06929	10.291499	0.82102	-0.36018	2.81032	-0.12241	-0.07127
SESB-BWBK-SB-SO19-0104	2.0162455	0.62035	-0.83902	-0.10017	0.67597	0.10171	10.896579	1.35523	0.03245	6.91343	-0.32422	-0.15286
SESB-BWBK-SB-SO20-0104	2.6426297	1.54096	-1.38966	0.11198	-2.15812	0.12766	10.866677	1.54387	-0.07069	5.77265	-0.25112	0.15876
SESS-DABK-S-SO01-0001	1.678316	-0.36025	1.46786	0.14436	-0.09861	0.04489	9.4217365	-0.53483	0.58526	-2.42564	0.01682	0.17149
SESS-DABK-S-SO02-0001	2.6615292	1.22782	2.05476	0.50282	1.50312	0.18093	10.334283	1.37004	1.28746	-0.41906	-0.67636	0.25135
SESS-DABK-S-SO03-0001	1.6826996	-0.67958	3.14789	-0.193	-0.42055	-0.00497	9.5817104	-1.0274	1.23119	0.38729	0.10592	0.14445
SESS-DABK-S-SO04-0001	1.7566153	-0.41377	2.83265	0.31861	0.77395	0.10492	9.3368792	-0.52283	1.2063	-3.98387	-0.14532	0.26805
SESS-DABK-S-SO05-0001	1.752626	-0.45726	2.48518	-0.09974	-0.57171	0.00161	9.647619	-0.72122	1.00679	0.16206	0.08722	0.11394
SESS-DABK-S-SO06-0001	2.7937754	1.00529	2.61217	0.52399	-3.90433	-0.01413	10.469515	0.39621	1.9065	3.99803	-0.4377	0.00547
SESS-DABK-S-SO07-0001	1.8726775	-0.05382	2.03385	0.08668	1.53528	0.15343	9.7437101	0.04613	0.84017	-1.4421	-0.18445	0.30593
SESS-DABK-S-SO08-0001	2.0018137	0.05639	1.96302	0.03233	-0.24523	0.05873	9.9372225	-0.04697	0.94029	0.8333	-0.10031	0.14287
SESS-DABK-S-SO09-0001	1.9206587	-0.219	2.11344	-0.16821	-1.93645	0.01399	9.8283515	-0.65421	0.91686	1.80457	0.17845	0.19054

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT						IRON					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	-0.059529	-3.05052	-2.95985	-1.27657	-3.90433	-0.27089	8.3912096	-3.21076	-2.0312	-9.58599	-0.67636	-0.41904
MAXIMUM DOMAIN VALUE	3.0825113	2.29161	4.08183	0.87939	3.79602	0.26144	11.314178	2.22035	2.17631	9.5241	1.11496	0.41553
SAMPLE	**CO_log pre**	D1	D2	D3	D4	D5	**FE_log prec**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	1.7230911	-0.51981	1.80794	-0.02722	-2.69922	-0.04589	9.5016825	-1.04124	0.77284	-0.06203	0.29644	0.0914
SESS-DABK-S-SO11-0001	0.9853787	-1.44665	1.66534	-0.75576	1.44029	0.00537	9.6962558	-1.09002	0.24526	2.74802	0.42653	-0.01817
SESS-DABK-S-SO12-0001	1.4588343	-0.7526	2.06898	-0.17359	1.04962	0.00975	9.5762829	-0.71727	0.72392	-0.1821	0.03337	0.0417
SESS-DABK-S-SO13-0001	1.9886062	0.13107	0.97557	-0.34801	-0.9439	0.13596	10.12033	-0.05426	0.35927	3.14724	0.1652	0.38531
SESS-DABK-S-SO14-0001	1.7215487	-0.35542	1.09501	-0.36093	-1.64766	0.04352	9.9022978	-0.56232	0.36763	2.71602	0.33159	0.19609
SESS-DABK-S-SO15-0001	1.6666738	-0.65976	2.60365	-0.25352	-1.10409	-0.00164	9.789531	-0.80003	1.03902	1.7917	0.2416	0.06205
SESS-DABK-S-SO16-0001	0.7696544	-1.75126	1.32181	-0.6204	0.88495	-0.09107	9.4024376	-1.47335	0.11129	1.30866	0.48222	-0.20709
SESS-DABK-S-SO17-0001	1.0604785	-1.57422	2.6346	-0.32076	-0.47266	-0.20356	9.4609472	-1.5902	0.97683	1.65784	0.27313	-0.41904
SESS-DABK-S-SO18-0001	1.4825262	-0.66255	1.59471	-0.45996	0.86729	0.04175	9.9699597	-0.4685	0.51257	3.1767	0.12326	0.05461
SESS-DABK-S-SO19-0001	1.9912409	0.09245	2.22182	0.07762	1.29187	0.11549	10.018628	0.26931	1.05284	0.48298	-0.26863	0.16083
SESS-DABK-S-SO20-0001	2.1464447	0.23144	2.66813	0.42307	0.48438	0.0833	9.6851531	0.05787	1.34083	-2.49311	-0.35797	0.19976

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

LEAD

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100

2.3998	Mean
0.6227	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1164	0.1193	0.7232	-0.2492	0.0488	
AS_log	-0.0367	0.2750	-0.2068	0.1595	-0.0276	
BA	0.0004	0.1728	0.0736	-0.1882	0.0232	
CR	0.0370	0.0902	0.2130	-0.1935	0.0384	
CO_log	0.2442	0.5104	-0.8047	-0.6200	0.4258	
FE_log	0.2675	-0.3993	0.5347	1.4041	0.2115	
PB_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MG	0.0623	-0.2283	0.1853	-0.4058	0.0014	
MN_log	0.0454	-0.0582	-0.0255	-0.0631	0.1279	
NI_log	0.3236	-0.6558	0.4149	0.0980	-0.4824	
V	-0.0405	0.5348	-0.1684	-0.1108	0.0386	
ZN_log	0.1270	0.4068	-0.4780	-0.2633	-0.3180	

MAGNESIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280

2246.4509	Mean
809.6507	Std. deviation

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1316	0.0642	1.3651	1.3850	0.1477	
AS_log	-0.0415	0.1479	-0.3904	-0.8863	-0.0834	
BA	0.0005	0.0930	0.1388	1.0455	0.0702	
CR	0.0418	0.0485	0.4020	1.0755	0.1160	
CO_log	0.2761	0.2746	-1.5191	3.4452	1.2879	
FE_log	0.3025	-0.2148	1.0093	-7.8025	0.6398	
PB_log	-0.0492	0.2319	-0.0596	-0.5793	-0.1731	
MG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MN_log	0.0513	-0.0313	-0.0482	0.3504	0.3867	
NI_log	0.3659	-0.3528	0.7833	-0.5446	-1.4591	
V	-0.0458	0.2877	-0.3179	0.6159	0.1168	
ZN_log	0.1437	0.2189	-0.9024	1.4630	-0.9618	

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	0.9770973	-2.79426	-2.4977	-2.14011	-1.94282	-0.77004	-543.552	-3.02048	-1.86093	-3.70391	-11.9754	-2.31605
MAXIMUM DOMAIN VALUE	4.0177876	2.00524	3.23157	2.21616	2.08483	0.84139	5413.2433	2.11593	2.209	4.3542	12.967	2.44642
SAMPLE	**PB_log pre**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	1.2469284	-1.14089	-2.00425	-0.96275	0.29831	-0.31867	1701.5948	-1.18077	-1.57442	-1.65981	-0.23436	-0.60181
BASS-BWBK-SS-BA102-0001	1.206894	-1.48022	-2.04571	-1.26046	0.25914	-0.34564	1206.0931	-1.50886	-1.72737	-1.98783	1.53683	-0.64091
BASS-BWBK-SS-BA103-0001	1.2300991	-1.33971	-2.00235	-1.17768	0.1581	-0.33579	1277.3782	-1.36511	-1.66876	-1.89563	1.67323	-0.62237
BASS-BWBK-SS-BA104-0001	1.2890935	-0.97564	-1.8855	-1.03906	-0.11342	-0.34444	1467.5281	-1.01508	-1.44421	-1.87199	1.57511	-0.71526
BASS-BWBK-SS-BA105-0001	1.2689441	-1.08505	-1.901	-1.45529	0.24697	-0.36249	1436.7265	-1.09185	-1.53445	-2.42449	1.07638	-0.767
BASS-BWBK-SS-BA106-0001	1.1923564	-0.85785	-2.0986	-0.86667	-0.08203	-0.51493	1668.4733	-0.88935	-1.5197	-1.55074	1.33897	-1.2618
BASS-BWBK-SS-BA107-0001	1.2444854	-1.48273	-1.97428	-1.25531	0.20436	-0.33396	1147.854	-1.5212	-1.64676	-1.99287	1.71178	-0.63598
BASS-BWBK-SS-BA108-0001	1.2040431	-1.42087	-2.03765	-1.24868	0.03317	-0.38776	1080.5928	-1.46001	-1.65761	-2.01384	2.43655	-0.80854
BASS-BWBK-SS-BA109-0001	0.9770973	-0.97055	-2.4977	-0.79287	-0.20364	-0.6478	1577.833	-0.99022	-1.86093	-1.38087	2.31871	-1.56874
BASS-BWBK-SS-BA110-0001	1.2183936	-0.84478	-2.06312	-0.58643	0.01817	-0.23725	1846.1798	-0.86327	-1.57576	-1.03582	0.76534	-0.35659
BASS-BWBK-SS-BA111-0001	1.2102442	-1.29813	-2.04924	-1.0499	0.16073	-0.30404	1379.3309	-1.3333	-1.65069	-1.70877	1.28583	-0.54676
BASS-BWBK-SS-BA112-0001	1.2009162	-1.3916	-2.06513	-1.03563	0.18866	-0.24413	1344.9666	-1.43597	-1.6813	-1.68795	1.11355	-0.34582
BASS-BWBK-SS-BA113-0001	1.6073778	-1.11104	-1.22898	-2.14011	-0.19623	-0.77004	737.96532	-1.13854	-1.06431	-3.70391	3.52057	-2.09216
MASB-BWBK-SB-MA01-0105	2.0181467	1.3291	-0.59552	-0.29878	0.09253	0.08495	3531.4201	1.4493	-0.27135	-0.88843	-2.54609	0.306
MASB-BWBK-SB-MA02-0107	1.9975165	1.38477	-0.73158	0.36033	-0.07375	-0.15309	3787.931	1.47509	-0.29852	0.14749	-2.94017	-0.39443
MASB-BWBK-SB-MA03-0108	2.1240637	1.70786	-0.28207	-1.26545	0.10048	0.01038	3468.2114	1.89704	-0.15528	-2.64078	-2.09802	0.10347
MASB-BWBK-SB-MA04-0106	2.0434743	1.46002	-0.61232	0.35636	-0.66765	-0.25234	3500.6531	1.50968	-0.16668	-0.13676	-1.39711	-0.67396
MASB-BWBK-SB-MA05-0108	2.2154697	1.19047	-0.33321	-0.12959	0.28703	-0.28474	3709.9418	1.27561	-0.12809	-0.68749	-4.3541	-0.78149
MASB-BWBK-SB-MA06-0105	2.0440817	1.16897	-0.6412	0.11299	-0.0481	-0.28532	3508.4428	1.25468	-0.29679	-0.20914	-2.36403	-0.78639
MASB-BWBK-SB-MA07-0108	1.9733987	0.94748	-0.85886	0.03251	1.05358	-0.36023	4250.9387	1.02223	-0.45114	-0.2788	-7.94767	-1.00514
MASB-BWBK-SB-MA08-0108	2.5091246	1.73909	-0.01712	1.19218	1.21159	-0.05083	5413.2433	1.79804	0.309	1.44234	-11.9754	-0.1918
MASB-BWBK-SB-MA09-0108	2.2873139	1.33383	-0.24227	-0.32971	1.29732	-0.16092	4514.9838	1.4442	-0.02953	-0.95621	-9.34616	-0.47746
MASB-BWBK-SB-MA10-0104	2.01753	0.79923	-0.6907	-0.74478	1.47619	-0.1362	4060.7079	0.90664	-0.43181	-1.46258	-8.49417	-0.34721
MASB-BWBK-SB-MA11-0108	2.2575269	1.36674	-0.30667	0.15918	0.5263	-0.25069	4101.0855	1.43864	0.06761	-0.17328	-6.04058	-0.81822
MASB-BWBK-SB-MA12-0108	2.1997957	1.53642	-0.35555	-0.21055	0.63725	-0.17474	4270.9997	1.64989	-0.09104	-0.90007	-6.71155	-0.47244
MASB-BWBK-SB-MA13-0105	2.4846785	0.03747	0.24152	-0.43352	-0.39172	0.02411	1743.5877	0.10071	-0.09926	-0.69012	3.17372	0.22496
MASB-BWBK-SB-MA14-0104	2.7256686	0.92157	0.53425	0.35043	0.69958	0.28951	3558.9803	1.04186	0.26649	0.6321	-4.04825	0.90089
MASB-BWBK-SB-MA15-0105	2.7734394	0.48209	0.6354	0.38331	0.28604	0.29032	2828.5474	0.57517	0.22311	0.78806	-1.08493	0.95747
MASB-BWBK-SB-MA16-0104	2.3251751	0.55416	-0.02275	-0.75887	0.33989	0.18427	2716.7278	0.64855	-0.10041	-1.38768	-1.53268	0.61711
MASB-BWBK-SB-MA17-0104	2.6130586	0.25914	0.45141	-0.36677	0.18894	0.29076	2331.2604	0.34781	0.06933	-0.51948	0.16899	0.9738
MASB-BWBK-SB-MA18-0104	2.677027	0.11036	0.51163	0.16967	-0.56263	-0.03192	1908.9105	0.13518	0.15071	0.23696	2.73112	0.02808
MASB-BWBK-SB-MA19-0103	2.3714472	-0.01404	0.05758	-0.65463	-0.21151	0.04959	1786.5168	0.04896	-0.19535	-1.05717	2.478	0.28587
MASB-BWBK-SB-MA20-0103	2.0496431	1.08526	-0.59039	-0.38044	0.23294	-0.27175	3398.0205	1.20708	-0.35441	-0.9105	-2.43822	-0.73913
MASS-BWBK-SS-MA01-0001	2.4970578	-1.71471	0.25155	-0.63096	-0.92951	-0.24248	-330.1542	-1.83883	-0.04458	-0.69827	8.34904	-0.72183
MASS-BWBK-SS-MA02-0001	2.7297356	-1.12551	0.55096	0.68276	-1.92401	-0.54387	-307.2513	-1.20175	0.17186	1.64169	12.967	-1.64029
MASS-BWBK-SS-MA03-0001	2.427121	-0.89129	0.00609	-0.06515	-0.05026	-0.24871	1371.2881	-0.95568	-0.08421	0.14173	1.98115	-0.75353
MASS-BWBK-SS-MA04-0001	2.2798346	-0.53305	-0.23948	0.202	-0.74949	-0.38606	1249.5882	-0.582	-0.1532	0.50015	4.91495	-1.18049
MASS-BWBK-SS-MA05-0001	2.5001753	0.12676	0.10103	0.62355	-0.58293	-0.37434	2111.7424	0.09976	0.17622	1.01863	2.15635	-1.18837
MASS-BWBK-SS-MA06-0001	2.9866561	0.00334	0.86666	1.46992	-0.4677	-0.13193	2258.6693	-0.06212	0.65962	2.54688	1.02456	-0.49448
MASS-BWBK-SS-MA07-0001	2.1922922	-2.79426	-0.40402	-0.84429	0.86712	-0.00833	270.37119	-3.02048	-0.43908	-0.87213	-0.19456	-0.04222
MASS-BWBK-SS-MA08-0001	2.8885066	-0.30053	0.83576	-0.23339	0.67964	0.043	2212.3998	-0.3632	0.7313	-0.25111	-2.87658	-0.15211
MASS-BWBK-SS-MA09-0001	3.6109228	0.25616	2.08693	1.23436	-1.43922	-0.10945	1245.5827	0.1955	1.55258	2.1986	6.79495	-0.64616
MASS-BWBK-SS-MA10-0001	3.2677695	0.24779	1.51097	0.5155	-0.53417	-0.03402	1879.8735	0.20261	1.17756	0.87798	2.04886	-0.37473
MASS-BWBK-SS-MA11-0001	3.386661	0.32791	1.68528	0.88881	-0.15756	0.3037	2364.9484	0.30728	1.16646	1.55071	-0.14293	0.74128
MASS-BWBK-SS-MA12-0001	2.1624781	-0.32896	-0.61037	0.67073	0.09623	-0.72252	2367.1279	-0.36495	-0.31881	1.3291	-0.15804	-2.21062
MASS-BWBK-SS-MA13-0001	3.1595854	-0.66368	1.27071	0.80194	-0.58967	0.03759	1142.4608	-0.72659	0.70118	1.70832	4.45144	0.04593
MASS-BWBK-SS-MA14-0001	3.0589557	-1.27651	1.23133	-0.40764	-0.91081	-0.19185	-85.01683	-1.40389	0.76557	-0.3534	7.51405	-0.77888
MASS-BWBK-SS-MA15-0001	3.030581	-1.26388	1.07058	0.36715	-0.76631	-0.18126	343.21539	-1.38544	0.61303	1.05544	6.44298	-0.67809
MASS-BWBK-SS-MA16-0001	2.7953241	-0.70788	0.60924	0.0658	0.46167	-0.19932	1870.1892	-0.7701	0.35609	0.3788	-1.03255	-0.69597
MASS-BWBK-SS-MA17-0001	2.9172227	-0.5162	0.94539	-0.13648	-0.1837	0.11233	1315.2946	-0.54465	0.51417	0.03031	2.77891	0.25615
MASS-BWBK-SS-MA18-0001	3.0598566	-0.9975	1.10787	-0.19581	0.2901	-0.26711	1272.3979	-1.08328	0.64179	0.01014	0.6713	-0.94967
MASS-BWBK-SS-MA19-0001	3.0508938	-0.51317	1.18016	-0.19925	-0.1321	0.06801	1298.0145	-0.5512	0.69776	-0.08719	2.44532	0.07502
MASS-BWBK-SS-MA20-0001	2.5992613	-0.03367	0.33063	-0.13664	0.16763	-0.20642	2186.6029	-0.03519	0.2588	-0.13474	-0.25188	-0.72435
MMSB-BWBK-SB-MM101-0110	1.6853159	0.22425	-1.15268	-0.71857	0.11	0.14914	2572.0634	0.22203	-0.57416	-1.52488	-1.68498	0.45985
MMSB-BWBK-SB-MM102-0109	1.508536	0.48466	-1.55041	0.16796	-0.7613	-0.24152	2573.5059	0.47563	-0.79791	-0.15729	1.29224	-0.62985
MMSB-BWBK-SB-MM103-0107	1.8331681	0.38839	-0.72402	-1.19957	-0.81148	0.37087	1701.0104	0.42667	-0.43689	-2.41478	3.63255	1.20183
MMSB-BWBK-SB-MM104-0110	1.881729	0.67825	-0.88282	0.61032	-0.67507	0.31845	3079.6268	0.57925	-0.19234	0.16252	-2.56963	1.00414
MMSB-BWBK-SB-MM105-0110	1.6661255	-0.32621	-1.16513	-1.16802	0.122	-0.02336	1882.412	-0.31566	-0.80379	-2.04685	0.45342	0.03055
MMSB-BWBK-SB-MM106-0110	1.9894115	0.77279	-0.69841	0.93872	-1.44628	0.09239	2555.4787	0.69954	-0.13803	0.8215	1.99641	0.34631
MMSB-BWBK-SB-MM107-0110	1.8611096	0.12575	-0.8208	-0.43593	-0.61323	0.17454	1919.3264	0.1453	-0.5602	-0.951	2.73292	0.66007
MMSB-BWBK-SB-MM108-0110	1.8118566	0.03177	-0.94003	-0.43446	-0.30859	0.13239	2185.0186	0.01678	-0.5738	-1.04373	0.40854	0.51748
MMSB-BWBK-SB-MM109-0110	2.108314	0.28638	-0.46905	0.31655	-0.70963	0.18245	2161.8599	0.28829	-0.23776	0.36058	2.47867	0.60507
MMSB-BWBK-SB-MM110-0109	1.9529861	0.13515	-0.76283	0.15476	-0.3255	0.13572	2370.0349	0.13004	-0.44574	0.08371	0.56509	0.49665
MMSB-BWBK-SB-MM111-0110	1.8172036	0.34998	-1.02641	0.33319	-0.28773	0.10647	2775.7281	0.31937	-0.45619	0.20211	-1.10375	0.36085
MMSB-BWBK-SB-MM112-0110	1.8316077	0.41093	-0.99716	0.50833	-0.36966	0.25818	2795.0389	0.41765	-0.57997	0.56661	-0.31208	0.92443
MMSB-BWBK-SB-MM113-0110	1.7332692	0.4303	-1.13838	0.37776	-0.98362	-0.02483	2273.1032	0.44252	-0.65572	0.34169	3.2314	0.06225
MMSB-BWBK-SB-MM114-0110	1.7295382	-0.20371	-1.07497	-0.67339	-0.24521	0.05717	1874.545	-0.19329	-0.76682	-1.24375	1.70463	0.31944

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	0.9770973	-2.79426	-2.4977	-2.14011	-1.94282	-0.77004	-543.552	-3.02048	-1.86093	-3.70391	-11.9754	-2.31605
MAXIMUM DOMAIN VALUE	4.0177876	2.00524	3.23157	2.21616	2.08483	0.84139	5413.2433	2.11593	2.209	4.3542	12.967	2.44642
SAMPLE	**PB_log pre**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	2.1737832	-0.04328	-0.29109	0.21253	-1.1793	0.35065	1616.7698	-0.10149	-0.21963	-0.05553	3.81458	1.23757
MMSB-BWBK-SB-MM116-0110	1.6793705	0.27655	-1.1751	-0.32727	-0.5862	-0.00138	2233.4077	0.27474	-0.64098	-0.9018	1.52639	0.08103
MMSB-BWBK-SB-MM117-0110	1.6093493	-0.07568	-1.2133	-1.23301	-0.0528	0.16461	1994.1866	-0.05263	-0.82692	-2.31171	0.55153	0.63588
MMSB-BWBK-SB-MM118-0110	1.2837828	0.73775	-1.87756	-0.50248	-0.65957	-0.37628	2613.2394	0.77876	-0.95544	-1.27833	1.59519	-1.09225
MMSB-BWBK-SB-MM119-0110	1.6542226	0.16792	-1.21987	-0.47205	-0.31458	0.04445	2401.4155	0.14662	-0.69058	-1.24518	-0.38846	0.25973
MMSB-BWBK-SB-MM120-0110	1.5437411	-0.65824	-1.30777	-1.49733	0.07701	0.27586	1489.4208	-0.65468	-1.03177	-2.59819	1.27368	1.03989
MMSS-BWBK-SS-MM101-0001	2.6948709	-0.62442	0.25889	1.79646	0.22145	0.05249	2357.4709	-0.70107	0.18646	3.48772	-0.68322	0.09372
MMSS-BWBK-SS-MM102-0001	2.1445625	-0.91955	-0.65667	0.9057	0.80855	0.01452	2412.7487	-0.94772	-0.59521	2.06522	-2.0925	0.14396
MMSS-BWBK-SS-MM103-0001	2.6366817	-0.70356	0.1619	1.55615	0.5663	0.08795	2479.8532	-0.77882	0.13306	3.11691	-2.09114	0.17923
MMSS-BWBK-SS-MM104-0001	2.5471039	-0.39475	0.06873	1.45787	0.06736	0.11921	2381.8191	-0.46697	0.14815	2.74566	-0.51617	0.27153
MMSS-BWBK-SS-MM105-0001	2.3333156	-1.18996	-0.19928	0.1307	0.65245	0.16608	1674.2001	-1.24927	-0.27387	0.72827	-0.52287	0.50631
MMSS-BWBK-SS-MM106-0001	2.6309178	-0.36727	0.25618	1.43133	-0.15341	0.26462	2161.5763	-0.40597	0.12096	2.74812	1.1507	0.80153
MMSS-BWBK-SS-MM107-0001	2.5074493	-0.49316	-0.07036	1.92693	-0.01154	0.02245	2433.899	-0.56139	-0.03196	3.61889	-0.05538	0.0682
MMSS-BWBK-SS-MM108-0001	2.7534353	-1.01693	0.31674	1.99165	0.32482	0.04351	2069.8346	-1.09191	0.09655	4.08377	0.24777	0.10296
MMSS-BWBK-SS-MM109-0001	2.4732148	-0.95923	-0.1474	1.72932	0.52388	0.13334	2344.3133	-1.02305	-0.23458	3.51126	-1.25651	0.46242
MMSS-BWBK-SS-MM110-0001	2.2397625	-1.86857	-0.44681	0.4044	0.96523	0.14093	1459.0712	-1.99277	-0.43252	1.3847	-1.38152	0.41268
MMSS-BWBK-SS-MM111-0001	2.1808998	-1.65029	-0.54561	0.67043	0.62094	0.19177	1483.2774	-1.75614	-0.50169	1.79316	-0.02752	0.60527
MMSS-BWBK-SS-MM112-0001	2.1291328	-1.91141	-0.66063	0.32778	0.89598	-0.13033	1419.1037	-2.04719	-0.54112	1.2054	-1.21488	-0.40359
MMSS-BWBK-SS-MM113-0001	2.6209672	-1.16461	0.14201	1.39051	0.49097	0.03007	1944.8296	-1.2884	0.1465	2.91985	-0.98689	-0.04732
MMSS-BWBK-SS-MM114-0001	2.0406717	-1.93138	-0.71186	-0.15895	0.61308	0.03173	1002.2276	-2.02198	-0.76589	0.37972	1.10958	0.22217
MMSS-BWBK-SS-MM115-0001	2.1201202	-1.60342	-0.71064	0.66625	1.05001	-0.01668	1893.9871	-1.67917	-0.67184	1.85413	-1.91498	0.02231
MMSS-BWBK-SS-MM116-0001	2.1974954	-1.67238	-0.46525	0.16129	0.79764	0.18861	1442.6024	-1.77478	-0.46953	0.86358	-0.80613	0.59611
MMSS-BWBK-SS-MM117-0001	2.3734551	-0.83931	-0.25156	1.20727	0.41063	0.06507	2188.7116	-0.91276	-0.15839	2.51143	-0.83711	0.15185
MMSS-BWBK-SS-MM118-0001	1.8881252	-0.52488	-0.87097	-0.14361	-0.02208	0.21893	1924.381	-0.54802	-0.6868	-0.22031	0.6352	0.82661
MMSS-BWBK-SS-MM119-0001	1.7251609	-0.66701	-1.1546	-0.38778	0.06161	0.07822	1777.3609	-0.66547	-0.94785	-0.50797	1.33136	0.442
MMSS-BWBK-SS-MM120-0001	2.013564	-0.33627	-0.76494	0.08317	1.1248	0.22395	2906.2149	-0.28471	-0.68467	0.49696	-3.91632	0.80723
NESB-BWBK-SB-NE01-0108	1.7008268	0.93302	-1.30266	0.98433	-0.50569	-0.05589	3430.8454	0.94377	-0.59987	1.18638	-1.3968	-0.06704
NESB-BWBK-SB-NE02-0109	1.8090138	0.87691	-1.03054	0.54521	-0.6283	0.07442	3004.2658	0.91403	-0.50914	0.52894	0.38606	0.32551
NESB-BWBK-SB-NE03-0105	1.7344805	0.57997	-1.24739	0.54726	0.28513	0.04371	3475.4646	0.62568	-0.72814	0.74379	-3.3032	0.2583
NESB-BWBK-SB-NE04-0110	1.7115574	0.58683	-1.21075	0.27102	-0.2683	0.0167	2987.9373	0.60811	-0.65104	0.11327	-0.94869	0.15965
NESB-BWBK-SB-NE05-0108	1.7155161	0.81619	-1.26096	0.6384	-0.19036	-0.06205	3412.038	0.84598	-0.64375	0.6958	-2.09306	-0.07611
NESB-BWBK-SB-NE06-0109	1.6727411	0.69725	-1.29637	0.22123	-0.03684	-0.05009	3261.8897	0.73978	-0.71879	0.04057	-2.08442	-0.03051
NESB-BWBK-SB-NE07-0107	1.7538056	0.84531	-1.23096	0.96553	-0.34509	-0.1304	3400.7266	0.86997	-0.59325	1.29272	-1.39129	-0.30525
NESB-BWBK-SB-NE08-0104	1.7769689	0.44831	-1.07993	0.01314	-0.1592	-0.02997	2766.4191	0.5015	-0.69517	-0.15943	-0.13802	0.05324
NESB-BWBK-SB-NE09-0110	1.6754093	0.61984	-1.28462	0.20492	-0.06863	-0.01283	3152.2045	0.66374	-0.74993	0.04495	-1.65781	0.10316
NESB-BWBK-SB-NE10-0107	2.1370168	0.18737	-0.4816	0.48062	-0.39967	0.06372	2410.3117	0.19159	-0.31393	0.69207	0.95373	0.29665
NESB-BWBK-SB-NE101-0110	2.1153215	0.11547	-0.50899	0.72877	-0.75154	0.20424	2149.7728	0.10177	-0.31698	1.11429	2.61513	0.72486
NESB-BWBK-SB-NE102-0110	2.0651455	-0.17465	-0.55262	0.35658	-0.90896	0.13787	1624.2123	-0.19034	-0.43008	0.55655	4.45968	0.55755
NESB-BWBK-SB-NE103-0110	1.8947661	-0.36641	-0.83314	-0.09338	-0.49903	0.13707	1659.4714	-0.36854	-0.67673	-0.13661	3.22697	0.59043
NESB-BWBK-SB-NE104-0110	1.8019929	-0.50598	-0.94471	-0.58899	-0.37516	0.15	1472.8192	-0.50019	-0.79688	-0.96045	3.27836	0.64799
NESB-BWBK-SB-NE105-0110	2.095386	0.07005	-0.51827	0.42851	-0.60112	0.20569	2158.8344	0.05455	-0.3389	0.55576	1.84566	0.74079
NESB-BWBK-SB-NE106-0110	1.9392977	-0.01373	-0.76464	0.17851	-0.71828	0.12015	1914.0061	-0.01496	-0.53618	0.18299	3.16366	0.5077
NESB-BWBK-SB-NE107-0510	1.7088609	-0.35234	-1.13402	-0.40413	-0.26061	0.18385	1900.5746	-0.37449	-0.80655	-0.83951	1.16042	0.73768
NESB-BWBK-SB-NE108-0110	2.0436963	-0.18369	-0.56861	0.16489	-0.63424	0.29659	1790.7647	-0.19562	-0.46197	0.20068	2.99126	1.05503
NESB-BWBK-SB-NE109-0110	1.9623969	-0.19541	-0.72904	0.23868	-0.6291	0.24238	1826.3031	-0.20877	-0.541	0.34989	3.01676	0.88238
NESB-BWBK-SB-NE110-0110	1.9597937	-0.18034	-0.69926	0.06139	-0.66662	0.30774	1776.6138	-0.20234	-0.50464	-0.03521	2.89773	1.07733
NESS-BKG-SS03-NEB-0016	2.929822	-0.22847	0.83769	0.97222	-0.48949	-0.03826	1717.3268	-0.34644	0.92888	1.8092	2.11857	-0.49928
NESS-BKG-SS09-NEB-0018	2.7497443	-0.9364	0.55496	0.439	0.13372	0.25337	1499.4658	-1.02562	0.31569	1.09011	0.84182	0.68062
NESS-BWBK-SS-NE01-0001	3.1369653	0.28737	1.15554	1.50887	-0.65386	-0.08372	2221.5042	0.25616	0.87793	2.67889	2.35911	-0.41608
NESS-BWBK-SS-NE02-0001	2.8304357	0.49069	0.59813	1.09837	-0.43349	-0.55926	2636.2366	0.47663	0.553	1.80434	0.54746	-1.80669
NESS-BWBK-SS-NE03-0001	2.6921834	-0.25673	0.25184	1.85386	0.14333	-0.04031	2599.9214	-0.2776	0.139	3.59552	-0.21225	-0.15114
NESS-BWBK-SS-NE04-0001	2.5663186	0.17624	0.15153	1.70791	-0.61019	0.21367	2421.9278	0.15582	0.16938	3.02326	2.07996	0.62969
NESS-BWBK-SS-NE05-0001	2.7428596	-0.09862	0.44554	1.28247	-0.27442	-0.10508	2210.1376	-0.14013	0.39666	2.41457	1.34085	-0.44436
NESS-BWBK-SS-NE06-0001	2.3808546	0.09235	-0.2049	1.60402	-0.44473	-0.00894	2519.1337	0.08211	-0.09882	2.88216	1.56803	0.00367
NESS-BWBK-SS-NE07-0001	2.9587551	-0.23015	0.80745	1.19986	0.01089	-0.1346	2239.4506	-0.30366	0.6945	2.2832	-0.18939	-0.62466
NESS-BWBK-SS-NE08-0001	2.5020748	-0.14208	-0.05595	1.75378	-0.04862	-0.07058	2590.3746	-0.15689	-0.03087	3.33695	0.43199	-0.22009
NESS-BWBK-SS-NE09-0001	2.9744403	-0.52969	0.74888	2.21616	-0.3477	0.07544	1923.5978	-0.592	0.49766	4.3542	2.88994	0.10387
NESS-BWBK-SS-NE10-0001	2.7048701	-0.22981	0.40627	0.85419	-0.09873	-0.18938	2130.9893	-0.31682	0.52181	1.58814	0.11957	-0.8139
NESS-BWBK-SS-NE101-0001	2.4141901	-0.98406	-0.13752	1.35327	-0.12038	0.25187	1610.5008	-1.02725	-0.29276	2.89235	2.93933	0.84785
NESS-BWBK-SS-NE102-0001	2.2321862	-1.344	-0.39729	0.43139	0.22053	0.07773	1336.7565	-1.4437	-0.31355	1.23548	1.44566	0.20102
NESS-BWBK-SS-NE103-0001	2.1209296	-1.45174	-0.59832	0.24642	0.39859	-0.01666	1378.3701	-1.55316	-0.46454	0.9209	0.70759	-0.059
NESS-BWBK-SS-NE104-0001	2.0254116	-1.13927	-0.84583	0.8007	0.58877	-0.01828	2048.2315	-1.28047	-0.30792	1.75521	-1.91512	-0.2424
NESS-BWBK-SS-NE105-0001	2.0804504	-1.69886	-0.67009	0.21761	0.45094	0.04084	1189.4831	-1.79041	-0.64975	0.98397	1.27129	0.20246
NESS-BWBK-SS-NE106-0001	2.1559896	-1.57342	-0.53959	0.40939	0.36292	0.13641	1287.2459	-1.75567	-0.14538	1.12712	0.01914	0.19697
NESS-BWBK-SS-NE107-0001	2.2870612	-1.8398	-0.32606	0.469	0.38709	0.12916	1024.245	-1.97447	-0.33691	1.44336	1.41523	0.36941
NESS-BWBK-SS-NE108-0001	2.2962838	-1.51421	-0.26839	0.33405	0.12187	0.07666	1082.0507	-1.64451	-0.21024	1.03514	1.8609	0.17459
NESS-BWBK-SS-NE109-0001	2.0843977	-1.848	-0.67618	0.3702	0.41766	0.10881	1094.9927	-1.96006	-0.6541	1.26365	1.40594	0.41123
NESS-BWBK-SS-NE110-0001	2.3607696	-1.82324	-0.15139	0.01103	0.66829	0.1874	1117.1233	-1.98805	-0.098	0.53058	-0.57674	0.4404

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	0.9770973	-2.79426	-2.4977	-2.14011	-1.94282	-0.77004	-543.552	-3.02048	-1.86093	-3.70391	-11.9754	-2.31605
MAXIMUM DOMAIN VALUE	4.0177876	2.00524	3.23157	2.21616	2.08483	0.84139	5413.2433	2.11593	2.209	4.3542	12.967	2.44642
SAMPLE	**PB_log pre**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	2.2906178	0.89827	-0.11441	0.12774	-0.71811	0.10543	2483.0329	1.00412	-0.12815	0.07218	3.01727	0.41971
PMSB-BWBK-SB-PM02-0104	2.8188586	1.27279	0.70069	0.86665	0.47004	0.62812	3896.6657	1.38171	0.45721	1.32319	-4.6016	1.92029
PMSB-BWBK-SB-PM03-0106	2.25218	1.53425	-0.23105	-0.10041	0.53952	0.14405	4154.2242	1.672	-0.11397	-0.62976	-5.70327	0.54818
PMSB-BWBK-SB-PM04-0105	2.2131444	1.14799	-0.32228	0.0315	0.2316	-0.01431	3654	1.2077	-0.03121	-0.41072	-4.29748	-0.03031
PMSB-BWBK-SB-PM05-0105	2.2394697	1.13752	-0.21472	-0.13255	0.10073	0.23016	3418.4356	1.22642	-0.07726	-0.63278	-2.93774	0.77
PMSB-BWBK-SB-PM06-0105	2.0906182	1.15795	-0.53459	0.21535	0.46864	0.37109	3903.8435	1.26287	-0.32635	0.02215	-4.92214	1.25972
PMSB-BWBK-SB-PM07-0105	2.4114057	0.85784	0.20226	-0.95514	0.72463	0.76013	3147.8991	1.01773	-0.09792	-1.72379	-3.35042	2.44642
PMSB-BWBK-SB-PM08-0106	2.3467492	0.9828	0.04379	-0.61604	0.11608	0.32715	3012.3957	1.09781	-0.03666	-1.33744	-1.65816	1.08671
PMSB-BWBK-SB-PM09-0106	2.0132958	0.69709	-0.54311	-1.06214	0.43519	0.13932	2971.359	0.83269	-0.54561	-2.00808	-2.20287	0.6293
PMSB-BWBK-SB-PM10-0105	2.8752344	0.78605	1.00579	-0.75428	0.24622	0.54839	2662.2413	0.91154	0.42368	-1.41081	-1.17976	1.75112
PMSB-BWBK-SB-PM11-0104	2.1743018	1.2545	-0.28791	-0.54739	0.57869	0.42003	3595.2811	1.43541	-0.28047	-1.07317	-3.34369	1.38407
PMSB-BWBK-SB-PM12-0105	2.0935282	0.15772	-0.40589	-0.58293	-0.51838	0.10961	1843.0522	0.21789	-0.42599	-1.07988	3.19811	0.49553
PMSB-BWBK-SB-PM13-0106	2.5777609	0.25811	0.29785	0.26741	0.72895	0.57551	3027.7034	0.33967	-0.02951	0.60719	-3.24842	1.86775
PMSB-BWBK-SB-PM14-0106	2.2384419	0.1151	-0.14081	-0.76054	-0.0508	0.31402	2039.7815	0.1864	-0.29764	-1.31325	1.23701	1.09751
PMSB-BWBK-SB-PM15-0105	2.285128	0.61673	-0.179	-0.07288	0.26731	0.152	3026.4485	0.69383	-0.16502	-0.25097	-2.11631	0.54706
PMSB-BWBK-SB-PM16-0106	2.1300094	0.282	-0.44583	-0.2395	0.21699	0.07416	2678.6989	0.34638	-0.40095	-0.45924	-1.1007	0.35792
PMSB-BWBK-SB-PM17-0105	2.4553585	0.99089	0.29572	-0.74107	-0.21827	0.46719	2710.8446	1.06988	0.21033	-1.69839	-0.66815	1.45355
PMSB-BWBK-SB-PM18-0105	2.0382031	1.25097	-0.7701	0.5258	1.02315	-0.13149	4606.8117	1.34181	-0.33714	0.5666	-8.36513	-0.3438
PMSB-BWBK-SB-PM19-0105	2.1920383	0.86997	-0.40627	0.19627	0.41369	-0.0397	3528.8131	0.95276	-0.22244	0.1422	-3.6933	-0.05424
PMSB-BWBK-SB-PM20-0106	2.2161836	0.68807	-0.30872	-0.12293	0.21433	-0.01914	3078.4635	0.76832	-0.23147	-0.38561	-2.07091	0.0377
PMSB-BWBK-SB-SO01-0107-PM	2.1763901	1.2515	-0.4444	-0.04177	0.58873	-0.35347	3924.6847	1.366	-0.16204	-0.33581	-4.91614	-1.06156
PMSB-BWBK-SB-SO02-0109-PM	2.2614351	1.22372	-0.37292	0.31306	1.21982	-0.19868	4550.4429	1.31995	-0.08308	0.28037	-8.78889	-0.61171
PMSB-BWBK-SB-SO13-0104-PM	2.2461387	1.51001	-0.2682	-0.47364	1.00579	-0.16198	4291.4047	1.66384	-0.07242	-1.1183	-7.02829	-0.48712
PMSB-BWBK-SB-SO14-0105-PM	2.1839281	1.6146	-0.44422	0.02439	0.84978	-0.30092	4526.6806	1.74472	-0.1019	-0.36388	-7.35893	-0.90967
PMSS-DABK-S-SO21-0001	3.4040976	0.19928	1.91141	-1.56691	0.37132	-0.34127	1758.1216	0.2067	1.33717	-2.70076	-0.77407	-1.35527
PMSS-DABK-S-SO22-0001	4.0089619	0.47501	3.03693	-1.36741	-0.39013	-0.21761	1230.351	0.49268	2.02578	-2.40447	2.88867	-1.02709
PMSS-DABK-S-SO23-0001	3.2570278	0.11285	1.58322	-0.23834	-0.59819	-0.10164	1425.992	0.06751	1.20875	-0.42913	3.12158	-0.60483
PMSS-DABK-S-SO24-0001	3.6450956	0.18213	2.27698	-0.67956	0.578	0.25741	2074.9862	0.20992	1.43509	-0.98852	-1.60374	0.52613
PMSS-DABK-S-SO25-0001	3.6379306	0.4981	2.09607	0.2825	2.01069	0.77606	3882.7873	0.52726	1.44236	0.673	-10.6082	2.05197
PMSS-DABK-S-SO26-0001	3.8222704	0.51922	2.57818	-0.634	-0.25604	-0.41831	1777.6782	0.50176	1.86334	-1.20671	0.92221	-1.65181
PMSS-DABK-S-SO27-0001	3.335541	-0.16112	1.75411	-0.75687	-0.50892	-0.2707	1056.6634	-0.24171	1.36995	-1.31576	3.12628	-1.19813
PMSS-DABK-S-SO28-0001	3.8049132	0.30827	2.82398	-1.84991	-1.10145	0.0492	390.34327	0.31104	1.86564	-3.32323	6.83487	-0.18059
PMSS-DABK-S-SO29-0001	3.8980336	0.07587	2.67846	0.19977	-0.70497	0.00484	1220.9458	0.03752	1.78091	0.46122	4.1184	-0.28623
PMSS-DABK-S-SO30-0001	3.8088525	0.07688	2.65837	-0.39451	-1.39971	0.04208	406.05436	0.07467	1.65731	-0.54517	8.79005	-0.11311
PMSS-DABK-S-SO31-0001	3.1618519	-0.31703	1.6046	-1.38156	-0.14057	0.63647	976.2435	-0.32329	0.92068	-2.2823	2.72251	1.78886
PMSS-DABK-S-SO32-0001	4.0177876	0.59105	3.23157	-1.74967	-0.94039	0.46138	691.35016	0.60068	2.209	-3.1934	5.46149	0.98112
PMSS-DABK-S-SO33-0001	3.6906942	-0.30881	2.57728	-1.23595	-1.94282	-0.07928	-543.552	-0.37997	1.67724	-2.18529	11.4327	-0.51797
PMSS-DABK-S-SO34-0001	3.1030629	-0.2334	1.55291	-1.46485	-0.50178	0.71975	711.68859	-0.24939	0.98256	-2.47438	4.43347	1.97706
PMSS-DABK-S-SO35-0001	3.2647936	-0.03701	1.73234	-1.04349	-0.37917	0.33156	1175.2694	-0.09113	1.28174	-1.88037	2.3316	0.69258
PMSS-DABK-S-SO36-0001	3.1154185	-0.69698	1.34207	-0.34327	-0.31516	0.23067	971.01609	-0.8262	1.04679	-0.50891	2.30309	0.39421
PMSS-DABK-S-SO37-0001	3.4327151	-0.20314	1.9613	-0.63692	0.15904	0.60408	1521.1713	-0.21469	1.1639	-0.95663	0.52031	1.6709
PMSS-DABK-S-SO38-0001	3.0769373	-0.54326	1.46696	-1.27474	-0.47288	0.68451	578.62049	-0.60293	0.94577	-2.12579	4.20115	1.86557
PMSS-DABK-S-SO39-0001	2.9586772	-0.21466	1.11037	-0.57605	0.29764	0.64844	1776.277	-0.22142	0.67386	-0.83736	-0.19331	1.83027
PMSS-DABK-S-SO40-0001	3.2234019	-0.43043	1.68671	-0.98657	-0.66323	0.52138	591.85356	-0.47559	1.0368	-1.61804	5.06212	1.40427
SESB-BWBK-SB-SO03-0108	2.1844938	2.00524	-0.52064	0.96381	0.23696	-0.42576	4749.1568	2.11593	0.02175	1.11172	-5.92915	-1.34012
SESB-BWBK-SB-SO04-0108	2.2577041	1.56558	-0.27296	-0.3125	0.79387	-0.34979	4255.963	1.7119	-0.0492	-0.88754	-6.32411	-1.05612
SESB-BWBK-SB-SO05-0106	2.3601482	1.29548	-0.17974	0.48459	0.51902	-0.3382	4049.3117	1.40332	-0.00249	0.59053	-4.95666	-1.01094
SESB-BWBK-SB-SO06-0108	2.4144491	1.79379	-0.10743	0.64104	0.78439	-0.30286	4822.916	1.89815	0.21574	0.61971	-8.22666	-0.97746
SESB-BWBK-SB-SO07-0106	2.1672874	1.67643	-0.29573	-0.75482	0.15721	-0.14002	3628.1251	1.8313	-0.00756	-1.69708	-2.68029	-0.47259
SESB-BWBK-SB-SO08-0107	2.3793954	1.85943	-0.10921	0.53973	0.33037	-0.23004	4458.2229	1.96918	0.2221	0.4148	-5.79425	-0.75942
SESB-BWBK-SB-SO09-0106	2.3523084	1.21224	-0.14611	0.20109	0.31956	-0.36335	3757.5523	1.30445	0.01465	0.02023	-4.06247	-1.07659
SESB-BWBK-SB-SO11-0106	2.1654325	1.66011	-0.43313	0.39151	0.20512	0.01846	4203.8307	1.75952	-0.03418	0.1443	-4.96557	0.05672
SESB-BWBK-SB-SO12-0106	2.2161008	1.60736	-0.3496	-0.29811	0.92711	-0.28207	4420.7298	1.75429	-0.0766	-0.87768	-7.18327	-0.85781
SESB-BWBK-SB-SO15-0103	2.4167637	0.58995	0.06382	-0.14086	0.2525	0.16124	2891.3548	0.67261	-0.03324	-0.3128	-1.62784	0.55583
SESB-BWBK-SB-SO16-0105	2.0818668	1.04101	-0.52473	-0.60877	0.59817	-0.19291	3535.1595	1.18295	-0.37921	-1.23177	-3.74004	-0.48165
SESB-BWBK-SB-SO17-0106	2.0934254	0.65757	-0.43721	-0.65376	-0.35626	-0.23049	2385.7176	0.75816	-0.35072	-1.27654	1.82654	-0.59117
SESB-BWBK-SB-SO18-0105	2.1179483	0.41003	-0.29495	-0.86471	-0.94583	0.02726	1585.8366	0.48689	-0.30218	-1.64793	5.29291	0.20398
SESB-BWBK-SB-SO19-0104	2.3803762	0.82682	0.35603	-1.68243	-1.48014	0.25125	1134.2423	0.93578	0.11522	-3.26777	7.73322	0.84754
SESB-BWBK-SB-SO20-0104	2.070465	1.33579	-0.52751	-0.66794	0.74514	-0.08303	3898.0389	1.48473	-0.27576	-1.43724	-5.22794	-0.20928
SESS-DABK-S-SO01-0001	2.9998402	-0.29314	0.91751	0.64038	0.18789	-0.29419	2119.6885	-0.31857	0.55549	1.38016	-0.05225	-0.98749
SESS-DABK-S-SO02-0001	3.2691804	1.17888	1.61383	0.54643	-1.8615	-0.26122	1587.9196	1.19871	1.36427	0.69433	7.82114	-1.10288
SESS-DABK-S-SO03-0001	3.4819684	-0.55962	1.82398	0.06238	0.53255	-0.17026	1885.3615	-0.66368	1.25937	0.24919	-2.41127	-0.77834
SESS-DABK-S-SO04-0001	3.6069272	-0.26792	1.98189	0.99969	-0.55518	-0.46753	1404.082	-0.30165	1.22911	2.1032	4.25769	-1.60667
SESS-DABK-S-SO05-0001	3.2498179	-0.35857	1.42084	0.12144	0.50983	-0.11179	2048.8472	-0.41396	0.97856	0.43999	-1.74035	-0.57101
SESS-DABK-S-SO06-0001	3.7848622	1.02345	2.33552	0.53642	1.79609	0.62212	4327.5065	1.07923	1.59057	0.87424	-11.1365	1.64684
SESS-DABK-S-SO07-0001	3.15385	0.02258	1.32048	0.24657	-1.18047	-0.61125	1179.1297	-0.0418	1.00339	0.35337	5.60273	-2.05757
SESS-DABK-S-SO08-0001	3.0833051	0.12751	1.19177	0.04661	-0.05088	-0.1371	2084.1317	0.08666	0.9525	0.06942	-0.11853	-0.664
SESS-DABK-S-SO09-0001	3.1119862	-0.2089	1.11627	-0.03631	1.46548	-0.18926	3006.2612	-0.24625	0.80146	0.11418	-7.21013	-0.78683

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	LEAD						MAGNESIUM					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	0.9770973	-2.79426	-2.4977	-2.14011	-1.94282	-0.77004	-543.552	-3.02048	-1.86093	-3.70391	-11.9754	-2.31605
MAXIMUM DOMAIN VALUE	4.0177876	2.00524	3.23157	2.21616	2.08483	0.84139	5413.2433	2.11593	2.209	4.3542	12.967	2.44642
SAMPLE	**PB_log pre**	D1	D2	D3	D4	D5	**MG predict**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	3.0548281	-0.45679	0.92396	0.42218	2.08483	0.01416	3245.1296	-0.42716	0.47732	1.41362	-7.7906	-0.11039
SESS-DABK-S-SO11-0001	2.7884783	-1.12259	0.86518	-1.47114	-0.63483	-0.26613	-106.0322	-1.15997	0.37313	-2.1074	7.71397	-0.9135
SESS-DABK-S-SO12-0001	3.1358676	-0.55971	1.33809	-0.17675	-0.59193	-0.13611	924.69429	-0.62472	0.82431	-0.14186	4.36725	-0.54974
SESS-DABK-S-SO13-0001	2.7449043	0.01775	0.53575	-0.63086	0.82284	-0.74601	2599.1369	0.05243	0.28454	-0.96344	-3.17614	-2.31605
SESS-DABK-S-SO14-0001	2.6237356	-0.31367	0.31496	-0.56037	1.29748	-0.3374	2776.417	-0.35456	0.31468	-0.87257	-6.20961	-1.19013
SESS-DABK-S-SO15-0001	3.3644281	-0.48073	1.66536	-0.37954	0.82614	-0.06453	1809.6682	-0.46363	0.92681	-0.10299	-0.86255	-0.38892
SESS-DABK-S-SO16-0001	2.7152412	-1.35734	0.69225	-1.08653	-0.19583	0.13046	190.48008	-1.40258	0.18715	-1.33488	5.64499	0.3493
SESS-DABK-S-SO17-0001	3.3185892	-1.11135	1.73376	-0.56252	0.40942	0.84139	810.36199	-1.15628	0.91399	-0.36374	2.01735	2.36867
SESS-DABK-S-SO18-0001	2.8540931	-0.45501	0.94942	-1.0672	-0.57734	-0.20744	882.88868	-0.53046	0.67225	-1.92389	3.6144	-0.78431
SESS-DABK-S-SO19-0001	3.110807	0.25309	1.35126	-0.06957	-1.34193	-0.22752	1114.8793	0.16977	1.22033	-0.34207	5.71072	-1.03343
SESS-DABK-S-SO20-0001	3.4454015	0.29649	1.75895	0.98706	-0.66628	-0.16847	2086.5338	0.1889	1.45951	1.46277	0.77569	-0.81892

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MANGANESE

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342

5.4073	**Mean**
0.6954	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1289	0.0728	0.7328	-0.4066	-0.0439	
AS_log	-0.0407	0.1679	-0.2096	0.2602	0.0248	
BA	0.0004	0.1055	0.0745	-0.3070	-0.0208	
CR	0.0410	0.0551	0.2158	-0.3158	-0.0345	
CO_log	0.2705	0.3117	-0.8154	-1.0115	-0.3827	
FE_log	0.2963	-0.2439	0.5418	2.2908	-0.1901	
PB_log	-0.0482	0.2633	-0.0320	0.1701	0.0514	
MG	0.0690	-0.1394	0.1877	-0.6620	-0.0013	
MN_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NI_log	0.3584	-0.4005	0.4205	0.1599	0.4336	
V	-0.0448	0.3266	-0.1707	-0.1808	-0.0347	
ZN_log	0.1407	0.2485	-0.4844	-0.4295	0.2858	

NICKEL

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037

2.4586	**Mean**
0.4708	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1945	0.0494	22.8714	-0.2529	0.0083	
AS_log	-0.0613	0.1138	-6.5411	0.1618	-0.0047	
BA	0.0007	0.0715	2.3262	-0.1909	0.0040	
CR	0.0618	0.0373	6.7357	-0.1964	0.0066	
CO_log	0.4082	0.2113	-25.4505	-0.6291	0.0727	
FE_log	0.4471	-0.1653	16.9105	1.4247	0.0361	
PB_log	-0.0728	0.1785	-0.9988	0.1058	-0.0098	
MG	0.1041	-0.0945	5.8591	-0.4117	0.0002	
MN_log	0.0758	-0.0241	-0.8070	-0.0640	0.0218	
NI_log	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
V	-0.0677	0.2214	-5.3262	-0.1125	0.0066	
ZN_log	0.2123	0.1684	-15.1183	-0.2671	-0.0543	

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3.70392774	-2.95248	-2.15588	-2.15431	-3.3248	-0.81051	-1.026013	-3.04021	-1.72773	-62.3059	-1.89011	-0.25304
MAXIMUM DOMAIN VALUE	6.71890286	2.1583	2.64772	2.22155	3.67855	0.53524	6.559877	2.00669	1.75882	71.6793	2.27155	0.19281
SAMPLE	MN_log prec	D1	D2	D3	D4	D5	NI_log prec	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	4.91512442	-1.1268	-1.79995	-0.92738	0.05705	0.09598	1.428676	-0.96967	-1.59674	-9.3061	0.22607	-0.15369
BASS-BWBK-SS-BA102-0001	4.72733064	-1.47206	-1.8996	-1.23176	-0.08597	0.0637	0.8890736	-1.37507	-1.72773	-14.9721	0.18869	-0.17816
BASS-BWBK-SS-BA103-0001	4.80884559	-1.32408	-1.85381	-1.14737	-0.23076	0.06884	0.9459665	-1.25007	-1.64603	-14.9734	0.0732	-0.161
BASS-BWBK-SS-BA104-0001	5.02292563	-0.94058	-1.68359	-1.01775	-0.60681	0.1001	0.96474	-0.92075	-1.40496	-17.0808	-0.20954	-0.12765
BASS-BWBK-SS-BA105-0001	4.95903662	-1.06791	-1.68873	-1.43638	-0.0063	0.13033	0.2919522	-0.9844	-1.47123	-27.3518	0.17805	-0.1489
BASS-BWBK-SS-BA106-0001	5.12822644	-0.83102	-1.758	-0.84244	-0.5	0.29069	1.1516648	-0.85222	-1.40339	-14.6061	-0.18	-0.14095
BASS-BWBK-SS-BA107-0001	4.71615143	-1.48673	-1.80738	-1.23039	-0.13849	0.07005	0.8810793	-1.39204	-1.66687	-14.9842	0.15166	-0.17788
BASS-BWBK-SS-BA108-0001	4.76940214	-1.41947	-1.83271	-1.22611	-0.41128	0.11813	0.7682742	-1.37772	-1.64066	-16.8946	-0.03193	-0.17463
BASS-BWBK-SS-BA109-0001	5.11921551	-0.91579	-2.15588	-0.7571	-0.81958	0.35077	1.1646196	-1.05077	-1.64139	-12.9398	-0.37065	-0.15065
BASS-BWBK-SS-BA110-0001	5.08234174	-0.7966	-1.83745	-0.54716	-0.40443	0.01783	1.854096	-0.75034	-1.48275	-4.09264	-0.10885	-0.09778
BASS-BWBK-SS-BA111-0001	4.82316307	-1.28924	-1.84821	-1.01863	-0.19533	0.05919	1.2196717	-1.18893	-1.64497	-11.0467	0.088	-0.1567
BASS-BWBK-SS-BA112-0001	4.75651424	-1.38415	-1.89032	-1.0021	-0.17563	-0.00766	1.3957209	-1.23135	-1.72496	-7.92181	0.12359	-0.16141
BASS-BWBK-SS-BA113-0001	5.01033837	-1.10938	-1.14623	-2.15431	-0.66508	0.49405	-0.825653	-0.91352	-1.17422	-45.8251	-0.18663	-0.24716
MASB-BWBK-SB-MA01-0105	6.22884908	1.33835	-0.33948	-0.21633	0.40338	0.24822	1.4777977	1.52281	0.06064	-26.6436	-0.07127	0.12743
MASB-BWBK-SB-MA02-0107	6.32142816	1.48564	-0.51257	0.41481	-0.05235	0.27393	2.6800742	1.54421	0.02204	-7.63499	-0.26847	0.10037
MASB-BWBK-SB-MA03-0108	6.49206354	1.80595	-0.21145	-1.21329	0.30886	0.213	-0.472789	1.99498	0.25294	-61.2205	-0.10812	0.1419
MASB-BWBK-SB-MA04-0106	6.39865858	1.5563	-0.46278	0.42526	-1.00524	0.40042	2.6502347	1.6323	0.0705	-8.78269	-0.89464	0.09207
MASB-BWBK-SB-MA05-0108	6.22039642	1.29208	-0.29798	-0.08948	0.48767	0.34611	1.7078659	1.29423	0.1411	-21.3594	0.10438	0.06769
MASB-BWBK-SB-MA06-0105	6.21991571	1.27248	-0.48455	0.15304	-0.0663	0.33582	2.2011486	1.27256	0.00925	-13.3261	-0.23067	0.06501
MASB-BWBK-SB-MA07-0108	6.09033636	1.06061	-0.65026	0.05651	1.65963	0.32889	2.1751919	1.05709	-0.16417	-12.1464	0.91085	0.02945
MASB-BWBK-SB-MA08-0108	6.4384218	1.85954	0.07431	1.23327	2.12543	0.18928	4.3688427	2.00582	0.46843	15.963	1.08305	0.12524
MASB-BWBK-SB-MA09-0108	6.24981219	1.41977	-0.12491	-0.29993	2.22935	0.28146	1.4412529	1.53516	0.23725	-27.3377	1.17934	0.07995
MASB-BWBK-SB-MA10-0104	5.94799543	0.89992	-0.51917	-0.74061	2.35147	0.11152	0.9383293	1.01738	-0.17989	-31.5771	1.39395	0.03321
MASB-BWBK-SB-MA11-0108	6.28717124	1.45249	-0.07184	0.17514	1.00704	0.34762	2.2768079	1.49927	0.3118	-13.7805	0.427	0.07029
MASB-BWBK-SB-MA12-0108	6.40111838	1.65651	-0.26782	-0.1694	1.10705	0.28243	1.553217	1.73973	0.2174	-27.0399	0.45117	0.10394
MASB-BWBK-SB-MA13-0105	5.46171687	0.10898	-0.10024	-0.42442	-0.83944	-0.12458	1.5954869	0.06758	-0.02638	-14.2607	-0.50054	0.02158
MASB-BWBK-SB-MA14-0104	5.8786615	0.98079	0.32071	0.38416	1.21289	-0.15975	2.9756043	1.10084	0.42081	0.30173	0.61132	0.11955
MASB-BWBK-SB-MA15-0105	5.62141696	0.51733	0.29553	0.42289	0.46842	-0.19589	3.0451112	0.54481	0.32943	5.43937	0.18797	0.09889
MASB-BWBK-SB-MA16-0104	5.7239575	0.58168	-0.0698	-0.7329	0.59597	-0.07177	0.948511	0.71965	0.04561	-29.2787	0.26597	0.07014
MASB-BWBK-SB-MA17-0104	5.50775122	0.28434	0.15509	-0.33987	0.27571	-0.22361	1.9566022	0.46119	0.09692	-11.3306	0.13315	0.05657
MASB-BWBK-SB-MA18-0104	5.4966862	0.16862	0.11264	0.1895	-1.0648	-0.03443	2.6396974	0.08055	0.1605	2.28525	-0.67682	0.0256
MASB-BWBK-SB-MA19-0103	5.42195468	-0.01414	-0.14358	-0.62003	-0.40328	-0.00217	1.145022	-0.00679	-0.0946	-20.8941	-0.30393	0.02211
MASB-BWBK-SB-MA20-0103	6.16983426	1.20837	-0.47827	-0.36057	0.33219	0.25933	1.2458808	1.17702	0.0052	-27.8698	0.06029	0.06097
MASS-BWBK-SS-MA01-0001	4.4307578	-1.78742	0.06693	-0.6952	-1.74828	-0.03652	1.7075248	-1.95538	-0.35771	2.12219	-0.77949	-0.17956
MASS-BWBK-SS-MA02-0001	4.84196004	-1.15613	0.27169	0.64536	-3.3248	0.28162	3.63545	-1.54196	0.05726	29.8269	-1.89011	-0.14458
MASS-BWBK-SS-MA03-0001	4.91670578	-0.91762	-0.03965	-0.10338	-0.22293	0.06253	2.5122108	-1.05619	-0.21148	8.48207	0.03183	-0.10912
MASS-BWBK-SS-MA04-0001	5.17991325	-0.54786	-0.15756	0.17808	-1.3042	0.24462	2.7363745	-0.75176	-0.15737	9.83133	-0.72505	-0.0889
MASS-BWBK-SS-MA05-0001	5.55559269	0.16654	0.11519	0.60059	-0.98211	0.25825	3.3718148	-0.01003	0.19776	14.5774	-0.59486	-0.03669
MASS-BWBK-SS-MA06-0001	5.3763648	-0.01361	0.66471	1.4679	-0.68927	0.12654	5.0344966	-0.18189	0.52911	42.3524	-0.445	-0.00518
MASS-BWBK-SS-MA07-0001	3.70392774	-2.95248	-0.31343	-0.93762	1.13268	-0.32827	1.8886446	-3.04021	-0.96442	12.9786	1.1975	-0.25304
MASS-BWBK-SS-MA08-0001	5.12711044	-0.38339	0.92441	-0.30432	1.32981	-0.02041	2.083957	-0.38434	0.52095	-3.25149	0.90793	-0.04508
MASS-BWBK-SS-MA09-0001	5.46852777	0.18957	1.75804	1.19596	-2.02544	0.20676	4.3714492	0.00928	1.33224	30.2698	-1.32062	0.00719
MASS-BWBK-SS-MA10-0001	5.46870091	0.1874	1.34432	0.47797	-0.58118	0.13732	3.1825879	0.12592	0.99301	10.5135	-0.4079	0.00535
MASS-BWBK-SS-MA11-0001	5.44456034	0.29609	1.31057	0.87726	-0.04681	-0.17942	4.1349445	0.35173	0.94096	24.1274	-0.07445	0.06053
MASS-BWBK-SS-MA12-0001	5.3636941	-0.3112	-0.37603	0.64376	0.05873	0.51887	3.5053758	-0.57172	-0.22041	20.7985	0.11149	-0.12325
MASS-BWBK-SS-MA13-0001	4.93771377	-0.69761	0.8428	0.77015	-1.00999	-0.14375	4.1798878	-0.79982	0.42838	33.1866	-0.49288	-0.04925
MASS-BWBK-SS-MA14-0001	4.61204641	-1.40348	1.01534	-0.48567	-1.42342	0.0786	1.8054797	-1.59753	0.40821	1.02596	-0.68476	-0.13915
MASS-BWBK-SS-MA15-0001	4.62260596	-1.33985	0.7898	0.29679	-1.31799	-0.02072	3.3217383	-1.58041	0.28653	25.1243	-0.58685	-0.12833
MASS-BWBK-SS-MA16-0001	4.97105544	-0.73746	0.46698	0.01093	0.69734	0.03946	2.6711038	-0.88469	0.18152	9.75408	0.58981	-0.0912
MASS-BWBK-SS-MA17-0001	5.02607044	-0.569	0.69131	-0.1685	-0.26945	-0.13723	2.3437694	-0.59942	0.33087	2.46387	-0.07769	-0.03151
MASS-BWBK-SS-MA18-0001	4.78966724	-1.05799	0.83801	-0.27086	0.43756	0.08255	2.1262558	-1.2792	0.38424	3.87812	0.46689	-0.12251
MASS-BWBK-SS-MA19-0001	5.02174254	-0.57031	0.9006	-0.24522	-0.15622	-0.10281	2.1469537	-0.63949	0.48948	-0.40681	-0.00108	-0.0379
MASS-BWBK-SS-MA20-0001	5.40065456	-0.05257	0.34764	-0.16405	0.34673	0.18581	1.9747185	-0.16701	0.27598	-6.55655	0.21986	-0.03068
MMSB-BWBK-SB-MM101-0110	5.56329751	0.23025	-0.7055	-0.71525	0.21218	-0.08884	1.1465689	0.34918	-0.47314	-23.3969	0.09943	0.0307
MMSB-BWBK-SB-MM102-0109	5.8392511	0.55481	-1.10126	0.19611	-1.32276	0.21253	2.2740552	0.37845	-0.51282	-5.63696	-0.92546	0.03742
MMSB-BWBK-SB-MM103-0107	5.64201894	0.42485	-0.54721	-1.1858	-1.34669	-0.29303	0.1763868	0.56163	-0.32312	-40.4288	-0.89603	0.08662
MMSB-BWBK-SB-MM104-0110	5.79896545	0.73679	-0.5994	0.64342	-1.09347	-0.23483	3.9856836	1.04284	-0.36346	16.8606	-0.7383	0.07468
MMSB-BWBK-SB-MM105-0110	5.28541505	-0.32925	-0.86631	-1.1674	0.09219	-0.01858	0.233427	-0.35811	-0.65798	-32.841	0.08959	-0.0205
MMSB-BWBK-SB-MM106-0110	5.91032409	0.82733	-0.5106	0.9919	-2.33313	0.00952	4.2508319	0.97144	-0.19293	21.5665	-1.58059	0.07411
MMSB-BWBK-SB-MM107-0110	5.51873485	0.16992	-0.7007	-0.41344	-1.11844	-0.18125	1.817569	0.29535	-0.49256	-12.3163	-0.69894	0.03303
MMSB-BWBK-SB-MM108-0110	5.46535637	0.06494	-0.75442	-0.41607	-0.61389	-0.1461	1.8219215	0.17342	-0.54812	-11.3546	-0.37378	0.01879
MMSB-BWBK-SB-MM109-0110	5.57856941	0.31397	-0.35872	0.34094	-1.17421	-0.13734	3.0224413	0.34541	-0.17342	6.52735	-0.78328	0.05828
MMSB-BWBK-SB-MM110-0109	5.50724023	0.16923	-0.59762	0.17601	-0.60768	-0.13633	2.8540926	0.23314	-0.39241	4.67507	-0.39023	0.03282
MMSB-BWBK-SB-MM111-0110	5.64208913	0.38359	-0.68254	0.35427	-0.47922	-0.07125	3.1125169	0.45524	-0.39599	7.19281	-0.34625	0.0433
MMSB-BWBK-SB-MM112-0110	5.65824541	0.4173	-0.7794	0.5835	-0.58679	-0.09468	3.4211013	0.52997	-0.4561	11.6092	-0.50642	0.08598
MMSB-BWBK-SB-MM113-0110	5.75354475	0.50312	-0.9027	0.41597	-1.71759	0.01032	3.1054958	0.5237	-0.48992	6.57012	-1.13208	0.04274
MMSB-BWBK-SB-MM114-0110	5.34619883	-0.20349	-0.86657	-0.6456	-0.50593	-0.05219	1.1424586	-0.22977	-0.62091	-19.2605	-0.32946	0.01059

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3.70392774	-2.95248	-2.15588	-2.15431	-3.3248	-0.81051	-1.026013	-3.04021	-1.72773	-62.3059	-1.89011	-0.25304
MAXIMUM DOMAIN VALUE	6.71890286	2.1583	2.64772	2.22155	3.67855	0.53524	6.559877	2.00669	1.75882	71.6793	2.27155	0.19281
SAMPLE	MN_log prec	D1	D2	D3	D4	D5	NI_log prec	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	5.36682323	-0.02135	-0.43927	0.26184	-2.05391	-0.31363	3.3690266	0.21894	-0.41697	12.9769	-1.26915	0.03762
MMSB-BWBK-SB-MM116-0110	5.64825356	0.30521	-0.8348	-0.3018	-0.99068	0.03417	1.8249303	0.37756	-0.51691	-12.8009	-0.67165	0.02341
MMSB-BWBK-SB-MM117-0110	5.41259189	-0.05468	-0.94484	-1.21904	-0.20283	-0.16758	0.2499373	0.04395	-0.70123	-35.4737	-0.11746	0.01883
MMSB-BWBK-SB-MM118-0110	6.0288342	0.7675	-1.17802	-0.46709	-0.99485	0.46909	0.5514988	0.49688	-0.44877	-33.9805	-0.83916	0.05397
MMSB-BWBK-SB-MM119-0110	5.57798807	0.20039	-0.92757	-0.44301	-0.59627	-0.02855	1.6776124	0.31482	-0.62881	-14.6785	-0.40251	0.01809
MMSB-BWBK-SB-MM120-0110	5.04816399	-0.66203	-1.11568	-1.48505	-0.09571	-0.33232	0.07275	-0.52026	-0.99935	-34.1837	0.04471	-0.01672
MMSS-BWBK-SS-MM101-0001	4.95770433	-0.68759	0.24327	1.79645	0.38025	-0.07923	5.9543185	-0.84562	0.06224	61.9193	0.30691	-0.02925
MMSS-BWBK-SS-MM102-0001	4.84671957	-0.96967	-0.56293	0.9241	1.17921	-0.09241	4.4074593	-1.08951	-0.57527	39.0791	0.83653	-0.05414
MMSS-BWBK-SS-MM103-0001	4.89833117	-0.77754	0.21591	1.54659	0.95691	-0.11369	5.5008624	-0.93863	0.02112	55.3733	0.67976	-0.03193
MMSS-BWBK-SS-MM104-0001	5.09556061	-0.45062	0.16973	1.45482	0.17399	-0.10708	5.219703	-0.58516	0.06423	48.3169	0.1436	-0.00179
MMSS-BWBK-SS-MM105-0001	4.63250265	-1.28303	-0.14396	0.11369	0.99322	-0.23043	3.0719824	-1.35069	-0.40132	19.6336	0.78076	-0.06915
MMSS-BWBK-SS-MM106-0001	5.09651191	-0.39663	0.14853	1.44532	-0.27143	-0.26105	5.3466304	-0.44591	0.02128	49.3431	-0.12512	0.01967
MMSS-BWBK-SS-MM107-0001	5.06990252	-0.52906	-0.05588	1.94391	-0.05439	-0.05947	6.1890244	-0.67888	-0.10259	64.4708	0.01468	-0.01827
MMSS-BWBK-SS-MM108-0001	4.71847994	-1.08655	0.20858	1.98686	0.46155	-0.14172	6.3371549	-1.34776	-0.01876	71.6793	0.41688	-0.05018
MMSS-BWBK-SS-MM109-0001	4.76662034	-1.00624	-0.20444	1.74184	0.71606	-0.22963	5.9889212	-1.17256	-0.32345	64.8983	0.57201	-0.03609
MMSS-BWBK-SS-MM110-0001	4.21627074	-2.00397	-0.2913	0.36883	1.44838	-0.28487	3.8918586	-2.08588	-0.68827	38.0606	1.18481	-0.13661
MMSS-BWBK-SS-MM111-0001	4.35200838	-1.76314	-0.40411	0.65208	0.87215	-0.31468	4.3339573	-1.84215	-0.70127	43.357	0.78559	-0.10462
MMSS-BWBK-SS-MM112-0001	4.25731445	-2.04834	-0.43032	0.29114	1.32714	-0.04651	3.6637825	-2.1797	-0.7695	35.0777	1.10722	-0.179
MMSS-BWBK-SS-MM113-0001	4.62279912	-1.28505	0.2718	1.35966	0.84928	-0.08711	5.318978	-1.46591	-0.06575	56.2763	0.68464	-0.08531
MMSS-BWBK-SS-MM114-0001	4.24954936	-2.04415	-0.65892	-0.17132	0.75612	-0.20646	2.9031867	-2.0822	-0.96705	22.2615	0.75135	-0.15499
MMSS-BWBK-SS-MM115-0001	4.42756897	-1.72479	-0.55744	0.67023	1.58062	-0.08031	4.3031272	-1.78663	-0.79661	42.4632	1.18444	-0.1311
MMSS-BWBK-SS-MM116-0001	4.34041477	-1.79827	-0.34749	0.14164	1.18226	-0.28747	3.4405711	-1.81214	-0.70161	28.8787	0.97718	-0.11536
MMSS-BWBK-SS-MM117-0001	4.85021489	-0.90848	-0.10509	1.19663	0.6461	-0.12354	4.9345938	-1.04367	-0.2451	47.1135	0.51577	-0.04943
MMSS-BWBK-SS-MM118-0001	5.10047371	-0.51933	-0.79359	-0.12351	-0.23093	-0.28291	2.4534202	-0.50798	-0.68076	3.69236	-0.06766	0.00094
MMSS-BWBK-SS-MM119-0001	5.06091634	-0.6675	-1.02513	-0.36288	-0.1295	-0.16437	1.8574685	-0.74183	-0.83208	-4.11254	-0.00896	-0.01896
MMSS-BWBK-SS-MM120-0001	5.17972657	-0.31816	-0.67269	0.09773	1.67179	-0.28268	3.0493584	-0.19596	-0.60387	10.9554	1.12173	-0.00232
NESB-BWBK-SB-NE01-0108	6.04887386	1.03005	-0.93973	1.03561	-0.86337	0.09599	4.0732513	1.04808	-0.37325	18.2282	-0.68336	0.08175
NESB-BWBK-SB-NE02-0109	5.98291713	0.92576	-0.7388	0.6111	-0.97562	0.07395	3.3065592	1.02765	-0.29437	6.13733	-0.7917	0.09238
NESB-BWBK-SB-NE03-0105	5.80483002	0.6571	-0.94455	0.58977	0.38163	-0.02843	3.3948402	0.6926	-0.4841	10.0131	0.14879	0.06535
NESB-BWBK-SB-NE04-0110	5.82513402	0.65069	-0.89152	0.31191	-0.48612	0.02257	2.845457	0.69748	-0.45278	1.18602	-0.40316	0.05985
NESB-BWBK-SB-NE05-0108	5.97798982	0.90626	-0.92832	0.68468	-0.3636	0.09125	3.4571493	0.93417	-0.40307	9.22836	-0.3537	0.06922
NESB-BWBK-SB-NE06-0109	5.90913741	0.7817	-0.96541	0.26081	-0.13113	0.06666	2.6551043	0.795	-0.4541	-2.55254	-0.19236	0.06311
NESB-BWBK-SB-NE07-0107	6.00369153	0.94177	-0.88284	1.00719	-0.61354	0.13764	3.9857933	0.90746	-0.33458	17.8443	-0.50923	0.06634
NESB-BWBK-SB-NE08-0104	5.75501381	0.52785	-0.87599	0.04543	-0.38411	0.00546	2.2615575	0.48687	-0.4356	-6.60459	-0.31082	0.05258
NESB-BWBK-SB-NE09-0110	5.85762047	0.70079	-0.98894	0.24855	-0.20139	0.02911	2.7422839	0.75887	-0.51294	-0.89651	-0.22164	0.05775
NESB-BWBK-SB-NE10-0107	5.54397859	0.22942	-0.45126	0.5109	-0.74087	-0.07087	3.3865634	0.24489	-0.25279	13.0688	-0.49172	0.0342
NESB-BWBK-SB-NE101-0110	5.47462486	0.15257	-0.47492	0.76214	-1.32219	-0.20231	3.8966254	0.16246	-0.28614	21.8167	-0.84436	0.0529
NESB-BWBK-SB-NE102-0110	5.32616246	-0.15566	-0.55298	0.38866	-1.61904	-0.16192	3.2466313	-0.16228	-0.4107	13.792	-0.99652	0.02098
NESB-BWBK-SB-NE103-0110	5.22372591	-0.3504	-0.78122	-0.06539	-1.00031	-0.19026	2.476505	-0.34188	-0.62506	2.83249	-0.57776	0.00341
NESB-BWBK-SB-NE104-0110	5.14860778	-0.48956	-0.88299	-0.56992	-0.83691	-0.23137	1.6018355	-0.46429	-0.74096	-10.2276	-0.44349	-0.00921
NESB-BWBK-SB-NE105-0110	5.44877735	0.08513	-0.4837	0.47047	-1.04647	-0.16052	3.4233061	0.16736	-0.33998	14.2302	-0.68481	0.04222
NESB-BWBK-SB-NE106-0110	5.43592234	0.01831	-0.68506	0.21182	-1.30093	-0.13474	2.8581803	0.02785	-0.46236	6.22796	-0.82047	0.03048
NESB-BWBK-SB-NE107-0510	5.23480006	-0.33137	-0.97697	-0.37969	-0.62137	-0.23772	2.1299317	-0.18583	-0.82204	-3.81202	-0.31646	-0.00793
NESB-BWBK-SB-NE108-0110	5.28966906	-0.15354	-0.59433	0.19388	-1.20286	-0.32643	3.061555	-0.07203	-0.48445	10.209	-0.71037	0.03414
NESB-BWBK-SB-NE109-0110	5.29600015	-0.17138	-0.67719	0.26826	-1.1809	-0.26958	3.1716177	-0.10663	-0.53608	12.2173	-0.70185	0.0261
NESB-BWBK-SB-NE110-0110	5.29364176	-0.15875	-0.65327	0.08998	-1.2329	-0.31977	2.8980678	-0.04806	-0.53874	7.42955	-0.73229	0.03192
NESS-BKG-SS03-NEB-0016	5.17100021	-0.35389	1.09246	0.91072	-0.43368	0.13401	4.0425702	-0.52506	0.73413	28.981	-0.25807	-0.03112
NESS-BKG-SS09-NEB-0018	4.73286632	-1.04633	0.46366	0.42015	0.27342	-0.23752	3.6052154	-1.07773	0.05828	26.11	0.28683	-0.04178
NESS-BWBK-SS-NE01-0001	5.52006356	0.25439	0.96476	1.50889	-0.86927	0.1666	5.1268723	0.18082	0.76106	41.1684	-0.60737	0.01188
NESS-BWBK-SS-NE02-0001	5.77707912	0.51265	0.53572	1.0921	-0.59768	0.53524	4.171531	0.37701	0.56204	24.4813	-0.4441	-0.04154
NESS-BWBK-SS-NE03-0001	5.21029359	-0.28208	0.19259	1.86736	0.24166	0.02054	5.8995447	-0.45289	0.14119	58.1912	0.16207	-0.00695
NESS-BWBK-SS-NE04-0001	5.44613257	0.18216	0.12064	1.73273	-0.96286	-0.16699	5.54314	0.07314	0.18556	48.7055	-0.65004	0.06854
NESS-BWBK-SS-NE05-0001	5.31491663	-0.13958	0.46166	1.2735	-0.3333	0.12064	4.7800044	-0.25799	0.33526	38.8636	-0.20817	-0.01907
NESS-BWBK-SS-NE06-0001	5.4619654	0.1253	-0.18462	1.62428	-0.78608	-0.03345	5.2356545	-0.07952	0.00582	44.9105	-0.51671	0.03805
NESS-BWBK-SS-NE07-0001	5.20826265	-0.29918	0.81394	1.16684	0.19839	0.14775	4.5629381	-0.46792	0.55527	36.8981	0.14626	-0.03668
NESS-BWBK-SS-NE08-0001	5.30768116	-0.14582	-0.03315	1.76892	-0.10015	0.03461	5.5808031	-0.3626	0.04533	52.4622	-0.06755	0.00617
NESS-BWBK-SS-NE09-0001	4.98604458	-0.62084	0.64955	2.22155	-0.44523	-0.0331	6.559877	-0.84799	0.39529	71.5613	-0.25852	-0.00812
NESS-BWBK-SS-NE10-0001	5.23661158	-0.3115	0.60853	0.8155	0.05507	0.21816	3.8261176	-0.49672	0.42292	25.3555	0.04555	-0.04435
NESS-BWBK-SS-NE101-0001	4.74866876	-1.03661	-0.23065	1.37074	-0.33982	-0.32082	5.2669476	-1.1891	-0.35312	53.4961	-0.0949	-0.01652
NESS-BWBK-SS-NE102-0001	4.55952521	-1.45972	-0.21105	0.4092	0.31637	-0.14991	3.6352306	-1.57129	-0.47111	30.2042	0.37506	-0.09438
NESS-BWBK-SS-NE103-0001	4.52507549	-1.55705	-0.38275	0.21871	0.5514	-0.10686	3.2359013	-1.72271	-0.58937	24.9385	0.54366	-0.11184
NESS-BWBK-SS-NE104-0001	4.68042814	-1.27791	-0.25264	0.75686	1.07161	-0.01227	4.1402712	-1.44391	-0.42475	37.3429	0.81344	-0.09631
NESS-BWBK-SS-NE105-0001	4.37677579	-1.81646	-0.55118	0.2105	0.57182	-0.16196	3.4731081	-1.87901	-0.81883	29.8748	0.5845	-0.13073
NESS-BWBK-SS-NE106-0001	4.37538018	-1.76557	-0.02105	0.35393	0.7293	-0.14615	3.703234	-1.83594	-0.44084	33.1969	0.66633	-0.12435
NESS-BWBK-SS-NE107-0001	4.23647235	-2.02376	-0.17187	0.45859	0.6138	-0.1585	4.0395821	-2.04071	-0.63115	40.0637	0.60245	-0.13901
NESS-BWBK-SS-NE108-0001	4.44963773	-1.65528	-0.0968	0.30659	0.17925	-0.1408	3.6043074	-1.71213	-0.47094	30.7145	0.31727	-0.11924
NESS-BWBK-SS-NE109-0001	4.26931341	-1.98076	-0.5599	0.36574	0.5143	-0.22403	3.9419446	-1.98609	-0.89544	38.1371	0.57462	-0.14039
NESS-BWBK-SS-NE110-0001	4.21675454	-1.98761	0.06128	-0.04911	1.07938	-0.28727	3.0869868	-2.05718	-0.45058	24.9737	0.95193	-0.13499

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3.70392774	-2.95248	-2.15588	-2.15431	-3.3248	-0.81051	-1.026013	-3.04021	-1.72773	-62.3059	-1.89011	-0.25304
MAXIMUM DOMAIN VALUE	6.71890286	2.1583	2.64772	2.22155	3.67855	0.53524	6.559877	2.00669	1.75882	71.6793	2.27155	0.19281
SAMPLE	MN_log prec	D1	D2	D3	D4	D5	NI_log prec	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	5.9678037	0.95723	-0.17991	0.18283	-1.13661	0.02695	2.0879021	0.8556	0.19216	-12.0909	-0.91849	0.1289
PMSB-BWBK-SB-PM02-0104	6.01185067	1.33922	0.44584	0.92257	0.9017	-0.39452	4.0625301	1.58573	0.54213	14.1546	0.36059	0.19281
PMSB-BWBK-SB-PM03-0106	6.34069342	1.68686	-0.2888	-0.05634	0.85755	-0.06006	1.9118265	1.817	0.18259	-21.8407	0.32848	0.15281
PMSB-BWBK-SB-PM04-0105	6.12273716	1.21636	-0.1826	0.06658	0.48345	0.14587	2.0508332	1.2429	0.19051	-15.4912	0.09774	0.10284
PMSB-BWBK-SB-PM05-0105	6.07593641	1.20436	-0.19609	-0.07975	0.24603	-0.05253	1.9624786	1.3585	0.11903	-17.7161	-0.05188	0.13157
PMSB-BWBK-SB-PM06-0105	6.06228925	1.18382	-0.44529	0.31592	0.90842	-0.05878	2.7349903	1.43744	-0.0881	-5.90872	0.28579	0.1565
PMSB-BWBK-SB-PM07-0105	5.79045069	0.89454	-0.03139	-0.89099	1.2359	-0.50576	0.7250079	1.20912	0.07624	-36.3143	0.59286	0.18183
PMSB-BWBK-SB-PM08-0106	5.96355587	1.04476	-0.07417	-0.56891	0.23832	-0.1596	1.0186656	1.16975	0.17385	-31.404	-0.03782	0.14
PMSB-BWBK-SB-PM09-0106	5.86916606	0.78231	-0.61532	-1.01295	0.60331	-0.07726	0.1971113	0.85005	-0.23781	-42.1656	0.23987	0.09701
PMSB-BWBK-SB-PM10-0105	5.76255599	0.83082	0.51999	-0.7134	0.44535	-0.37006	1.028838	1.05868	0.46859	-30.4597	0.13918	0.14375
PMSB-BWBK-SB-PM11-0104	6.10984527	1.29047	-0.25731	-0.46603	1.10011	-0.11161	1.0434278	1.46661	0.10335	-33.1157	0.39243	0.18163
PMSB-BWBK-SB-PM12-0105	5.54146146	0.18655	-0.47399	-0.54282	-0.93767	-0.06965	1.3230608	0.23743	-0.28968	-19.8012	-0.64396	0.04254
PMSB-BWBK-SB-PM13-0106	5.43347153	0.25007	0.0402	0.33085	1.21068	-0.39236	3.3055205	0.51321	-0.02119	9.88192	0.6678	0.10108
PMSB-BWBK-SB-PM14-0106	5.45094318	0.10048	-0.26124	-0.70859	-0.08802	-0.17052	1.0943848	0.2432	-0.20413	-23.4715	-0.14323	0.0636
PMSB-BWBK-SB-PM15-0105	5.77048039	0.66654	-0.21546	-0.03604	0.43352	-0.06822	2.2329459	0.76659	-0.01443	-9.11319	0.16132	0.07699
PMSB-BWBK-SB-PM16-0106	5.60015733	0.30187	-0.44259	-0.19321	0.32027	0.00307	1.9250744	0.35383	-0.2356	-11.022	0.10616	0.04677
PMSB-BWBK-SB-PM17-0105	5.93129087	1.05639	0.15125	-0.71518	-0.28976	-0.31042	0.9483756	1.26163	0.28428	-33.2115	-0.32448	0.1453
PMSB-BWBK-SB-PM18-0105	6.21177228	1.36539	-0.5346	0.56281	1.68651	0.18506	3.1291771	1.43211	-0.03672	0.37634	0.87605	0.08512
PMSB-BWBK-SB-PM19-0105	5.96264144	0.93127	-0.31649	0.23822	0.71297	0.13337	2.5393903	0.97452	0.01607	-5.73765	0.28408	0.07463
PMSB-BWBK-SB-PM20-0106	5.85865006	0.75352	-0.312	-0.08796	0.32718	0.07041	1.9732153	0.778	-0.02124	-13.3519	0.08166	0.06524
PMSB-BWBK-SB-SO01-0107-PM	6.25984334	1.38322	-0.28351	-0.03714	0.96252	0.32865	1.7380782	1.28938	0.21003	-20.8437	0.44231	0.06322
PMSB-BWBK-SB-SO02-0109-PM	6.18520663	1.33396	-0.20325	0.32609	2.03726	0.22573	2.652091	1.35866	0.19611	-6.73488	1.11615	0.06989
PMSB-BWBK-SB-SO13-0104-PM	6.37275724	1.67732	-0.17448	-0.48045	1.62925	0.13709	0.889562	1.62587	0.33523	-36.7998	0.85147	0.10988
PMSB-BWBK-SB-SO14-0105-PM	6.46500023	1.77324	-0.26789	0.03448	1.41554	0.30756	1.8276911	1.73528	0.2952	-22.6357	0.68115	0.09611
PMSS-DABK-S-SO21-0001	5.49895854	0.13846	1.65924	-1.65296	0.90919	0.38354	-0.588181	0.23423	1.10937	-50.5042	0.584	-0.08272
PMSS-DABK-S-SO22-0001	5.60601062	0.40097	2.43669	-1.44349	-0.2266	0.35529	-0.177649	0.58816	1.66591	-46.5908	-0.17725	-0.05073
PMSS-DABK-S-SO23-0001	5.40811645	0.05069	1.4153	-0.30139	-0.70061	0.15966	1.5719175	-0.11105	1.05086	-13.4846	-0.4563	-0.00773
PMSS-DABK-S-SO24-0001	5.34287742	0.12127	1.78815	-0.73163	1.21373	-0.13477	1.4692522	0.37554	1.11774	-18.6279	0.77656	0.00214
PMSS-DABK-S-SO25-0001	5.380247	0.41734	1.77046	0.25747	3.67855	-0.49158	3.4222284	0.80326	1.12711	9.54528	2.24015	0.10108
PMSS-DABK-S-SO26-0001	5.67417508	0.45797	2.17124	-0.70949	-0.01789	0.5121	0.9241115	0.46513	1.5875	-28.1052	-0.06679	-0.05687
PMSS-DABK-S-SO27-0001	5.26205041	-0.26056	1.63557	-0.85022	-0.50475	0.30098	0.6931813	-0.40137	1.10583	-25.4468	-0.2775	-0.07222
PMSS-DABK-S-SO28-0001	5.48302811	0.22288	2.24941	-1.9228	-1.41697	0.11383	-1.026013	0.43468	1.48237	-58.988	-0.90325	-0.01944
PMSS-DABK-S-SO29-0001	5.32249756	0.0327	2.07363	0.12934	-0.92009	0.00997	2.7740711	0.00807	1.41691	4.78057	-0.52843	-0.01763
PMSS-DABK-S-SO30-0001	5.3458644	0.00697	2.00184	-0.43958	-2.02297	0.05807	1.730485	0.08531	1.32207	-12.4445	-1.26025	-0.01563
PMSS-DABK-S-SO31-0001	5.02089424	-0.43604	1.22666	-1.40259	0.00243	-0.42599	0.4112275	-0.07951	0.55371	-32.1404	0.03722	0.02311
PMSS-DABK-S-SO32-0001	5.53510659	0.48347	2.64772	-1.82193	-1.01148	-0.165	-0.740908	0.83109	1.75882	-57.2931	-0.69556	0.0524
PMSS-DABK-S-SO33-0001	5.15798645	-0.3873	1.97832	-1.32145	-2.96123	0.07903	0.1044412	-0.39627	1.23715	-34.933	-1.75567	-0.06572
PMSS-DABK-S-SO34-0001	5.0537284	-0.36347	1.29343	-1.49752	-0.51956	-0.47653	0.0173925	-0.09662	0.66317	-38.3003	-0.31438	0.05359
PMSS-DABK-S-SO35-0001	5.22490727	-0.13909	1.54152	-1.10958	-0.28892	-0.18006	0.5616706	-0.00839	0.94668	-30.3185	-0.1596	0.01079
PMSS-DABK-S-SO36-0001	4.8461645	-0.80028	1.24551	-0.43397	-0.33019	-0.24715	1.9453344	-0.85839	0.65295	-2.05704	-0.05238	-0.04428
PMSS-DABK-S-SO37-0001	5.06636631	-0.29365	1.4583	-0.66264	0.46588	-0.44046	1.6795171	-0.04093	0.79319	-12.1886	0.32644	0.03841
PMSS-DABK-S-SO38-0001	4.86961523	-0.69102	1.23617	-1.31453	-0.50261	-0.48242	0.3532411	-0.51663	0.58236	-29.89	-0.26375	0.03207
PMSS-DABK-S-SO39-0001	5.07810423	-0.31252	0.90951	-0.58954	0.69411	-0.4578	1.7229803	-0.08943	0.43496	-11.0849	0.44433	0.05349
PMSS-DABK-S-SO40-0001	4.96955104	-0.56859	1.32883	-1.01045	-0.82141	-0.31881	0.8598842	-0.40048	0.68283	-22.6785	-0.49274	0.01918
SESB-BWBK-SB-SO03-0108	6.71890286	2.1583	-0.21545	0.99474	0.53374	0.51203	3.2479299	2.00669	0.49559	-1.96441	0.0232	0.12697
SESB-BWBK-SB-SO04-0108	6.4463669	1.72344	-0.16647	-0.30921	1.31512	0.34121	1.1490252	1.66613	0.35967	-32.9803	0.62677	0.08581
SESB-BWBK-SB-SO05-0106	6.26623586	1.41174	-0.1146	0.50837	0.88796	0.36292	2.7240515	1.31744	0.33805	-5.32263	0.35958	0.07339
SESB-BWBK-SB-SO06-0108	6.54561861	1.96189	0.02417	0.64473	1.35374	0.31146	2.893539	1.8776	0.56269	-6.68208	0.62716	0.11251
SESB-BWBK-SB-SO07-0106	6.47271373	1.73309	-0.03214	-0.71613	0.52933	0.3939	0.1409734	1.73517	0.45086	-49.5621	-0.0051	0.13316
SESB-BWBK-SB-SO08-0107	6.57597889	1.98105	0.06369	0.56896	0.72354	0.36779	2.697456	1.964	0.57535	-10.4428	0.16364	0.12825
SESB-BWBK-SB-SO09-0106	6.2331764	1.35976	-0.13694	0.20396	0.47568	0.2972	2.1997457	1.23056	0.31681	-13.0695	0.15931	0.06245
SESB-BWBK-SB-SO11-0106	6.42184496	1.71231	-0.18583	0.46463	0.5907	0.27602	2.5815326	1.80821	0.29925	-11.1127	0.0247	0.15147
SESB-BWBK-SB-SO12-0106	6.45317701	1.73263	-0.17864	-0.27764	1.61103	0.36298	1.2219113	1.74189	0.33019	-32.3531	0.76743	0.09571
SESB-BWBK-SB-SO15-0103	5.74122904	0.62668	-0.03333	-0.10628	0.43852	-0.06005	1.9939433	0.6762	0.12547	-12.2814	0.15174	0.0831
SESB-BWBK-SB-SO16-0105	6.12298181	1.1566	-0.45967	-0.58472	0.92638	0.20078	0.8229381	1.13818	0.00023	-34.3175	0.42512	0.07123
SESB-BWBK-SB-SO17-0106	5.91455233	0.76946	-0.4377	-0.64845	-0.70928	0.14975	0.7670815	0.66101	-0.04877	-31.7824	-0.51569	0.04029
SESB-BWBK-SB-SO18-0105	5.71888311	0.48062	-0.36065	-0.8497	-1.64746	-0.04329	0.5421298	0.44261	-0.10044	-33.7812	-1.08844	0.05639
SESB-BWBK-SB-SO19-0104	5.92378417	0.91158	0.10261	-1.67338	-2.44253	-0.18556	-0.979341	1.0235	0.25436	-62.3059	-1.62903	0.10831
SESB-BWBK-SB-SO20-0104	6.26573786	1.42518	-0.34216	-0.63424	1.30918	0.21449	0.8422128	1.5784	0.07389	-37.2014	0.60526	0.09088
SESS-DABK-S-SO01-0001	5.23067299	-0.28975	0.66823	0.59804	0.27616	0.15034	3.6556356	-0.43061	0.43208	22.1382	0.27049	-0.07139
SESS-DABK-S-SO02-0001	6.10545751	1.19914	1.47147	0.50695	-2.69063	0.37364	3.1651283	1.27616	1.27066	1.80554	-1.80312	0.02383
SESS-DABK-S-SO03-0001	4.98523505	-0.60899	1.45857	-0.02976	0.95602	0.03751	2.6884413	-0.70812	0.85906	8.66804	0.76527	-0.09581
SESS-DABK-S-SO04-0001	5.24017383	-0.26557	1.4478	0.93263	-0.88897	0.28217	4.023941	-0.58882	1.05178	29.0651	-0.45437	-0.08202
SESS-DABK-S-SO05-0001	5.10935928	-0.44089	1.21175	0.06791	1.01858	0.11993	2.702389	-0.49637	0.7303	7.38818	0.69898	-0.0633
SESS-DABK-S-SO06-0001	5.74164315	1.03132	1.80907	0.51937	3.23646	-0.40458	3.6514819	1.34894	1.34049	9.22356	1.91709	0.13319
SESS-DABK-S-SO07-0001	5.49251809	0.03211	1.07704	0.17789	-1.85467	0.46238	2.3959582	-0.28543	0.87945	0.87918	-1.11391	-0.08028
SESS-DABK-S-SO08-0001	5.43072349	0.0773	1.10427	-0.00196	0.15097	0.18442	2.2926242	-0.00533	0.80804	-2.71809	0.08037	-0.02029
SESS-DABK-S-SO09-0001	5.21976057	-0.22866	0.96782	-0.1096	2.47483	0.08984	2.3122789	-0.33914	0.63535	0.05958	1.63848	-0.06009

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MANGANESE						NICKEL					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	3.70392774	-2.95248	-2.15588	-2.15431	-3.3248	-0.81051	-1.026013	-3.04021	-1.72773	-62.3059	-1.89011	-0.25304
MAXIMUM DOMAIN VALUE	6.71890286	2.1583	2.64772	2.22155	3.67855	0.53524	6.559877	2.00669	1.75882	71.6793	2.27155	0.19281
SAMPLE	**MN_log prec**	D1	D2	D3	D4	D5	**NI_log prec**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	5.02146977	-0.48148	0.76076	0.36218	3.41757	-0.12376	3.477933	-0.51835	0.39177	20.0174	2.27155	-0.05441
SESS-DABK-S-SO11-0001	4.76700348	-1.16893	0.63081	-1.56764	-1.14028	0.02859	-0.236547	-1.35313	0.19152	-33.3089	-0.46722	-0.13935
SESS-DABK-S-SO12-0001	5.04129379	-0.58764	0.981	-0.24205	-0.97396	0.00029	2.2828559	-0.65568	0.52896	1.82692	-0.45208	-0.08291
SESS-DABK-S-SO13-0001	5.5462768	0.07051	0.37404	-0.68596	1.26407	0.53297	0.9698772	-0.10991	0.34308	-23.062	0.85224	-0.11373
SESS-DABK-S-SO14-0001	5.23515658	-0.31078	0.39487	-0.64335	2.11272	0.16067	1.175295	-0.51664	0.26797	-16.7716	1.43662	-0.07962
SESS-DABK-S-SO15-0001	5.02705683	-0.53779	1.28842	-0.44824	1.44178	0.00125	1.6117964	-0.69779	0.80195	-8.54091	0.99677	-0.05151
SESS-DABK-S-SO16-0001	4.54125732	-1.41074	0.42907	-1.16665	-0.4873	-0.34819	0.8758129	-1.4668	-0.07151	-14.6603	-0.01381	-0.10649
SESS-DABK-S-SO17-0001	4.459716	-1.23504	1.30764	-0.62899	0.75247	-0.81051	2.1918804	-1.02728	0.45316	3.18229	0.69597	-0.00519
SESS-DABK-S-SO18-0001	5.14632108	-0.46824	0.76459	-1.15192	-0.94985	0.05061	0.436066	-0.56469	0.42473	-28.2961	-0.44058	-0.08442
SESS-DABK-S-SO19-0001	5.53074999	0.17682	1.35411	-0.13016	-1.83554	0.32427	1.940806	0.07931	1.014	-9.01581	-1.18792	-0.02797
SESS-DABK-S-SO20-0001	5.5095717	0.25716	1.52948	0.93655	-0.81511	0.21047	3.9456061	0.09593	1.17937	22.8749	-0.53909	-0.00473

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
V	0.1923	0.9033	0.0959	0.0964	0.0642
18.7937	Mean				
6.6010	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	
AL	-0.1168	0.1379	0.5577	-0.4961	-0.5188	
AS_log	-0.0368	0.3179	-0.1595	0.3175	0.2930	
BA	0.0004	0.1998	0.0567	-0.3745	-0.2464	
CR	0.0371	0.1043	0.1642	-0.3852	-0.4075	
CO_log	0.2450	0.5900	-0.6206	-1.2340	-4.5235	
FE_log	0.2684	-0.4616	0.4123	2.7947	-2.2470	
PB_log	-0.0437	0.4984	-0.0244	0.2075	0.6080	
MG	0.0625	-0.2639	0.1429	-0.8077	-0.0151	
MN_log	0.0455	-0.0672	-0.0197	-0.1255	-1.3583	
NI_log	0.3246	-0.7582	0.3200	0.1951	5.1250	
V	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ZN_log	0.1275	0.4703	-0.3686	-0.5240	3.3783	

ZINC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5
AL	-0.1222	0.0764	0.7763	-0.3284	0.1408
AS_log	-0.0385	0.1761	-0.2220	0.2102	-0.0795
BA	0.0004	0.1107	0.0790	-0.2479	0.0669
CR	0.0388	0.0578	0.2286	-0.2551	0.1106
CO_log	0.2564	0.3268	-0.8639	-0.8170	1.2278
FE_log	0.2809	-0.2557	0.5740	1.8504	0.6099
PB_log	-0.0457	0.2761	-0.0339	0.1374	-0.1650
MG	0.0654	-0.1462	0.1989	-0.5348	0.0041
MN_log	0.0476	-0.0372	-0.0274	-0.0831	0.3687
NI_log	0.3397	-0.4200	0.4454	0.1292	-1.3910
V	-0.0425	0.3425	-0.1808	-0.1461	0.1114
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169
ZN_log	0.1334	0.2605	-0.5132	-0.3470	-0.9169

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5
AL	0.2545	0.5880	0.6715	0.0162	-0.0104
AS_log	0.7177	0.4994	0.1466	0.3113	-0.0070
BA	0.1346	0.7431	0.1543	-0.2926	0.0587
CR	0.7412	0.4300	0.3001	-0.0879	-0.0034
CO_log	0.9509	0.1666	-0.0481	-0.0643	0.1307
FE_log	0.8883	0.2706	0.2193	0.2646	0.0671
PB_log	-0.0251	0.9095	0.1182	0.0728	-0.1100
MG	0.8168	-0.3415	0.1853	-0.1900	-0.0280
MN_log	0.8019	-0.0792	-0.0239	-0.0171	0.3342
NI_log	0.9685	0.0156	0.1331	-0.0039	-0.1037
V	0.1923	0.9033	0.0959	0.0964	0.0642
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
ZN_log	0.8192	0.4469	0.0331	-0.0053	-0.2234
3.5358	Mean				
0.4086	Std. deviation				

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5
AL	-0.1431	0.1156	0.3674	-1.6646	0.0123
AS_log	-0.0451	0.2665	-0.1051	1.0653	-0.0069
BA	0.0005	0.1675	0.0374	-1.2566	0.0058
CR	0.0455	0.0875	0.1082	-1.2927	0.0096
CO_log	0.3002	0.4947	-0.4089	-4.1408	0.1071
FE_log	0.3289	-0.3870	0.2717	9.3779	0.0532
PB_log	-0.0535	0.4179	-0.0160	0.6962	-0.0144
MG	0.0766	-0.2213	0.0941	-2.7102	0.0004
MN_log	0.0558	-0.0564	-0.0130	-0.4211	0.0322
NI_log	0.3978	-0.6357	0.2108	0.6546	-0.1213
V	-0.0498	0.5184	-0.0856	-0.7402	0.0097
ZN_log	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM						ZINC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.4067544	-2.85448	-2.82451	-1.86819	-3.9836	-8.53502	2.6325672	-2.99086	-2.82417	-1.13545	-13.4317	-0.24008
MAXIMUM DOMAIN VALUE	39.334252	2.00037	3.50478	1.7326	4.92806	8.26394	4.2441518	2.15572	3.43086	1.09799	16.0186	0.2492
SAMPLE	**V predict**	D1	D2	D3	D4	D5	**ZN_log pre**	D1	D2	D3	D4	D5
BASS-BWBK-SS-BA101-0001	4.1205146	-1.13031	-2.18841	-0.93735	-0.25731	1.33843	2.7365854	-1.11385	-2.36893	-0.73093	-1.45573	-0.14072
BASS-BWBK-SS-BA102-0001	3.1125711	-1.46751	-2.24786	-1.18298	-0.41973	1.41687	2.6325672	-1.45117	-2.33454	-0.98359	-2.63821	-0.17879
BASS-BWBK-SS-BA103-0001	3.2654689	-1.32425	-2.24246	-1.10488	-0.58151	1.39888	2.6928307	-1.29412	-2.29866	-0.92312	-3.13044	-0.17081
BASS-BWBK-SS-BA104-0001	4.3872853	-0.96098	-2.13827	-0.96174	-0.96828	1.85885	2.8601462	-0.90144	-2.11938	-0.804	-4.29066	-0.16032
BASS-BWBK-SS-BA105-0001	5.5550452	-1.08429	-1.95013	-1.32601	-0.32448	1.91383	2.7954294	-1.04699	-2.16226	-0.99833	-1.75949	-0.15922
BASS-BWBK-SS-BA106-0001	4.8177018	-0.85398	-2.2441	-0.84398	-0.88711	3.74455	2.8543783	-0.80346	-2.34543	-0.66131	-3.5369	-0.18668
BASS-BWBK-SS-BA107-0001	3.7159879	-1.47338	-2.14344	-1.16951	-0.46898	1.44291	2.6531165	-1.46576	-2.19734	-0.98051	-2.85825	-0.1773
BASS-BWBK-SS-BA108-0001	3.7621344	-1.41615	-2.1521	-1.17359	-0.81177	2.0228	2.6742568	-1.39261	-2.23601	-0.97802	-3.96367	-0.19162
BASS-BWBK-SS-BA109-0001	1.4067544	-0.95323	-2.82451	-0.80616	-1.29816	4.71996	2.7568819	-0.85821	-2.82417	-0.69967	-5.34413	-0.24008
BASS-BWBK-SS-BA110-0001	2.8179261	-0.82397	-2.39698	-0.61764	-0.76477	0.56669	2.877642	-0.72035	-2.35172	-0.58549	-3.65797	-0.13531
BASS-BWBK-SS-BA111-0001	3.2954592	-1.28755	-2.23947	-1.00913	-0.55248	1.13128	2.7049661	-1.25322	-2.30642	-0.85371	-2.98723	-0.16239
BASS-BWBK-SS-BA112-0001	2.5598321	-1.37754	-2.2963	-0.99927	-0.52738	0.41253	2.6622731	-1.35381	-2.34913	-0.85734	-2.97266	-0.14986
BASS-BWBK-SS-BA113-0001	12.88671	-1.13413	-0.90087	-1.86819	-1.09688	6.56707	2.779941	-1.30386	-1.78177	-1.04983	-2.13705	-0.169
MASB-BWBK-SB-MA01-0105	15.788517	1.3366	-0.68315	-0.25624	0.06376	-1.19482	3.8125845	1.48312	-1.1287	0.11362	2.28983	0.11156
MASB-BWBK-SB-MA02-0107	15.877935	1.39561	-0.86705	0.24731	-0.30723	1.23113	3.8032373	1.54295	-1.3534	0.47465	1.2642	0.06148
MASB-BWBK-SB-MA03-0108	18.717081	1.71179	-0.2256	-1.03202	-0.00391	-0.58639	3.9557611	1.88985	-1.04482	-0.27307	2.99471	0.12837
MASB-BWBK-SB-MA04-0106	14.99872	1.49014	-0.99552	0.28896	-1.44813	2.33121	3.8242283	1.60303	-1.39702	0.53696	-2.35011	0.05897
MASB-BWBK-SB-MA05-0108	18.602819	1.20812	-0.51054	-0.11335	0.42545	2.64408	3.7973638	1.32195	-0.95438	0.20369	3.46677	0.02164
MASB-BWBK-SB-MA06-0105	16.066488	1.18753	-0.88489	0.07914	-0.22745	2.68086	3.7416419	1.29446	-1.24468	0.32663	1.24226	0.02121
MASB-BWBK-SB-MA07-0108	16.926089	0.9535	-0.95023	-0.02524	1.88353	3.31586	3.6218683	1.05602	-1.39203	0.23698	8.2149	-0.01332
MASB-BWBK-SB-MA08-0108	20.702969	1.77631	-0.52445	1.03848	2.65443	1.02822	4.0131276	1.84953	-0.6553	1.03849	11.3579	0.12823
MASB-BWBK-SB-MA09-0108	21.55508	1.33192	-0.16957	-0.28373	2.51273	1.56334	3.8390745	1.43001	-0.80795	0.1667	11.0212	0.07029
MASB-BWBK-SB-MA10-0104	17.633802	0.79702	-0.66057	-0.63384	2.74259	0.99889	3.6148102	0.90548	-1.07444	-0.22065	10.6928	0.02115
MASB-BWBK-SB-MA11-0108	20.783713	1.36443	-0.30172	0.13687	1.14963	2.92302	3.8724549	1.44008	-0.73051	0.42347	6.25052	0.0469
MASB-BWBK-SB-MA12-0108	19.628518	1.54451	-0.39508	-0.19476	1.12341	1.50662	3.8960333	1.69365	-1.0379	0.23279	6.42245	0.07122
MASB-BWBK-SB-MA13-0105	16.275042	0.08254	-0.25943	-0.29129	-0.92378	-0.71806	3.5836922	0.13795	-0.01662	-0.27647	-3.73224	-0.00449
MASB-BWBK-SB-MA14-0104	21.563431	0.94811	0.28567	0.32808	1.45379	-2.99451	3.9046638	1.04393	0.21081	0.33141	5.66241	0.12466
MASB-BWBK-SB-MA15-0105	19.172834	0.53318	0.05746	0.40124	0.63546	-3.06252	3.7949529	0.59678	0.37426	0.23368	1.82237	0.08998
MASB-BWBK-SB-MA16-0104	17.292814	0.5729	-0.22607	-0.57083	0.61553	-2.14741	3.6979025	0.66692	-0.24832	-0.32904	2.40047	0.06808
MASB-BWBK-SB-MA17-0104	19.321758	0.28218	0.27354	-0.27363	0.25865	-3.42625	3.6432057	0.30435	0.10583	-0.11107	1.37257	0.10278
MASB-BWBK-SB-MA18-0104	16.286243	0.18384	-0.39995	0.28054	-1.04695	0.31285	3.6473928	0.184	0.21479	0.08346	-4.36976	-0.00229
MASB-BWBK-SB-MA19-0103	15.905162	0.01859	-0.30179	-0.48976	-0.58835	-1.01041	3.5256316	0.06318	-0.16993	-0.38071	-2.39091	0.0037
MASB-BWBK-SB-MA20-0103	16.593691	1.10072	-0.77977	-0.31269	0.30777	2.48744	3.7345006	1.22475	-1.12248	0.02624	2.7435	0.00845
MASS-BWBK-SS-MA01-0001	20.39256	-1.75102	0.76109	-0.58796	-2.03037	2.23354	3.0556276	-1.90764	0.73241	-0.62934	-8.46998	-0.16235
MASS-BWBK-SS-MA02-0001	23.748801	-1.15743	1.06573	0.43622	-3.9836	5.49083	3.2583578	-1.3322	0.66273	0.2669	-13.4317	-0.16309
MASS-BWBK-SS-MA03-0001	20.7701	-0.91999	0.39402	-0.12945	-0.22813	2.40983	3.2724218	-0.98515	0.29975	-0.20784	-1.57979	-0.12032
MASS-BWBK-SS-MA04-0001	20.023988	-0.56855	0.2225	0.05749	-1.63823	3.84733	3.3349062	-0.61839	-0.09321	0.03692	-5.4147	-0.11948
MASS-BWBK-SS-MA05-0001	21.394027	0.12028	0.16963	0.49498	-1.05815	4.23668	3.5793347	0.06099	0.03202	0.43316	-2.79594	-0.05869
MASS-BWBK-SS-MA06-0001	26.226489	-0.00716	1.07247	1.16191	-0.74902	1.85928	3.7130015	-0.05848	0.97918	0.79082	-2.36876	-0.02359
MASS-BWBK-SS-MA07-0001	17.196755	-2.85448	0.28148	-0.79627	1.51659	-0.26748	2.6879626	-2.99086	0.81424	-1.13545	0.79802	-0.23608
MASS-BWBK-SS-MA08-0001	28.534806	-0.35331	1.47916	-0.15513	1.80565	0.75219	3.6334577	-0.46966	1.47	-0.12672	5.82107	-0.0069
MASS-BWBK-SS-MA09-0001	33.51141	0.24344	2.31635	1.11825	-2.12945	2.93412	3.9792837	0.0184	2.27987	0.90775	-6.10327	0.0483
MASS-BWBK-SS-MA10-0001	30.149757	0.23359	1.71402	0.53059	-0.44645	1.85736	3.8790227	0.06774	1.73483	0.47443	-0.75337	0.04711
MASS-BWBK-SS-MA11-0001	27.357676	0.35586	1.36966	0.88893	0.28589	-1.88491	3.9413473	0.2442	1.79629	0.59752	0.83288	0.11514
MASS-BWBK-SS-MA12-0001	19.931254	-0.35627	-0.33175	0.45076	0.11592	7.56894	3.2966798	-0.44119	-0.6014	0.383	1.0702	-0.16917
MASS-BWBK-SS-MA13-0001	24.821537	-0.64982	1.1562	0.71684	-0.9052	0.19042	3.5593658	-0.79638	1.50634	0.33652	-4.12119	-0.01761
MASS-BWBK-SS-MA14-0001	26.502072	-1.30039	1.52478	-0.2407	-1.39371	3.08029	3.3940778	-1.53529	1.9333	-0.37761	-6.35775	-0.11515
MASS-BWBK-SS-MA15-0001	25.432492	-1.28059	1.2975	0.33315	-1.24645	2.61725	3.3641321	-1.48206	1.65	-0.0026	-5.85471	-0.11496
MASS-BWBK-SS-MA16-0001	23.281191	-0.70753	0.56976	0.12384	1.18191	2.73081	3.4432266	-0.82915	1.00319	-0.08605	2.67161	-0.09455
MASS-BWBK-SS-MA17-0001	23.694152	-0.51723	0.99788	-0.04465	-0.13685	-0.65557	3.5510767	-0.62405	1.2229	-0.13609	-1.29935	0.00167
MASS-BWBK-SS-MA18-0001	25.943363	-0.99424	1.03841	-0.03187	0.99104	3.79588	3.4336713	-1.19813	1.61494	-0.22783	1.69807	-0.11717
MASS-BWBK-SS-MA19-0001	25.321314	-0.51197	1.19003	-0.05446	0.0994	0.12435	3.6054296	-0.63983	1.55228	-0.16477	-0.70951	-0.01091
MASS-BWBK-SS-MA20-0001	22.911019	-0.04531	0.4596	-0.07433	0.53285	2.69436	3.6006224	-0.09113	0.52044	-0.05053	1.73455	-0.05105
MMSB-BWBK-SB-MM101-0110	13.794308	0.18071	-0.64786	-0.703	-0.04948	-2.09777	3.4672781	0.34614	-0.97408	-0.46839	-0.06409	0.00406
MMSB-BWBK-SB-MM102-0109	9.6388727	0.47889	-1.5766	0.03453	-1.83044	1.84245	3.488379	0.68302	-1.62471	0.01124	-6.12321	-0.07951
MMSB-BWBK-SB-MM103-0107	13.274938	0.3625	-0.34371	-1.06684	-1.9741	-4.71344	3.5973056	0.57673	-0.71396	-0.71657	-6.58086	0.06233
MMSB-BWBK-SB-MM104-0110	12.134768	0.67432	-0.87481	0.41531	-1.51416	-3.76882	3.6070017	0.80254	-1.10504	0.38941	-4.18417	0.10901
MMSB-BWBK-SB-MM105-0110	12.504381	-0.35687	-0.80101	-1.06169	-0.17387	-0.65489	3.2807793	-0.21888	-0.9878	-0.81961	-1.29048	-0.0751
MMSB-BWBK-SB-MM106-0110	11.573825	0.79656	-1.05373	0.73906	-2.96618	-1.24563	3.6576208	0.89018	-1.08025	0.61543	-9.0266	0.07298
MMSB-BWBK-SB-MM107-0110	12.10495	0.12072	-0.73658	-0.44308	-1.59511	-2.72336	3.4708269	0.28085	-0.90573	-0.34081	-5.58953	0.01167
MMSB-BWBK-SB-MM108-0110	11.538921	0.02875	-0.92322	-0.42522	-0.9403	-2.1674	3.3985189	0.14467	-1.02883	-0.31596	-3.31496	0.00827
MMSB-BWBK-SB-MM109-0110	14.315518	0.28868	-0.50832	0.21084	-1.54987	-2.26639	3.5836801	0.39753	-0.51991	0.12251	-5.28117	0.03623
MMSB-BWBK-SB-MM110-0109	13.025422	0.13351	-0.76427	0.0533	-0.88806	-2.00297	3.4837313	0.25814	-0.79173	-0.01331	-3.25752	0.00855
MMSB-BWBK-SB-MM111-0110	12.797168	0.33529	-0.90245	0.17673	-0.77253	-1.5596	3.5130824	0.47439	-1.02491	0.12611	-2.44187	0.01489
MMSB-BWBK-SB-MM112-0110	8.3972231	0.44778	-1.54944	0.4062	-0.92573	-3.28739	3.5191112	0.59582	-1.21364	0.20283	-3.56915	0.05451
MMSB-BWBK-SB-MM113-0110	10.5302	0.43392	-1.21194	0.20328	-2.31218	-0.5783	3.513925	0.61208	-1.34922	0.14459	-7.58104	-0.01433
MMSB-BWBK-SB-MM114-0110	11.456769	-0.21776	-0.89794	-0.65985	-0.9378	-1.63235	3.3299097	-0.06349	-1.03885	-0.54869	-3.82206	-0.04591

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM						ZINC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.4067544	-2.85448	-2.82451	-1.86819	-3.9836	-8.53502	2.6325672	-2.99086	-2.82417	-1.13545	-13.4317	-0.24008
MAXIMUM DOMAIN VALUE	39.334252	2.00037	3.50478	1.7326	4.92806	8.26394	4.2441518	2.15572	3.43086	1.09799	16.0186	0.2492
SAMPLE	**V predict**	D1	D2	D3	D4	D5	**ZN_log pre**	D1	D2	D3	D4	D5
MMSB-BWBK-SB-MM115-0110	11.305448	-0.01005	-0.66817	0.14849	-2.63688	-4.49927	3.444262	0.03751	-0.63869	0.07204	-8.99669	0.086
MMSB-BWBK-SB-MM116-0110	12.255484	0.25232	-0.88966	-0.3922	-1.53227	-0.77959	3.4458093	0.40039	-1.27115	-0.20906	-4.64282	-0.00975
MMSB-BWBK-SB-MM117-0110	10.8527	-0.0982	-0.93058	-1.11424	-0.5815	-2.81255	3.3345982	0.0709	-1.20414	-0.80206	-2.27326	-0.00914
MMSB-BWBK-SB-MM118-0110	9.7340129	0.71172	-1.68826	-0.51212	-1.59664	3.40524	3.5389648	0.96277	-1.8397	-0.31311	-5.05933	-0.11103
MMSB-BWBK-SB-MM119-0110	10.235072	0.16447	-1.22373	-0.46364	-0.98245	-1.30205	3.3957609	0.30591	-1.34723	-0.31982	-3.29101	-0.00831
MMSB-BWBK-SB-MM120-0110	8.1966516	-0.67181	-1.14311	-1.32661	-0.43131	-4.27935	3.1439404	-0.51423	-1.17278	-1.10291	-2.918	-0.03257
MMSS-BWBK-SS-MM101-0001	20.542325	-0.62543	0.21859	1.43319	0.61761	-0.14335	3.4094141	-0.72387	0.57418	0.80638	1.02113	-0.02532
MMSS-BWBK-SS-MM102-0001	13.696537	-0.91128	-0.83976	0.67077	1.42415	-0.62193	3.1530024	-0.92384	-0.42148	0.19376	3.02031	-0.07901
MMSS-BWBK-SS-MM103-0001	20.121935	-0.70753	0.12545	1.25449	1.3481	-0.4087	3.3939759	-0.78798	0.63704	0.61953	2.96282	-0.03892
MMSS-BWBK-SS-MM104-0001	19.837328	-0.40753	0.16761	1.14722	0.30156	-0.84035	3.484185	-0.43923	0.46863	0.61771	-0.02123	-0.01522
MMSS-BWBK-SS-MM105-0001	17.111393	-1.20735	-0.02856	0.05932	1.23103	-1.8877	3.1787367	-1.25146	0.3475	-0.26382	1.97602	-0.06707
MMSS-BWBK-SS-MM106-0001	18.26258	-0.35419	0.07863	1.14924	-0.22889	-2.66988	3.5005013	-0.37493	0.44014	0.60834	-1.8878	0.02743
MMSS-BWBK-SS-MM107-0001	17.706924	-0.48481	-0.23333	1.51766	0.03007	-0.14048	3.3832021	-0.547	0.07997	0.88703	-0.74567	-0.02462
MMSS-BWBK-SS-MM108-0001	19.575839	-1.0046	0.09468	1.60813	0.81634	-0.10433	3.3080578	-1.12371	0.73146	0.79619	0.76139	-0.06181
MMSS-BWBK-SS-MM109-0001	15.653	-0.93898	-0.47364	1.37115	1.02556	-1.52073	3.2382941	-0.99541	0.14175	0.62482	1.39703	-0.04707
MMSS-BWBK-SS-MM110-0001	16.287433	-1.90236	-0.11853	0.23816	1.82662	-1.64581	2.946067	-1.99015	0.41092	-0.28463	2.99831	-0.12705
MMSS-BWBK-SS-MM111-0001	15.223885	-1.68121	-0.22657	0.42338	1.04981	-2.40769	2.9858485	-1.73859	0.14445	-0.10029	0.86654	-0.09596
MMSS-BWBK-SS-MM112-0001	16.943576	-1.95892	-0.15451	0.13251	1.60294	1.07043	2.863153	-2.07987	0.09509	-0.26325	2.95029	-0.17517
MMSS-BWBK-SS-MM113-0001	20.835303	-1.18784	0.32095	1.10551	1.23842	0.34925	3.2592578	-1.3246	0.86382	0.45788	2.14779	-0.08179
MMSS-BWBK-SS-MM114-0001	13.654642	-1.9572	-0.41501	-0.2632	0.81126	-1.24978	2.8196892	-2.03664	-0.21462	-0.53854	0.22478	-0.13652
MMSS-BWBK-SS-MM115-0001	14.930193	-1.6248	-0.51502	0.41889	1.8342	-0.38276	2.9196225	-1.71278	-0.24576	-0.02603	4.06503	-0.12076
MMSS-BWBK-SS-MM116-0001	15.543003	-1.70091	-0.17113	0.03862	1.41488	-2.34928	2.9810761	-1.77041	0.21057	-0.35172	2.0992	-0.09437
MMSS-BWBK-SS-MM117-0001	18.20745	-0.86038	-0.05943	0.90469	0.84167	-0.58439	3.2812758	-0.90684	0.22553	0.39127	1.35983	-0.0593
MMSS-BWBK-SS-MM118-0001	10.90052	-0.52263	-0.90963	-0.2075	-0.44467	-3.2824	3.262213	-0.4085	-0.77158	-0.34696	-2.90292	-0.0265
MMSS-BWBK-SS-MM119-0001	9.3779042	-0.66461	-1.20956	-0.41981	-0.37506	-2.0179	3.1679366	-0.53906	-1.05978	-0.51732	-2.86263	-0.07508
MMSS-BWBK-SS-MM120-0001	13.3053	-0.33259	-0.83612	-0.00455	1.94069	-3.09562	3.3041405	-0.25019	-0.73239	-0.13924	5.6061	0.0032
NESB-BWBK-SB-NE01-0108	11.291165	0.93524	-1.38522	0.68231	-1.29607	-0.0869	3.602997	1.10518	-1.72247	0.62893	-2.96438	0.03418
NESB-BWBK-SB-NE02-0109	13.044228	0.86753	-0.90063	0.30971	-1.59245	-1.56391	3.6344682	1.04614	-1.42164	0.38821	-3.89334	0.06096
NESB-BWBK-SB-NE03-0105	11.830235	0.57791	-1.25555	0.32242	0.21119	-1.29422	3.5052756	0.74918	-1.53387	0.29659	1.42766	0.02395
NESB-BWBK-SB-NE04-0110	11.626388	0.58145	-1.17744	0.10916	-0.86822	-0.94599	3.5155187	0.73978	-1.49334	0.175	-2.05928	0.02251
NESB-BWBK-SB-NE05-0108	11.494299	0.82055	-1.3683	0.41858	-0.67425	-0.04197	3.5639703	0.97688	-1.66763	0.43368	-1.03529	0.02662
NESB-BWBK-SB-NE06-0109	11.328375	0.69764	-1.34749	0.08027	-0.40815	-0.2525	3.5317566	0.86968	-1.6284	0.1655	-0.45378	0.01152
NESB-BWBK-SB-NE07-0107	12.727111	0.84046	-1.21335	0.65593	-0.97558	0.725	3.5860888	0.99555	-1.6107	0.61375	-1.86383	0.01282
NESB-BWBK-SB-NE08-0104	11.519357	0.45614	-1.2034	-0.06747	-0.65966	-0.50755	3.4967995	0.61279	-1.36021	-0.00491	-1.83595	-0.00363
NESB-BWBK-SB-NE09-0110	11.046503	0.62086	-1.32765	0.05682	-0.51951	-0.7643	3.4981004	0.78505	-1.65619	0.15262	-0.79598	0.02047
NESB-BWBK-SB-NE10-0107	13.263618	0.21319	-0.83735	0.37991	-0.93354	-1.07106	3.5082775	0.27389	-0.69877	0.23789	-3.2171	0.01958
NESB-BWBK-SB-NE101-0110	12.936112	0.12969	-0.69243	0.53246	-1.70519	-2.70145	3.5108308	0.22769	-0.63071	0.3005	-6.0442	0.03422
NESB-BWBK-SB-NE102-0110	12.511381	-0.16506	-0.65649	0.21253	-2.12013	-2.22615	3.4024223	-0.08592	-0.66581	0.06262	-7.59798	0.00314
NESB-BWBK-SB-NE103-0110	10.808544	-0.35916	-0.92281	-0.16221	-1.39956	-2.43796	3.2956558	-0.26168	-0.8933	-0.2401	-5.55408	-0.0197
NESB-BWBK-SB-NE104-0110	10.005691	-0.50256	-0.9841	-0.56658	-1.21534	-2.71329	3.235926	-0.39406	-0.95724	-0.54305	-5.17753	-0.03238
NESB-BWBK-SB-NE105-0110	12.780229	0.08518	-0.70818	0.29662	-1.42963	-2.77586	3.4791731	0.1716	-0.67708	0.15492	-5.04308	0.03748
NESB-BWBK-SB-NE106-0110	11.50655	-0.00377	-0.8951	0.07187	-1.75238	-2.06515	3.4180153	0.10363	-0.90583	-0.01252	-6.23337	0.00395
NESB-BWBK-SB-NE107-0510	9.1188351	-0.3503	-1.18373	-0.42346	-0.97212	-3.03177	3.2318633	-0.25075	-1.22411	-0.38393	-3.8939	-0.00293
NESB-BWBK-SB-NE108-0110	10.911777	-0.16114	-0.85615	0.09469	-1.54738	-3.88641	3.3943373	-0.07607	-0.68387	-0.05743	-6.00877	0.03651
NESB-BWBK-SB-NE109-0110	11.226669	-0.18742	-0.82888	0.11101	-1.59343	-3.40379	3.3669843	-0.09174	-0.8144	-0.02301	-5.95533	0.0214
NESB-BWBK-SB-NE110-0110	10.941147	-0.17131	-0.81164	-0.0211	-1.65715	-4.0751	3.3763879	-0.07461	-0.78215	-0.11216	-6.18904	0.03803
NESS-BKG-SS03-NEB-0016	29.508086	-0.29988	1.67322	0.78033	-0.36908	2.02595	3.6817009	-0.46128	1.58612	0.5537	-1.0306	-0.01021
NESS-BKG-SS09-NEB-0018	22.31615	-0.96145	0.88898	0.32806	0.37682	-2.37135	3.3776925	-1.05626	1.06347	0.02396	-0.1289	-0.00653
NESS-BWBK-SS-NE01-0001	28.416866	0.27347	1.40686	1.22363	-0.96732	1.71802	3.7773064	0.11765	1.04087	1.0405	-1.6263	0.06063
NESS-BWBK-SS-NE02-0001	27.785276	0.46899	0.93901	0.84711	-0.70138	6.38587	3.6896899	0.31067	0.19933	0.94878	0.46021	-0.0179
NESS-BWBK-SS-NE03-0001	21.704288	-0.26095	0.31289	1.43924	0.34547	0.57936	3.4875229	-0.33581	0.29074	0.95574	1.20072	-0.00719
NESS-BWBK-SS-NE04-0001	18.545362	0.18435	0.04699	1.35061	-1.13707	-2.10779	3.6492455	0.20483	0.16243	0.87802	-3.93418	0.05637
NESS-BWBK-SS-NE05-0001	24.50906	-0.12603	0.80511	0.987	-0.36708	1.61246	3.5855811	-0.21517	0.60034	0.72482	-0.70684	-0.009
NESS-BWBK-SS-NE06-0001	16.791438	0.10524	-0.39703	1.25545	-0.90069	0.02427	3.5569747	0.13868	-0.23944	0.7946	-3.27086	-0.00724
NESS-BWBK-SS-NE07-0001	27.36564	-0.26023	1.1691	0.97729	0.42432	2.45954	3.6206087	-0.40717	1.16765	0.67734	1.58921	-0.02306
NESS-BWBK-SS-NE08-0001	19.320979	-0.14243	-0.07337	1.3575	-0.07821	0.79332	3.4949226	-0.16411	-0.00532	0.87061	-0.44009	-0.02485
NESS-BWBK-SS-NE09-0001	24.963041	-0.55056	1.03404	1.7326	-0.4695	-0.22463	3.5202334	-0.68009	1.0587	1.09799	-1.92909	0.00308
NESS-BWBK-SS-NE10-0001	25.715436	-0.27495	0.91239	0.67795	0.18373	3.02946	3.5797934	-0.38808	0.89984	0.45941	0.65932	-0.05198
NESS-BWBK-SS-NE101-0001	15.136141	-0.97582	-0.25573	1.02577	-0.38803	-3.05744	3.2430739	-0.9967	0.14248	0.40312	-3.24914	-0.02599
NESS-BWBK-SS-NE102-0001	16.701129	-1.3769	-0.06541	0.26823	0.38613	-0.87345	3.1097677	-1.44459	0.26573	-0.12672	-0.84647	-0.09642
NESS-BWBK-SS-NE103-0001	15.652191	-1.48356	-0.2954	0.11339	0.68361	-0.0088	3.0588769	-1.523	0.12688	-0.2903	-0.27941	-0.14175
NESS-BWBK-SS-NE104-0001	18.024689	-1.21217	-0.11036	0.52385	1.28724	0.65374	3.1516885	-1.25524	0.15743	0.07102	2.39693	-0.12521
NESS-BWBK-SS-NE105-0001	14.219235	-1.72508	-0.3931	0.05415	0.60066	-1.07875	2.9132521	-1.80012	-0.15135	-0.29693	-0.27741	-0.1201
NESS-BWBK-SS-NE106-0001	19.42207	-1.6609	0.41451	0.20015	0.84366	-0.9402	3.0735851	-1.75188	0.64409	-0.20281	0.4864	-0.11258
NESS-BWBK-SS-NE107-0001	16.83673	-1.8777	0.07846	0.27913	0.67086	-1.5213	2.9356271	-2.02195	0.3805	-0.15134	-0.10301	-0.09729
NESS-BWBK-SS-NE108-0001	17.889693	-1.55658	0.19694	0.18008	0.20074	-0.81205	3.066059	-1.6669	0.43153	-0.16914	-1.34611	-0.09559
NESS-BWBK-SS-NE109-0001	13.650922	-1.8739	-0.40961	0.17229	0.53049	-1.81243	2.8592545	-1.97113	-0.13656	-0.23673	-0.64061	-0.10854
NESS-BWBK-SS-NE110-0001	18.70215	-1.87221	0.34861	-0.03963	1.43996	-1.61575	3.0444713	-1.98149	0.93605	-0.4755	1.60553	-0.11829

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM						ZINC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.4067544	-2.85448	-2.82451	-1.86819	-3.9836	-8.53502	2.6325672	-2.99086	-2.82417	-1.13545	-13.4317	-0.24008
MAXIMUM DOMAIN VALUE	39.334252	2.00037	3.50478	1.7326	4.92806	8.26394	4.2441518	2.15572	3.43086	1.09799	16.0186	0.2492
SAMPLE	**V predict**	D1	D2	D3	D4	D5	**ZN_log pre**	D1	D2	D3	D4	D5
PMSB-BWBK-SB-PM01-0105	15.957934	0.92618	-0.4116	0.10923	-1.55959	-1.49502	3.8140268	1.0827	-0.49586	0.15797	-4.60714	0.06259
PMSB-BWBK-SB-PM02-0104	19.142597	1.33122	0.00905	0.82533	1.16735	-6.2732	4.0677622	1.463	0.34435	0.61273	4.27373	0.21601
PMSB-BWBK-SB-PM03-0106	15.954925	1.58102	-0.78644	-0.02328	0.99569	-1.82758	3.9363425	1.75909	-0.92347	0.21483	4.97267	0.12999
PMSB-BWBK-SB-PM04-0105	17.801076	1.15972	-0.47417	0.0369	0.45535	0.11741	3.8440065	1.30124	-0.65081	0.19822	2.77785	0.05739
PMSB-BWBK-SB-PM05-0105	15.894157	1.16621	-0.55072	-0.07527	0.13296	-2.67201	3.8443753	1.31946	-0.65978	0.10094	1.52128	0.11744
PMSB-BWBK-SB-PM06-0105	13.093441	1.1954	-0.99158	0.17838	0.74877	-4.46767	3.7803962	1.37812	-1.0887	0.26209	3.56643	0.1511
PMSB-BWBK-SB-PM07-0105	15.073083	0.90335	-0.27367	-0.69809	1.29663	-8.53502	3.8518504	1.11285	-0.12614	-0.49147	4.10602	0.19685
PMSB-BWBK-SB-PM08-0106	16.625533	1.01376	-0.27445	-0.45305	0.12514	-3.8006	3.8509713	1.17974	-0.3483	-0.21131	1.0437	0.121
PMSB-BWBK-SB-PM09-0106	13.136149	0.73003	-0.89252	-0.86041	0.49581	-2.43695	3.6458384	0.92867	-1.01281	-0.5312	1.98774	0.04881
PMSB-BWBK-SB-PM10-0105	17.680207	0.87177	-0.01282	-0.37769	0.7035	-5.54787	3.9470848	0.95021	0.63818	-0.30486	1.77747	0.16859
PMSB-BWBK-SB-PM11-0104	14.80018	1.28766	-0.66317	-0.4059	1.01476	-4.86433	3.8899946	1.51744	-0.70802	-0.17357	4.08448	0.14608
PMSB-BWBK-SB-PM12-0105	12.859234	0.18441	-0.70914	-0.47547	-1.31218	-1.89705	3.5172191	0.29497	-0.66364	-0.359	-4.68868	0.01553
PMSB-BWBK-SB-PM13-0106	15.566978	0.31178	-0.338	0.29099	1.41347	-6.3458	3.6604816	0.39162	0.07313	0.09274	3.96411	0.13717
PMSB-BWBK-SB-PM14-0106	13.767766	0.14703	-0.5017	-0.58344	-0.3069	-3.90727	3.5442043	0.24222	-0.35116	-0.45882	-1.55236	0.06285
PMSB-BWBK-SB-PM15-0105	16.316338	0.64071	-0.45459	-0.04551	0.42216	-1.93348	3.6865688	0.74593	-0.48922	0.03327	1.87627	0.06606
PMSB-BWBK-SB-PM16-0106	14.084119	0.30764	-0.76203	-0.19519	0.22109	-1.35227	3.531355	0.39982	-0.72696	-0.12725	0.77901	0.02388
PMSB-BWBK-SB-PM17-0105	16.986993	1.0245	-0.07641	-0.50416	-0.38364	-4.92575	3.908276	1.16081	0.00015	-0.26173	-0.83419	0.15762
PMSB-BWBK-SB-PM18-0105	17.169137	1.25668	-0.85594	0.37068	1.8919	1.05194	3.7583689	1.4051	-1.27207	0.50803	8.29865	0.04937
PMSB-BWBK-SB-PM19-0105	16.97792	0.88541	-0.59389	0.14544	0.71423	0.13031	3.7134263	0.9943	-0.80431	0.25643	3.57399	0.04524
PMSB-BWBK-SB-PM20-0106	16.343395	0.71052	-0.56909	-0.09566	0.28442	-0.18671	3.675409	0.81397	-0.69283	0.0435	1.73924	0.03522
PMSB-BWBK-SB-SO01-0107-PM	20.119166	1.24988	-0.41441	-0.05811	1.11222	3.63066	3.806848	1.35159	-0.93791	0.27604	6.03342	0.00955
PMSB-BWBK-SB-SO02-0109-PM	20.551865	1.22551	-0.40234	0.2386	2.43308	2.12943	3.8084442	1.31738	-0.81194	0.4462	10.2585	0.04421
PMSB-BWBK-SB-SO13-0104-PM	20.382696	1.51841	-0.35497	-0.35844	2.00537	1.72023	3.9608814	1.70102	-0.67075	0.00451	8.46604	0.04028
PMSB-BWBK-SB-SO14-0105-PM	21.004052	1.61042	-0.36178	-0.01569	1.62467	3.06579	3.9266545	1.76462	-1.00546	0.35861	8.1558	0.03861
PMSS-DABK-S-SO21-0001	35.372888	0.17147	2.32799	-1.08117	1.4259	5.32353	3.851191	-0.10036	2.02711	-0.4469	6.54534	0.01192
PMSS-DABK-S-SO22-0001	39.334252	0.48167	3.07522	-0.79004	0.2083	4.6219	4.0702159	0.08494	2.87391	-0.13233	3.21492	0.11085
PMSS-DABK-S-SO23-0001	29.423988	0.10919	1.60395	0.00249	-0.44448	2.85124	3.8931159	-0.04688	2.02094	-0.00389	-1.7438	-0.0027
PMSS-DABK-S-SO24-0001	32.913523	0.19231	2.2391	-0.32206	1.86328	-1.07881	3.9239998	-0.04135	2.35903	-0.08026	6.98614	0.13846
PMSS-DABK-S-SO25-0001	30.396864	0.52907	1.68982	0.51045	4.92806	-6.13945	4.0626829	0.39673	2.44077	0.30773	16.0186	0.23353
PMSS-DABK-S-SO26-0001	37.805509	0.52398	2.56111	-0.22072	0.5037	6.82698	4.0538817	0.17448	2.56733	0.17674	3.72264	0.03864
PMSS-DABK-S-SO27-0001	32.509185	-0.18736	2.051	-0.41108	-0.17019	4.93408	3.8175594	-0.43321	2.3281	-0.23823	-0.54549	-0.04002
PMSS-DABK-S-SO28-0001	36.229647	0.30347	3.03323	-1.22344	-1.36865	1.43645	4.043366	0.00094	2.84627	-0.5429	-2.91978	0.12557
PMSS-DABK-S-SO29-0001	34.939162	0.09193	2.564	0.40664	-0.53826	1.94639	3.9844976	-0.20101	2.82185	0.38523	-1.23123	0.07869
PMSS-DABK-S-SO30-0001	34.790494	0.07715	2.8384	-0.14168	-2.15919	1.03159	3.9382819	-0.21485	2.57486	0.14077	-5.73336	0.1101
PMSS-DABK-S-SO31-0001	24.386369	-0.30319	1.49236	-0.92379	0.16342	-5.75674	3.7036394	-0.44627	1.86316	-0.69498	-0.22691	0.15494
PMSS-DABK-S-SO32-0001	38.130333	0.58182	3.50478	-1.1069	-0.85968	-2.48353	4.2441518	0.31652	3.43086	-0.49062	-1.4368	0.22522
PMSS-DABK-S-SO33-0001	32.915534	-0.30694	2.66458	-0.75646	-3.12869	2.57623	3.8561697	-0.61348	2.80613	-0.42567	-10.1917	0.03187
PMSS-DABK-S-SO34-0001	24.716784	-0.23839	1.66241	-1.0068	-0.49605	-6.44942	3.8030357	-0.30381	2.11614	-0.83538	-3.05122	0.14025
PMSS-DABK-S-SO35-0001	28.678446	-0.04744	1.85838	-0.62921	-0.00698	-1.7305	3.8863922	-0.18513	2.32591	-0.49246	-0.79154	0.07934
PMSS-DABK-S-SO36-0001	26.814269	-0.71944	1.56257	-0.12476	0.05114	-0.79548	3.6613213	-0.86283	2.26543	-0.34111	-1.87318	-0.01301
PMSS-DABK-S-SO37-0001	26.328232	-0.16973	1.59437	-0.27551	0.91295	-5.10314	3.8152683	-0.3196	2.23611	-0.30681	1.93492	0.14903
PMSS-DABK-S-SO38-0001	23.078488	-0.53758	1.38013	-0.81955	-0.36261	-5.92764	3.7153998	-0.62503	2.19901	-0.83446	-3.5284	0.09963
PMSS-DABK-S-SO39-0001	22.328391	-0.20446	0.98757	-0.31946	0.99817	-5.96147	3.7239287	-0.23722	1.57448	-0.41155	1.75997	0.11684
PMSS-DABK-S-SO40-0001	24.55272	-0.41366	1.50245	-0.58485	-0.76736	-4.28458	3.7349353	-0.55101	2.14405	-0.56865	-4.08898	0.09964
SESB-BWBK-SB-SO03-0108	21.324342	2.00037	-0.46714	0.73526	0.52096	4.67127	4.0460365	2.15572	-1.14694	0.94629	5.09386	0.04096
SESB-BWBK-SB-SO04-0108	21.86192	1.56432	-0.21061	-0.26565	1.53009	3.61609	3.9358826	1.70373	-0.84102	0.18841	7.78936	0.02664
SESB-BWBK-SB-SO05-0106	21.213811	1.30518	-0.27355	0.38003	1.0206	3.54936	3.8624821	1.39335	-0.72938	0.56566	5.70361	0.02098
SESB-BWBK-SB-SO06-0108	22.884696	1.80062	-0.18846	0.53306	1.70507	3.55502	4.0452516	1.91903	-0.65384	0.74002	8.49352	0.05739
SESB-BWBK-SB-SO07-0106	19.730551	1.67668	-0.30396	-0.56876	0.40156	1.71142	3.9992007	1.82783	-0.72921	-0.04693	3.70236	0.07319
SESB-BWBK-SB-SO08-0107	22.067501	1.86565	-0.17988	0.45366	0.80223	2.78552	4.0649258	1.98505	-0.68602	0.71019	5.62763	0.08272
SESB-BWBK-SB-SO09-0106	21.149151	1.22072	-0.20985	0.15113	0.59049	3.74096	3.8572577	1.32421	-0.64776	0.37623	3.99169	0.00028
SESB-BWBK-SB-SO11-0106	17.786899	1.67212	-0.59056	0.31697	0.42202	-0.18103	3.9567746	1.82828	-0.9835	0.53463	3.76203	0.11561
SESB-BWBK-SB-SO12-0106	20.838679	1.61139	-0.38393	-0.23381	1.83967	2.98731	3.9271599	1.73999	-0.93312	0.21556	8.85271	0.04987
SESB-BWBK-SB-SO15-0103	17.165431	0.6223	-0.32203	-0.05749	0.4903	-1.82433	3.7214188	0.7028	-0.21539	0.00307	1.90317	0.06876
SESB-BWBK-SB-SO16-0105	16.305801	1.06509	-0.82041	-0.47251	1.03687	1.63106	3.7380222	1.20499	-1.02794	-0.13349	4.78312	0.01481
SESB-BWBK-SB-SO17-0106	16.025464	0.67206	-0.58933	-0.53619	-0.91732	1.92416	3.654573	0.78886	-0.81519	-0.24026	-2.21617	-0.02208
SESB-BWBK-SB-SO18-0105	14.832297	0.422	-0.38444	-0.71444	-2.13911	-0.92369	3.6205879	0.54445	-0.57465	-0.4319	-6.83682	0.01574
SESB-BWBK-SB-SO19-0104	16.9251	0.85028	0.18271	-1.29068	-3.06256	-3.00034	3.8464679	0.96517	-0.06925	-0.72376	-9.3547	0.11102
SESB-BWBK-SB-SO20-0104	17.938328	1.3398	-0.55983	-0.54613	1.3668	0.60907	3.8080721	1.47168	-1.0836	-0.04855	6.87464	0.0772
SESS-DABK-S-SO01-0001	26.215647	-0.29044	0.90826	0.57234	0.65127	3.76983	3.5334914	-0.4932	0.87401	0.47441	2.804	-0.03018
SESS-DABK-S-SO02-0001	36.345479	1.10529	2.74808	0.37988	-3.33007	3.87033	4.1665811	1.02213	1.47541	0.7644	-7.45399	0.07827
SESS-DABK-S-SO03-0001	29.626114	-0.53387	1.43177	0.31378	1.89371	3.70119	3.6631026	-0.83075	2.25778	0.10096	5.30695	-0.03401
SESS-DABK-S-SO04-0001	32.036093	-0.24687	1.76831	0.9717	-0.48232	6.37688	3.7157417	-0.56954	1.94074	0.76894	-0.89863	-0.04194
SESS-DABK-S-SO05-0001	28.582712	-0.35358	1.32067	0.27102	1.65594	2.68373	3.6406919	-0.60191	1.72607	0.1765	5.3459	-0.00276
SESS-DABK-S-SO06-0001	32.924868	1.06132	1.95042	0.67988	4.36383	-4.84135	4.2271044	0.96672	2.27603	0.59166	15.4057	0.2492
SESS-DABK-S-SO07-0001	30.632825	0.00309	1.62417	0.26625	-1.92111	7.55809	3.7482175	-0.19391	1.38517	0.35062	-5.27592	-0.09048
SESS-DABK-S-SO08-0001	29.359583	0.10422	1.49794	0.12679	0.41261	2.73335	3.7946972	-0.03	1.48272	0.17065	1.89812	0.00075
SESS-DABK-S-SO09-0001	27.157775	-0.19063	0.79222	0.17761	3.57875	3.52111	3.6662293	-0.36799	1.49626	0.02964	11.1566	-0.04321

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM						ZINC					
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM											
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC											
MINIMUM DOMAIN VALUE	1.4067544	-2.85448	-2.82451	-1.86819	-3.9836	-8.53502	2.6325672	-2.99086	-2.82417	-1.13545	-13.4317	-0.24008
MAXIMUM DOMAIN VALUE	39.334252	2.00037	3.50478	1.7326	4.92806	8.26394	4.2441518	2.15572	3.43086	1.09799	16.0186	0.2492
SAMPLE	**V predict**	D1	D2	D3	D4	D5	**ZN_log pre**	D1	D2	D3	D4	D5
SESS-DABK-S-SO10-0001	28.320656	-0.47258	1.12976	0.38758	4.48699	0.6844	3.5317953	-0.61901	1.26656	0.21112	14.6575	-0.00605
SESS-DABK-S-SO11-0001	25.647387	-1.16114	1.41673	-1.16758	-1.15127	3.18661	3.3454076	-1.32897	1.34252	-0.89442	-4.75398	-0.12149
SESS-DABK-S-SO12-0001	28.091364	-0.57622	1.63383	-0.08912	-0.89535	2.15298	3.5645473	-0.77367	1.53155	-0.03772	-2.91468	-0.0245
SESS-DABK-S-SO13-0001	26.857223	0.01376	0.62082	-0.45779	1.77638	8.26394	3.5331511	-0.14737	0.29183	-0.09328	7.4343	-0.11608
SESS-DABK-S-SO14-0001	24.033248	-0.32439	0.34514	-0.34808	2.97324	4.53296	3.5312656	-0.40862	0.79854	-0.34798	9.01721	-0.11476
SESS-DABK-S-SO15-0001	29.451837	-0.4681	1.51379	-0.11245	2.24097	2.0548	3.6774888	-0.66537	2.07231	-0.19322	6.46322	-0.02699
SESS-DABK-S-SO16-0001	23.856474	-1.40512	1.40578	-0.93985	-0.48485	-1.49321	3.2630793	-1.50508	1.25815	-0.83792	-3.12274	-0.06418
SESS-DABK-S-SO17-0001	27.546918	-1.13979	2.20154	-0.38898	1.15807	-8.06247	3.5608482	-1.25559	2.55393	-0.56473	1.58676	0.10999
SESS-DABK-S-SO18-0001	25.688117	-0.47439	1.21659	-0.77436	-0.83847	2.98521	3.5738561	-0.61045	1.29828	-0.55388	-3.19595	-0.06436
SESS-DABK-S-SO19-0001	31.759121	0.19851	2.07469	-0.0016	-2.08785	3.94322	3.8689887	0.02803	1.69422	0.2076	-5.58872	0.00467
SESS-DABK-S-SO20-0001	31.71322	0.29297	1.80796	0.95046	-0.56516	3.59758	3.9531958	0.1061	2.02916	0.72804	-1.37506	0.01613

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SUMMARY OF FACTOR ANALYSIS ANALYTE BACK-PREDICTION ERRORS (BEFORE REGRESSIONS)

Extent of Severe Overprediction or Underprediction Errors from Analyte Back-Prediction
No. of Samples With % Prediction Errors (OBSERVED - PREDICTED) / (OBSERVED)*100 > 100 or < -50

ALL SOIL TYPES:

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples)											
13 / 270	16 / 270	18 / 270	0 / 270	2 / 270	0 / 270	0 / 270	23 / 270	0 / 270	59 / 270	4 / 270	0 / 270

SOIL TYPE: BASS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type BASS)											
1 / 13	12 / 13	9 / 13	0 / 13	0 / 13	0 / 13	0 / 13	0 / 13	0 / 13	1 / 13	1 / 13	0 / 13

SOIL TYPE: MASB

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASB)											
0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	2 / 20	0 / 20	1 / 20	0 / 20	0 / 20

SOIL TYPE: MASS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASS)											
0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	3 / 20	0 / 20	7 / 20	1 / 20	0 / 20

SOIL TYPE: MMSB

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSB)											
1 / 20	0 / 20	2 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	2 / 20	0 / 20	0 / 20

SOIL TYPE: MMSS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSS)											
0 / 20	0 / 20	0 / 20	0 / 20	2 / 20	0 / 20	0 / 20	5 / 20	0 / 20	17 / 20	0 / 20	0 / 20

SOIL TYPE: NESB

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESB)											
0 / 20	3 / 20	3 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	0 / 20	1 / 20	0 / 20	0 / 20

SOIL TYPE: NESS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESS)											
0 / 22	1 / 22	1 / 22	0 / 22	0 / 22	0 / 22	0 / 22	0 / 22	0 / 22	21 / 22	0 / 22	0 / 22

SOIL TYPE: PMSB

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSB)											
0 / 24	0 / 24	0 / 24	0 / 24	0 / 24	0 / 24	0 / 24	2 / 24	0 / 24	0 / 24	0 / 24	0 / 24

SOIL TYPE: PMSS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSS)											
9 / 20	0 / 20	1 / 20	0 / 20	0 / 20	0 / 20	0 / 20	3 / 20	0 / 20	4 / 20	0 / 20	0 / 20

SOIL TYPE: SESB

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESB)											
1 / 15	0 / 15	1 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	0 / 15	1 / 15	0 / 15	0 / 15

SOIL TYPE: SESS

AL	AS_log	BA	CR	CO_log	FE_log	PB_log	MG	MN_log	NI_log	V	ZN_log
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESS)											
1 / 20	0 / 20	1 / 20	0 / 20	0 / 20	0 / 20	0 / 20	8 / 20	0 / 20	4 / 20	2 / 20	0 / 20

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100% or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS_log**	**BA**	**CR**	**CO_log**	**FE_log**	**PB_log**	**MG**	**MN_log**	**NI_log**	**V**	**ZN_log**
BASS-BWBK-SS-BA101-0001	-1	-59	-48	-4	-35	-2	-14	22	0	20	35	11
BASS-BWBK-SS-BA102-0001	-19	126	-56	9	-31	-3	-26	27	-2	46	40	9
BASS-BWBK-SS-BA103-0001	-13	384	-41	-1	-19	-3	-24	29	-2	46	46	8
BASS-BWBK-SS-BA104-0001	-10	-34	-73	-1	-6	-4	-5	36	-6	51	47	5
BASS-BWBK-SS-BA105-0001	-48	-84	-82	11	-12	-6	-4	18	-3	84	9	8
BASS-BWBK-SS-BA106-0001	2	-240	-94	11	-28	-4	11	27	-5	44	38	9
BASS-BWBK-SS-BA107-0001	-22	153	-50	5	-33	-3	-17	31	-1	47	37	9
BASS-BWBK-SS-BA108-0001	-20	157	-84	9	-21	-4	-10	38	-2	55	32	8
BASS-BWBK-SS-BA109-0001	24	299	-73	11	-32	-3	2	31	-9	45	77	7
BASS-BWBK-SS-BA110-0001	21	-350	9	-5	-9	-1	-11	22	-4	8	64	4
BASS-BWBK-SS-BA111-0001	-5	601	-80	12	-24	-3	-14	28	-1	30	45	8
BASS-BWBK-SS-BA112-0001	-1	152	-63	2	-25	-2	-21	31	0	15	56	9
BASS-BWBK-SS-BA113-0001	-128	-1146	-120	22	-48	-10	-3	55	-8	148	-113	22
MASB-BWBK-SB-MA01-0105	-9	9	-27	6	-3	-5	9	-16	17	52	8	4
MASB-BWBK-SB-MA02-0107	12	1	0	5	-5	-2	6	-7	1	15	5	5
MASB-BWBK-SB-MA03-0108	-47	9	8	0	7	-10	0	-20	6	115	-22	5
MASB-BWBK-SB-MA04-0106	13	10	-9	3	-9	-2	0	17	4	17	20	7
MASB-BWBK-SB-MA05-0108	-5	32	9	12	-10	-3	-6	-11	-2	45	-6	5
MASB-BWBK-SB-MA06-0105	6	-3	-4	6	-7	-2	3	-7	-3	29	10	6
MASB-BWBK-SB-MA07-0108	4	22	24	-4	-16	-1	5	-37	-9	26	-9	7
MASB-BWBK-SB-MA08-0108	19	18	-37	10	-20	4	0	-32	-3	-35	17	6
MASB-BWBK-SB-MA09-0108	-15	30	27	-3	-11	-3	3	-49	0	53	-25	6
MASB-BWBK-SB-MA10-0104	-29	12	11	8	-8	-4	7	-67	-9	66	-15	5
MASB-BWBK-SB-MA11-0108	-2	3	1	8	-13	-2	13	-24	-4	27	-4	6
MASB-BWBK-SB-MA12-0108	-10	31	13	8	-6	-4	-1	-23	-2	52	-18	5
MASB-BWBK-SB-MA13-0105	-15	2	15	20	8	-3	-34	16	-8	36	18	-5
MASB-BWBK-SB-MA14-0104	0	10	41	13	-3	1	-18	-52	3	-4	0	-3
MASB-BWBK-SB-MA15-0105	4	11	29	9	0	1	-31	-31	5	-12	19	-6
MASB-BWBK-SB-MA16-0104	-32	-1	19	9	2	-5	-6	-24	6	64	10	-2
MASB-BWBK-SB-MA17-0104	-13	1	18	1	9	-2	-26	-21	5	21	-4	0
MASB-BWBK-SB-MA18-0104	4	9	-30	24	-1	0	-38	25	-5	-2	36	-4
MASB-BWBK-SB-MA19-0103	-20	18	9	9	4	-4	-24	8	8	54	15	-3
MASB-BWBK-SB-MA20-0103	-12	-14	15	3	-2	-5	2	-23	-9	59	4	4
MASS-BWBK-SS-MA01-0001	-14	20	5	0	27	-1	-5	130	-14	-2	-50	-1
MASS-BWBK-SS-MA02-0001	24	-22	25	-11	13	3	-14	122	-17	-68	-67	4
MASS-BWBK-SS-MA03-0001	1	25	37	6	-12	1	-1	16	-11	-21	-40	-1
MASS-BWBK-SS-MA04-0001	12	-8	26	-5	-3	1	7	36	-9	-17	-44	3
MASS-BWBK-SS-MA05-0001	16	-26	7	-2	-7	2	4	18	-15	-28	-8	4
MASS-BWBK-SS-MA06-0001	27	32	51	0	-22	7	-9	16	-2	-95	-26	-2
MASS-BWBK-SS-MA07-0001	-31	85	-1	35	63	3	12	51	-11	-83	-48	-14
MASS-BWBK-SS-MA08-0001	-22	0	28	-12	-9	1	16	-40	-3	7	-29	-2
MASS-BWBK-SS-MA09-0001	11	-14	8	-4	-2	4	-2	46	1	-61	-14	2
MASS-BWBK-SS-MA10-0001	-2	-5	-2	-1	-5	2	3	17	2	-22	-10	1
MASS-BWBK-SS-MA11-0001	5	-7	25	-1	-7	4	-12	2	4	-61	10	-4
MASS-BWBK-SS-MA12-0001	26	-35	40	-2	-48	4	13	-14	-17	-42	-28	9
MASS-BWBK-SS-MA13-0001	13	-14	39	0	-8	6	-19	34	-7	-93	-2	-4
MASS-BWBK-SS-MA14-0001	-23	-28	15	-4	-5	-1	2	108	-3	6	-10	-3
MASS-BWBK-SS-MA15-0001	5	-12	22	-1	-3	4	-5	74	-14	-71	-14	-4
MASS-BWBK-SS-MA16-0001	-6	6	31	9	-28	2	-2	-18	-13	-24	0	-3
MASS-BWBK-SS-MA17-0001	-11	-1	1	5	6	0	-8	13	0	-7	-5	-3
MASS-BWBK-SS-MA18-0001	-17	12	15	1	-24	2	-5	-2	-14	-3	0	-3
MASS-BWBK-SS-MA19-0001	-17	-2	11	4	1	0	-6	12	-2	3	-2	-5
MASS-BWBK-SS-MA20-0001	-12	-3	31	2	-13	-1	6	-16	-3	22	-9	-1
MMSB-BWBK-SB-MM101-0110	-21	-5	7	-10	11	-4	29	3	2	54	-24	-3
MMSB-BWBK-SB-MM102-0109	23	-2	-18	-7	7	-2	25	25	-5	21	27	-3
MMSB-BWBK-SB-MM103-0107	-38	12	-61	9	30	-8	13	36	3	93	-21	-8
MMSB-BWBK-SB-MM104-0110	24	6	-41	-8	7	2	15	33	0	-56	22	2
MMSB-BWBK-SB-MM105-0110	-36	27	-18	-9	17	-6	18	4	1	90	-26	-5
MMSB-BWBK-SB-MM106-0110	32	-30	-20	-8	2	2	6	43	3	-54	39	3
MMSB-BWBK-SB-MM107-0110	-7	1	-40	36	13	-4	3	28	0	25	2	-5
MMSB-BWBK-SB-MM108-0110	-2	-6	-25	-13	15	-2	8	24	0	24	14	-1
MMSB-BWBK-SB-MM109-0110	15	-35	6	-5	12	0	4	24	2	-17	14	-4
MMSB-BWBK-SB-MM110-0109	13	-5	-20	17	7	0	6	15	-1	-15	12	-4
MMSB-BWBK-SB-MM111-0110	19	-20	13	-14	4	1	19	15	0	-20	11	-2
MMSB-BWBK-SB-MM112-0110	27	-36	-2	-14	0	2	2	15	13	-29	55	-3
MMSB-BWBK-SB-MM113-0110	26	-22	-51	35	4	-1	8	29	-3	-16	21	-2
MMSB-BWBK-SB-MM114-0110	-9	33	0	-13	17	-4	8	19	6	53	-8	-5

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MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS_log**	**BA**	**CR**	**CO_log**	**FE_log**	**PB_log**	**MG**	**MN_log**	**NI_log**	**V**	**ZN_log**
MMSB-BWBK-SB-MM115-0110	17	-25	19	**-41**	15	1	-25	**53**	7	**-48**	**32**	0
MMSB-BWBK-SB-MM116-0110	1	-10	-2	0	9	-3	19	25	2	29	-11	0
MMSB-BWBK-SB-MM117-0110	**-36**	8	-14	**-34**	24	-6	15	14	2	**89**	-14	-4
MMSB-BWBK-SB-MM118-0110	-1	-11	-3	**-31**	6	-7	**42**	14	4	**82**	20	-3
MMSB-BWBK-SB-MM119-0110	-3	4	-14	-8	7	-3	14	24	2	**32**	20	0
MMSB-BWBK-SB-MM120-0110	**-54**	15	**-38**	-13	**31**	-6	7	21	4	**96**	5	-7
MMSS-BWBK-SS-MM101-0001	**39**	-4	4	-20	-14	11	-2	-20	3	**-163**	5	-1
MMSS-BWBK-SS-MM102-0001	**37**	1	0	-11	-20	8	-4	**-61**	5	**-110**	18	-3
MMSS-BWBK-SS-MM103-0001	**36**	-2	-10	-9	-17	10	3	**-41**	3	**-148**	9	-4
MMSS-BWBK-SS-MM104-0001	**34**	-3	5	-15	-5	9	6	-9	3	**-121**	4	-4
MMSS-BWBK-SS-MM105-0001	11	15	-24	-8	4	4	3	**-48**	6	**-62**	-3	-7
MMSS-BWBK-SS-MM106-0001	**34**	-8	-17	8	3	8	-10	-1	3	**-131**	13	-5
MMSS-BWBK-SS-MM107-0001	**46**	-13	-2	-18	-12	11	-5	-6	2	**-165**	13	0
MMSS-BWBK-SS-MM108-0001	**44**	-10	-8	-16	-14	13	-9	**-41**	0	**-196**	14	-4
MMSS-BWBK-SS-MM109-0001	**46**	3	**-34**	-11	-9	12	-13	**-36**	2	**-185**	23	-5
MMSS-BWBK-SS-MM110-0001	23	9	6	-9	**-35**	8	10	**-85**	4	**-152**	-7	-9
MMSS-BWBK-SS-MM111-0001	**32**	4	-23	-15	4	8	7	**-43**	5	**-160**	-10	-7
MMSS-BWBK-SS-MM112-0001	25	**30**	5	-16	**-105**	7	13	**-62**	3	**-134**	**-32**	-2
MMSS-BWBK-SS-MM113-0001	**34**	-17	-4	-20	-29	11	10	**-34**	3	**-168**	3	-4
MMSS-BWBK-SS-MM114-0001	15	**39**	-10	-14	-6	5	-3	**-31**	7	**-93**	-26	-3
MMSS-BWBK-SS-MM115-0001	**35**	8	**34**	-21	**-85**	9	2	**-106**	11	**-152**	-11	0
MMSS-BWBK-SS-MM116-0001	17	17	-7	-13	-9	6	6	**-49**	8	**-114**	-9	-6
MMSS-BWBK-SS-MM117-0001	**35**	-15	12	-20	-10	9	8	**-31**	2	**-132**	-2	-4
MMSS-BWBK-SS-MM118-0001	12	28	-29	-7	20	1	-4	15	2	-12	14	-7
MMSS-BWBK-SS-MM119-0001	8	27	-9	-21	20	-1	-3	6	3	16	16	-7
MMSS-BWBK-SS-MM120-0001	11	-24	-8	27	-5	3	-4	**-86**	-1	**-40**	8	-3
NESB-BWBK-SB-NE01-0108	**37**	-12	**-63**	-3	4	2	15	12	-3	**-38**	20	4
NESB-BWBK-SB-NE02-0109	25	-5	25	-10	3	0	10	14	7	-15	-5	2
NESB-BWBK-SB-NE03-0105	27	-4	-15	-7	4	2	10	-15	-2	-24	8	1
NESB-BWBK-SB-NE04-0110	20	-10	-29	-12	8	0	14	8	0	-4	10	2
NESB-BWBK-SB-NE05-0108	29	-15	**-61**	-5	3	1	13	3	-3	-20	19	4
NESB-BWBK-SB-NE06-0109	19	-10	**-38**	-10	6	-1	14	-1	-3	6	15	2
NESB-BWBK-SB-NE07-0107	**36**	-14	**-38**	-3	3	2	15	4	-5	**-36**	6	4
NESB-BWBK-SB-NE08-0104	14	-9	**-58**	-5	12	-2	5	1	-4	18	17	0
NESB-BWBK-SB-NE09-0110	20	-12	**-42**	-4	6	-1	11	0	-1	0	12	3
NESB-BWBK-SB-NE10-0107	21	-27	**-35**	1	5	2	-6	15	-1	**-32**	28	0
NESB-BWBK-SB-NE101-0110	28	**-38**	16	-22	13	3	-6	27	0	**-54**	22	-3
NESB-BWBK-SB-NE102-0110	23	**-39**	24	**-32**	17	2	-9	**38**	2	**-35**	14	-3
NESB-BWBK-SB-NE103-0110	13	**-35**	18	-30	18	0	-7	28	2	-8	17	-4
NESB-BWBK-SB-NE104-0110	-3	**-36**	7	-28	24	-2	-6	28	0	27	15	-5
NESB-BWBK-SB-NE105-0110	21	-19	25	-23	7	2	-7	26	6	**-39**	21	-2
NESB-BWBK-SB-NE106-0110	19	**-45**	18	-29	15	0	-4	30	1	-16	20	-2
NESB-BWBK-SB-NE107-0510	5	**-71**	7	**-37**	17	-1	2	26	1	2	23	-1
NESB-BWBK-SB-NE108-0110	17	**-74**	-1	-28	21	1	-12	**32**	1	**-32**	**32**	-4
NESB-BWBK-SB-NE109-0110	21	**-68**	13	**-31**	19	1	-6	30	1	**-37**	20	-3
NESB-BWBK-SB-NE110-0110	15	**-42**	-17	-21	23	1	-5	**35**	2	-26	23	-3
NESS-BKG-SS03-NEB-0016	13	-26	-21	-28	2	5	23	14	3	**-66**	-28	0
NESS-BKG-SS09-NEB-0018	11	**35**	**-59**	2	11	5	-1	5	9	**-80**	-18	-5
NESS-BWBK-SS-NE01-0001	23	8	-23	1	-4	6	-5	12	3	**-93**	-24	6
NESS-BWBK-SS-NE02-0001	20	18	**-41**	7	-17	4	-1	5	-7	**-49**	**-42**	12
NESS-BWBK-SS-NE03-0001	**39**	9	-17	-4	-8	10	-7	-30	1	**-139**	-11	2
NESS-BWBK-SS-NE04-0001	**37**	-6	**-49**	-4	12	8	-5	10	2	**-110**	10	-3
NESS-BWBK-SS-NE05-0001	26	8	**-32**	14	-8	6	4	-2	0	**-92**	-25	3
NESS-BWBK-SS-NE06-0001	**40**	-8	**-49**	-1	7	7	-4	4	-5	**-96**	14	-2
NESS-BWBK-SS-NE07-0001	20	10	-17	-1	-13	6	7	-10	-1	**-86**	-19	2
NESS-BWBK-SS-NE08-0001	**41**	-2	-14	-6	-3	9	-3	-19	-2	**-118**	-1	0
NESS-BWBK-SS-NE09-0001	**40**	7	-5	-17	0	12	-4	-10	8	**-176**	-19	0
NESS-BWBK-SS-NE10-0001	15	1	-13	-9	-12	4	17	-1	1	**-55**	-20	1
NESS-BWBK-SS-NE101-0001	**40**	-14	-15	-24	19	9	-15	-5	5	**-152**	13	-7
NESS-BWBK-SS-NE102-0001	22	-26	-9	-24	1	6	12	-8	6	**-96**	-6	-5
NESS-BWBK-SS-NE103-0001	20	7	-4	-4	-11	5	14	-17	3	**-76**	-4	-8
NESS-BWBK-SS-NE104-0001	30	**-51**	-15	**-33**	-20	7	**34**	**-34**	4	**-108**	-17	-5
NESS-BWBK-SS-NE105-0001	24	6	-1	-23	-11	6	3	-22	8	**-111**	-14	-3
NESS-BWBK-SS-NE106-0001	18	**-32**	-21	-30	-9	6	**33**	-3	10	**-120**	**-34**	-7
NESS-BWBK-SS-NE107-0001	25	-3	-9	**-33**	**-37**	8	9	-10	17	**-161**	-14	-2
NESS-BWBK-SS-NE108-0001	18	-18	5	**-35**	-6	6	13	14	8	**-109**	-17	-3
NESS-BWBK-SS-NE109-0001	30	-27	4	-29	-22	7	2	-10	11	**-158**	-9	-2
NESS-BWBK-SS-NE110-0001	4	7	-14	-18	-9	5	18	-16	5	**-100**	-8	-11

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS_log**	**BA**	**CR**	**CO_log**	**FE_log**	**PB_log**	**MG**	**MN_log**	**NI_log**	**V**	**ZN_log**
PMSB-BWBK-SB-PM01-0105	7	10	-6	-8	15	-3	-13	9	6	**32**	14	-4
PMSB-BWBK-SB-PM02-0104	10	4	-13	27	0	3	-22	**-30**	7	**-38**	28	-6
PMSB-BWBK-SB-PM03-0106	-5	9	**-40**	8	5	-3	-14	-24	-5	**39**	23	1
PMSB-BWBK-SB-PM04-0105	-2	24	-14	6	-2	-2	5	-9	2	**33**	8	0
PMSB-BWBK-SB-PM05-0105	-6	13	-14	6	4	-3	-6	-7	6	**34**	19	-1
PMSB-BWBK-SB-PM06-0105	8	19	12	-1	-3	-1	-11	-20	17	7	29	0
PMSB-BWBK-SB-PM07-0105	**-39**	18	13	10	15	-5	-29	**-44**	14	**73**	24	-10
PMSB-BWBK-SB-PM08-0106	-21	23	-18	5	13	-5	-15	-10	7	**65**	13	-4
PMSB-BWBK-SB-PM09-0106	**-34**	**33**	-21	10	12	-7	-22	-23	3	**93**	14	-4
PMSB-BWBK-SB-PM10-0105	**-39**	6	**-37**	29	7	-5	**-39**	-16	9	**62**	**38**	-8
PMSB-BWBK-SB-PM11-0104	-22	8	**33**	0	5	-5	-9	**-48**	15	**66**	21	-5
PMSB-BWBK-SB-PM12-0105	-13	10	**-49**	26	11	-4	-16	21	6	**48**	21	-3
PMSB-BWBK-SB-PM13-0106	4	7	24	20	-6	2	**-33**	**-44**	15	**-36**	30	-6
PMSB-BWBK-SB-PM14-0106	-23	16	-14	10	10	-4	-20	2	14	**56**	23	-5
PMSB-BWBK-SB-PM15-0105	-3	7	8	11	1	-1	-10	-17	4	18	13	-1
PMSB-BWBK-SB-PM16-0106	-2	14	-1	3	0	-2	-11	-13	8	26	19	-1
PMSB-BWBK-SB-PM17-0105	-28	4	**-42**	2	17	-6	-10	9	4	**66**	22	-5
PMSB-BWBK-SB-PM18-0105	15	13	30	5	-13	1	7	**-41**	-5	-3	-3	4
PMSB-BWBK-SB-PM19-0105	6	9	24	2	-7	-1	-2	-25	3	13	6	2
PMSB-BWBK-SB-PM20-0106	-2	12	6	4	0	-2	-8	-15	1	30	10	1
PMSB-BWBK-SB-SO01-0107-PM	-2	2	10	-9	-3	-3	8	**-38**	-14	**45**	-16	6
PMSB-BWBK-SB-SO02-0109-PM	4	12	12	4	-12	0	7	**-54**	-9	13	-10	5
PMSB-BWBK-SB-SO13-0104-PM	-24	6	**33**	6	0	-5	6	**-55**	-19	**73**	-7	0
PMSB-BWBK-SB-SO14-0105-PM	-4	13	**35**	0	-5	-3	8	**-42**	-15	**45**	-24	5
PMSS-DABK-S-SO21-0001	**-88**	-8	23	12	-22	-8	5	-27	-4	**124**	-28	8
PMSS-DABK-S-SO22-0001	**-69**	-26	-7	10	-14	-8	-7	20	2	**107**	-13	10
PMSS-DABK-S-SO23-0001	-25	-16	-1	-3	-2	-2	6	27	-2	**40**	3	-3
PMSS-DABK-S-SO24-0001	**-46**	-20	20	11	-11	-2	-10	**-53**	3	**36**	-7	2
PMSS-DABK-S-SO25-0001	-22	-15	**37**	4	-20	4	-5	**-130**	12	**-44**	15	-5
PMSS-DABK-S-SO26-0001	**-46**	-18	15	4	-28	-4	-1	9	-3	**65**	-7	9
PMSS-DABK-S-SO27-0001	**-46**	-21	0	-5	-10	-4	12	**37**	-4	**72**	-7	1
PMSS-DABK-S-SO28-0001	**-87**	-24	-11	9	6	-11	-6	**76**	5	**143**	-15	5
PMSS-DABK-S-SO29-0001	-16	-22	5	3	-3	1	-12	**33**	-8	-13	-3	2
PMSS-DABK-S-SO30-0001	-27	-24	6	1	7	-3	-16	**75**	4	28	-21	5
PMSS-DABK-S-SO31-0001	**-64**	-25	**-43**	11	15	-6	-9	29	17	**80**	10	-4
PMSS-DABK-S-SO32-0001	**-85**	-26	-7	8	11	-10	-3	**58**	10	**130**	-12	1
PMSS-DABK-S-SO33-0001	**-58**	**-47**	-9	3	14	-8	-8	**132**	-4	**95**	-7	2
PMSS-DABK-S-SO34-0001	**-74**	-22	-16	11	22	-7	1	**50**	17	**99**	7	-11
PMSS-DABK-S-SO35-0001	**-62**	-24	-5	11	5	-5	7	**34**	6	**76**	4	-7
PMSS-DABK-S-SO36-0001	-29	-17	-21	9	9	0	11	**42**	-5	6	5	-11
PMSS-DABK-S-SO37-0001	**-38**	-4	-23	15	7	-2	-15	2	12	22	15	-6
PMSS-DABK-S-SO38-0001	**-62**	-18	**-55**	8	24	-5	2	**60**	17	**83**	19	-14
PMSS-DABK-S-SO39-0001	**-36**	-14	12	8	7	-1	-3	-14	14	21	15	-11
PMSS-DABK-S-SO40-0001	**-49**	-13	-24	7	14	-4	-6	**62**	17	**59**	15	-8
SESB-BWBK-SB-SO03-0108	19	9	20	-8	-7	0	15	-23	-10	10	-14	6
SESB-BWBK-SB-SO04-0108	-16	14	**34**	6	-5	-5	5	**-45**	-16	**65**	-25	4
SESB-BWBK-SB-SO05-0106	9	15	24	4	-10	0	-1	**-35**	-8	15	-12	5
SESB-BWBK-SB-SO06-0108	8	13	2	2	-6	0	7	**-35**	-18	15	-8	5
SESB-BWBK-SB-SO07-0106	-30	2	-29	3	1	-8	16	-28	7	**96**	0	3
SESB-BWBK-SB-SO08-0107	6	8	8	3	-7	-1	9	-24	-5	21	-5	5
SESB-BWBK-SB-SO09-0106	2	18	26	4	-5	-2	-2	-21	-18	**30**	-15	3
SESB-BWBK-SB-SO11-0106	8	16	-11	-2	-5	-2	9	-16	11	22	9	4
SESB-BWBK-SB-SO12-0106	-15	12	10	7	-8	-4	8	**-49**	-6	**63**	-12	5
SESB-BWBK-SB-SO15-0103	-6	8	-9	3	4	-2	-12	-20	5	28	18	-2
SESB-BWBK-SB-SO16-0105	-22	0	12	8	-2	-5	-3	**-40**	-6	**73**	9	2
SESB-BWBK-SB-SO17-0106	-19	-14	-8	8	10	-6	-4	2	-13	**73**	2	1
SESB-BWBK-SB-SO18-0105	-23	-10	**-42**	6	23	-7	-8	**33**	-4	**80**	4	-3
SESB-BWBK-SB-SO19-0104	**-60**	-29	**-67**	6	30	-12	-15	**55**	-2	**135**	9	-3
SESB-BWBK-SB-SO20-0104	-27	-8	17	7	-5	-6	8	**-45**	1	**72**	-6	5
SESS-DABK-S-SO01-0001	11	-5	**-54**	-2	-8	4	-9	-20	-15	**-54**	-12	7
SESS-DABK-S-SO02-0001	-9	-4	21	**42**	-9	-2	7	**43**	-7	-7	**-92**	5
SESS-DABK-S-SO03-0001	-17	-15	-15	-4	-29	3	-4	-9	-18	-24	13	1
SESS-DABK-S-SO04-0001	11	-22	-29	-9	-7	5	-16	12	-24	**-60**	-5	7
SESS-DABK-S-SO05-0001	-10	-7	**-37**	-6	-20	2	0	**-31**	0	-18	3	3
SESS-DABK-S-SO06-0001	-14	14	**45**	-2	-13	4	-17	**-82**	3	**-36**	3	-3
SESS-DABK-S-SO07-0001	-4	4	19	-10	-7	-1	0	**50**	-22	10	-27	5
SESS-DABK-S-SO08-0001	-14	4	25	-10	-11	0	7	0	-2	10	-17	1
SESS-DABK-S-SO09-0001	-19	-1	11	-4	**-34**	2	2	**-82**	-15	2	12	0

APPENDIX F, TABLE F4-4
ANALYTE BACK-PREDICTION EQUATIONS FOR FIVE FACTOR ANALYSIS OF SOIL, OMIT Be,Ca Cd,Cu,K,Hg,Na,Se, LOG As,Co,Fe,Pb,Mn,Ni,Zn
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE												
MAXIMUM DOMAIN VALUE												
SAMPLE	**AL**	**AS_log**	**BA**	**CR**	**CO_log**	**FE_log**	**PB_log**	**MG**	**MN_log**	**NI_log**	**V**	**ZN_log**
SESS-DABK-S-SO10-0001	-1	-3	**48**	-1	-27	6	-3	**-370**	-13	**-59**	-23	1
SESS-DABK-S-SO11-0001	**-63**	**-42**	0	0	25	-7	1	**118**	-22	**112**	**-43**	-1
SESS-DABK-S-SO12-0001	-14	-4	18	-10	4	0	-8	**45**	-14	-6	-27	2
SESS-DABK-S-SO13-0001	-30	13	**37**	1	**-32**	-3	-5	**-56**	-24	**62**	-30	10
SESS-DABK-S-SO14-0001	**-32**	13	-18	0	-20	-1	13	**-65**	-24	**51**	1	-2
SESS-DABK-S-SO15-0001	-28	0	-17	15	-9	0	-8	**-172**	-7	30	0	-3
SESS-DABK-S-SO16-0001	**-39**	12	1	5	**40**	-3	-5	**65**	-16	**50**	**-70**	-7
SESS-DABK-S-SO17-0001	**-33**	-12	**31**	-12	**31**	2	-8	**-68**	6	**-31**	-23	-15
SESS-DABK-S-SO18-0001	**-50**	-3	4	-8	9	-5	4	**54**	-20	**80**	-15	-1
SESS-DABK-S-SO19-0001	-16	-9	2	-7	1	-3	15	**55**	0	26	**-33**	3
SESS-DABK-S-SO20-0001	6	15	9	-5	-13	4	2	29	-6	**-46**	-4	0

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Summary statistics

FACTOR PATTERN MATRIX (FPM) after Varimax rotation: USED TO PREDICT CASE VALUES

(PREDICT each sample and metal from SUMPRODUCT of (FACTOR SCORES ON ONE SAMPLE) X (FACTOR PATTERN MATRIX)

	D1	D2	D3	D4	D5	D6
AL	0.23069919	0.83917	-0.05881	-0.2449	-0.10467	0.1824991
AS	0.77415749	0.225651	-0.24115	0.09179	-0.07011	-0.047144
BA	0.00284107	0.790969	0.23055	0.19295	-0.10111	-0.132894
BE	0.43285019	0.715773	-0.11005	-0.1424	0.24759	0.0007893
CA	0.3510683	-0.15149	-0.13459	0.63402	0.0515	0.006798
CR	0.67961227	0.615876	-0.00825	0.09781	0.16603	0.18312
CO	0.92327026	0.105874	0.03965	0.06002	0.16408	-0.221823
CU	0.86055255	0.114109	0.19106	-0.1617	-0.04343	0.1048225
FE	0.92445171	0.270862	-0.09801	-0.0059	0.04575	-0.011063
PB	-0.0621465	0.607104	-0.21978	-0.0777	-0.55705	-0.012022
MG	0.80184209	-0.0041	0.44681	0.11325	0.1259	0.2784981
MN	0.60483236	0.053961	0.04951	0.1425	0.23176	-0.177192
NI	0.95836123	0.120331	0.00162	0.06431	0.04689	-0.012162
K	0.02526463	-0.10375	0.90074	-0.0601	0.0429	-0.014688
V	0.25297399	0.886169	-0.17081	0.03268	-0.06184	-0.095975
ZN	0.91480064	0.257591	-0.08421	0.16781	-0.16083	0.0811062

FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	D1	D2	D3	D4	D5	D6
AL	-0.0327533	0.283378	0.00917	-0.5433	0.00912	0.104739
AS	-0.0377127	0.005295	0.04678	0.21495	-0.02504	0.0862542
BA	-0.0755965	0.199911	0.22411	0.28954	-0.05591	-0.211874
BE	-0.0072115	0.123565	-0.01608	-0.0285	0.38068	0.1577616
CA	-0.0122901	0.008304	-0.07042	0.3142	0.10963	-0.084562
CR	-0.0721147	0.290492	-0.14329	0.15241	0.65833	0.4843292
CO	0.22425822	-0.03065	0.13346	-0.1757	0.41191	-1.253744
CU	0.10689776	-0.05421	0.04338	-0.5147	-0.2179	0.0681306
FE	0.3902904	-0.14047	-0.44412	-0.8199	0.22268	-0.490311
PB	0.02073081	0.035742	0.01601	-0.0923	-0.40287	-0.060741
MG	0.08114376	-0.09688	0.57865	0.47116	0.07585	0.9959792
MN	-0.0045433	0.008884	-0.0059	0.10396	0.04331	-0.028152
NI	0.14031386	-0.06212	-0.04729	-0.2083	0.1145	-0.126121
K	-0.0089859	0.084569	0.58538	-0.0997	-0.12156	-0.35203
V	-0.0907644	0.387337	0.06963	0.29024	-0.19093	-0.246211
ZN	0.2683719	-0.07482	-0.11171	0.90785	-1.29724	0.549328

TRANSPOSE FACTOR PATTERN COEFFICIENTS (FPC) after Varimax rotation:

	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
D1	-0.0328	-0.0377	-0.0756	-0.0072	-0.0123	-0.0721	0.2243	0.1069	0.3903	0.0207	0.0811	-0.0045	0.1403	-0.0090	-0.0908	0.2684
D2	0.2834	0.0053	0.1999	0.1236	0.0083	0.2905	-0.0306	-0.0542	-0.1405	0.0357	-0.0969	0.0089	-0.0621	0.0846	0.3873	0.3873
D3	0.0092	0.0468	0.2241	-0.0161	-0.0704	-0.1433	0.1335	0.0434	-0.4441	0.0160	0.5787	-0.0059	-0.0473	0.5854	0.0696	0.0696
D4	-0.5433	0.2150	0.2895	-0.0285	0.3142	0.1524	-0.1757	-0.5147	-0.8199	-0.0923	0.4712	0.1040	-0.2083	-0.0997	0.2902	0.2902
D5	0.0091	-0.0250	-0.0559	0.3807	0.1096	0.6583	0.4119	-0.2179	0.2227	-0.4029	0.0758	0.0433	0.1145	-0.1216	-0.1909	-0.1909
D6	0.1047	0.0863	-0.2119	0.1578	-0.0846	0.4843	-1.2537	0.0681	-0.4903	-0.0607	0.9960	-0.0282	-0.1261	-0.3520	-0.2462	-0.2462

FACTOR PATTERN COEFFICIENT MATRIX (FPC) IS MULTIPLIED BY STANDARDIZED CONCENTRATIONS FOR EACH CASE (SAMPLE), WHERE CONCENTRATIONS ARE NORMALIZED FROM RAW CONCENTRATIONS AS (VALUE - MEAN)/(STANDARD DEVIATION), YIELDING FACTOR SCORES FOR THAT CASE (ONE SAMPLE). FACTOR SCORES FOR EACH CASE (SAMPLE) ARE THEN MULTIPLIED BY THE FACTOR PATTERN MATRIX, WHICH YIELDS PREDICTED CASE VALUES FOR EACH METAL

STANDARDIZATION OF VARIABLES FOR THE ENTIRE DATA SET:

Variable	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
Mean	10495.029	8.383	25.495	0.430	845.658	11.929	6.996	11.636	########	10.278	2386.615	303.304	13.558	627.080	16.724	35.076
Std. deviation	2789.833	7.846	9.346	0.136	581.279	3.455	4.339	6.390	8451.579	5.833	798.395	254.941	6.556	395.663	4.973	13.998

ADJUSTED FACTOR PATTERN COEFFICIENTS (FPC) MATRICES ELIMINATE THE INFLUENCE OF THE METAL TO BE PREDICTED FROM THE PREDICTION EQUATION FOR THAT METAL:

IN EACH FPC MATRIX, EACH "D" LOADING COEFFICIENT COLUMN VALUE IS MULTIPLIED BY THE SUM OF ENTIRE COLUMN VALUES, THEN DIVIDED BY AN ADJUSTED SUM OF THE VALUES IN THAT "D" COLUMN, LESS THE METAL IN QUESTION.
THE ADJUSTED FACTOR PATTERN COEFFICIENT (FPC) MATRIX ALSO ZEROES OUT THE ROW FOR THE METAL TO BE PREDICTED.

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

SAMPLE	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
BASS-BWBK-SS-BA101-0001	-2.0556892	-0.91554	-1.92531	-1.9182	0.12273	-1.831961	-1.17447	-1.241898	-1.18357	-1.24767	-0.27131	-0.66017	-1.1682	-0.2529	-2.0963	-0.9627
BASS-BWBK-SS-BA102-0001	-2.424887	-0.95505	-2.043	-2.1396	-0.38993	-2.063534	-1.24361	-1.32014	-1.38827	-1.31625	-0.91009	-0.78569	-1.275	-0.4248	-2.3175	-1.2128
BASS-BWBK-SS-BA103-0001	-2.2815092	-0.94613	-1.87181	-2.0658	0.76442	-2.005641	-1.19751	-1.32014	-1.3433	-1.2991	-0.73474	-0.75823	-1.1987	-0.1695	-2.1566	-1.1699
BASS-BWBK-SS-BA104-0001	-2.0449359	-0.90279	-1.77552	-2.0658	-0.34004	-1.600387	-1.05923	-1.226249	-1.22262	-1.17909	-0.10849	-0.74646	-0.9851	0.10089	-1.6941	-1.0413
BASS-BWBK-SS-BA105-0001	-2.3567826	-0.91554	-2.0537	-2.0658	6.85443	-1.803014	-1.10533	-1.288843	-1.26403	-1.17909	-0.78484	-0.70724	-1.0919	-0.3844	-2.1365	-0.9985
BASS-BWBK-SS-BA106-0001	-2.0413514	-0.92446	-1.96811	-1.992	0.02295	-1.296446	-1.0938	-1.101061	-1.20191	-1.11052	-0.12727	-0.66409	-0.8707	-0.1455	-1.8047	-0.8913
BASS-BWBK-SS-BA107-0001	-2.3962114	-0.95632	-1.94671	-2.1396	-0.31423	-2.063534	-1.24361	-1.367086	-1.38945	-1.26481	-0.89757	-0.76608	-1.275	-0.2782	-2.1767	-1.2056
BASS-BWBK-SS-BA108-0001	-2.3747048	-0.95123	-2.0216	-2.0658	0.47196	-1.947747	-1.22056	-1.273195	-1.4143	-1.24767	-0.80989	-0.77392	-1.214	-0.3363	-2.2572	-1.2056
BASS-BWBK-SS-BA109-0001	-2.2707559	-0.94868	-2.0323	-2.1396	-0.30907	-1.426707	-1.15142	-0.960225	-1.33384	-1.2991	-0.12101	-0.75431	-0.8174	-0.3313	-2.1365	-1.1056
BASS-BWBK-SS-BA110-0001	-1.8657137	-0.92829	-1.17636	-1.992	-0.44326	-1.426707	-1.03619	-1.148007	-1.0901	-1.24767	-0.02081	-0.67586	-0.9241	0.63165	-1.7946	-1.077
BASS-BWBK-SS-BA111-0001	-2.2384959	-0.94485	-2.0109	-2.1396	0.07112	-1.74512	-1.19751	-1.382734	-1.31254	-1.26481	-0.59697	-0.72293	-1.1987	-0.3035	-2.1566	-1.1556
BASS-BWBK-SS-BA112-0001	-2.2456648	-0.9627	-1.95741	-2.0658	3.70621	-1.947747	-1.22056	-1.398383	-1.31727	-1.2991	-0.55939	-0.74254	-1.275	-0.3035	-2.1968	-1.1842
BASS-BWBK-SS-BA113-0001	-2.4320559	-0.93593	-1.97881	-1.9551	2.6654	-1.759594	-1.16294	-0.248218	-1.33443	-0.94765	-0.91636	-0.78785	-1.214	-0.2567	-2.1466	0.0124
MASB-BWBK-SB-MA01-0105	0.03762637	0.550162	-0.45951	0.14747	1.40095	0.8021898	1.199369	1.042784	0.930827	-0.20189	0.818373	5.674641	1.27243	0.19188	0.07559	1.29472
MASB-BWBK-SB-MA02-0107	0.32438193	0.269767	0.04335	-0.2952	1.72781	1.1495503	1.153275	0.917596	1.167469	-0.32189	1.444629	1.097104	1.51649	0.17924	-0.0049	1.45189
MASB-BWBK-SB-MA03-0108	-0.3960914	1.008991	0.17174	-0.369	1.31493	0.4258826	2.973985	1.433997	1.202965	-0.32189	0.630496	2.658252	1.80631	-0.2251	-0.2663	2.00911
MASB-BWBK-SB-MA04-0106	0.32438193	0.486436	0.30013	0.14747	1.76222	1.2653371	1.061087	0.995839	1.025483	-0.4419	2.271287	1.803151	1.66903	0.11353	0.41745	1.88766
MASB-BWBK-SB-MA05-0108	0.00178192	2.61489	-0.06364	0.22124	1.45256	1.0337634	0.784524	0.886299	0.954491	-0.37333	1.194127	0.571491	1.30293	0.11353	0.15603	1.30187
MASB-BWBK-SB-MA06-0105	0.07347081	0.040353	-0.17063	-8E-05	1.28052	0.9179766	0.73843	0.917596	0.788841	-0.35618	1.131501	0.449894	1.25717	0.17671	0.21636	1.30187
MASB-BWBK-SB-MA07-0108	-0.069907	1.066344	-0.78049	-0.5534	0.94506	0.1219422	0.254444	-0.021314	1.049148	-0.39047	0.899786	-0.13063	0.84532	-0.282	-0.2261	0.99825
MASB-BWBK-SB-MA08-0108	1.31010416	4.494813	-0.85004	1.14343	1.13429	1.9600581	1.372221	0.964542	3.853358	0.329579	2.139773	0.793111	1.79868	-0.3073	1.67432	2.5949
MASB-BWBK-SB-MA09-0108	0.18100415	4.360988	-0.41672	0.22124	0.6612	0.3100958	1.084134	1.997343	1.877395	0.038131	0.805848	0.861755	1.21141	-0.5588	0.0957	1.78765
MASB-BWBK-SB-MA10-0104	-0.6685092	0.562907	-1.27266	-0.5165	-0.0321	-0.095158	0.369679	-0.052611	0.918994	-0.27046	0.05434	-0.26792	0.34194	-0.857	-0.2864	0.65892
MASB-BWBK-SB-MA11-0108	0.28853748	0.932519	-0.24553	1.03276	1.26332	1.1206036	0.9689	1.387051	1.581593	0.535307	1.144026	0.473429	1.39446	-0.0962	0.63866	1.89481
MASB-BWBK-SB-MA12-0108	0.1451597	3.863923	-0.17063	-0.0739	1.45256	0.97587	1.591168	1.277512	1.711746	-0.25332	1.344428	0.90098	1.68428	0.23737	-0.0049	1.79479
MASB-BWBK-SB-MA13-0105	-0.5358848	-0.342	0.95279	1.10654	0.86764	0.6574562	-0.11431	-0.177799	-0.39437	-0.66477	-0.39656	-0.57387	-0.1919	-0.5486	0.63866	-0.3269
MASB-BWBK-SB-MA14-0104	0.50360415	1.353112	1.67498	1.58608	-0.29187	1.2942838	0.819094	0.643747	1.445523	-0.03902	-0.06465	0.493041	0.57075	-0.4791	0.97048	0.65535
MASB-BWBK-SB-MA15-0105	0.5394486	0.652124	1.51984	2.58204	-0.20413	0.9469233	0.300538	0.24471	0.623192	-0.33904	-0.28384	0.304762	0.23516	-0.4096	1.38273	0.08027
MASB-BWBK-SB-MA16-0104	-0.6004048	-0.03612	0.44992	0.95899	0.644	0.2232556	0.369679	0.135171	0.256396	-0.23617	-0.24626	0.528344	0.11313	-0.5208	0.47778	0.16599
MASB-BWBK-SB-MA17-0104	0.1451597	-0.03612	0.90999	0.81144	-0.27467	0.1364155	0.231397	-0.866334	0.197236	-0.40761	-0.58444	0.108638	-0.2682	-0.8545	0.37723	0.23743
MASB-BWBK-SB-MA18-0104	0.07347081	-0.09985	0.21454	1.10654	1.52137	1.3811239	-0.2065	-0.256042	-0.22872	-0.56191	0.192117	-0.44051	-0.0242	-0.3389	1.76482	-0.1126
MASB-BWBK-SB-MA19-0103	-0.5358848	-0.15083	0.51412	0.29502	1.05688	0.0206287	-0.25259	-0.741146	-0.47719	-0.5962	-0.55939	0.249847	-0.2225	-0.5411	0.37723	-0.2912
MASB-BWBK-SB-MA20-0103	-0.3172336	-0.16357	-0.06364	0.36879	1.12569	0.4548293	0.876712	0.823705	0.646856	-0.37333	0.467669	-0.0718	1.13514	-0.3591	0.0957	0.99468
MASS-BWBK-SS-MA01-0001	-0.6864314	-0.7626	0.7495	-1.328	-0.45358	-1.108293	-1.12837	-1.570517	-1.42495	0.089563	-1.59898	-1.00025	-1.2597	-0.8317	-0.6283	-1.0485
MASS-BWBK-SS-MA02-0001	0.79035971	-0.7626	2.70746	0.07369	0.71281	-0.066211	-0.944	-1.257546	-1.26758	0.123851	-1.19817	-0.93984	-0.7411	-0.4172	-0.5076	-0.3627
MASS-BWBK-SS-MA03-0001	-0.4391048	-0.35475	1.09188	-0.5165	0.42035	-0.384625	-0.944	-1.148007	-0.86765	0.158139	-0.94767	-0.86218	-0.8479	-0.7382	-0.3869	-0.677
MASS-BWBK-SS-MA04-0001	-0.0340625	-0.6224	1.22027	-0.8116	1.46976	-0.210945	-0.75962	-1.054116	-0.85582	0.226715	-0.53434	-0.73077	-0.497	-0.7028	-0.5679	-0.3055
MASS-BWBK-SS-MA05-0001	0.61113749	-0.46946	0.85649	0.14747	1.24612	0.5416694	-0.32173	-0.349933	-0.16956	0.535307	0.229692	-0.69547	0.05212	-0.5512	0.63866	0.50175
MASS-BWBK-SS-MA06-0001	1.18464861	1.799195	3.79878	0.66389	3.05248	1.1206036	-0.52915	-0.412527	0.149907	0.878187	0.392519	-0.41305	-0.0394	-0.5082	0.83976	0.17314
MASS-BWBK-SS-MA07-0001	-1.8011937	-0.60965	-1.12287	-2.2871	-0.93184	-2.063534	-1.41646	-1.53922	-1.56102	0.312435	-2.29412	-1.08027	-1.6411	-0.9177	-1.0305	-1.7557
MASS-BWBK-SS-MA08-0001	0.18100415	0.193295	0.97418	-0.8116	0.238	-0.442519	-0.50611	-0.835037	-0.02757	3.518365	-1.0103	-0.60525	-0.6191	-0.6573	1.08108	0.02311
MASS-BWBK-SS-MA09-0001	2.25998196	0.308003	3.01774	1.40164	0.59239	1.5837509	0.116162	-0.162151	0.197236	4.101261	-0.10849	-0.23262	0.21991	-0.2024	2.56922	1.62334
MASS-BWBK-SS-MA10-0001	1.36387083	0.460945	1.54124	0.73766	0.88484	0.97587	0.023974	-0.772443	0.291893	3.261205	-0.17111	-0.16594	0.00636	-0.4779	2.16702	1.15184
MASS-BWBK-SS-MA11-0001	1.36387083	0.588398	2.65396	0.44256	0.20359	1.178497	0.093115	-0.772443	0.883498	1.803964	0.016765	-0.06787	-0.0852	-0.4324	2.7502	0.71607
MASS-BWBK-SS-MA12-0001	0.00178192	-0.64789	0.50342	-1.1067	0.05392	-0.037265	-0.92095	-1.163655	-0.50086	0.312435	-0.38404	-0.81079	-0.2682	-0.7508	-0.2261	0.13742
MASS-BWBK-SS-MA13-0001	0.71867082	-0.39299	3.18893	-8E-05	-0.49487	0.483776	-0.75962	-1.101061	-0.45353	0.672459	-0.80989	-0.79353	-0.7411	-0.7786	1.5235	-0.3055
MASS-BWBK-SS-MA14-0001	-0.1846092	-0.66064	1.83012	-0.8854	-0.21101	-0.529359	-1.01314	-0.80374	-1.14689	2.181132	-1.58645	-0.84649	-1.0309	-0.7104	1.46317	-0.6055
MASS-BWBK-SS-MA15-0001	0.36022637	-0.59691	2.00131	-0.8854	-0.77701	-0.153052	-1.01314	-1.241898	-1.02147	1.306788	-1.361	-0.96377	-1.0004	-0.7458	1.1213	-0.6841
MASS-BWBK-SS-MA16-0001	-0.198947	-0.20181	0.87789	-0.2214	-0.58433	-0.066211	-0.8979	-0.709849	-0.48903	0.912475	-1.0103	-0.87394	-0.7411	-0.9859	1.30229	-0.4698
MASS-BWBK-SS-MA17-0001	0.28853748	-0.25279	0.88859	-0.2952	-0.52584	0.0785221	-0.52915	-0.913279	-0.50086	0.826755	-1.09797	-0.58956	-0.6953	-0.862	1.16152	-0.2841
MASS-BWBK-SS-MA18-0001	-0.0340625	-0.11259	0.6853	-0.6641	-0.45874	-0.442519	-0.96705	-1.163655	-0.72567	1.44394	-1.42362	-0.93082	-0.8631	-1.039	1.84526	-0.4841
MASS-BWBK-SS-MA19-0001	0.21684859	-0.16357	1.25236	0.07369	0.035	0.0785221	-0.5522	-0.944576	-0.46536	1.306788	-1.14807	-0.65625	-0.6648	-0.8494	1.62405	-0.2555
MASS-BWBK-SS-MA20-0001	-0.1415959	-0.13808	1.07048	-8E-05	0.19327	0.0785221	-0.46001	-0.302987	-0.20506	0.963907	-0.63454	-0.46012	-0.1767	-0.8039	0.87998	0.06598
MMSB-BWBK-SB-MM101-0110	-0.989317	-0.50132	-0.27763	-0.4058	-0.61271	-0.674092	0.000927	0.291656	-0.27605	0.055275	0.32363	-0.01688	-0.2377	0.74159	-1.121	-0.4484
MMSB-BWBK-SB-MM102-0109	-0.4821181	-0.57142	-0.35252	-0.369	-0.28843	0.0495754	0.047021	0.479438	-0.39437	-0.47619	1.306853	-0.15809	0.63176	1.22053	-0.7087	-0.3769
MMSB-BWBK-SB-MM103-0107	-0.876407	-0.39299	-0.49161	-0.7378	-0.61701	-0.037265	0.991947	0.291656	-0.50086	-0.35618	0.342418	0.104716	-0.0852	1.09416	-1.1511	-0.4841
MMSB-BWBK-SB-MM104-0110	0.28853748	-0.21455	-0.12784	-0.0739	-0.57573	0.5127227	0.415772	5.017505	0.575863	-0.20189	2.747242	0.124328	-0.1004	2.98971	-0.2261	0.27315
MMSB-BWBK-SB-MM105-0110	-1.3388003	-0.49495	-0.96238	2.06561	-0.57917	-1.22408	-0.43697	-0.177799	-0.84399	-0.4419	-0.53434	-0.36598	-0.497	-0.0432	-1.3723	-0.8556
MMSB-BWBK-SB-MM106-0110	0.5394486	-0.55867	0.7602	0.36879	0.08144	0.9179766	0.346632	0.792408	0.291893	-0.33904	2.659566	0.575414	0.35719	2.63588	0.45767	0.55176
MMSB-BWBK-SB-MM107-0110	-1.0197848	-0.55867	-0.40602	-0.4427	-0.43294	1.178497	-0.09126	0.260359	-0.52452	-0.5962	0.329893	-0.2287	-0.3292	1.59964	-0.8696	-0.5412
MMSB-BWBK-SB-MM108-0110	-0.6165348	-0.60328	-0.45951	-0.1107	-0.42692	-0.601726	-0.14888	0.009983	-0.42395	-0.53619	0.592921	-0.26792	-0.3902	1.39745	-0.6785	-0.4555
MMSB-BWBK-SB-MM109-0110	0.10931526	-0.60965	0.89929	0.95899	-0.77873	0.3100958	0.116162	0.338601	-0.15773	-0.21903	0.56787	-0.05218	-0.0242	2.30731	-0.0049	-0.2269
MMSB-BWBK-SB-MM110-0109	-0.360247	-0.50769	-0.18133	-0.6641	-0.4639	0.686403	-0.18345	0.369898	-0.26422	-0.39047	0.51777	-0.24831	-0.2377	1.448	-0.3869	-0.4341
MMSB-BWBK-SB-MM111-0110	-0.1774403	-0.55867	0.43922	-0.2214	-0.33488	-0.095158	-0.04517	0.213413	0.007922	-0.15045	1.106451	-0.09141	-0.0394	2.7117	-0.4674	-0.2412
MMSB-BWBK-SB-MM112-0110	-0.0519847	-0.64152	0.23594	-0.4058	-0.41315	0.035102	-0.09126	-0.38123	0.049334	-0.6562	1.112713	1.436399	0.09025	2.05457	0.34707	-0.3234
MMSB-BWBK-SB-MM113-0110	-0.5753136	-0.64789	-0.41672	-0.7378	-0.41401	1.9890048	-0.04517	0.495086	-0.35887	-0.63049	1.043825	-0.13848	0.15889	1.42272	-0.6886	-0.2912
MMSB-BWBK-SB-MM114-0110	-0.8799914	-0.40573	-0.25623	-0.8116	0.078	-0.905666	-0.34478	-0.256042	-0.76117	-0.64763	-0.10849	-0.05611	-0.3597	1.14471	-1.2316	-0.8127

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

SAMPLE	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MMSB-BWBK-SB-MM115-0110	0.07347081	-0.68613	1.86222	-0.7378	0.13305	-0.616199	-0.2065	-0.349933	-0.33521	-0.78478	1.331903	0.038033	-0.5885	4.58198	-0.0049	-0.2626
MMSB-BWBK-SB-MM116-0110	-0.7240681	-0.60965	0.0273	-0.8854	-0.24198	-0.080685	-0.05669	0.205589	-0.41803	-0.39047	0.73696	0.06353	-0.0852	1.71338	-1.1411	-0.2555
MMSB-BWBK-SB-MM117-0110	-1.2276825	-0.60965	-0.7056	-1.1067	-0.7684	-1.455653	-0.06821	0.072577	-0.66651	-0.61334	-0.08344	-0.19339	-0.4513	0.92483	-1.4528	-0.7198
MMSB-BWBK-SB-MM118-0110	-0.9337581	-0.59691	-0.44881	-0.5165	-0.52928	-0.703039	0.323585	1.183621	-0.50086	-0.18474	0.830898	0.924515	1.3792	1.22053	-0.9299	-0.2984
MMSB-BWBK-SB-MM119-0110	-0.9158359	-0.55867	-0.43812	-0.8854	-0.23854	-0.500412	-0.2065	-0.115205	-0.39437	-0.57905	0.981199	-0.00511	-0.253	1.9282	-0.7891	-0.4055
MMSB-BWBK-SB-MM120-0110	-1.7832714	-0.74985	-1.16566	-1.1067	-0.85614	-1.65828	-0.5522	-0.318636	-1.00964	-0.85336	-0.63454	-0.43266	-0.9089	0.77571	-1.6338	-1.1699
MMSS-BWBK-SS-MM101-0001	1.68647084	-0.32926	0.58901	1.10654	-0.80109	0.0495754	-0.82876	-0.396879	-0.15773	0.638171	-0.52182	-0.55034	-0.6038	-0.2504	1.00064	-0.4341
MMSS-BWBK-SS-MM102-0001	0.32438193	-0.59691	-0.6949	0.22124	-0.84066	-0.674092	-1.01314	-0.960225	-0.59552	-0.42476	-1.1105	-0.54642	-0.8174	-0.3313	-0.0049	-0.9627
MMSS-BWBK-SS-MM103-0001	1.32802639	-0.30377	-0.05294	0.66389	-0.91291	0.0785221	-0.87486	-0.506418	-0.20506	0.843899	-0.78484	-0.58564	-0.6648	-0.3161	1.10119	-0.6413
MMSS-BWBK-SS-MM104-0001	1.29218194	-0.30377	0.66391	0.88521	-0.8355	0.1364155	-0.64439	-0.052611	-0.13406	0.843899	-0.24626	-0.44443	-0.4513	-0.1291	0.77943	-0.4841
MMSS-BWBK-SS-MM105-0001	-0.0340625	-0.52044	-0.74839	-0.369	-1.02474	-0.992506	-0.99009	-0.80374	-0.84399	0.140995	-1.57393	-0.65625	-1.0462	-0.4829	-0.0049	-1.0985
MMSS-BWBK-SS-MM106-0001	1.2563375	-0.38024	0.43922	0.66389	-0.6411	0.9179766	-0.5522	-0.209096	-0.1459	0.123851	-0.30889	-0.42874	-0.5275	0.53813	0.87998	-0.4984
MMSS-BWBK-SS-MM107-0001	1.65062639	-0.4822	0.44992	0.88521	-0.76152	0.1943089	-0.78267	-0.475121	-0.15773	0.123851	-0.12101	-0.49935	-0.497	0.12869	0.73921	-0.4055
MMSS-BWBK-SS-MM108-0001	1.79400417	-0.49495	0.21454	1.10654	-0.85098	-0.008318	-0.99009	-0.615958	-0.4417	0.363867	-1.14807	-0.74646	-0.7716	-0.2454	1.20174	-0.7913
MMSS-BWBK-SS-MM109-0001	1.36387083	-0.49495	-0.56651	0.59011	-0.96796	-0.124105	-0.96705	-0.928928	-0.42987	-0.21903	-0.83494	-0.69155	-0.8174	-0.3869	0.7191	-0.9199
MMSS-BWBK-SS-MM110-0001	-0.3172336	-0.72436	-0.7056	-1.2543	-1.02646	-1.39776	-1.26666	-1.163655	-1.09483	0.278147	-1.99853	-0.86649	-1.3512	-0.7989	-0.3065	-1.4271
MMSS-BWBK-SS-MM111-0001	0.1451597	-0.73711	-0.82329	-1.1067	-1.04366	-1.195133	-1.17447	-1.241898	-1.0333	0.003843	-1.68665	-0.80726	-1.2597	-0.6927	-0.5679	-1.3414
MMSS-BWBK-SS-MM112-0001	-0.3817536	-0.68613	-0.96238	-1.1805	-1.07291	-1.600387	-1.31275	-1.148007	-1.18475	0.243859	-1.89332	-0.87434	-1.336	-0.7786	-0.7891	-1.3128
MMSS-BWBK-SS-MM113-0001	1.07711527	-0.57142	0.02195	-0.369	-0.86474	-0.500412	-1.08228	-0.725497	-0.59552	1.392508	-1.17312	-0.71901	-0.9546	-0.2251	0.96042	-0.8556
MMSS-BWBK-SS-MM114-0001	-0.7007692	-0.7626	-1.01587	-0.9592	-1.02302	-1.774067	-1.26666	-1.257546	-1.28888	-0.52762	-2.02859	-0.82099	-1.3817	-0.8873	-1.1913	-1.3914
MMSS-BWBK-SS-MM115-0001	-0.1057514	-0.71162	-0.44881	-0.369	-0.97829	-1.39776	-1.26666	-1.11671	-0.96231	-0.27046	-1.83946	-0.63663	-1.2292	-0.8368	-0.6484	-1.1913
MMSS-BWBK-SS-MM116-0001	-0.3494936	-0.68613	-0.78049	-0.8854	-0.98345	-1.426707	-1.19751	-1.226249	-1.05697	0.003843	-1.77809	-0.74646	-1.3055	-0.8393	-0.4875	-1.3271
MMSS-BWBK-SS-MM117-0001	0.82620416	-0.58416	0.23594	-0.2214	-1.00581	-0.471465	-0.92095	-0.600309	-0.48903	0.483875	-0.89757	-0.6484	-0.7868	-0.4096	0.21636	-0.8056
MMSS-BWBK-SS-MM118-0001	-0.4462736	-0.49495	-0.6521	-0.8116	-0.88711	-0.731986	-0.5522	-0.537715	-0.71384	-0.71621	-0.15859	-0.4915	-0.6953	0.51286	-0.8093	-0.9985
MMSS-BWBK-SS-MM119-0001	-0.7867959	-0.63514	-0.6949	-0.6641	-0.62906	-1.253026	-0.69048	-0.662903	-0.91498	-0.85336	-0.62202	-0.47581	-0.6801	0.12869	-1.1109	-1.1199
MMSS-BWBK-SS-MM120-0001	-0.5717292	-0.60965	-1.05867	0.44256	-0.81657	0.2522023	-0.64439	-0.396879	-0.18139	-0.56191	-1.03535	-0.51896	-0.7106	-0.4476	-0.4674	-0.7341
NESB-BWBK-SB-NE01-0108	0.64698193	-0.40573	-0.74839	-0.2214	-0.26779	0.8600832	0.600148	0.761111	0.540367	-0.49333	1.883008	0.218468	0.83006	-0.354	-0.5277	0.48747
NESB-BWBK-SB-NE02-0109	0.21684859	-0.32926	1.18817	-0.5903	-0.32456	0.483776	0.531007	0.573329	0.362885	-0.47619	1.382003	1.29715	0.64702	-0.4627	-0.8696	0.40174
NESB-BWBK-SB-NE03-0105	0.21684859	-0.36749	-0.6842	-0.0739	-0.54304	0.1364155	0.20835	0.432492	0.374717	-0.57905	0.793323	-0.00904	0.31143	-0.1847	-0.7891	-0.0269
NESB-BWBK-SB-NE04-0110	0.07347081	-0.4822	-0.54511	-0.0739	-0.44326	-0.008318	0.300538	0.432492	0.102579	-0.51048	1.093926	0.15963	0.31143	-0.3363	-0.769	0.05883
NESB-BWBK-SB-NE05-0108	0.37814859	-0.43759	-0.94098	-0.2214	-0.23338	0.483776	0.450343	0.66722	0.44571	-0.52762	1.419579	0.151785	0.63939	-0.4412	-0.5076	0.38745
NESB-BWBK-SB-NE06-0109	0.00178192	-0.44397	-0.86608	-8E-05	-0.24886	0.0206287	0.392726	0.526383	0.232732	-0.56191	1.043825	0.061568	0.50973	-0.4273	-0.6886	0.12313
NESB-BWBK-SB-NE07-0107	0.64698193	-0.40573	-0.56651	-0.0739	-0.41746	0.7732431	0.461866	0.729814	0.469374	-0.42476	1.457154	-0.01296	0.79956	-0.4476	-0.6283	0.46603
NESB-BWBK-SB-NE08-0104	-0.069907	-0.50769	-0.97308	0.07369	-0.1594	-0.037265	0.277491	0.213413	-0.1104	-0.64763	0.505245	-0.18947	0.29618	-0.4703	-0.588	-0.1555
NESB-BWBK-SB-NE09-0110	-0.0519847	-0.49495	-0.88213	-0.3321	-0.09145	0.1364155	0.289014	0.362074	0.161739	-0.64763	0.962412	0.077258	0.32669	-0.4273	-0.8294	0.09455
NESB-BWBK-SB-NE10-0107	0.28853748	-0.58416	-0.25623	0.59011	-0.61874	0.4258826	-0.13735	0.135171	-0.1104	-0.47619	0.555345	-0.21301	-0.1004	-0.1872	0.35712	-0.1198
NESB-BWBK-SB-NE101-0110	0.46775971	-0.66064	1.28446	0.36879	-0.7254	-0.066211	-0.06821	0.04128	-0.18139	-0.49333	0.693122	-0.23654	-0.1614	2.88862	-0.0451	-0.3627
NESB-BWBK-SB-NE102-0110	0.10931526	-0.73711	1.50915	-0.2952	-0.81485	-0.558305	-0.32173	-0.240393	-0.56002	-0.63049	0.304843	-0.29146	-0.3902	2.58533	-0.4272	-0.5412
NESB-BWBK-SB-NE103-0110	-0.4140136	-0.76897	0.62646	-0.7747	-0.71249	-0.934613	-0.47154	-0.302987	-0.71384	-0.75907	-0.11475	-0.38952	-0.5657	2.06721	-0.759	-0.7806
NESB-BWBK-SB-NE104-0110	-0.8620692	-0.80083	0.07545	-0.8854	-0.71163	-1.22408	-0.50611	-0.49077	-0.86765	-0.81907	-0.42161	-0.49935	-0.6953	1.70074	-1.0104	-0.927
NESB-BWBK-SB-NE105-0110	0.10931526	-0.59691	1.41285	0.22124	-0.89743	-0.268838	-0.22954	-0.036963	-0.21689	-0.54477	0.680597	0.073336	-0.2835	3.57102	-0.1054	-0.3412
NESB-BWBK-SB-NE106-0110	-0.1057514	-0.73711	0.98488	-0.369	-0.73056	-0.558305	-0.2065	-0.036963	-0.46536	-0.64763	0.417569	-0.22085	-0.2682	2.66115	-0.4674	-0.4912
NESB-BWBK-SB-NE107-0510	-0.8154714	-0.82632	-0.05294	-0.9592	-0.40713	-1.253026	-0.50611	-0.099557	-0.65468	-0.78478	0.229692	-0.40521	-0.7258	1.80183	-0.9902	-0.7413
NESB-BWBK-SB-NE108-0110	0.00178192	-0.78809	0.55691	-0.6641	-0.62734	-0.616199	-0.22954	0.35425	-0.46536	-0.69906	0.304843	-0.37775	-0.5275	2.10512	-0.1456	-0.6198
NESB-BWBK-SB-NE109-0110	-0.0340625	-0.78809	0.84579	-0.5165	-0.69787	-0.674092	-0.29868	-0.005666	-0.50086	-0.66477	0.267267	-0.35029	-0.5123	2.33259	-0.5478	-0.627
NESB-BWBK-SB-NE110-0110	-0.069907	-0.74985	0.16104	-0.5534	-0.8441	-0.543832	-0.2065	-0.021314	-0.51269	-0.6562	0.411306	-0.30911	-0.558	2.23149	-0.4975	-0.6234
NESS-BKG-SS03-NEB-0016	1.72231528	-0.27828	0.7602	0.59011	-0.52412	0.0206287	-0.36782	0.369898	-0.16956	5.781375	-0.48424	-0.38952	-0.314	-0.5941	1.28218	0.37316
NESS-BKG-SS09-NEB-0018	0.8620486	0.308003	-0.47021	-0.5165	-0.82518	-0.153052	-0.78267	-0.396879	-0.64284	0.843899	-1.02282	-0.48758	-0.9394	-0.6599	0.43756	-0.727
NESS-BWBK-SS-NE01-0001	2.36751529	0.779576	0.97418	1.54919	-0.49315	1.4969107	0.000927	0.933245	0.457542	1.61538	0.154541	-0.05218	0.11313	-0.5663	1.26207	1.48046
NESS-BWBK-SS-NE02-0001	1.79400417	1.110952	-0.03154	0.73766	-0.70991	1.467964	-0.11431	1.214918	0.410214	1.066771	0.49272	-0.31891	0.44872	-0.7786	0.57833	2.30915
NESS-BWBK-SS-NE03-0001	2.00907084	0.027607	0.13964	1.18031	-0.90603	0.7442964	-0.57525	-0.146502	0.067083	0.346723	-0.48424	-0.43659	-0.2682	-0.8064	0.55822	0.01597
NESS-BWBK-SS-NE04-0001	1.9732264	-0.21455	0.16104	0.95899	-0.72024	1.0916568	0.093115	0.307304	0.197236	0.226715	0.392519	-0.19732	0.08263	-0.5562	0.77943	-0.0055
NESS-BWBK-SS-NE05-0001	1.47140417	0.129569	0.15034	1.10654	-0.75464	1.3811239	-0.46001	0.448141	-0.06307	1.221067	-0.28384	-0.37383	-0.2225	-0.6826	0.57833	0.32316
NESS-BWBK-SS-NE06-0001	1.5789375	-0.35475	-0.20273	1.32786	-0.6411	0.9469233	-0.1604	0.119522	-0.00391	-0.08188	0.279793	-0.46797	0.14364	-0.6245	0.55822	-0.1483
NESS-BWBK-SS-NE07-0001	1.61478195	0.42271	0.40712	1.25409	-0.62906	0.7153497	-0.5522	1.340106	0.007922	2.38686	-0.44666	-0.49542	-0.2987	-0.5992	1.26207	0.33744
NESS-BWBK-SS-NE08-0001	1.72231528	-0.25279	0.18244	1.32786	-0.68755	0.6574562	-0.48306	-0.06826	-0.01574	0.175283	-0.25879	-0.46404	-0.0852	-0.67	0.47778	-0.134
NESS-BWBK-SS-NE09-0001	2.65427085	-0.01063	1.15607	2.65581	-0.72712	0.5706161	-0.64439	0.135171	-0.16956	1.221067	-0.79737	-0.33068	-0.4208	-0.4602	0.83976	-0.1198
NESS-BWBK-SS-NE10-0001	1.11295972	-0.02337	0.31083	0.95899	-0.58261	0.2522023	-0.57525	1.355754	-0.20506	2.746885	-0.34646	-0.43266	-0.2682	-0.6043	0.96042	0.1517
NESS-BWBK-SS-NE101-0001	1.2563375	-0.67338	0.16104	0.22124	-0.90603	-0.471465	-0.82876	-0.928928	-0.702	-0.35618	-1.07292	-0.61702	-0.8326	0.09837	0.11581	-1.0056
NESS-BWBK-SS-NE102-0001	0.07347081	-0.7626	-0.32042	-0.5165	-0.98001	-1.166186	-1.08228	-1.085413	-0.99781	0.415299	-1.43615	-0.68763	-1.0919	-0.4198	-0.1858	-1.127
NESS-BWBK-SS-NE103-0001	-0.4175981	-0.71162	-0.56651	-1.1067	-1.05742	-1.050399	-1.15142	-1.085413	-1.09601	0.226715	-1.5113	-0.78177	-1.1072	-0.5714	-0.3467	-1.2842
NESS-BWBK-SS-NE104-0001	0.18100415	-0.7626	-0.78049	-1.0329	-0.9542	-1.166186	-1.08228	-1.210601	-0.80849	1.992548	-1.07292	-0.66801	-0.9546	-0.536	-0.2663	-1.0699
NESS-BWBK-SS-NE105-0001	-0.327987	-0.78809	-0.6307	-0.2214	-0.95076	-1.542493	-1.22056	-1.304492	-1.17529	-0.30475	-1.76556	-0.72293	-1.275	-0.6422	-0.8495	-1.2842
NESS-BWBK-SS-NE106-0001	-0.069907	-0.77534	-0.5879	-0.4427	-1.03334	-1.39776	-1.17447	-1.148007	-1.0688	2.421148	-1.42362	-0.67978	-1.2445	-0.5208	-0.4473	-1.2342
NESS-BWBK-SS-NE107-0001	0.07347081	-0.77534	-0.42742	0.22124	-1.01613	-1.542493	-1.26666	-1.085413	-1.16109	0.329579	-1.82192	-0.54642	-1.3512	-0.6523	-0.3869	-1.2271
NESS-BWBK-SS-NE108-0001	0.00178192	-0.7626	0.06475	-0.0739	-0.95248	-1.39776	-1.15142	-0.928928	-1.0688	0.603883	-1.4111	-0.6837	-1.214	-0.4652	-0.2864	-1.1056
NESS-BWBK-SS-NE109-0001	-0.2778047	-0.85181	-0.48091	-0.2214	-0.99721	-1.629334	-1.26666	-1.226249	-1.19659	-0.32189	-1.738	-0.72293	-1.3665	-0.6068	-0.8495	-1.3199
NESS-BWBK-SS-NE110-0001	-0.4426892	-0.68613	-0.6307	-0.9592	-0.96108	-1.542493	-1.22056	-0.897631	-1.13033	1.289644	-1.78685	-0.85433	-1.3512	-0.5992	0.11581	-1.3914

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Standardized Values for each case (sample):

SAMPLE	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
PMSB-BWBK-SB-PM01-0105	0.64698193	0.193295	0.7388	0.51634	0.31713	0.5706161	1.337651	-0.177799	0.2209	-0.45905	0.417569	1.010809	1.1809	-0.4248	0.37723	0.31601
PMSB-BWBK-SB-PM02-0104	0.96958194	1.54429	0.55691	2.43449	-0.27639	2.7126724	1.637262	0.573329	2.315183	-0.03045	0.755747	1.367755	0.81481	-0.5032	1.98603	0.75893
PMSB-BWBK-SB-PM03-0106	0.32438193	1.174679	-0.7163	0.36879	0.62679	1.0916568	2.32867	0.964542	1.889227	-0.52762	1.219177	0.457739	1.50123	-0.5385	0.79954	1.259
PMSB-BWBK-SB-PM04-0105	0.21684859	1.709979	-0.23483	0.81144	1.38374	0.8890299	1.03804	0.792408	1.013651	0.003843	1.206652	0.834297	1.16565	-0.0937	0.518	0.81608
PMSB-BWBK-SB-PM05-0105	0.1451597	0.747713	-0.0155	0.51634	0.93645	0.8456098	1.314604	0.495086	1.013651	-0.33904	1.012512	1.3756	0.87583	-0.301	0.57833	0.70893
PMSB-BWBK-SB-PM06-0105	0.25269304	1.008991	0.22524	0.22124	0.62679	0.6285095	0.922806	0.182116	1.321286	-0.63049	1.0814	4.77247	0.83006	-0.5461	0.33701	0.59462
PMSB-BWBK-SB-PM07-0105	-0.4355203	1.034481	0.41782	1.54919	0.45476	0.3100958	1.568121	-0.224745	0.883498	-0.64763	-0.25879	2.144407	0.21991	-0.4703	0.59844	-0.134
PMSB-BWBK-SB-PM08-0106	0.00178192	1.22566	-0.03154	0.73766	0.57518	0.5127227	1.568121	0.103874	0.67052	-0.4419	0.430094	1.171631	0.72329	-0.4021	0.49789	0.35888
PMSB-BWBK-SB-PM09-0106	-0.7545359	0.805067	-0.78049	-0.2952	0.6784	-0.008318	0.830618	-0.146502	0.138075	-0.8705	0.041815	0.512654	0.46397	-0.5436	-0.3065	-0.0983
PMSB-BWBK-SB-PM10-0105	-0.2383759	0.766831	0.01125	1.84429	0.33433	1.5258575	1.130228	0.55768	0.777009	-0.40761	-0.12101	0.983352	0.23516	-0.4526	2.36812	0.25172
PMSB-BWBK-SB-PM11-0104	-0.2849736	0.677614	0.82439	0.81144	0.31713	0.3969359	1.637262	0.416844	1.12014	-0.51048	0.05434	4.184098	1.15039	-0.3161	0.41745	0.36602
PMSB-BWBK-SB-PM12-0105	-0.6720936	-0.39299	-0.49161	0.07369	1.21171	0.7153497	-0.02212	-0.38123	-0.50086	-0.71621	-0.07091	0.210623	-0.1309	-0.4804	-0.0853	-0.3555
PMSB-BWBK-SB-PM13-0106	0.03762637	0.206041	0.84579	1.69674	-0.02178	0.97587	-0.11431	-0.80374	0.61136	-0.56191	-0.34646	1.148096	-0.3292	-0.4956	1.10119	-0.2698
PMSB-BWBK-SB-PM14-0106	-0.586067	-0.16357	-0.06364	0.44256	0.86764	-0.008318	-0.02212	-0.428176	-0.32338	-0.64763	-0.38404	1.050034	-0.2682	-0.4577	0.23646	-0.3841
PMSB-BWBK-SB-PM15-0105	-0.069907	0.142314	0.24664	0.66389	0.57518	0.6574562	0.346632	0.229062	0.457542	-0.39047	0.242217	0.363599	0.25042	-0.4678	0.39734	0.216
PMSB-BWBK-SB-PM16-0106	-0.2706359	-0.09985	-0.19203	0.88521	0.52357	0.0206287	-0.09126	-0.005666	-0.05124	-0.5962	-0.02081	0.508731	0.00636	-0.4526	0.11581	-0.1269
PMSB-BWBK-SB-PM17-0105	0.01970414	0.365356	-0.04759	1.25409	0.73862	0.4982494	1.982966	0.862826	0.717849	-0.15045	0.73696	0.647979	0.48685	-0.1986	1.04086	0.44817
PMSB-BWBK-SB-PM18-0105	0.28853748	1.085462	-0.22413	0.59011	0.52357	0.8890299	0.715383	1.167972	1.770906	-0.23617	1.118976	0.26946	1.16565	-0.3515	-0.025	1.13756
PMSB-BWBK-SB-PM19-0105	0.1451597	0.384474	0.38573	0.36879	0.12273	0.5706161	0.415772	0.870651	0.800673	-0.28761	0.555345	0.598948	0.70803	-0.4627	0.25657	0.65177
PMSB-BWBK-SB-PM20-0106	-0.0340625	0.263394	0.0487	0.44256	0.59239	0.4403559	0.392726	0.377723	0.404298	-0.43333	0.367468	0.249847	0.48685	-0.3907	0.26663	0.38031
PMSB-BWBK-SB-SO01-0107-PM	0.36022637	0.575653	-0.33112	0.81144	-0.13532	0.3390425	1.222416	1.261863	1.202965	0.055275	0.580396	-0.23654	1.53174	-0.3717	0.13592	1.53047
PMSB-BWBK-SB-SO02-0109-PM	0.46775971	1.531545	-0.6093	0.07369	-0.26606	0.7732431	0.830618	0.604626	1.865563	0.175283	0.718172	-0.04042	1.16565	-0.6775	0.39734	1.47332
PMSB-BWBK-SB-SO13-0104-PM	-0.2097003	1.327621	0.03265	0.51634	-0.26262	0.7153497	2.052107	2.216422	1.747242	0.089563	0.480195	-0.35029	1.83682	-0.3288	0.47778	1.19471
PMSB-BWBK-SB-SO14-0105-PM	0.28853748	1.926648	0.13964	0.14747	-0.34348	0.8021898	1.821637	1.653076	2.007549	0.089563	1.018775	-0.08356	2.06563	-0.2909	0.05548	1.88052
SESB-BWBK-SB-SO03-0108	1.2563375	2.066845	0.47132	1.25409	0.42035	1.3521772	2.466952	2.951902	2.57549	0.449587	1.832908	0.579336	3.59101	-0.2479	0.39734	2.81636
SESB-BWBK-SB-SO04-0108	0.03762637	1.901157	0.15034	0.51634	-0.03382	0.8600832	1.79859	1.840858	1.711746	0.089563	0.693122	-0.15025	2.01986	0.01243	0.15603	1.88766
SESB-BWBK-SB-SO05-0106	0.68282638	1.595271	0.34293	1.32786	0.25176	1.1206036	0.9689	1.387051	1.475104	0.020987	0.780798	0.096871	1.68428	-0.2176	0.45767	1.68049
SESB-BWBK-SB-SO06-0108	1.05919305	3.035483	-0.21878	1.03276	0.83323	1.424544	2.248006	1.872155	2.782552	0.535307	1.482204	-0.18359	2.569	-0.5423	0.89004	2.45917
SESB-BWBK-SB-SO07-0106	-0.0340625	0.894283	-0.51301	0.64176	0.76442	0.7442964	2.374764	1.825209	1.179301	0.466731	0.56787	2.889678	2.3707	-0.3313	0.61855	1.8448
SESB-BWBK-SB-SO08-0107	0.93373749	2.117826	0.32153	1.25409	1.19451	1.5548042	2.259529	2.372907	2.457169	0.552451	1.51978	0.904902	2.66053	0.12617	0.87998	2.64491
SESB-BWBK-SB-SO09-0106	0.39607082	1.54429	0.50342	0.73766	-0.20241	0.97587	1.084134	1.105378	1.167469	-0.04759	0.893524	-0.4209	1.53174	-0.3389	0.33701	1.36616
SESB-BWBK-SB-SO11-0106	0.75451527	1.939393	-0.08504	0.44256	0.98807	1.1206036	1.79859	1.277512	1.853731	0.072419	1.557355	4.027198	2.08088	-0.0406	0.55822	1.80194
SESB-BWBK-SB-SO12-0106	0.09139303	1.818313	-0.50766	0.18435	0.60959	0.9035033	1.694879	2.044289	1.865563	0.132423	0.73696	0.504809	1.98936	-0.2479	0.37723	2.04125
SESB-BWBK-SB-SO15-0103	0.18100415	0.257022	-0.01015	0.66389	-0.24542	0.4258826	0.461866	-0.06826	0.422046	-0.28761	0.02929	0.465584	0.32669	-0.5436	0.83976	0.24457
SESB-BWBK-SB-SO16-0105	-0.5036248	0.142314	-0.41672	0.29502	0.62679	0.3969359	0.853665	0.291656	0.682352	-0.45905	0.167066	0.053723	1.05887	-0.2251	0.23646	0.7375
SESB-BWBK-SB-SO17-0106	-0.4857025	-0.40573	-0.07434	0.59011	0.98807	0.3390425	0.646242	0.166468	-0.12223	-0.47619	0.05434	-0.44051	0.64702	0.05287	-0.0652	0.30887
SESB-BWBK-SB-SO18-0105	-0.4283514	-0.50769	-0.13854	0.07369	0.81603	0.1943089	0.73843	-0.083908	-0.48903	-0.54477	-0.00829	-0.21693	0.23516	-0.1594	-0.2462	-0.0698
SESB-BWBK-SB-SO19-0104	-0.5143781	-0.49495	0.05405	0.95899	0.73001	0.3390425	2.466952	0.213413	-0.32338	-0.39047	0.179592	0.120406	0.44872	-0.0179	0.35712	0.5089
SESB-BWBK-SB-SO20-0104	-0.4283514	0.218786	-0.30972	0.44256	0.57518	0.5127227	1.245463	1.480942	1.250294	-0.15045	0.379994	1.018654	1.13514	-0.2858	0.03537	1.46617

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

ALUMINUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
10495.0287	**Mean**					
2789.8326	**Std. deviation**					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
AS	-0.0364	0.0075	0.0473	0.0699	-0.0243	0.0686
BA	-0.0729	0.2826	0.2265	0.0942	-0.0542	-0.1685
BE	-0.0070	0.1747	-0.0163	-0.0093	0.3689	0.1255
CA	-0.0119	0.0117	-0.0712	0.1022	0.1062	-0.0673
CR	-0.0696	0.4107	-0.1448	0.0496	0.6379	0.3852
CO	0.2163	-0.0433	0.1349	-0.0571	0.3992	-0.9972
CU	0.1031	-0.0766	0.0438	-0.1674	-0.2112	0.0542
FE	0.3764	-0.1986	-0.4489	-0.2667	0.2158	-0.3900
PB	0.0200	0.0505	0.0162	-0.0300	-0.3904	-0.0483
MG	0.0783	-0.1370	0.5848	0.1533	0.0735	0.7922
MN	-0.0044	0.0126	-0.0060	0.0338	0.0420	-0.0224
NI	0.1353	-0.0878	-0.0478	-0.0678	0.1110	-0.1003
K	-0.0087	0.1196	0.5916	-0.0324	-0.1178	-0.2800
V	-0.0875	0.5476	0.0704	0.0944	-0.1850	-0.1958
ZN	0.2588	-0.1058	-0.1129	0.2953	-1.2571	0.4369

ARSENIC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
8.3834	**Mean**					
7.8461	**Std. deviation**					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0314	0.2849	0.0097	-3.0286	0.0100	0.0864
AS	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BA	-0.0725	0.2010	0.2369	1.6140	-0.0613	-0.1748
BE	-0.0069	0.1242	-0.0170	-0.1586	0.4173	0.1302
CA	-0.0118	0.0084	-0.0744	1.7514	0.1202	-0.0698
CR	-0.0692	0.2921	-0.1515	0.8496	0.7217	0.3997
CO	0.2151	-0.0308	0.1411	-0.9792	0.4515	-1.0346
CU	0.1026	-0.0545	0.0459	-2.8689	-0.2389	0.0562
FE	0.3744	-0.1412	-0.4694	-4.5704	0.2441	-0.4046
PB	0.0199	0.0359	0.0169	-0.5145	-0.4416	-0.0501
MG	0.0778	-0.0974	0.6116	2.6263	0.0831	0.8219
MN	-0.0044	0.0089	-0.0062	0.5795	0.0475	-0.0232
NI	0.1346	-0.0625	-0.0500	-1.1610	0.1255	-0.1041
K	-0.0086	0.0850	0.6187	-0.5559	-0.1333	-0.2905
V	-0.0871	0.3895	0.0736	1.6178	-0.2093	-0.2032
ZN	0.2575	-0.0752	-0.1181	5.0605	-1.4220	0.4533

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	4533.03263	-1.52512	-2.41086	-1.19105	-0.67671	-3.10088	-2.02028	-1.637625	-1.48243	-2.40056	-1.31426	-12.2129	-3.49816	-2.202
MAXIMUM DOMAIN VALUE	17915.2373	2.92241	3.136423	4.122704	1.073693	2.516702	2.221893	24.832109	2.942092	2.873071	4.346177	16.28859	2.898994	2.381104
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	5356.26202	-0.77951	-2.26375	-0.18081	-0.13649	-0.26105	0.910487	3.7649682	-0.74387	-2.19094	-0.16375	4.983961	-0.34098	0.832081
BASS-BWBK-SS-BA102-0001	4861.02851	-0.95497	-2.41086	-0.51445	-0.32252	-0.25461	0.482625	1.7759106	-0.90823	-2.40056	-0.5143	2.961591	-0.33848	0.359094
BASS-BWBK-SS-BA103-0001	5052.50483	-0.94004	-2.23854	-0.32443	-0.15855	-0.14713	0.390368	3.4185843	-0.89756	-2.2372	-0.31463	5.326562	-0.21521	0.275139
BASS-BWBK-SS-BA104-0001	5999.75086	-0.808	-1.92101	0.223892	-0.14387	-0.20649	0.786169	3.1186562	-0.77209	-1.94417	0.258959	4.809655	-0.27881	0.703129
BASS-BWBK-SS-BA105-0001	4533.03263	-0.90398	-2.18576	-1.02654	0.469992	0.455026	0.044189	12.735056	-0.85821	-2.22127	-1.05114	16.28859	0.466032	-0.09269
BASS-BWBK-SS-BA106-0001	6112.17806	-0.74023	-1.95471	-0.08662	-0.10459	-0.12272	1.07695	4.4260547	-0.70557	-1.967	-0.06467	5.497819	-0.1846	1.006654
BASS-BWBK-SS-BA107-0001	5074.11852	-0.97795	-2.28395	-0.39575	-0.28595	-0.31272	0.40064	2.0265424	-0.93203	-2.30212	-0.38982	3.503017	-0.40397	0.276607
BASS-BWBK-SS-BA108-0001	4986.47858	-0.96221	-2.30627	-0.45938	-0.21483	-0.11225	0.501105	2.8896804	-0.91686	-2.31189	-0.45641	4.650479	-0.17684	0.382332
BASS-BWBK-SS-BA109-0001	5514.71158	-0.78872	-2.23574	-0.11025	-0.2251	0.056244	1.190378	2.6383972	-0.74748	-2.23213	-0.09041	4.156662	0.014877	1.106226
BASS-BWBK-SS-BA110-0001	6317.34926	-0.79079	-1.70995	0.644249	-0.16511	-0.04608	0.616665	2.0289276	-0.76153	-1.74286	0.701567	3.933368	-0.09626	0.544581
BASS-BWBK-SS-BA111-0001	5249.51467	-0.91803	-2.22741	-0.35956	-0.1967	-0.05839	0.686698	2.9118915	-0.87697	-2.21703	-0.35101	4.541018	-0.11438	0.586196
BASS-BWBK-SS-BA112-0001	4698.0775	-0.97103	-2.25637	-0.55494	0.172143	0.266567	0.42204	7.416565	-0.93011	-2.23957	-0.55453	10.9046	0.252662	0.312275
BASS-BWBK-SS-BA113-0001	5632.59018	-0.5549	-2.29779	-0.75721	0.168323	-1.58378	0.790449	11.585526	-0.50937	-2.32229	-0.7692	11.37157	-1.84159	0.676469
MASB-BWBK-SB-MA01-0105	10220.5057	1.1916	-0.30621	-0.15328	0.305839	0.040121	-0.25353	18.973196	1.203953	-0.21	-0.18714	4.467729	0.060864	-0.29893
MASB-BWBK-SB-MA02-0107	10460.0623	1.35392	-0.36537	0.112111	0.316275	-0.08155	0.313581	18.943176	1.346246	-0.16888	0.107053	4.114058	-0.0816	0.334163
MASB-BWBK-SB-MA03-0108	8708.18847	1.97312	-0.90877	-0.25602	0.164073	-0.58043	-2.02028	23.036844	2.011524	-0.76459	-0.32147	2.802213	-0.63285	-2.202
MASB-BWBK-SB-MA04-0106	11390.9444	1.4067	-0.08621	0.620495	0.70534	-0.40789	1.290243	23.118652	1.406583	0.02852	0.62801	10.52152	-0.44481	1.331987
MASB-BWBK-SB-MA05-0108	10911.0374	1.0214	-0.13798	0.126583	0.447497	-0.10933	0.73889	18.001248	1.110492	-0.11156	0.003113	4.529835	-0.05187	0.580599
MASB-BWBK-SB-MA06-0105	10901.2469	1.04933	-0.19071	0.090942	0.270225	-0.31568	0.559111	17.456272	1.042876	-0.11492	0.093825	4.359744	-0.35525	0.583532
MASB-BWBK-SB-MA07-0108	9305.18176	0.90828	-0.94777	-0.45501	0.188557	-0.55003	0.66383	15.542522	0.944197	-0.69969	-0.52925	2.165168	-0.59363	0.606753
MASB-BWBK-SB-MA08-0108	12822.5921	2.52933	0.094028	-1.05634	0.32648	-0.3688	0.827949	24.832109	2.637265	0.416241	-1.31426	-3.75884	-2.28071	0.652265
MASB-BWBK-SB-MA09-0108	10021.3181	1.67115	-0.89173	-0.70946	0.074023	-1.3016	0.181643	17.677535	1.814312	-0.60588	-0.95582	-4.50502	-1.35086	-0.10632
MASB-BWBK-SB-MA10-0104	8925.63263	0.75274	-1.06311	-1.19105	-0.16157	-0.38048	0.035641	13.15574	0.790091	-0.94961	-1.27992	-1.41854	-0.42163	-0.06087
MASB-BWBK-SB-MA11-0108	11971.6649	1.5541	0.022314	-0.41658	0.211558	-0.78312	0.53356	20.452692	1.570465	0.09312	-0.47897	1.634074	-0.85739	0.51211
MASB-BWBK-SB-MA12-0108	10024.0206	1.69465	-0.61881	0.036585	0.342157	-0.46098	-0.01542	19.889708	1.820826	-0.41934	-0.15137	0.793896	-0.41395	-0.27848
MASB-BWBK-SB-MA13-0105	12450.8546	-0.51582	1.186173	-0.29434	0.252661	1.325727	0.043662	10.837384	-0.5086	0.692786	-0.29611	6.362403	1.484924	0.023324
MASB-BWBK-SB-MA14-0104	13414.1882	0.67682	1.284554	-0.61705	0.001875	0.906716	-0.70505	13.330626	0.70633	1.049922	-0.70733	-3.11437	1.067861	-0.78425
MASB-BWBK-SB-MA15-0105	14125.2545	0.01366	1.821023	-0.3566	0.095161	1.481415	-0.39827	10.475225	0.020234	1.445427	-0.39995	-0.78446	1.69908	-0.41298
MASB-BWBK-SB-MA16-0104	11402.3381	0.12374	0.516653	-0.50252	0.086298	0.588576	-0.45866	12.825216	0.140642	0.196581	-0.52957	3.340486	0.658806	-0.52517
MASB-BWBK-SB-MA17-0104	11511.5195	-0.09676	0.632315	-0.74631	0.211538	0.449981	-0.48733	12.329899	-0.10211	0.491283	-0.7773	3.228583	0.509481	-0.49046
MASB-BWBK-SB-MA18-0104	13999.3791	-0.46922	1.791896	-0.17536	0.520023	1.431277	0.698533	13.324156	-0.47263	1.295941	-0.17775	8.808282	1.617063	0.738156
MASB-BWBK-SB-MA19-0103	11143.5054	-0.54931	0.620936	-0.4144	0.33283	0.700234	-0.17253	11.517687	-0.535	0.289747	-0.43112	7.507111	0.78261	-0.21457
MASB-BWBK-SB-MA20-0103	10427.4536	0.91638	-0.2636	-0.41448	0.074204	-0.05392	-0.14396	16.112309	0.915534	-0.27701	-0.42845	2.428342	-0.06866	-0.16513
MASS-BWBK-SS-MA01-0001	9478.31262	-1.37624	-0.0451	-0.51881	0.097531	-0.49553	-0.37033	4.4305457	-1.3749	-0.22361	-0.51152	4.663977	-0.58834	-0.38925
MASS-BWBK-SS-MA02-0001	11872.3996	-1.21833	1.076675	0.02203	0.562713	-0.11145	-0.00723	8.2490833	-1.26424	0.99504	0.068406	8.162763	-0.13911	0.115091
MASS-BWBK-SS-MA03-0001	10588.3479	-1.00745	0.336743	-0.41704	0.250054	-0.01551	0.100602	7.6418199	-1.0011	0.116279	-0.42286	6.039883	-0.03168	0.091668
MASS-BWBK-SS-MA04-0001	10341.3917	-0.78321	0.169114	-0.28044	0.466048	-0.23584	0.31035	10.604981	-0.80047	0.11389	-0.26284	8.835168	-0.28421	0.363332
MASS-BWBK-SS-MA05-0001	12429.2201	-0.15082	0.788847	-0.17351	0.541319	-0.49327	0.749768	14.590215	-0.1862	0.737697	-0.15232	7.987702	-0.56477	0.86409
MASS-BWBK-SS-MA06-0001	14458.1116	-0.54127	2.093511	0.385417	1.073693	0.293998	0.575043	16.569531	-0.5105	1.816966	0.325599	12.6553	0.393806	0.570911
MASS-BWBK-SS-MA07-0001	7153.86893	-1.52512	-1.11821	-1.10766	-0.44211	-0.77295	-0.88604	-0.884018	-1.48243	-1.3053	-1.14571	-1.3905	-0.90911	-1.03152
MASS-BWBK-SS-MA08-0001	12590.7119	-0.42321	0.921316	-0.61852	0.182461	-2.33906	-0.8813	11.802068	-0.41964	0.705826	-0.65466	2.346871	-2.63885	-0.91243
MASS-BWBK-SS-MA09-0001	17915.2373	0.02582	3.136423	0.1954	0.965751	-2.54404	0.019054	21.080946	-0.03419	2.873071	0.211031	9.335562	-2.84679	0.193179
MASS-BWBK-SS-MA10-0001	15618.1405	-0.01123	2.172476	-0.31394	0.789551	-1.95492	-0.07606	19.786281	-0.03735	1.931321	-0.33789	8.846902	-2.18512	0.006167
MASS-BWBK-SS-MA11-0001	16235.2065	-0.0548	2.67187	-0.08093	0.69163	-0.9038	-0.55879	17.94371	-0.07607	2.285834	-0.10051	7.016196	-0.99259	-0.50372
MASS-BWBK-SS-MA12-0001	10714.3917	-0.5059	0.011636	-0.52503	0.363159	-0.92428	0.804827	11.479999	-0.52669	0.012233	-0.51702	6.994021	-1.06332	0.881244
MASS-BWBK-SS-MA13-0001	14723.7383	-1.04701	2.271998	-0.01987	0.552919	-0.31948	-0.26581	10.915422	-1.07822	1.822812	0.005612	7.769171	-0.365	-0.18568
MASS-BWBK-SS-MA14-0001	13483.8013	-1.29271	1.658715	-0.2549	0.299856	-1.79585	-0.83255	9.0209474	-1.3039	1.130666	-0.2357	6.489041	-2.05146	-0.83267
MASS-BWBK-SS-MA15-0001	13259.7754	-1.31023	1.601808	-0.22201	0.321586	-0.98458	-0.48371	7.32496	-1.33614	1.245096	-0.19918	5.134959	-1.12655	-0.4282
MASS-BWBK-SS-MA16-0001	12998.666	-0.87945	1.247806	-0.66272	0.16281	-0.62631	-0.06291	8.869018	-0.8758	0.831882	-0.68502	3.634272	-0.71601	-0.06809
MASS-BWBK-SS-MA17-0001	12770.873	-0.77859	1.224956	-0.65465	0.223429	-0.54473	-0.40201	9.3514246	-0.79264	0.954802	-0.66934	3.257725	-0.62025	-0.37414
MASS-BWBK-SS-MA18-0001	13218.2151	-1.08047	1.434377	-0.79091	0.268033	-1.32092	-0.53397	9.6886736	-1.0777	1.011085	-0.8219	4.831101	-1.49767	-0.5489
MASS-BWBK-SS-MA19-0001	13647.7842	-0.83553	1.675164	-0.62015	0.340208	-0.67936	-0.58727	11.191119	-0.84379	1.254109	-0.63837	5.369076	-0.77082	-0.57889
MASS-BWBK-SS-MA20-0001	12548.476	-0.39399	0.943997	-0.53794	0.245381	-0.76084	-0.08998	12.140425	-0.39243	0.631801	-0.55713	4.799162	-0.86588	-0.09576
MMSB-BWBK-SB-MM101-0110	8468.40967	-0.00821	-0.9033	0.81018	-0.32757	-0.07962	-0.04057	3.7931972	0.00478	-0.92169	0.862485	-2.01633	-0.11372	-0.09192
MMSB-BWBK-SB-MM102-0109	9278.19114	0.09302	-0.57464	1.558993	-0.12592	0.536875	0.776111	4.1913905	0.086993	-0.54304	1.65398	-0.01289	0.58681	0.804185
MMSB-BWBK-SB-MM103-0107	8182.24678	0.09494	-0.7636	1.121707	-0.31844	0.752733	-0.78542	3.5799523	0.10775	-0.79073	1.18402	-2.3316	0.831946	-0.86262
MMSB-BWBK-SB-MM104-0110	10826.5158	1.07425	-0.53504	3.275962	-0.67671	-0.89735	1.38643	-1.044519	1.051679	-0.29719	3.43942	-12.2129	-1.01809	1.478573
MMSB-BWBK-SB-MM105-0110	8432.1879	-0.48201	-0.80041	-0.06359	-0.41256	1.061958	0.273205	1.5781084	-0.45527	-0.94813	-0.05501	-2.42201	1.174321	0.202953
MMSB-BWBK-SB-MM106-0110	12157.6858	0.49116	0.621193	3.010332	0.386323	0.039552	1.29943	9.6892984	0.451376	0.598502	3.18107	5.655682	0.0348	1.434495
MMSB-BWBK-SB-MM107-0110	10372.0991	-0.32167	0.093856	1.130199	-0.1683	1.237173	0.581539	3.5191182	-0.30812	-0.22084	1.199702	0.873836	1.373965	0.554946
MMSB-BWBK-SB-MM108-0110	9049.85647	-0.17421	-0.54967	1.346167	-0.15756	0.148344	0.216731	3.3713791	-0.17573	-0.56341	1.431677	-0.10991	0.145082	0.214502
MMSB-BWBK-SB-MM109-0110	11656.0006	-0.10303	0.745485	1.991509	-0.10112	0.512497	-0.2174	3.3993457	-0.12797	0.564615	2.113931	-1.33346	0.564097	-0.17271
MMSB-BWBK-SB-MM110-0109	10516.2853	-0.19634	0.071727	1.177192	-0.15371	0.557831	0.453176	3.5112328	-0.20234	-0.04893	1.252721	-0.93455	0.613484	0.475151
MMSB-BWBK-SB-MM111-0110	10134.1097	0.04927	-0.04075	2.359758	-0.09951	-0.04748	0.015902	3.4032275	0.034372	-0.07657	2.493746	-0.4984	-0.07082	0.040926
MMSB-BWBK-SB-MM112-0110	10714.9029	-0.08107	0.318375	1.906608	0.099837	0.394797	0.04515	5.9423498	-0.10221	0.215045	2.025153	2.63691	0.428467	0.088011
MMSB-BWBK-SB-MM113-0110	11075.6541	-0.1044	0.229072	1.224728	-0.03972	1.45156	1.392915	5.1510801	-0.10921	0.002448	1.307282	1.838035	1.618476	1.441481
MMSB-BWBK-SB-MM114-0110	7990.20993	-0.4687	-0.84107	0.971449	-0.18446	0.224276	-0.2656	2.1710293	-0.45323	-0.84679	1.027474	-0.00967	0.233766	-0.32273

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	4533.03263	-1.52512	-2.41086	-1.19105	-0.67671	-3.10088	-2.02028	-1.637625	-1.48243	-2.40056	-1.31426	-12.2129	-3.49816	-2.202
MAXIMUM DOMAIN VALUE	17915.2373	2.92241	3.136423	4.122704	1.073693	2.516702	2.221893	24.832109	2.942092	2.873071	4.346177	16.28859	2.898994	2.381104
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	10755.4256	-0.36988	0.646138	4.122704	0.31927	-0.6844	-0.62769	3.6461699	-0.39503	0.484149	4.346177	6.070634	-0.7923	-0.59601
MMSB-BWBK-SB-MM116-0110	8953.95812	-0.05663	-0.62311	1.600277	-0.08645	-0.01645	0.300256	4.6447835	-0.05563	-0.64625	1.6967	1.441911	-0.04259	0.292315
MMSB-BWBK-SB-MM117-0110	6905.82851	-0.21268	-1.46554	0.87819	-0.43011	-0.31202	-0.51484	1.2943183	-0.19502	-1.38892	0.936655	-2.92177	-0.38197	-0.59684
MMSB-BWBK-SB-MM118-0110	8204.09406	0.35422	-1.08611	1.440242	-0.39603	-0.15696	-0.11048	3.6815851	0.360074	-1.03537	1.526672	-3.24323	-0.20327	-0.15284
MMSB-BWBK-SB-MM119-0110	8733.57074	-0.13053	-0.69507	1.829935	-0.05713	-0.07858	0.369387	4.3681734	-0.12127	-0.75234	1.932497	2.46409	-0.11339	0.343831
MMSB-BWBK-SB-MM120-0110	6553.74829	-0.64126	-1.53056	0.521486	-0.51709	0.002285	-0.41699	-0.832289	-0.60893	-1.59273	0.565158	-2.56165	-0.03583	-0.53337
MMSS-BWBK-SS-MM101-0001	13013.916	-0.61735	1.179638	-0.20013	-0.00377	0.062223	0.269622	3.2831043	-0.67895	1.321299	-0.17667	-4.77776	0.078211	0.448922
MMSS-BWBK-SS-MM102-0001	10162.9012	-0.86416	0.041945	-0.64488	-0.24565	0.50498	-0.00061	0.8488161	-0.89132	0.12544	-0.64176	-4.47678	0.558094	0.069893
MMSS-BWBK-SS-MM103-0001	12751.0752	-0.69459	1.071892	-0.47894	-0.12786	0.075865	0.097956	2.4339269	-0.7436	1.142396	-0.47298	-5.84905	0.090759	0.23803
MMSS-BWBK-SS-MM104-0001	12716.7627	-0.49232	1.017773	0.059261	-0.07687	0.084459	0.270489	3.1495365	-0.54128	1.093691	0.089521	-4.86674	0.100122	0.413929
MMSS-BWBK-SS-MM105-0001	9857.54798	-0.99628	-0.06527	-0.78775	-0.34712	-0.10828	-0.4742	0.1570232	-1.00871	-0.05336	-0.79843	-5.22147	-0.13712	-0.45786
MMSS-BWBK-SS-MM106-0001	13182.2295	-0.5769	1.364069	0.25093	-0.01728	0.792828	0.247259	3.1096119	-0.62705	1.330186	0.293403	-3.64546	0.898976	0.392173
MMSS-BWBK-SS-MM107-0001	12549.4092	-0.54643	0.973953	0.167082	0.038986	0.335301	0.545734	3.1304409	-0.61282	1.165608	0.214578	-3.75326	0.382562	0.743165
MMSS-BWBK-SS-MM108-0001	13066.9397	-0.93023	1.361064	-0.48879	-0.10663	0.410307	-0.09635	0.7307725	-0.99954	1.48186	-0.46932	-6.66756	0.468492	0.09033
MMSS-BWBK-SS-MM109-0001	11645.275	-0.86647	0.686592	-0.57577	-0.15369	0.769072	0.246733	0.330453	-0.9226	0.879585	-0.56445	-6.17118	0.870029	0.409086
MMSS-BWBK-SS-MM110-0001	9017.75257	-1.27574	-0.36538	-1.0563	-0.39736	-0.40078	-0.71211	-1.06835	-1.28516	-0.34641	-1.07194	-4.98055	-0.47642	-0.71465
MMSS-BWBK-SS-MM111-0001	8775.91458	-1.17137	-0.50357	-0.92473	-0.36197	-0.07488	-0.40684	-1.637625	-1.19634	-0.31287	-0.92924	-5.75916	-0.10349	-0.35706
MMSS-BWBK-SS-MM112-0001	8284.27207	-1.20518	-0.78142	-1.02098	-0.40696	-0.57018	-0.42755	-1.254917	-1.21156	-0.6609	-1.03752	-4.99549	-0.66764	-0.42773
MMSS-BWBK-SS-MM113-0001	12055.1486	-0.95987	0.8379	-0.37518	-0.14145	-0.78344	-0.33525	1.4936788	-1.00926	0.905903	-0.35367	-5.00141	-0.89115	-0.21404
MMSS-BWBK-SS-MM114-0001	7522.30069	-1.24569	-1.0428	-1.14401	-0.42975	-0.09582	-0.4692	-1.490379	-1.2446	-0.9373	-1.1655	-4.32818	-0.13633	-0.49307
MMSS-BWBK-SS-MM115-0001	8955.65414	-1.13866	-0.44142	-1.06893	-0.33983	-0.0442	-0.38009	-0.364023	-1.155	-0.3403	-1.08373	-4.65049	-0.07059	-0.35281
MMSS-BWBK-SS-MM116-0001	8770.89523	-1.19046	-0.50001	-1.0131	-0.34903	-0.18056	-0.48065	-0.396376	-1.19794	-0.45156	-1.02897	-4.10037	-0.22657	-0.48002
MMSS-BWBK-SS-MM117-0001	11050.8644	-0.78301	0.364267	-0.37357	-0.18408	-0.18278	-0.06565	1.4488311	-0.82592	0.497608	-0.35379	-4.9567	-0.21454	0.044886
MMSS-BWBK-SS-MM118-0001	8553.64499	-0.6217	-0.66969	0.524611	-0.26372	0.44042	0.120044	0.3008003	-0.62226	-0.60084	0.568785	-2.57443	0.480157	0.121197
MMSS-BWBK-SS-MM119-0001	7800.43153	-0.73857	-0.95535	0.120257	-0.31516	0.398983	-0.12118	0.2503287	-0.73288	-0.90029	0.149541	-2.25664	0.42603	-0.14851
MMSS-BWBK-SS-MM120-0001	10169.9238	-0.49155	-0.10061	-1.06946	-0.42337	1.201695	0.221969	2.778994	-0.49301	-0.23122	-1.09385	-4.7928	1.336913	0.224262
NESB-BWBK-SB-NE01-0108	9635.01023	0.85025	-0.83063	0.331832	-0.0272	0.643228	1.494769	9.4860383	0.810692	-0.40427	0.373364	-1.93941	0.722955	1.635559
NESB-BWBK-SB-NE02-0109	9720.65259	0.57486	-0.54178	0.531644	0.139736	0.293301	0.770601	11.13182	0.553063	-0.3218	0.574377	2.132301	0.324914	0.841645
NESB-BWBK-SB-NE03-0105	9033.34502	0.44785	-0.89269	0.004602	-0.28133	0.640885	0.659362	5.616425	0.425349	-0.57118	0.025085	-5.03735	0.717053	0.72896
NESB-BWBK-SB-NE04-0110	8986.48621	0.41417	-0.91423	0.257058	-0.12406	0.441255	0.886817	7.2026109	0.392198	-0.62674	0.293386	-1.77072	0.486648	0.960708
NESB-BWBK-SB-NE05-0108	9345.22774	0.72414	-0.91813	0.055963	-0.09732	0.445274	1.190893	9.0687326	0.692551	-0.54294	0.083827	-2.28867	0.495466	1.299333
NESB-BWBK-SB-NE06-0109	8868.90738	0.54267	-1.00266	0.030612	-0.18005	0.518404	0.796176	7.7284445	0.52365	-0.71026	0.053982	-2.55887	0.574253	0.857753
NESB-BWBK-SB-NE07-0107	9735.16883	0.7529	-0.77079	0.100613	-0.08483	0.537988	1.327209	8.8493177	0.71387	-0.36171	0.131554	-2.92705	0.603907	1.461722
NESB-BWBK-SB-NE08-0104	8985.93922	0.21667	-0.78166	-0.16262	-0.18388	0.767915	0.497666	6.5043449	0.199338	-0.57317	-0.14564	-2.33096	0.854035	0.546402
NESB-BWBK-SB-NE09-0110	8740.34905	0.44399	-1.03595	-0.03436	-0.12656	0.536404	0.882689	7.9659743	0.425339	-0.74899	-0.01197	-1.41827	0.592677	0.946489
NESB-BWBK-SB-NE10-0107	11374.1681	-0.08315	0.303312	0.175094	0.005534	0.657685	0.878162	7.0035869	-0.11291	0.301053	0.214793	-0.0791	0.730826	0.977575
NESB-BWBK-SB-NE101-0110	11256.5789	-0.22916	0.672979	2.542237	-0.04177	0.227736	-0.41527	1.7804148	-0.26653	0.615451	2.69588	-1.34088	0.244159	-0.34337
NESB-BWBK-SB-NE102-0110	10407.0891	-0.50326	0.363596	2.397147	-0.01144	-0.14613	-0.53512	1.4060668	-0.53068	0.293678	2.544451	0.356017	-0.18445	-0.49325
NESB-BWBK-SB-NE103-0110	9142.09193	-0.59334	-0.23456	1.755434	-0.17757	-0.16435	-0.5955	0.3867657	-0.60498	-0.2807	1.869846	-0.8676	-0.21117	-0.59885
NESB-BWBK-SB-NE104-0110	8307.09656	-0.67086	-0.59926	1.337367	-0.26575	-0.11082	-0.68288	0.0776639	-0.66916	-0.66759	1.429862	-0.98342	-0.15596	-0.72596
NESB-BWBK-SB-NE105-0110	11186.8934	-0.29497	0.678777	3.001953	-0.02283	-0.11581	-0.51909	1.6222883	-0.31842	0.517102	3.170027	-0.00715	-0.1463	-0.4866
NESB-BWBK-SB-NE106-0110	10013.6853	-0.3435	0.119769	2.351352	-0.09699	-0.14539	-0.5177	1.5056593	-0.36501	0.058977	2.494473	-0.45856	-0.18576	-0.49376
NESB-BWBK-SB-NE107-0510	8194.06606	-0.44858	-0.80937	1.634972	-0.21404	-0.36729	-0.20155	1.1044563	-0.45046	-0.80361	1.74281	-0.20794	-0.44632	-0.22077
NESB-BWBK-SB-NE108-0110	9999.65124	-0.37113	0.052298	1.926647	-0.18766	-0.20355	-0.49196	0.8226463	-0.39771	0.0419	2.053877	-2.27687	-0.25187	-0.45414
NESB-BWBK-SB-NE109-0110	9737.14728	-0.4227	-0.01366	2.07868	-0.15257	-0.12516	-0.49802	0.5826145	-0.44788	-0.01523	2.212526	-1.5671	-0.16356	-0.46352
NESB-BWBK-SB-NE110-0110	9545.30253	-0.36489	-0.1617	1.964231	-0.18664	0.004521	-0.27538	0.4333899	-0.38787	-0.13094	2.090598	-2.08809	-0.01617	-0.23837
NESS-BKG-SS03-NEB-0016	14365.7071	-0.12347	1.312156	-0.24926	0.009287	-3.10088	-0.12138	8.7137173	-0.187	1.425494	-0.23022	-4.72364	-3.49816	0.042741
NESS-BKG-SS09-NEB-0018	11221.2934	-0.81403	0.395343	-0.65133	-0.11418	-0.34383	0.077326	2.2003732	-0.82563	0.525174	-0.68803	-4.93653	-0.37187	0.132808
NESS-BWBK-SS-NE01-0001	15058.7848	0.39779	1.514966	-0.41565	0.41789	-1.33234	1.157264	14.078493	0.349478	1.74795	-0.45028	-0.94336	-1.46208	1.349753
NESS-BWBK-SS-NE02-0001	13692.4622	0.79388	0.475523	-0.66976	0.52591	-2.36757	2.221893	18.155645	0.773457	0.843474	-0.73797	2.247577	-2.62978	2.381104
NESS-BWBK-SS-NE03-0001	12790.3954	-0.2778	0.873193	-0.84549	-0.00967	0.374153	0.77349	4.9493577	-0.33844	1.193363	-0.86611	-6.28351	0.44409	0.974146
NESS-BWBK-SS-NE04-0001	12746.1804	0.03054	0.89338	-0.20175	-0.00647	0.854404	0.691208	5.5376828	-0.03938	1.198797	-0.18126	-5.82999	0.980347	0.90292
NESS-BWBK-SS-NE05-0001	13663.552	-0.17486	1.109511	-0.67122	0.066849	-0.06478	1.178773	7.5642445	-0.21547	1.207699	-0.69411	-3.46602	-0.05501	1.340881
NESS-BWBK-SS-NE06-0001	12393.6122	-0.10376	0.737681	-0.34562	-0.03563	1.160887	0.974739	4.9906616	-0.16565	0.976456	-0.3286	-4.96748	1.319252	1.172972
NESS-BWBK-SS-NE07-0001	14386.8215	-0.11781	1.328892	-0.49545	-0.06584	-1.28752	0.695818	6.7097863	-0.15262	1.403025	-0.52339	-6.52529	-1.4287	0.831363
NESS-BWBK-SS-NE08-0001	12527.4357	-0.26533	0.814501	-0.58887	-0.03482	0.693332	0.743142	4.6507824	-0.32718	1.071404	-0.58665	-5.51001	0.794583	0.937834
NESS-BWBK-SS-NE09-0001	14281.3728	-0.51673	1.688806	-0.44172	0.014251	0.335302	0.393509	2.9791777	-0.59775	1.957507	-0.43569	-7.7818	0.405543	0.638419
NESS-BWBK-SS-NE10-0001	13554.8493	-0.14712	0.955666	-0.31726	-0.14465	-1.5666	0.606608	6.1550244	-0.18215	0.996958	-0.31985	-5.82138	-1.76166	0.727189
NESS-BWBK-SS-NE101-0001	10833.2102	-0.95691	0.497229	-0.11351	-0.16725	0.579069	-0.34139	-0.888019	-1.01563	0.715212	-0.07323	-5.8642	0.649123	-0.19766
NESS-BWBK-SS-NE102-0001	9754.92725	-1.09487	-0.0765	-0.51837	-0.24562	-0.33797	-0.40825	0.3102433	-1.11892	-0.02941	-0.5037	-3.51773	-0.40252	-0.36291
NESS-BWBK-SS-NE103-0001	9325.87458	-1.17032	-0.2683	-0.66762	-0.29648	-0.2191	-0.32177	0.0898281	-1.17669	-0.30603	-0.66707	-2.9632	-0.27155	-0.31927
NESS-BWBK-SS-NE104-0001	9545.97866	-0.89838	-0.37029	-0.55611	-0.29833	-1.04979	-0.20725	0.7105571	-0.92686	-0.20773	-0.54212	-4.74671	-1.20665	-0.14509
NESS-BWBK-SS-NE105-0001	8561.5238	-1.21231	-0.558	-0.84672	-0.32262	0.085769	-0.35582	-0.803862	-1.22403	-0.48613	-0.84972	-3.5908	0.072109	-0.3414
NESS-BWBK-SS-NE106-0001	9687.52845	-1.09536	-0.24291	-0.54582	-0.35538	-1.09202	-0.36336	-0.467793	-1.11536	-0.18856	-0.53317	-4.94915	-1.25728	-0.32783
NESS-BWBK-SS-NE107-0001	9555.44556	-1.24037	-0.1468	-0.80559	-0.30686	-0.23986	-0.41134	-0.897719	-1.2641	-0.07934	-0.80344	-4.55196	-0.29188	-0.36521
NESS-BWBK-SS-NE108-0001	9895.36449	-1.13186	-0.02589	-0.39024	-0.22053	-0.50445	-0.33888	0.4214743	-1.15345	-0.01385	-0.3704	-2.87068	-0.59156	-0.29714
NESS-BWBK-SS-NE109-0001	8590.62105	-1.24437	-0.54071	-0.74797	-0.32756	0.018647	-0.35093	-1.253893	-1.2598	-0.4592	-0.74281	-3.75114	-0.00507	-0.32746
NESS-BWBK-SS-NE110-0001	9742.0135	-1.24403	-0.09277	-0.70829	-0.38214	-0.95309	-0.7674	-0.448957	-1.2483	-0.18846	-0.7111	-4.38553	-1.1014	-0.78557

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	ALUMINUM							ARSENIC						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	4533.03263	-1.52512	-2.41086	-1.19105	-0.67671	-3.10088	-2.02028	-1.637625	-1.48243	-2.40056	-1.31426	-12.2129	-3.49816	-2.202
MAXIMUM DOMAIN VALUE	17915.2373	2.92241	3.136423	4.122704	1.073693	2.516702	2.221893	24.832109	2.942092	2.873071	4.346177	16.28859	2.898994	2.381104
SAMPLE	**AL predict**	D1	D2	D3	D4	D5	D6	**AS predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	10812.328	0.47756	0.401259	0.050217	0.20811	1.128967	-0.88268	12.52875	0.461672	0.468712	0.049232	1.375137	1.288869	-0.87358
PMSB-BWBK-SB-PM02-0104	14884.9813	1.17542	1.918026	-0.85603	-0.02715	2.516702	-0.55202	15.193776	1.194539	1.63223	-0.96219	-5.25208	2.898994	-0.59881
PMSB-BWBK-SB-PM03-0106	10327.0609	1.78448	-0.303	-0.58151	-0.08777	0.857098	-1.00599	17.435811	1.807244	-0.12934	-0.66308	-3.89387	1.005043	-1.09925
PMSB-BWBK-SB-PM04-0105	11106.338	0.97416	0.091696	0.040945	0.240109	0.591345	0.222077	15.459494	1.024002	0.117902	-0.03962	1.408913	0.718041	0.127425
PMSB-BWBK-SB-PM05-0105	10918.1619	0.93784	0.143758	-0.10242	0.181577	0.850014	-0.31738	15.578015	0.955316	0.139627	-0.14267	1.775996	0.983517	-0.36994
PMSB-BWBK-SB-PM06-0105	10410.6368	0.90255	-0.07757	-0.31352	0.264273	1.000003	-0.12294	16.006441	0.926288	0.011459	-0.37532	2.554339	1.161433	-0.17752
PMSB-BWBK-SB-PM07-0105	10725.2467	0.44691	0.598954	-0.55993	-0.05885	2.095315	-1.92461	11.925006	0.495636	0.296399	-0.64094	-0.92891	2.394274	-2.10798
PMSB-BWBK-SB-PM08-0106	10459.1849	0.68277	0.193947	-0.2018	0.11011	1.218632	-1.04371	13.478162	0.723412	0.131925	-0.27162	0.412882	1.412186	-1.16989
PMSB-BWBK-SB-PM09-0106	8719.97345	0.29125	-0.6202	-0.48431	-0.02722	1.033155	-0.6028	10.583008	0.342529	-0.66039	-0.55361	0.854139	1.183266	-0.7479
PMSB-BWBK-SB-PM10-0105	14270.5775	0.31449	1.919319	-0.63183	0.105846	1.687472	-0.90128	14.590899	0.348041	1.293099	-0.701	1.616932	1.927545	-1.01023
PMSB-BWBK-SB-PM11-0104	10498.5806	0.88934	0.291576	-0.39352	-0.04753	1.338792	-1.88075	14.381308	0.918061	0.122575	-0.44781	-0.76324	1.530201	-2.02406
PMSB-BWBK-SB-PM12-0105	10534.5383	-0.36603	0.229761	-0.414	0.212694	1.399999	0.438683	10.37367	-0.35717	-0.026	-0.42005	6.151123	1.566179	0.424997
PMSB-BWBK-SB-PM13-0106	13254.3346	-0.27592	1.517296	-0.67919	0.167829	1.85068	-0.14085	10.759253	-0.26817	1.088791	-0.72012	2.5151	2.099532	-0.15754
PMSB-BWBK-SB-PM14-0106	10580.5005	-0.37292	0.33487	-0.40578	0.163948	1.001242	-0.23709	10.062934	-0.35842	0.072054	-0.42196	4.780383	1.122261	-0.28499
PMSB-BWBK-SB-PM15-0105	11414.6554	0.25913	0.408537	-0.3849	0.098881	0.820691	0.07943	11.960566	0.26509	0.269893	-0.41024	1.73563	0.931578	0.066233
PMSB-BWBK-SB-PM16-0106	10661.2348	-0.08976	0.130077	-0.36287	0.060726	0.806571	0.268905	9.4423988	-0.08439	0.015934	-0.37718	1.979887	0.906951	0.262693
PMSB-BWBK-SB-PM17-0105	11179.7984	0.87047	0.48271	0.151058	0.003882	1.078443	-1.30264	13.590045	0.878417	0.346994	0.140104	-0.43092	1.230168	-1.37574
PMSB-BWBK-SB-PM18-0105	10615.6886	1.38561	-0.49326	-0.56712	-0.10812	0.17847	0.528075	14.458211	1.408412	-0.27439	-0.64397	-4.0272	0.234567	0.495534
PMSB-BWBK-SB-PM19-0105	11176.8151	0.67645	0.039335	-0.30352	0.015307	0.082283	0.273028	12.663487	0.682183	0.067291	-0.33503	-0.638	0.105084	0.268436
PMSB-BWBK-SB-PM20-0106	10902.3609	0.3856	0.101816	-0.27376	0.102724	0.441633	0.147316	12.24049	0.394134	0.061308	-0.29965	1.547856	0.506468	0.131142
PMSB-BWBK-SB-SO01-0107-PM	10449.4618	1.46527	-0.54453	-0.53482	-0.14505	-0.73785	-0.22802	15.357031	1.466949	-0.28772	-0.58428	-4.26632	-0.81526	-0.24641
PMSB-BWBK-SB-SO02-0109-PM	10772.2421	1.45193	-0.49788	-1.03054	-0.06705	-0.63927	0.209764	16.318919	1.484886	-0.22899	-1.14893	-4.40064	-0.67642	0.149038
PMSB-BWBK-SB-SO13-0104-PM	10574.0144	1.78897	-0.3367	-0.53262	-0.5114	-0.04897	-1.44397	13.77116	1.834028	-0.30629	-0.62468	-9.71897	-0.02105	-1.61068
PMSB-BWBK-SB-SO14-0105-PM	10259.7467	2.03303	-0.72	-0.43578	-0.18443	-0.78772	-0.56102	17.440925	2.082799	-0.44014	-0.5482	-6.34275	-0.8353	-0.69423
SESB-BWBK-SB-SO03-0108	11309.8478	2.92241	-0.56295	-0.26803	-0.11381	-0.99134	-0.31294	21.644934	2.942092	-0.05342	-0.37031	-8.23168	-1.05211	-0.36319
SESB-BWBK-SB-SO04-0108	10696.6995	1.88497	-0.44162	-0.33524	-0.15263	-0.78957	-0.72168	17.649811	1.942491	-0.3135	-0.44423	-5.00735	-0.84061	-0.88078
SESB-BWBK-SB-SO05-0106	12051.3018	1.42052	0.157038	-0.42964	0.086566	-0.34504	0.31868	16.987078	1.449189	0.297761	-0.52157	-2.49605	-0.33969	0.276086
SESB-BWBK-SB-SO06-0108	11532.6023	2.55463	-0.2988	-0.83416	0.012518	-0.59591	-0.41125	22.074967	2.617516	0.073117	-1.01218	-6.63046	-0.58018	-0.55117
SESB-BWBK-SB-SO07-0106	10528.0176	1.87355	-0.31064	-0.52715	-0.00845	-0.53474	-1.36309	20.681819	1.896958	-0.23541	-0.59584	-1.11311	-0.5807	-1.48075
SESB-BWBK-SB-SO08-0107	12139.7826	2.51943	0.025293	-0.24855	0.110932	-0.8296	-0.47775	23.241119	2.553247	0.272769	-0.35559	-3.46453	-0.87098	-0.56568
SESB-BWBK-SB-SO09-0106	11560.3793	1.22964	0.052492	-0.16113	0.084488	-0.24356	0.218428	15.699991	1.26649	0.141967	-0.24102	-1.60211	-0.22916	0.150923
SESB-BWBK-SB-SO11-0106	10858.9228	1.86669	-0.23594	-0.10051	0.286847	-0.0887	-0.25846	20.743784	1.90317	0.036849	-0.19369	0.306553	-0.03955	-0.34097
SESB-BWBK-SB-SO12-0106	10566.6636	2.004	-0.62163	-0.7409	-0.11423	-1.02223	-0.51249	19.425352	2.056202	-0.42577	-0.86385	-4.41289	-1.10553	-0.65321
SESB-BWBK-SB-SO15-0103	11610.0598	0.24501	0.516048	-0.47132	0.055253	0.546122	-0.25715	11.397875	0.247315	0.417242	-0.50386	0.090662	0.626641	-0.26943
SESB-BWBK-SB-SO16-0105	10296.1833	0.77881	-0.20348	-0.53337	-0.011	0.241086	-0.48778	14.679849	0.795619	-0.28898	-0.56972	1.166212	0.271589	-0.55971
SESB-BWBK-SB-SO17-0106	10397.9261	0.26113	0.057489	-0.0281	0.091998	0.610007	-0.32094	12.124365	0.260321	-0.09535	-0.01404	3.533632	0.67405	-0.34607
SESB-BWBK-SB-SO18-0105	9779.61454	-0.00204	-0.0654	0.045254	0.099236	0.845664	-0.4691	10.179553	-0.00694	-0.16587	0.068276	3.606143	0.938401	-0.48756
SESB-BWBK-SB-SO19-0104	10185.0324	0.57609	0.325247	0.393107	0.160078	1.043343	-1.89284	14.808683	0.571267	0.0874	0.430597	4.893998	1.161506	-1.97297
SESB-BWBK-SB-SO20-0104	10288.699	1.41659	-0.52345	-0.68313	-0.12045	-0.54343	-0.48246	17.375306	1.430393	-0.49552	-0.72939	-1.02891	-0.61301	-0.55313

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

BARIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
25.4948	Mean					
9.3465	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0302	0.3571	0.0124	5.1576	0.0113	0.2183
AS	-0.0348	0.0067	0.0631	-2.0405	-0.0311	0.1798
BA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
BE	-0.0066	0.1557	-0.0217	0.2701	0.4734	0.3289
CA	-0.0113	0.0105	-0.0949	-2.9825	0.1363	-0.1763
CR	-0.0665	0.3661	-0.1932	-1.4468	0.8187	1.0096
CO	0.2067	-0.0386	0.1799	1.6675	0.5123	-2.6135
CU	0.0985	-0.0683	0.0585	4.8856	-0.2710	0.1420
FE	0.3597	-0.1770	-0.5988	7.7831	0.2769	-1.0221
PB	0.0191	0.0450	0.0216	0.8761	-0.5010	-0.1266
MG	0.0748	-0.1221	0.7801	-4.4725	0.0943	2.0762
MN	-0.0042	0.0112	-0.0079	-0.9869	0.0539	-0.0587
NI	0.1293	-0.0783	-0.0638	1.9772	0.1424	-0.2629
K	-0.0083	0.1066	0.7892	0.9467	-0.1512	-0.7338
V	-0.0837	0.4881	0.0939	-2.7551	-0.2374	-0.5132
ZN	0.2474	-0.0943	-0.1506	-8.6178	-1.6132	1.1451

BERYLLIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
0.4300	Mean					
0.1355	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0325	0.3248	0.0090	-0.4901	0.0039	0.0755
AS	-0.0374	0.0061	0.0459	0.1939	-0.0107	0.0622
BA	-0.0750	0.2292	0.2200	0.2612	-0.0240	-0.1527
BE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CA	-0.0122	0.0095	-0.0691	0.2834	0.0470	-0.0609
CR	-0.0715	0.3330	-0.1407	0.1375	0.2821	0.3491
CO	0.2225	-0.0351	0.1310	-0.1585	0.1765	-0.9037
CU	0.1060	-0.0621	0.0426	-0.4643	-0.0934	0.0491
FE	0.3872	-0.1610	-0.4360	-0.7396	0.0954	-0.3534
PB	0.0206	0.0410	0.0157	-0.0833	-0.1726	-0.0438
MG	0.0805	-0.1110	0.5681	0.4250	0.0325	0.7179
MN	-0.0045	0.0102	-0.0058	0.0938	0.0186	-0.0203
NI	0.1392	-0.0712	-0.0464	-0.1879	0.0491	-0.0909
K	-0.0089	0.0969	0.5747	-0.0900	-0.0521	-0.2537
V	-0.0900	0.4440	0.0684	0.2618	-0.0818	-0.1775
ZN	0.2662	-0.0858	-0.1097	0.8189	-0.5559	0.3959

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							BERYLLIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-48.61038	-1.48132	-2.50025	-1.32295	-31.5151	-3.9071	-5.30525	0.1374762	-1.52638	-2.4394	-1.1712	-2.01981	-1.4607	-1.95303
MAXIMUM DOMAIN VALUE	66.737851	2.787664	2.842555	4.937651	20.88441	3.279504	6.200772	0.6932907	2.973758	3.078652	3.993938	2.413788	0.759969	2.064928
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**BE predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-12.97171	-0.81701	-2.26692	0.315111	-11.911	-0.49219	1.086966	0.1681905	-0.74863	-2.23154	-0.22444	0.579763	0.189437	0.887972
BASS-BWBK-SS-BA102-0001	-8.258986	-0.98175	-2.50025	-0.09895	-8.70984	-0.4963	-0.16694	0.1507749	-0.91868	-2.4394	-0.55536	0.239159	0.226943	0.497559
BASS-BWBK-SS-BA103-0001	-13.04755	-0.95988	-2.33857	0.104578	-12.285	-0.34484	-0.30181	0.1594476	-0.90745	-2.26356	-0.36832	0.625485	0.262997	0.416396
BASS-BWBK-SS-BA104-0001	-8.423797	-0.83413	-1.99531	0.80983	-11.2285	-0.41164	0.829666	0.1920651	-0.77934	-1.92925	0.16647	0.55024	0.237671	0.792911
BASS-BWBK-SS-BA105-0001	-48.61038	-0.93582	-2.27258	-0.77796	-31.5151	0.414429	-1.30582	0.1482669	-0.86792	-2.24521	-1.05104	2.405307	0.528967	0.097022
BASS-BWBK-SS-BA106-0001	-12.96252	-0.78289	-1.97555	0.453859	-12.8855	-0.31748	1.507452	0.1958706	-0.70922	-1.96586	-0.13398	0.659292	0.262695	1.048285
BASS-BWBK-SS-BA107-0001	-8.158134	-0.99787	-2.40114	0.030655	-9.3646	-0.56386	-0.33301	0.1559441	-0.94324	-2.32718	-0.43979	0.326526	0.201357	0.425433
BASS-BWBK-SS-BA108-0001	-12.68638	-0.98869	-2.39448	-0.03133	-11.5349	-0.31156	-0.0981	0.1546374	-0.92722	-2.34874	-0.50025	0.515092	0.278053	0.509704
BASS-BWBK-SS-BA109-0001	-11.9264	-0.82679	-2.2918	0.438893	-10.7286	-0.09488	1.726275	0.1742147	-0.75271	-2.24734	-0.16133	0.433782	0.365001	1.150527
BASS-BWBK-SS-BA110-0001	-1.157988	-0.78135	-1.89411	1.191741	-8.0374	-0.16209	0.689201	0.2126781	-0.76694	-1.71035	0.577596	0.40539	0.297269	0.644456
BASS-BWBK-SS-BA111-0001	-11.89117	-0.94984	-2.27825	0.100275	-11.3321	-0.24015	0.422756	0.1686699	-0.88674	-2.23011	-0.40322	0.496721	0.314435	0.696552
BASS-BWBK-SS-BA112-0001	-31.57394	-0.99654	-2.3201	-0.1766	-21.9855	0.180527	-0.24878	0.1493575	-0.94049	-2.26637	-0.59192	1.524918	0.446067	0.447801
BASS-BWBK-SS-BA113-0001	-33.38912	-0.59474	-2.41819	-0.44226	-22.8942	-2.1977	0.666577	0.1374762	-0.50566	-2.37617	-0.78834	1.608513	-0.39091	0.754982
MASB-BWBK-SB-MA01-0105	7.3466395	1.105577	-0.14375	-0.06516	-9.99385	0.019967	-0.85917	0.4628366	1.225354	-0.25695	-0.14623	0.833431	-0.00617	-0.24366
MASB-BWBK-SB-MA02-0107	9.7473201	1.287073	-0.22077	0.140461	-7.43732	-0.09796	0.911787	0.481676	1.379807	-0.14907	0.107169	0.710472	0.013358	0.342206
MASB-BWBK-SB-MA03-0108	13.152338	1.909501	-0.99477	-0.3983	-6.35879	-0.73744	-5.30525	0.4554339	2.039519	-0.81325	-0.25809	0.639624	-0.19802	-1.81863
MASB-BWBK-SB-MA04-0106	-9.738841	1.355404	-0.03662	0.741025	-18.0852	-0.49891	3.584779	0.465232	1.437256	0.014578	0.608017	1.800708	-0.20315	1.176878
MASB-BWBK-SB-MA05-0108	-0.94304	0.971596	-0.10633	0.188104	-13.2245	-0.14471	1.908721	0.4491986	1.052003	-0.14264	0.126476	1.24571	-0.08443	0.644525
MASB-BWBK-SB-MA06-0105	9.4142035	0.98867	-0.10077	0.173775	-7.97574	-0.41615	1.405962	0.460788	1.076818	-0.13075	0.089005	0.713322	-0.13929	0.512196
MASB-BWBK-SB-MA07-0108	4.3019159	0.815705	-0.67316	-0.37199	-8.00815	-0.76094	1.379745	0.4067448	0.932444	-0.7128	-0.45137	0.542923	-0.15322	0.659181
MASB-BWBK-SB-MA08-0108	17.465425	2.318329	0.765794	-1.13605	-5.10665	-0.51754	2.08045	0.6113209	2.566947	0.339844	-0.99631	0.292597	-0.34447	0.719133
MASB-BWBK-SB-MA09-0108	16.065525	1.562508	-0.62525	-0.81822	-2.37192	-1.69732	0.331507	0.4504728	1.714428	-0.69557	-0.68407	0.122234	-0.61093	0.153103
MASB-BWBK-SB-MA10-0104	13.791754	0.650851	-0.86576	-1.21252	-2.23075	-0.58435	-0.61465	0.3960374	0.792197	-1.00599	-1.1712	-0.13366	-0.0866	0.04056
MASB-BWBK-SB-MA11-0108	15.485376	1.45933	0.184781	-0.47794	-5.36033	-1.01881	1.352878	0.4997818	1.596355	-0.03446	-0.38578	0.471743	-0.51362	0.387834
MASB-BWBK-SB-MA12-0108	5.5518857	1.60319	-0.45677	0.102153	-9.7051	-0.60182	-0.08409	0.4650183	1.737647	-0.44413	0.035681	0.87576	-0.19123	0.005381
MASB-BWBK-SB-MA13-0105	12.88827	-0.41037	0.625939	-0.68713	-7.51828	1.761526	0.418241	0.4600559	-0.50518	0.630973	-0.27329	0.99166	0.403626	-0.12671
MASB-BWBK-SB-MA14-0104	42.250956	0.748294	0.902901	-1.32295	7.146302	1.285796	-0.99802	0.5828181	0.691068	0.980477	-0.56985	-0.20091	0.144185	-0.78122
MASB-BWBK-SB-MA15-0105	40.047937	0.102673	1.43298	-0.92822	4.182535	2.012951	-0.25471	0.5667352	0.014997	1.286033	-0.3008	0.065768	0.235988	-0.61377
MASB-BWBK-SB-MA16-0104	17.503826	0.167729	0.132784	-0.81368	-4.37837	0.779815	-1.13441	0.4472755	0.153634	0.088054	-0.47843	0.558172	0.101484	-0.56999
MASB-BWBK-SB-MA17-0104	20.784273	-0.03345	0.386225	-1.26867	-2.92332	0.642396	-0.84355	0.4698532	-0.09843	0.444914	-0.71087	0.536277	0.067181	-0.5229
MASB-BWBK-SB-MA18-0104	6.6618847	-0.43567	1.569447	-0.29784	-14.2067	1.852565	1.941472	0.5199234	-0.47705	1.320041	-0.15222	1.434409	0.452681	0.5127
MASB-BWBK-SB-MA19-0103	5.2578351	-0.47294	0.232608	-0.71474	-11.0634	0.928305	-0.34208	0.4175721	-0.54543	0.287611	-0.40273	1.193139	0.259417	-0.23034
MASB-BWBK-SB-MA20-0103	15.395173	0.880867	-0.33222	-0.53758	-3.9765	-0.07722	-0.47465	0.4461893	0.955414	-0.36902	-0.39967	0.370707	-0.08524	-0.19633
MASS-BWBK-SS-MA01-0001	13.696351	-1.24223	-0.47414	-0.927	-4.32648	-0.59161	-0.78938	0.3374541	-1.40261	-0.07144	-0.53113	0.572785	-0.00517	-0.23639
MASS-BWBK-SS-MA02-0001	17.359315	-0.99948	0.559902	-0.77888	-4.90331	0.05418	1.349419	0.4385425	-1.27816	1.119283	0.029681	1.174939	-0.05821	0.044735
MASS-BWBK-SS-MA03-0001	9.8895026	-0.87341	-0.1317	-0.89164	-6.56075	0.051025	0.650029	0.3810835	-1.02555	0.203562	-0.41724	0.895342	0.075677	0.116744
MASS-BWBK-SS-MA04-0001	2.3686455	-0.6624	-0.16883	-0.7432	-10.422	-0.21821	1.344864	0.3862304	-0.8102	0.241012	-0.28554	1.28821	0.027972	0.370941
MASS-BWBK-SS-MA05-0001	8.5697085	-0.1029	0.705632	-0.48267	-10.2907	-0.56655	2.47667	0.4702568	-0.17391	0.817241	-0.16072	1.205341	-0.23978	0.708773
MASS-BWBK-SS-MA06-0001	2.4488475	-0.28832	1.332163	-0.619	-14.7816	0.65486	3.443501	0.5367192	-0.59042	1.988234	0.395555	2.413788	0.026338	0.535019
MASS-BWBK-SS-MA07-0001	18.889361	-1.48132	-1.35709	-1.16054	0.525735	-1.09046	-3.21128	0.2524847	-1.52638	-1.1678	-1.12834	-0.40192	0.024246	-0.6788
MASS-BWBK-SS-MA08-0001	29.779159	-0.34202	0.640462	-1.11717	-1.71348	-2.93203	-1.83987	0.4642819	-0.44694	0.920771	-0.61203	0.396422	-0.90121	-0.69264
MASS-BWBK-SS-MA09-0001	30.857161	0.166715	2.842555	-0.62319	-8.23224	-3.02942	1.876218	0.6469447	-0.03685	3.078652	0.232295	1.606386	-1.34475	0.028498
MASS-BWBK-SS-MA10-0001	18.733866	0.055488	2.035268	-0.86759	-11.7703	-2.38619	0.77918	0.5723832	-0.05058	2.100027	-0.28105	1.539924	-0.97944	-0.04984
MASS-BWBK-SS-MA11-0001	30.180322	0.091381	2.200102	-0.89297	-5.85444	-0.95988	0.005509	0.6322222	-0.09751	2.546744	-0.05935	1.260815	-0.46651	-0.45371
MASS-BWBK-SS-MA12-0001	4.381377	-0.44843	-0.11581	-0.85243	-9.20483	-1.15115	2.331978	0.3966255	-0.52827	0.166766	-0.52748	0.977757	-0.22817	0.855274
MASS-BWBK-SS-MA13-0001	26.773285	-0.80006	1.478497	-0.98113	-3.66392	-0.18013	0.868748	0.5395715	-1.10017	2.075637	-0.01284	1.181019	-0.13845	-0.1866
MASS-BWBK-SS-MA14-0001	25.96081	-1.10226	0.951575	-0.89526	-4.67244	-2.17954	-1.41389	0.4534921	-1.32984	1.410357	-0.26326	0.899249	-0.6504	-0.66768
MASS-BWBK-SS-MA15-0001	29.096675	-1.12353	1.052286	-0.89638	-2.02604	-1.12032	-0.3051	0.4796798	-1.36557	1.541194	-0.22641	0.692486	-0.28954	-0.31044
MASS-BWBK-SS-MA16-0001	23.469008	-0.77325	0.820066	-1.15173	-3.36433	-0.74499	0.179441	0.4632454	-0.8996	0.978483	-0.64907	0.543291	-0.24161	-0.04684
MASS-BWBK-SS-MA17-0001	26.874795	-0.69084	0.971083	-1.13817	-2.58966	-0.63402	-0.59811	0.4858395	-0.81224	1.128752	-0.63801	0.47058	-0.19159	-0.30894
MASS-BWBK-SS-MA18-0001	22.737358	-0.98375	1.093767	-1.2625	-6.11383	-1.64793	-1.10415	0.4667559	-1.11487	1.246013	-0.7791	0.742901	-0.47591	-0.41092
MASS-BWBK-SS-MA19-0001	24.388273	-0.71774	1.255147	-1.20295	-5.3674	-0.78231	-0.93862	0.4990448	-0.86583	1.418257	-0.59932	0.839007	-0.31158	-0.52417
MASS-BWBK-SS-MA20-0001	18.76658	-0.29764	0.521221	-1.04276	-4.94879	-0.9036	0.206068	0.4583289	-0.4006	0.719429	-0.52385	0.749832	-0.33698	-0.09222
MMSB-BWBK-SB-MM101-0110	27.269794	0.002674	-1.08853	1.152373	3.693563	-0.1327	-0.44496	0.3323378	0.020793	-0.99629	0.771719	-0.4339	0.027129	-0.0653
MMSB-BWBK-SB-MM102-0109	23.361715	0.07888	-0.59558	2.180137	0.219008	0.659014	1.773024	0.3709817	0.108688	-0.57028	1.504289	-0.12235	0.2957	0.708833
MMSB-BWBK-SB-MM103-0107	30.950716	0.082928	-0.86977	1.633978	3.421268	0.921891	-2.46686	0.3677277	0.120836	-0.79931	1.070122	-0.47244	0.44978	-0.69397
MMSB-BWBK-SB-MM104-0110	66.737851	1.00897	-0.34168	4.412096	20.88441	-1.15722	3.640011	0.4410314	1.094928	-0.32964	3.183804	-2.01981	-0.38362	1.286498
MMSB-BWBK-SB-MM105-0110	22.154137	-0.48726	-0.94912	0.189397	2.489397	1.280755	-0.00136	0.2840767	-0.43746	-1.37644	-0.04122	-0.43488	0.127408	-0.08838
MMSB-BWBK-SB-MM106-0110	21.340291	0.506056	0.554846	3.792554	-6.40199	0.109734	3.859008	0.4588021	0.490258	0.626668	2.935011	0.816353	-0.04056	1.176271
MMSB-BWBK-SB-MM107-0110	22.158225	-0.30491	-0.17822	1.617671	-1.46408	1.547916	1.122081	0.3978354	-0.30087	-0.19245	1.081738	0.02172	0.615295	0.50032
MMSB-BWBK-SB-MM108-0110	25.098754	-0.17988	-0.59437	1.926907	0.155182	0.151433	0.230431	0.345482	-0.15993	-0.63026	1.300408	-0.1376	0.081251	0.162441
MMSB-BWBK-SB-MM109-0110	44.460713	-0.03909	0.476997	2.386171	5.986457	0.721474	-0.1487	0.4521118	-0.10265	0.504132	1.950737	-0.30938	0.070616	-0.2978
MMSB-BWBK-SB-MM110-0109	30.742014	-0.18939	-0.01903	1.620625	2.129015	0.699193	1.028914	0.4221966	-0.19498	0.035196	1.129834	-0.26671	0.35358	0.458961
MMSB-BWBK-SB-MM111-0110	35.983714	0.083048	-0.21034	3.01285	3.195896	-0.03241	0.196924	0.3976013	0.054857	-0.05932	2.28725	-0.19466	0.014428	0.02619
MMSB-BWBK-SB-MM112-0110	27.015865	-0.05947	0.205792	2.471352	-2.53307	0.522473	0.211184	0.4289553	-0.08459	0.298742	1.845264	0.291907	0.240573	0.083137
MMSB-BWBK-SB-MM113-0110	18.832464	-0.11144	0.103723	1.752495	-2.95343	1.827346	3.340806	0.4397239	-0.09396	0.103364	1.172911	0.152875	0.759969	1.30266
MMSB-BWBK-SB-MM114-0110	22.281247	-0.4392	-0.99941	1.36238	0.1401	0.260025	-1.00138	0.316138	-0.45926	-0.85284	0.922959	-0.10106	0.228123	-0.21482

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							BERYLLIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-48.61038	-1.48132	-2.50025	-1.32295	-31.5151	-3.9071	-5.30525	0.1374762	-1.52638	-2.4394	-1.1712	-2.01981	-1.4607	-1.95303
MAXIMUM DOMAIN VALUE	66.737851	2.787664	2.842555	4.937651	20.88441	3.279504	6.200772	0.6932907	2.973758	3.078652	3.993938	2.413788	0.759969	2.064928
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**BE predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	31.932586	-0.22593	0.133061	4.937651	-3.81969	-0.74801	-0.80648	0.3887632	-0.38807	0.652272	3.993938	0.830387	-0.18199	-0.47933
MMSB-BWBK-SB-MM116-0110	21.168659	-0.03036	-0.82087	2.117455	-1.13649	-0.02743	0.640861	0.3478075	-0.04105	-0.61503	1.534062	0.092401	0.134319	0.318093
MMSB-BWBK-SB-MM117-0110	27.408397	-0.21534	-1.567	1.369453	4.280272	-0.46341	-1.92895	0.2811602	-0.18676	-1.43032	0.824575	-0.61942	0.037758	-0.43336
MMSB-BWBK-SB-MM118-0110	32.145483	0.335424	-1.18851	2.045242	5.50745	-0.24323	-0.69165	0.3375409	0.39095	-1.11079	1.382534	-0.65382	0.011199	-0.11188
MMSB-BWBK-SB-MM119-0110	16.56713	-0.12762	-0.83624	2.562054	-4.26042	-0.1417	0.574604	0.324382	-0.11083	-0.73566	1.755432	0.267696	0.106097	0.366259
MMSB-BWBK-SB-MM120-0110	22.487324	-0.64019	-1.70746	1.025771	2.688594	-0.09834	-1.99703	0.2429729	-0.60949	-1.66351	0.473058	-0.58832	0.174568	-0.38664
MMSS-BWBK-SS-MM101-0001	52.707294	-0.59983	1.50536	-0.42408	10.427	0.139936	1.334976	0.5338852	-0.6818	1.347557	-0.16176	-0.80858	-0.14639	0.24581
MMSS-BWBK-SS-MM102-0001	38.731318	-0.88403	0.328284	-0.64625	6.931768	0.603425	-0.23768	0.4195058	-0.89771	0.108042	-0.62004	-0.8345	0.188475	-0.00122
MMSS-BWBK-SS-MM103-0001	52.902691	-0.70755	1.443038	-0.60645	10.43493	0.108744	0.523291	0.5262592	-0.75276	1.206459	-0.44281	-0.98836	-0.06956	0.113528
MMSS-BWBK-SS-MM104-0001	51.736262	-0.46322	1.20141	-0.10557	10.73236	0.169208	1.284242	0.5180985	-0.54198	1.119587	0.083178	-0.82372	-0.102	0.241997
MMSS-BWBK-SS-MM105-0001	40.949273	-1.00319	0.118187	-0.82511	7.896872	-0.19138	-1.58072	0.3989797	-1.02617	-0.01173	-0.77138	-0.95532	0.012171	-0.39031
MMSS-BWBK-SS-MM106-0001	49.817609	-0.55863	1.553892	0.21755	8.191081	1.062258	1.116299	0.5477033	-0.62939	1.420075	0.265555	-0.6466	0.247195	0.243408
MMSS-BWBK-SS-MM107-0001	48.255637	-0.54066	1.344257	0.107346	8.612108	0.480311	1.989338	0.5213775	-0.60928	1.200489	0.191147	-0.67813	0.010321	0.518471
MMSS-BWBK-SS-MM108-0001	59.818555	-0.92817	1.799817	-0.69466	12.95408	0.561829	0.233946	0.5482978	-1.00708	1.529591	-0.44121	-1.14652	0.007945	-0.0777
MMSS-BWBK-SS-MM109-0001	49.594032	-0.90867	1.241766	-0.58001	9.962076	0.963064	0.694198	0.5015067	-0.93122	0.916142	-0.53772	-1.07945	0.249145	0.259438
MMSS-BWBK-SS-MM110-0001	38.735648	-1.25873	-0.26122	-1.19976	8.020329	-0.56699	-2.24717	0.3669591	-1.31072	-0.22165	-1.04878	-0.9786	0.026137	-0.52661
MMSS-BWBK-SS-MM111-0001	40.141785	-1.18115	-0.18963	-0.98299	9.048788	-0.15169	-1.39814	0.3786357	-1.21735	-0.2044	-0.91448	-1.10328	0.147984	-0.23185
MMSS-BWBK-SS-MM112-0001	34.657772	-1.20724	-0.59042	-1.07586	7.26198	-0.80297	-1.62891	0.3320421	-1.23552	-0.59039	-1.01389	-0.97171	-0.06106	-0.28201
MMSS-BWBK-SS-MM113-0001	52.025206	-0.94827	1.125995	-0.49378	9.743418	-0.99168	-0.63373	0.4886521	-1.02483	1.081522	-0.36059	-0.9296	-0.28203	-0.18052
MMSS-BWBK-SS-MM114-0001	29.514612	-1.24005	-0.92386	-1.22776	6.134601	-0.20155	-1.83135	0.3022833	-1.26525	-0.9373	-1.13278	-0.87287	0.11135	-0.36901
MMSS-BWBK-SS-MM115-0001	36.602171	-1.11622	-0.31817	-1.29158	8.137994	-0.08913	-1.21743	0.3626412	-1.17028	-0.34	-1.04517	-0.89999	0.040228	-0.31045
MMSS-BWBK-SS-MM116-0001	33.896492	-1.18148	-0.37388	-1.11991	6.237564	-0.28994	-1.68069	0.3531235	-1.21933	-0.39354	-1.00128	-0.81929	0.063219	-0.36125
MMSS-BWBK-SS-MM117-0001	47.010353	-0.75677	0.560301	-0.55938	10.28143	-0.2088	0.112557	0.4605759	-0.83372	0.595089	-0.35895	-0.92105	-0.04148	0.028064
MMSS-BWBK-SS-MM118-0001	29.118874	-0.62608	-0.59204	0.891302	3.601754	0.514807	-0.07085	0.3512967	-0.6307	-0.57301	0.492792	-0.53339	0.325394	0.167375
MMSS-BWBK-SS-MM119-0001	25.556535	-0.73047	-0.95748	0.360644	3.229004	0.454792	-0.79628	0.3135586	-0.73879	-0.93613	0.099254	-0.50537	0.281672	-0.09369
MMSS-BWBK-SS-MM120-0001	33.226766	-0.52624	-0.02714	-1.11379	6.496127	1.462091	-0.01069	0.4174616	-0.4838	-0.32997	-1.03707	-0.88243	0.456948	0.107652
NESB-BWBK-SB-NE01-0108	22.972055	0.740843	-0.32083	0.676762	2.073635	0.780785	3.728121	0.4519186	0.851845	-0.43197	0.324683	-0.39819	0.323073	1.428508
NESB-BWBK-SB-NE02-0109	17.958452	0.625599	-0.70482	0.352861	0.3063	0.461477	2.591672	0.4313306	0.579958	-0.28524	0.50909	0.266061	0.226829	0.781774
NESB-BWBK-SB-NE03-0105	32.799916	0.373762	-0.54593	0.215545	7.447699	0.777363	1.473173	0.4212934	0.453028	-0.64291	0.005257	-0.8883	0.296287	0.622251
NESB-BWBK-SB-NE04-0110	23.187372	0.35559	-0.65137	0.508506	2.501142	0.529214	2.099402	0.3969473	0.423041	-0.70695	0.24921	-0.38193	0.207453	0.817536
NESB-BWBK-SB-NE05-0108	23.024921	0.615026	-0.44632	0.363636	2.204113	0.510303	2.787985	0.4317045	0.730881	-0.59025	0.054274	-0.46088	0.234489	1.132855
NESB-BWBK-SB-NE06-0109	23.679802	0.458191	-0.67493	0.302537	2.883097	0.605092	1.704436	0.4009172	0.558059	-0.81238	0.029752	-0.50016	0.229253	0.721601
NESB-BWBK-SB-NE07-0107	26.738432	0.660493	-0.31331	0.313376	4.255454	0.658373	3.369322	0.4527263	0.752787	-0.40435	0.102399	-0.55422	0.252468	1.259894
NESB-BWBK-SB-NE08-0104	24.409315	0.141362	-0.47658	0.076221	2.330944	0.917047	0.859212	0.4010662	0.225634	-0.66693	-0.15744	-0.47375	0.327269	0.437304
NESB-BWBK-SB-NE09-0110	19.494842	0.364391	-0.71976	0.220049	1.000623	0.626466	1.912337	0.3950827	0.455938	-0.80982	-0.03909	-0.334	0.291156	0.833686
NESB-BWBK-SB-NE10-0107	26.949821	-0.10602	0.437951	0.314548	0.622429	0.829491	2.251266	0.45561	-0.09067	0.256073	0.182006	-0.11092	0.195688	0.75043
NESB-BWBK-SB-NE101-0110	48.322184	-0.14361	0.443336	3.008859	7.161768	0.386876	-0.41888	0.448933	-0.24824	0.645371	2.479642	-0.33561	0.042373	-0.38292
NESB-BWBK-SB-NE102-0110	41.329892	-0.37908	-0.01704	2.743001	5.04561	-0.08137	-0.71199	0.401942	-0.52325	0.372129	2.324989	-0.09288	-0.01604	-0.44308
NESB-BWBK-SB-NE103-0110	36.771572	-0.51086	-0.51474	2.147227	4.768325	-0.17206	-1.37435	0.3562877	-0.60232	-0.21494	1.689325	-0.30938	0.052079	-0.48277
NESB-BWBK-SB-NE104-0110	31.780275	-0.60981	-0.86102	1.750498	3.516134	-0.14675	-1.94454	0.3191392	-0.66828	-0.64051	1.27742	-0.33714	0.092054	-0.58319
NESB-BWBK-SB-NE105-0110	45.484778	-0.18674	0.288159	3.578863	5.113335	-0.04915	-0.71251	0.4215118	-0.30533	0.554538	2.920668	-0.11121	-0.08687	-0.48728
NESB-BWBK-SB-NE106-0110	40.567115	-0.25644	-0.17912	2.837657	4.991864	-0.11931	-0.94485	0.3906947	-0.35248	0.115019	2.277401	-0.22659	-0.00452	-0.43514
NESB-BWBK-SB-NE107-0510	27.589357	-0.40775	-0.99932	2.18685	1.89468	-0.48429	-0.72965	0.3084461	-0.44172	-0.78528	1.565778	-0.21849	-0.00914	-0.13514
NESB-BWBK-SB-NE108-0110	44.132379	-0.31591	-0.09304	2.401766	7.016103	-0.22248	-1.04294	0.4038347	-0.3865	0.137039	1.861138	-0.53829	0.018321	-0.37015
NESB-BWBK-SB-NE109-0110	42.321706	-0.34398	-0.23742	2.516842	6.60139	-0.10221	-0.93904	0.3883316	-0.43732	0.051014	2.010834	-0.41965	0.028774	-0.39512
NESB-BWBK-SB-NE110-0110	40.256959	-0.33537	-0.20967	2.570624	5.52856	0.016206	-0.66584	0.3849221	-0.37697	-0.07544	1.89875	-0.49749	0.091996	-0.19189
NESS-BKG-SS03-NEB-0016	58.605739	-0.11702	1.593159	-0.54088	10.70132	-3.9071	0.393691	0.5386382	-0.17872	1.539795	-0.21731	-0.8032	-1.4607	-0.04707
NESS-BKG-SS09-NEB-0018	41.593713	-0.8367	0.778694	-0.7161	6.485811	-0.46417	0.18319	0.4662227	-0.86891	0.673727	-0.63311	-0.75237	-0.06442	0.19388
NESS-BWBK-SS-NE01-0001	39.597836	0.376549	1.950434	-0.81952	2.693322	-1.61525	3.980074	0.5994259	0.343277	1.777974	-0.358	0.038259	-0.83259	1.05123
NESS-BWBK-SS-NE02-0001	15.590444	0.702298	1.072458	-0.8617	-6.18105	-3.02024	6.200772	0.5176452	0.763467	0.863824	-0.62283	0.598044	-1.16023	2.064928
NESS-BWBK-SS-NE03-0001	50.080504	-0.3164	1.460607	-1.14518	11.02796	0.512664	2.527448	0.5557762	-0.34254	1.193426	-0.78461	-0.98116	-0.01924	0.718357
NESS-BWBK-SS-NE04-0001	51.209147	-0.01916	1.460411	-0.29338	10.80856	1.130071	2.313433	0.5765137	-0.02584	1.229499	-0.16308	-0.9604	0.229088	0.666257
NESS-BWBK-SS-NE05-0001	41.064307	-0.20105	1.47656	-0.92259	6.051277	-0.05599	3.476924	0.5479153	-0.21973	1.220838	-0.62133	-0.50735	-0.20339	1.053404
NESS-BWBK-SS-NE06-0001	44.732758	-0.16095	1.272464	-0.38025	8.626007	1.493628	2.80974	0.541768	-0.14851	0.922932	-0.30057	-0.83855	0.302899	0.85147
NESS-BWBK-SS-NE07-0001	55.200039	-0.13296	1.658623	-0.76394	11.36867	-1.6057	2.35594	0.5576989	-0.16465	1.42439	-0.44696	-0.94178	-0.76758	0.609819
NESS-BWBK-SS-NE08-0001	48.194454	-0.29284	1.295108	-0.81933	10.40049	0.922003	2.404207	0.5401846	-0.31934	1.031792	-0.53557	-0.90657	0.096713	0.652431
NESS-BWBK-SS-NE09-0001	66.034633	-0.49338	2.161971	-0.90569	16.45112	0.540794	2.121412	0.5941553	-0.59868	1.855333	-0.36327	-1.19316	-0.27458	0.254965
NESS-BWBK-SS-NE10-0001	51.988033	-0.15253	1.170995	-0.50336	10.81552	-1.97625	1.970047	0.5102135	-0.18061	1.000563	-0.28304	-0.92194	-0.84481	0.524653
NESS-BWBK-SS-NE101-0001	52.606899	-0.94116	0.851289	-0.18453	11.80305	0.768591	-0.54926	0.4753101	-1.02338	0.77992	-0.09546	-1.07384	0.224879	-0.23966
NESS-BWBK-SS-NE102-0001	38.409605	-1.07084	0.038768	-0.59375	6.665876	-0.45518	-1.19541	0.3864939	-1.13212	0.034997	-0.51106	-0.73036	-0.06491	-0.30566
NESS-BWBK-SS-NE103-0001	32.777319	-1.14527	-0.24557	-0.72456	4.941167	-0.3253	-1.18466	0.3658541	-1.19799	-0.19644	-0.66978	-0.64589	0.082012	-0.19725
NESS-BWBK-SS-NE104-0001	39.767488	-0.91837	-0.06881	-0.50376	7.494281	-1.39945	-0.84836	0.3823565	-0.93723	-0.09514	-0.5549	-0.94249	-0.295	-0.05668
NESS-BWBK-SS-NE105-0001	32.398493	-1.19257	-0.45562	-0.94296	5.989533	0.062498	-1.28269	0.3352497	-1.23775	-0.52761	-0.82898	-0.73956	0.07276	-0.32201
NESS-BWBK-SS-NE106-0001	41.613805	-1.08562	-0.09339	-0.55132	8.394342	-1.4431	-1.22721	0.3614167	-1.12744	-0.15696	-0.53785	-0.96257	-0.41093	-0.2842
NESS-BWBK-SS-NE107-0001	40.035389	-1.21734	0.00306	-0.94455	8.15905	-0.33671	-1.25076	0.3666646	-1.27648	-0.1265	-0.77842	-0.88126	-0.14187	-0.39235
NESS-BWBK-SS-NE108-0001	37.633593	-1.07718	-0.03876	-0.5401	6.622619	-0.64286	-0.85913	0.3711293	-1.16466	-0.00996	-0.38025	-0.61429	-0.21101	-0.29855
NESS-BWBK-SS-NE109-0001	33.981636	-1.21428	-0.46003	-0.85587	6.804297	-0.01266	-1.19276	0.3344738	-1.27235	-0.4973	-0.7326	-0.77786	0.043276	-0.31379
NESS-BWBK-SS-NE110-0001	40.252964	-1.21942	-0.08189	-0.75973	7.134863	-1.27201	-2.38637	0.3655905	-1.27193	-0.08316	-0.70719	-0.86732	-0.26672	-0.61973

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	BARIUM							BERYLLIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-48.61038	-1.48132	-2.50025	-1.32295	-31.5151	-3.9071	-5.30525	0.1374762	-1.52638	-2.4394	-1.1712	-2.01981	-1.4607	-1.95303
MAXIMUM DOMAIN VALUE	66.737851	2.787664	2.842555	4.937651	20.88441	3.279504	6.200772	0.6932907	2.973758	3.078652	3.993938	2.413788	0.759969	2.064928
SAMPLE	**BA predict**	D1	D2	D3	D4	D5	D6	**BE predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	27.760083	0.488319	0.402593	-0.14824	-0.70562	1.507555	-1.84571	0.510386	0.473828	0.462372	0.06276	0.273257	0.417518	-0.80971
PMSB-BWBK-SB-PM02-0104	48.226033	1.1328	1.915628	-1.29816	7.323623	3.279504	-0.98903	0.6932907	1.194791	1.525302	-0.78441	-0.48799	0.719528	-0.70384
PMSB-BWBK-SB-PM03-0106	31.205007	1.645599	0.026194	-0.55526	2.265463	1.053825	-2.88199	0.5450684	1.827373	-0.19255	-0.55616	-0.39289	0.320109	-0.92903
PMSB-BWBK-SB-PM04-0105	14.269406	0.908027	0.218331	0.128252	-6.53386	0.745029	0.525635	0.4839766	1.000648	0.029856	0.054538	0.58037	0.12997	0.125337
PMSB-BWBK-SB-PM05-0105	18.285989	0.890767	0.183883	-0.13014	-4.59269	1.091426	-0.80693	0.4978423	0.963514	0.09058	-0.09003	0.445622	0.292207	-0.33535
PMSB-BWBK-SB-PM06-0105	12.750236	0.870569	-0.03565	-0.48314	-5.78964	1.301871	-0.16754	0.4891468	0.921613	-0.01215	-0.2988	0.614661	0.407088	-0.11748
PMSB-BWBK-SB-PM07-0105	30.340411	0.469346	0.273112	-0.87853	0.619456	2.713112	-4.95445	0.4989795	0.484868	0.12475	-0.5234	0.090021	0.672115	-1.95303
PMSB-BWBK-SB-PM08-0106	22.298212	0.650229	0.181463	-0.25963	-3.29071	1.561747	-2.74883	0.4871377	0.70743	0.053353	-0.18437	0.323392	0.418543	-1.0295
PMSB-BWBK-SB-PM09-0106	11.91939	0.246723	-0.62566	-0.41954	-5.24242	1.263064	-2.08924	0.3988301	0.321944	-0.70615	-0.48192	0.286738	0.50205	-0.56962
PMSB-BWBK-SB-PM10-0105	28.886816	0.308515	1.62288	-0.84917	-4.28731	2.16368	-2.40911	0.5830679	0.344379	1.217568	-0.58682	0.457672	0.444406	-1.04441
PMSB-BWBK-SB-PM11-0104	31.486661	0.915932	-0.04954	-0.77754	2.182943	1.772212	-4.62707	0.5075544	0.929725	0.028917	-0.37204	0.028702	0.458521	-1.81803
PMSB-BWBK-SB-PM12-0105	2.7371952	-0.36375	0.088645	-0.41202	-11.0244	1.75487	0.785802	0.4137301	-0.35409	-0.04246	-0.40706	0.921077	0.604415	0.338397
PMSB-BWBK-SB-PM13-0106	24.90414	-0.20588	1.15285	-1.16107	-2.37885	2.434286	0.012647	0.5293477	-0.27285	1.002152	-0.63266	0.490494	0.541722	-0.31773
PMSB-BWBK-SB-PM14-0106	10.490676	-0.34311	0.105243	-0.5293	-7.9819	1.273862	-0.77743	0.414244	-0.36132	0.018464	-0.39248	0.753211	0.368255	-0.30941
PMSB-BWBK-SB-PM15-0105	20.264329	0.266929	0.277065	-0.58881	-2.5682	1.069581	0.301833	0.4745535	0.273527	0.21451	-0.36405	0.325495	0.254332	-0.00879
PMSB-BWBK-SB-PM16-0106	16.743532	-0.09099	0.06768	-0.42937	-3.69571	1.018684	0.560827	0.4209594	-0.07719	-0.10782	-0.34096	0.323748	0.211201	0.122581
PMSB-BWBK-SB-PM17-0105	32.003369	0.827939	0.449303	0.216124	-0.14247	1.380924	-3.43061	0.5102569	0.903582	0.220164	0.166717	0.033295	0.272383	-1.32151
PMSB-BWBK-SB-PM18-0105	27.365102	1.299809	-0.28018	-0.68521	4.027263	0.216727	1.347956	0.4912673	1.419904	-0.3898	-0.539	-0.42608	-0.01622	0.433198
PMSB-BWBK-SB-PM19-0105	25.506967	0.668932	-0.01027	-0.51963	1.362143	0.134063	0.917594	0.4772165	0.693628	0.02681	-0.28772	-0.01923	-0.02321	0.216429
PMSB-BWBK-SB-PM20-0106	18.658701	0.372909	0.066324	-0.38031	-3.03951	0.569766	0.400149	0.4563465	0.400845	0.008806	-0.25926	0.312905	0.12296	0.080595
PMSB-BWBK-SB-SO01-0107-PM	33.279971	1.366316	-0.27333	-0.60891	5.180644	-0.96585	-0.66519	0.4783552	1.501087	-0.43944	-0.50348	-0.55794	-0.45722	-0.2717
PMSB-BWBK-SB-SO02-0109-PM	27.259642	1.330939	-0.12327	-1.18479	2.69435	-0.85745	0.382756	0.5043503	1.478597	-0.26219	-0.99572	-0.41327	-0.29287	0.217012
PMSB-BWBK-SB-SO13-0104-PM	51.072497	1.718201	-0.38323	-0.72293	13.93168	-0.06296	-3.81565	0.5274159	1.850402	-0.41425	-0.51114	-1.30207	-0.1067	-1.383
PMSB-BWBK-SB-SO14-0105-PM	35.663657	1.943845	-0.57393	-0.61992	7.253934	-0.99793	-1.34561	0.5088839	2.082582	-0.51095	-0.4184	-0.64904	-0.37125	-0.50335
SESB-BWBK-SB-SO03-0108	44.842199	2.787664	-0.17189	-0.4844	11.09622	-1.2252	-0.33766	0.5818905	2.973758	-0.22598	-0.22926	-0.89913	-0.63801	-0.33133
SESB-BWBK-SB-SO04-0108	33.722746	1.810674	-0.41809	-0.49215	5.061254	-1.00241	-1.81672	0.5016348	1.941097	-0.41899	-0.31717	-0.42842	-0.43322	-0.70983
SESB-BWBK-SB-SO05-0106	28.762796	1.360777	0.297428	-0.66828	1.938102	-0.41121	1.135725	0.5253198	1.448274	0.161054	-0.39025	-0.06052	-0.3665	0.18933
SESB-BWBK-SB-SO06-0108	34.571599	2.394067	0.167006	-1.03351	4.496241	-0.76795	-0.94316	0.5843985	2.600328	-0.0445	-0.78449	-0.45789	-0.42783	-0.41013
SESB-BWBK-SB-SO07-0106	26.173114	1.755705	-0.15982	-0.5486	-1.33917	-0.72231	-3.80633	0.5047808	1.93258	-0.35383	-0.50227	0.009741	-0.34127	-1.31071
SESB-BWBK-SB-SO08-0107	33.233586	2.401865	0.274985	-0.41715	2.46231	-1.03172	-0.90617	0.5813155	2.569787	0.146185	-0.21324	-0.11782	-0.56776	-0.50502
SESB-BWBK-SB-SO09-0106	26.096543	1.1982	0.061407	-0.36214	0.960885	-0.27307	0.881265	0.5036212	1.257049	0.066734	-0.14131	0.059104	-0.22648	0.14395
SESB-BWBK-SB-SO11-0106	18.212528	1.755165	0.080546	-0.09905	-4.71301	-0.11118	-0.55017	0.5296858	1.898481	-0.0089	-0.08386	0.436999	-0.10846	-0.22757
SESB-BWBK-SB-SO12-0106	28.377541	1.876955	-0.39358	-0.83379	2.409448	-1.34613	-1.54736	0.5036354	2.059397	-0.50045	-0.716	-0.35681	-0.48173	-0.47846
SESB-BWBK-SB-SO15-0103	26.910388	0.227971	0.527186	-0.62341	-0.70672	0.702208	-0.63887	0.4914438	0.250857	0.383184	-0.44575	0.081545	0.133902	-0.29484
SESB-BWBK-SB-SO16-0105	17.867368	0.730422	-0.25625	-0.5918	-3.42172	0.274709	-1.57234	0.447404	0.819452	-0.37036	-0.51801	0.223883	0.056514	-0.51356
SESB-BWBK-SB-SO17-0106	15.451487	0.259031	-0.10347	-0.02103	-5.39404	0.772168	-0.97999	0.4242863	0.28857	-0.19474	-0.02236	0.508295	0.171579	-0.39459
SESB-BWBK-SB-SO18-0105	15.214027	0.00133	-0.17636	0.096927	-5.48591	1.070784	-1.3841	0.4131024	0.012347	-0.20261	0.041267	0.487004	0.360248	-0.46579
SESB-BWBK-SB-SO19-0104	19.343181	0.569826	0.092617	0.501686	-7.17575	1.336888	-5.04907	0.4525575	0.616063	-0.0392	0.392383	0.7206	0.302912	-1.86308
SESB-BWBK-SB-SO20-0104	23.113974	1.34509	-0.54153	-0.82296	0.454489	-0.7238	-1.49473	0.4571635	1.474	-0.62625	-0.66048	-0.11272	-0.31416	-0.51984

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

CALCIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
845.6580	Mean					
581.2795	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0323	0.2858	0.0085	2.7239	0.0066	0.1322
AS	-0.0372	0.0053	0.0433	-1.0776	-0.0181	0.1089
BA	-0.0746	0.2016	0.2073	-1.4516	-0.0404	-0.2674
BE	-0.0071	0.1246	-0.0149	0.1426	0.2750	0.1991
CA	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CR	-0.0711	0.2930	-0.1325	-0.7641	0.4756	0.6113
CO	0.2212	-0.0309	0.1234	0.8807	0.2976	-1.5823
CU	0.1054	-0.0547	0.0401	2.5802	-0.1574	0.0860
FE	0.3850	-0.1417	-0.4108	4.1105	0.1609	-0.6188
PB	0.0204	0.0361	0.0148	0.4627	-0.2911	-0.0767
MG	0.0800	-0.0977	0.5352	-2.3621	0.0548	1.2570
MN	-0.0045	0.0090	-0.0055	-0.5212	0.0313	-0.0355
NI	0.1384	-0.0627	-0.0437	1.0442	0.0827	-0.1592
K	-0.0089	0.0853	0.5414	0.5000	-0.0878	-0.4443
V	-0.0895	0.3907	0.0644	-1.4550	-0.1379	-0.3107
ZN	0.2647	-0.0755	-0.1033	-4.5513	-0.9372	0.6933

CHROMIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
11.9287	Mean					
3.4546	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0303	0.4048	0.0079	-1.2993	0.0028	0.0478
AS	-0.0349	0.0076	0.0401	0.5141	-0.0076	0.0394
BA	-0.0699	0.2856	0.1923	0.6924	-0.0169	-0.0968
BE	-0.0067	0.1765	-0.0138	-0.0680	0.1151	0.0721
CA	-0.0114	0.0119	-0.0604	0.7514	0.0332	-0.0386
CR	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CO	0.2074	-0.0438	0.1145	-0.4201	0.1246	-0.5727
CU	0.0989	-0.0774	0.0372	-1.2308	-0.0659	0.0311
FE	0.3610	-0.2007	-0.3812	-1.9608	0.0673	-0.2240
PB	0.0192	0.0511	0.0137	-0.2207	-0.1218	-0.0277
MG	0.0751	-0.1384	0.4966	1.1268	0.0229	0.4549
MN	-0.0042	0.0127	-0.0051	0.2486	0.0131	-0.0129
NI	0.1298	-0.0887	-0.0406	-0.4981	0.0346	-0.0576
K	-0.0083	0.1208	0.5024	-0.2385	-0.0368	-0.1608
V	-0.0840	0.5533	0.0598	0.6941	-0.0577	-0.1125
ZN	0.2483	-0.1069	-0.0959	2.1711	-0.3923	0.2509

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	CALCIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-2602.801	-1.51281	-2.40992	-1.11954	-8.5126	-2.2591	-3.11756	5.2926013	-1.54581	-2.5864	-1.20859	-5.53681	-1.10308	-1.27328
MAXIMUM DOMAIN VALUE	4649.7376	2.953196	2.87876	3.782254	10.30837	1.904692	3.686816	19.787428	2.854996	3.426998	3.42581	7.174726	0.590999	1.036975
SAMPLE	**CA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	-314.3902	-0.72928	-2.20373	-0.17492	-3.30253	-0.2179	1.186012	6.4972336	-0.80754	-2.35946	-0.39503	2.335325	0.277603	0.82976
BASS-BWBK-SS-BA102-0001	81.672254	-0.90301	-2.40992	-0.51678	-2.2486	-0.17493	0.403615	5.2926013	-0.98009	-2.56147	-0.70975	1.531776	0.3247	0.617632
BASS-BWBK-SS-BA103-0001	-64.11219	-0.87838	-2.25567	-0.26647	-2.56693	-0.18528	0.399382	6.0759291	-0.96625	-2.35333	-0.54013	2.529889	0.347114	0.558707
BASS-BWBK-SS-BA104-0001	-584.9078	-0.76438	-1.95224	0.165403	-3.88843	-0.1405	0.940792	6.8541646	-0.81975	-2.10487	-0.02279	2.18269	0.248553	0.707657
BASS-BWBK-SS-BA105-0001	-129.5997	-0.76524	-2.29054	-0.513	-2.86615	-0.21919	0.490101	7.5778419	-0.91587	-2.41456	-1.11204	7.174726	0.494493	0.311491
BASS-BWBK-SS-BA106-0001	-552.9981	-0.69079	-1.9783	-0.0951	-3.91223	-0.10677	1.441383	6.8249082	-0.73458	-2.2636	-0.24907	2.356009	0.214194	0.807568
BASS-BWBK-SS-BA107-0001	-77.61927	-0.92652	-2.31181	-0.40297	-2.61494	-0.22406	0.2854	5.5724749	-1.003	-2.42162	-0.60872	1.763405	0.306642	0.571925
BASS-BWBK-SS-BA108-0001	7.070035	-0.90159	-2.32817	-0.40982	-2.41405	-0.13673	0.531555	5.6905783	-0.98083	-2.48352	-0.64835	2.216111	0.346214	0.60503
BASS-BWBK-SS-BA109-0001	-269.1069	-0.737	-2.2416	-0.1403	-3.20293	0.05145	1.555597	5.9423744	-0.78283	-2.5864	-0.28697	1.815651	0.295349	0.890544
BASS-BWBK-SS-BA110-0001	-386.7866	-0.75383	-1.74956	0.544897	-3.23544	-0.01154	0.684519	7.1271769	-0.79709	-1.89111	0.356947	1.730335	0.264531	0.580474
BASS-BWBK-SS-BA111-0001	-195.1714	-0.86567	-2.22962	-0.34341	-2.95386	-0.06392	0.801258	5.907062	-0.92907	-2.43278	-0.53758	2.098571	0.323056	0.673296
BASS-BWBK-SS-BA112-0001	-190.5014	-0.87557	-2.28278	-0.28552	-2.93205	-0.10961	0.76833	6.8300516	-0.9932	-2.38086	-0.72848	4.893379	0.464799	0.565802
BASS-BWBK-SS-BA113-0001	-885.2794	-0.4566	-2.35689	-0.54	-5.02031	-1.40799	1.217161	7.1963689	-0.57589	-2.57625	-0.87858	5.038898	-0.15066	0.726816
MASB-BWBK-SB-MA01-0105	231.19449	1.234391	-0.21945	-0.04871	-2.40432	-0.0808	-0.24778	13.758399	1.195226	-0.62709	-0.03121	1.907185	-0.14709	-0.32125
MASB-BWBK-SB-MA02-0107	658.61847	1.395087	-0.18244	0.217889	-1.26921	-0.19552	0.72483	13.925618	1.365385	-0.71494	0.239137	1.484706	-0.25343	-0.05872
MASB-BWBK-SB-MA03-0108	748.55604	2.046605	-0.77261	-0.15201	-1.53633	-0.53952	-3.11756	13.370756	1.932812	-1.25539	-0.16815	1.565659	-0.26704	-1.27328
MASB-BWBK-SB-MA04-0106	-1575.496	1.449481	0.016446	0.685386	-7.21122	-0.44155	2.278153	15.766983	1.42373	-0.4809	0.685098	4.302834	-0.37834	0.476505
MASB-BWBK-SB-MA05-0108	-641.7441	1.062117	-0.11011	0.210469	-4.60388	-0.19655	1.32764	14.145605	1.048524	-0.56771	0.234647	2.9108	-0.23994	0.195693
MASB-BWBK-SB-MA06-0105	341.59726	1.086281	-0.12579	0.167254	-1.94751	-0.33631	1.033503	13.709036	1.065418	-0.54391	0.190705	1.556586	-0.28109	0.121501
MASB-BWBK-SB-MA07-0108	525.26631	0.942589	-0.70411	-0.35545	-1.6078	-0.48541	1.144905	12.396627	0.881371	-1.03662	-0.37195	1.432617	-0.19613	0.350876
MASB-BWBK-SB-MA08-0108	1513.5747	2.558117	0.432051	-0.88173	0.323591	-0.35618	1.607927	17.229099	2.516917	-0.18802	-0.64567	-0.01648	-0.50174	0.104509
MASB-BWBK-SB-MA09-0108	1410.1522	1.711221	-0.59003	-0.60467	0.393699	-1.02163	0.382701	13.534601	1.617989	-0.9565	-0.56291	0.195988	-0.46747	0.044366
MASB-BWBK-SB-MA10-0104	1395.8714	0.791023	-0.94931	-1.09777	0.618644	-0.28554	-0.03524	10.75988	0.735855	-1.30541	-1.02841	-0.28454	-0.10164	0.009535
MASB-BWBK-SB-MA11-0108	991.6869	1.595339	0.087811	-0.29651	-0.48462	-0.68204	1.019555	14.935218	1.556536	-0.32568	-0.21367	0.771975	-0.46673	0.072292
MASB-BWBK-SB-MA12-0108	260.54944	1.746002	-0.41218	0.129322	-2.58985	-0.4578	0.149737	14.150355	1.686024	-0.97151	0.152229	1.971163	-0.33777	-0.2178
MASB-BWBK-SB-MA13-0105	-741.2928	-0.49969	0.685863	-0.2174	-3.98697	0.916186	0.091038	13.272379	-0.43463	0.708851	-0.17331	2.314178	0.281376	-0.14601
MASB-BWBK-SB-MA14-0104	1276.8133	0.672358	1.062885	-0.57944	0.883102	0.702469	-1.08327	14.900117	0.720211	0.964798	-0.36086	-1.11232	0.026678	-0.6671
MASB-BWBK-SB-MA15-0105	656.40184	-0.00593	1.455151	-0.33507	-0.31876	1.124242	-0.58241	15.398272	0.05993	1.665558	-0.18213	-0.34647	0.275299	-0.41237
MASB-BWBK-SB-MA16-0104	182.78679	0.153755	0.19161	-0.42303	-1.95104	0.383867	-0.73839	13.006458	0.151767	0.186371	-0.40401	1.333206	0.137586	-0.34149
MASB-BWBK-SB-MA17-0104	-372.6428	-0.10698	0.494931	-0.69966	-3.29743	0.35821	-0.78336	13.421898	-0.0881	0.641105	-0.61585	1.316849	0.113678	-0.30308
MASB-BWBK-SB-MA18-0104	-1320.891	-0.46379	1.286726	-0.06077	-5.41796	0.947118	1.280427	15.029709	-0.36011	1.2673	0.021517	3.224234	0.171916	0.099105
MASB-BWBK-SB-MA19-0103	-1065.713	-0.53165	0.280996	-0.31495	-4.92443	0.43484	-0.23179	12.698328	-0.50923	0.401954	-0.35359	3.135675	0.212955	-0.12927
MASB-BWBK-SB-MA20-0103	1000.3245	0.96106	-0.28818	-0.30869	-0.23458	-0.13145	-0.15021	12.932917	0.918847	-0.58354	-0.29854	0.791953	-0.10826	-0.19846
MASS-BWBK-SS-MA01-0001	-897.8274	-1.39077	-0.22458	-0.51016	-4.08734	-0.33806	-0.72674	9.7286947	-1.37307	0.136466	-0.58228	2.012898	0.064116	-0.00032
MASS-BWBK-SS-MA02-0001	-1497.12	-1.26285	0.988116	0.073293	-5.39681	-0.13435	0.169077	13.250695	-1.19685	1.435407	0.016787	3.134136	-0.01942	0.048307
MASS-BWBK-SS-MA03-0001	-960.368	-1.01101	0.111227	-0.35801	-4.38772	-0.04776	0.146441	11.306965	-0.97859	0.322132	-0.40491	2.549082	0.070526	0.12185
MASS-BWBK-SS-MA04-0001	-1144.317	-0.78205	0.098611	-0.16121	-4.96032	-0.29248	0.64478	11.984247	-0.76421	0.244639	-0.26436	3.547435	-0.0317	0.223251
MASS-BWBK-SS-MA05-0001	-991.1918	-0.15888	0.727064	-0.07244	-4.71522	-0.46245	1.403418	14.452282	-0.12703	0.819744	-0.07591	2.988155	-0.26011	0.339954
MASS-BWBK-SS-MA06-0001	-2602.801	-0.55481	1.806702	0.561587	-8.5126	-0.01477	1.394776	17.343001	-0.48026	2.130021	0.474442	5.945855	-0.12809	0.138984
MASS-BWBK-SS-MA07-0001	876.8778	-1.51281	-1.30484	-1.08966	0.439764	-0.51436	-1.74341	6.1539196	-1.54581	-1.00278	-1.20859	-0.15782	0.164649	-0.13847
MASS-BWBK-SS-MA08-0001	-37.15235	-0.43577	0.707077	-0.54901	-1.94414	-1.76163	-1.34902	13.245108	-0.4409	1.187898	-0.57825	1.267518	-0.64141	-0.39952
MASS-BWBK-SS-MA09-0001	-2363.396	-0.03943	2.87876	0.23658	-7.79499	-1.92882	0.392197	19.787428	0.061938	3.426998	0.378504	3.586249	-1.10308	-0.2313
MASS-BWBK-SS-MA10-0001	-1963.246	-0.04482	1.932425	-0.21811	-7.05965	-1.51865	0.154043	17.607125	0.013008	2.34243	-0.13585	3.676787	-0.80066	-0.19431
MASS-BWBK-SS-MA11-0001	-1836.643	-0.09764	2.294436	-0.04924	-6.62358	-0.68099	-0.68461	18.122266	-0.01526	2.762979	0.086945	2.883033	-0.51295	-0.51634
MASS-BWBK-SS-MA12-0001	-1268.54	-0.51677	0.008359	-0.47696	-5.50714	-0.69339	1.282994	11.898275	-0.48774	0.027943	-0.45042	2.681133	-0.28104	0.470491
MASS-BWBK-SS-MA13-0001	-2250.24	-1.09998	1.830572	-0.04432	-7.34342	-0.19427	-0.37957	15.415501	-0.99368	2.386018	0.048277	2.954812	-0.19405	-0.22528
MASS-BWBK-SS-MA14-0001	-1559.716	-1.31862	1.132449	-0.24859	-5.45655	-1.32346	-1.36791	13.226551	-1.26954	1.821066	-0.28302	2.637294	-0.45559	-0.36981
MASS-BWBK-SS-MA15-0001	-1462.016	-1.36101	1.252319	-0.25073	-5.19892	-0.67017	-0.80279	13.181795	-1.27776	1.827962	-0.20452	1.951961	-0.27582	-0.22667
MASS-BWBK-SS-MA16-0001	-838.3357	-0.90005	0.838306	-0.64624	-3.97151	-0.42199	-0.18847	12.913824	-0.84186	1.207842	-0.57249	1.479582	-0.18283	-0.03099
MASS-BWBK-SS-MA17-0001	-653.4019	-0.81194	0.96085	-0.63092	-3.48579	-0.36259	-0.65585	13.15996	-0.75024	1.322033	-0.544	1.239074	-0.18485	-0.23442
MASS-BWBK-SS-MA18-0001	-1266.229	-1.10943	1.017496	-0.75398	-4.94624	-0.94875	-0.9007	13.311032	-1.06476	1.619281	-0.72633	2.17607	-0.32424	-0.21036
MASS-BWBK-SS-MA19-0001	-1109.774	-0.86106	1.256873	-0.56342	-4.59743	-0.50786	-0.89942	14.170086	-0.80268	1.747945	-0.51527	2.190755	-0.22706	-0.34423
MASS-BWBK-SS-MA20-0001	-694.8572	-0.396	0.631425	-0.48092	-3.86303	-0.58351	-0.14086	13.383677	-0.36834	0.863998	-0.44828	1.959352	-0.25348	-0.07581
MMSB-BWBK-SB-MM101-0110	1386.1174	0.016135	-0.92213	0.69315	1.388547	-0.01735	-0.26054	9.4734931	-0.02287	-1.03354	0.597316	-0.87706	0.106635	0.078495
MMSB-BWBK-SB-MM102-0109	886.56975	0.107204	-0.54538	1.403863	0.173046	0.419953	1.136928	10.690816	0.107124	-0.79642	1.326205	-0.31734	0.156356	0.41164
MMSB-BWBK-SB-MM103-0107	1445.8847	0.117924	-0.79014	0.978927	1.548576	0.604321	-1.42791	9.2378636	0.115121	-1.11093	0.941076	-1.18874	0.239927	-0.4847
MMSB-BWBK-SB-MM104-0110	4649.7376	1.082312	-0.29444	2.963003	10.30837	-0.62154	2.17652	11.322854	1.055765	-0.63662	2.847288	-5.53681	-0.38135	0.696519
MMSB-BWBK-SB-MM105-0110	1533.1452	-0.45671	-0.94889	-0.10727	1.799385	0.828829	0.194705	9.2313206	-0.50339	-0.84282	-0.21508	-0.84737	0.571456	0.363629
MMSB-BWBK-SB-MM106-0110	-920.2631	0.485863	0.596712	2.764839	-4.35626	0.026594	2.141781	14.926301	0.515965	0.465146	2.67353	1.804644	-0.16894	0.568913
MMSB-BWBK-SB-MM107-0110	437.87168	-0.30127	-0.22089	0.997471	-0.86581	0.949986	0.741709	9.6983915	-0.199	-0.80705	1.09668	-0.34184	0.148664	0.024446
MMSB-BWBK-SB-MM108-0110	801.50273	-0.16342	-0.56482	1.198931	0.076503	0.140354	0.216823	10.466191	-0.18854	-0.55532	1.064313	-0.13795	0.164401	0.228075
MMSB-BWBK-SB-MM109-0110	876.37812	-0.11833	0.569652	1.772771	0.629639	0.444509	-0.41361	12.711371	-0.08144	0.668877	1.730194	-0.9985	0.09851	-0.18821
MMSB-BWBK-SB-MM110-0109	986.47667	-0.19478	-0.04791	1.044056	0.656888	0.45028	0.621917	10.59717	-0.13161	-0.3582	1.081257	-0.91211	0.03644	0.09115
MMSB-BWBK-SB-MM111-0110	888.17543	0.052063	-0.07699	2.136257	0.522806	-0.01005	-0.03396	11.682452	0.046285	-0.07352	1.990815	-0.46633	0.003638	0.021694
MMSB-BWBK-SB-MM112-0110	-174.5405	-0.08624	0.215754	1.717515	-2.33104	0.326736	0.020674	12.660819	-0.07384	0.286105	1.623007	0.788729	0.116082	0.015675
MMSB-BWBK-SB-MM113-0110	190.48277	-0.0932	0.002463	1.088985	-1.60704	1.11126	2.089876	10.401385	0.049983	-0.82683	1.280134	-0.26945	0.055427	0.33233
MMSB-BWBK-SB-MM114-0110	971.69699	-0.44996	-0.85226	0.886653	0.568788	0.155239	-0.52943	9.1928462	-0.48328	-0.8303	0.706646	0.117388	0.247888	0.005733

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	CALCIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-2602.801	-1.51281	-2.40992	-1.11954	-8.5126	-2.2591	-3.11756	5.2926013	-1.54581	-2.5864	-1.20859	-5.53681	-1.10308	-1.27328
MAXIMUM DOMAIN VALUE	4649.7376	2.953196	2.87876	3.782254	10.30837	1.904692	3.686816	19.787428	2.854996	3.426998	3.42581	7.174726	0.590999	1.036975
SAMPLE	**CA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	-1251.797	-0.37903	0.480888	3.782254	-4.51082	-0.52033	-0.97203	13.538071	-0.39808	0.938375	3.42581	2.476336	-0.09071	-0.22061
MMSB-BWBK-SB-MM116-0110	407.52795	-0.03746	-0.64951	1.442618	-1.021	0.002128	0.354872	10.126349	-0.03776	-0.88929	1.343338	0.334629	0.008932	0.155628
MMSB-BWBK-SB-MM117-0110	1626.6581	-0.18715	-1.39009	0.743227	2.074388	-0.17986	-1.06118	8.1081058	-0.26388	-1.37384	0.557073	-1.03634	0.189056	-0.03235
MMSB-BWBK-SB-MM118-0110	1916.9541	0.386008	-1.03737	1.275668	2.726428	-0.08126	-0.35522	9.7253461	0.321124	-1.18376	1.129245	-1.44201	0.088414	0.047411
MMSB-BWBK-SB-MM119-0110	28.234651	-0.1068	-0.75569	1.651391	-1.98984	-0.04573	0.439579	10.277802	-0.13083	-0.86545	1.485235	0.952358	0.072581	0.279004
MMSB-BWBK-SB-MM120-0110	1477.8018	-0.60857	-1.59455	0.406356	1.763387	0.057764	-0.98873	6.8993008	-0.67162	-1.58037	0.224865	-0.88005	0.32596	0.042081
MMSS-BWBK-SS-MM101-0001	1859.0722	-0.69554	1.330393	-0.22103	3.389975	0.120958	0.56524	13.769979	-0.63988	1.854165	-0.15058	-2.2371	0.014201	0.224541
MMSS-BWBK-SS-MM102-0001	1945.9762	-0.90442	0.129686	-0.64217	3.345377	0.445228	-0.0478	10.439079	-0.8836	0.45344	-0.62798	-1.98179	0.29271	0.164293
MMSS-BWBK-SS-MM103-0001	2160.7567	-0.76431	1.152002	-0.4865	4.149859	0.137624	0.233545	12.833749	-0.70117	1.58817	-0.3866	-2.69415	0.011707	0.102413
MMSS-BWBK-SS-MM104-0001	1889.2941	-0.55536	1.102496	0.010778	3.388335	0.137664	0.510825	13.272895	-0.50223	1.494948	0.077274	-2.29382	0.002764	0.186966
MMSS-BWBK-SS-MM105-0001	2040.3877	-1.0302	-0.04772	-0.78796	3.64278	0.000208	-0.86626	9.5959765	-1.0207	0.332127	-0.79129	-2.14591	0.163721	-0.05437
MMSS-BWBK-SS-MM106-0001	1590.6351	-0.63834	1.337694	0.198545	2.678562	0.650178	0.489974	13.209697	-0.53013	1.506032	0.335879	-2.09404	0.068134	-0.00099
MMSS-BWBK-SS-MM107-0001	1613.4437	-0.62138	1.173066	0.117311	2.695701	0.32119	1.002827	13.560011	-0.56112	1.571749	0.178778	-1.92893	0.070513	0.349363
MMSS-BWBK-SS-MM108-0001	2468.5367	-1.0196	1.490989	-0.48754	5.189583	0.385143	-0.00655	13.24159	-0.94709	2.105052	-0.40199	-3.11194	0.13466	0.032339
MMSS-BWBK-SS-MM109-0001	2322.2492	-0.94192	0.887807	-0.5784	4.55888	0.659064	0.46847	11.972713	-0.88062	1.297423	-0.49347	-2.85677	0.268497	0.234386
MMSS-BWBK-SS-MM110-0001	2021.248	-1.30687	-0.34276	-1.03624	3.643149	-0.2196	-1.28138	8.4046578	-1.30718	0.082412	-1.07141	-1.99967	0.152339	-0.11488
MMSS-BWBK-SS-MM111-0001	2290.0373	-1.21528	-0.30905	-0.91303	4.330046	0.027793	-0.73771	8.5492081	-1.20758	0.045875	-0.93113	-2.41412	0.214984	0.037712
MMSS-BWBK-SS-MM112-0001	2022.6111	-1.23318	-0.65765	-1.00749	3.54221	-0.34265	-0.84336	7.9170708	-1.25107	-0.28003	-1.06685	-1.91257	0.139636	0.09026
MMSS-BWBK-SS-MM113-0001	1951.8423	-1.02692	0.912934	-0.39054	3.751811	-0.50853	-0.48184	11.930766	-0.98662	1.490397	-0.37167	-2.25707	-0.14191	-0.03028
MMSS-BWBK-SS-MM114-0001	1897.7843	-1.2637	-0.93574	-1.11954	3.103045	0.004971	-0.94629	7.3502177	-1.29185	-0.60122	-1.1952	-1.60228	0.321382	0.089503
MMSS-BWBK-SS-MM115-0001	1972.1847	-1.17293	-0.33697	-1.04286	3.408434	0.043837	-0.72146	8.958446	-1.18212	0.091186	-1.08047	-1.85151	0.26421	0.085894
MMSS-BWBK-SS-MM116-0001	1769.6724	-1.21809	-0.4484	-0.99418	2.878078	-0.05903	-0.91379	8.569476	-1.22635	-0.05468	-1.03855	-1.59185	0.226744	0.022891
MMSS-BWBK-SS-MM117-0001	1950.3397	-0.83965	0.504473	-0.40038	3.503135	-0.05117	-0.10229	11.282169	-0.80746	0.898206	-0.36872	-2.25499	0.039102	0.106128
MMSS-BWBK-SS-MM118-0001	1283.4709	-0.63213	-0.59793	0.418541	1.451413	0.395694	0.036804	9.1832536	-0.63157	-0.55362	0.351964	-1.09212	0.281962	0.209515
MMSS-BWBK-SS-MM119-0001	1413.4934	-0.73753	-0.90123	0.062409	1.723146	0.342116	-0.36341	8.539414	-0.76811	-0.7639	-0.05818	-0.83794	0.37183	0.16997
MMSS-BWBK-SS-MM120-0001	2232.1553	-0.49412	-0.22836	-1.03677	3.681277	0.956874	0.18947	9.3775228	-0.43729	-0.43777	-0.88167	-2.46154	0.323254	0.044318
NESB-BWBK-SB-NE01-0108	1704.291	0.845379	-0.40546	0.291729	1.759675	0.505054	2.428666	11.935453	0.853235	-0.93435	0.392664	-1.3541	0.03129	0.699036
NESB-BWBK-SB-NE02-0109	202.9324	0.576959	-0.32184	0.467243	-2.07415	0.245817	1.216726	12.272471	0.577047	-0.66044	0.512678	0.569221	-0.00418	0.345861
NESB-BWBK-SB-NE03-0105	2508.9175	0.44442	-0.57038	-0.02932	4.071122	0.522275	1.016906	10.605206	0.432061	-0.87089	0.022392	-2.39978	0.173456	0.358826
NESB-BWBK-SB-NE04-0110	1507.0196	0.415812	-0.62757	0.207004	1.413974	0.364586	1.369501	11.019847	0.394442	-0.89063	0.21785	-1.00453	0.139573	0.514599
NESB-BWBK-SB-NE05-0108	1853.6867	0.725513	-0.54502	0.039223	2.162329	0.352966	1.914648	11.463733	0.715327	-0.97545	0.109998	-1.38317	0.043691	0.594925
NESB-BWBK-SB-NE06-0109	1917.1937	0.551902	-0.71277	0.011821	2.387819	0.406237	1.236953	10.906898	0.521791	-1.02102	0.028547	-1.33356	0.15769	0.452716
NESB-BWBK-SB-NE07-0107	1934.4251	0.744015	-0.36151	0.070377	2.412185	0.438444	2.146828	11.723769	0.754082	-0.83785	0.185632	-1.74618	0.015735	0.622027
NESB-BWBK-SB-NE08-0104	1856.4342	0.221907	-0.57634	-0.1598	2.392426	0.58471	0.763384	10.615999	0.207436	-0.8027	-0.14323	-1.24743	0.24689	0.290678
NESB-BWBK-SB-NE09-0110	1638.9502	0.454626	-0.75322	-0.03785	1.664873	0.406834	1.383914	10.633435	0.436498	-1.12448	-0.01281	-0.91262	0.140106	0.474208
NESB-BWBK-SB-NE10-0107	709.1571	-0.10186	0.30406	0.122388	-0.27395	0.541268	1.365471	12.478797	-0.06008	0.246567	0.203339	-0.48946	0.121263	0.423863
NESB-BWBK-SB-NE101-0110	849.68187	-0.25826	0.619928	2.283293	0.775261	0.230335	-0.67449	12.836532	-0.23837	0.896878	2.154416	-0.89074	0.085549	-0.20144
NESB-BWBK-SB-NE102-0110	240.89692	-0.52809	0.297487	2.141645	-0.80939	-0.04369	-0.92158	11.930144	-0.52323	0.643354	1.967863	-0.02268	0.065854	-0.17855
NESB-BWBK-SB-NE103-0110	798.6963	-0.60205	-0.27972	1.556597	0.486664	-0.06883	-1.07563	10.235293	-0.61887	-0.01678	1.372518	-0.42686	0.133646	-0.15501
NESB-BWBK-SB-NE104-0110	901.75765	-0.66685	-0.668	1.170251	0.626521	-0.03194	-1.27341	9.1945638	-0.69895	-0.44656	0.978366	-0.38742	0.206753	-0.16258
NESB-BWBK-SB-NE105-0110	239.11495	-0.31607	0.523052	2.689765	-0.76392	-0.01455	-0.90495	12.724635	-0.30415	0.841718	2.517067	-0.21192	0.017683	-0.23338
NESB-BWBK-SB-NE106-0110	618.39433	-0.35673	0.061344	2.103401	0.055996	-0.05123	-0.91337	11.478425	-0.36349	0.309904	1.927281	-0.37215	0.065491	-0.17883
NESB-BWBK-SB-NE107-0510	864.53974	-0.43735	-0.80714	1.462837	0.436187	-0.24697	-0.47105	9.543408	-0.48911	-0.62799	1.2279	-0.05728	0.1326	0.122444
NESB-BWBK-SB-NE108-0110	1325.1999	-0.3872	0.043077	1.722359	1.908865	-0.10206	-0.8473	11.160408	-0.3971	0.309281	1.560346	-1.15735	0.059163	-0.1461
NESB-BWBK-SB-NE109-0110	1034.6086	-0.43965	-0.01364	1.856597	1.159417	-0.03827	-0.86917	11.048137	-0.44934	0.252141	1.68205	-0.83174	0.095056	-0.13848
NESB-BWBK-SB-NE110-0110	1142.7689	-0.38114	-0.12828	1.742029	1.356443	0.069768	-0.53627	10.724341	-0.38412	0.03398	1.600598	-1.08308	0.109496	-0.04117
NESS-BKG-SS03-NEB-0016	2004.6861	-0.18827	1.432866	-0.24764	3.722644	-2.2591	-0.02086	14.538089	-0.16923	2.014597	-0.19557	-2.17712	-0.96713	0.008131
NESS-BKG-SS09-NEB-0018	1701.1207	-0.87035	0.535377	-0.64251	2.808102	-0.18532	0.148579	11.143772	-0.81706	0.811982	-0.56515	-1.90377	-0.07446	0.119503
NESS-BWBK-SS-NE01-0001	484.38915	0.324347	1.761723	-0.39243	-0.76845	-0.93871	2.096536	16.560532	0.409645	1.868092	-0.15024	-0.54958	-0.70732	0.446659
NESS-BWBK-SS-NE02-0001	-661.9773	0.745317	0.857998	-0.64396	-4.33683	-1.69717	3.686816	15.506112	0.804973	0.597583	-0.3741	1.000298	-1.02624	1.036975
NESS-BWBK-SS-NE03-0001	2292.1365	-0.35999	1.20484	-0.81574	4.194346	0.363966	1.396163	13.469906	-0.27765	1.386801	-0.61064	-2.95287	-0.02588	0.375628
NESS-BWBK-SS-NE04-0001	2373.4623	-0.04124	1.207441	-0.21481	4.340072	0.70708	1.280698	13.857768	0.042333	1.24854	-0.02154	-3.00938	0.05475	0.24982
NESS-BWBK-SS-NE05-0001	1409.0073	-0.23551	1.218498	-0.65095	1.788945	0.021171	1.984301	13.553451	-0.12015	1.143667	-0.38856	-1.9238	-0.29114	0.441754
NESS-BWBK-SS-NE06-0001	2202.0668	-0.1649	0.982992	-0.34466	3.84009	0.926723	1.686897	13.31884	-0.08419	0.991652	-0.16461	-2.65867	0.178131	0.425789
NESS-BWBK-SS-NE07-0001	2329.7096	-0.18027	1.41495	-0.48069	4.422301	-0.89949	1.250361	14.21735	-0.11419	1.699678	-0.32005	-2.84294	-0.5398	0.318566
NESS-BWBK-SS-NE08-0001	2277.0471	-0.33533	1.079172	-0.56908	4.14498	0.582745	1.333422	13.335607	-0.2628	1.247445	-0.40565	-2.7335	0.090237	0.363693
NESS-BWBK-SS-NE09-0001	2753.3999	-0.62302	1.969677	-0.42909	5.864895	0.32508	0.897636	15.029319	-0.53795	2.54424	-0.28403	-3.55202	-0.00164	0.226716
NESS-BWBK-SS-NE10-0001	2314.0393	-0.19347	1.004839	-0.31885	4.343103	-1.11455	1.047435	13.387166	-0.158	1.311586	-0.22964	-2.60145	-0.53608	0.345789
NESS-BWBK-SS-NE101-0001	2282.4869	-1.03018	0.721447	-0.15223	4.572631	0.511787	-0.4723	11.412801	-0.98728	1.206691	-0.14448	-2.69019	0.278061	-0.03164
NESS-BWBK-SS-NE102-0001	1550.3536	-1.13396	-0.02537	-0.53761	2.44189	-0.17388	-0.74264	9.8117227	-1.1301	0.436391	-0.58305	-1.47614	0.126912	0.027066
NESS-BWBK-SS-NE103-0001	1327.4134	-1.19619	-0.30193	-0.6834	1.766281	-0.08235	-0.6786	8.8432505	-1.17987	-0.00427	-0.69942	-1.25424	0.139604	0.02762
NESS-BWBK-SS-NE104-0001	2016.7234	-0.93617	-0.20446	-0.56955	3.587853	-0.70593	-0.40676	9.4792639	-0.94491	0.183052	-0.61425	-2.00341	-0.09495	0.147632
NESS-BWBK-SS-NE105-0001	1653.3301	-1.24073	-0.4839	-0.8396	2.581145	0.137092	-0.7094	8.6866223	-1.25567	-0.05652	-0.91132	-1.38344	0.332976	0.121215
NESS-BWBK-SS-NE106-0001	1999.434	-1.13047	-0.18464	-0.56742	3.659002	-0.7328	-0.69607	9.2636591	-1.14168	0.306286	-0.63597	-2.0124	-0.06271	0.097213
NESS-BWBK-SS-NE107-0001	1874.1731	-1.28319	-0.07522	-0.80281	3.328877	-0.09787	-0.7514	9.6208377	-1.29475	0.521517	-0.87323	-1.78925	0.232455	0.10854
NESS-BWBK-SS-NE108-0001	1330.6751	-1.16913	-0.00999	-0.41916	1.903303	-0.30066	-0.63911	10.120798	-1.17885	0.554604	-0.50329	-1.11414	0.120863	0.114701
NESS-BWBK-SS-NE109-0001	1687.0919	-1.2757	-0.45683	-0.75182	2.720853	0.091057	-0.69996	8.7420367	-1.29373	0.017301	-0.83775	-1.45333	0.329456	0.145636
NESS-BWBK-SS-NE110-0001	1802.4116	-1.2696	-0.18467	-0.71456	3.169768	-0.6374	-1.3787	9.084811	-1.28263	0.367161	-0.79468	-1.67198	0.008435	-0.12061

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	CALCIUM							CHROMIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-2602.801	-1.51281	-2.40992	-1.11954	-8.5126	-2.2591	-3.11756	5.2926013	-1.54581	-2.5864	-1.20859	-5.53681	-1.10308	-1.27328
MAXIMUM DOMAIN VALUE	4649.7376	2.953196	2.87876	3.782254	10.30837	1.904692	3.686816	19.787428	2.854996	3.426998	3.42581	7.174726	0.590999	1.036975
SAMPLE	**CA predict**	D1	D2	D3	D4	D5	D6	**CR predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	565.98134	0.471333	0.468557	0.072101	-0.94553	0.820884	-1.28116	13.879866	0.476487	0.430585	0.117915	0.481348	0.240521	-0.60215
PMSB-BWBK-SB-PM02-0104	2021.8692	1.167398	1.64791	-0.79319	2.624077	1.904692	-0.77721	16.270297	1.278915	1.204947	-0.38569	-2.44815	0.248032	-0.87071
PMSB-BWBK-SB-PM03-0106	2466.8835	1.822063	-0.12872	-0.4886	3.223495	0.59153	-1.48641	13.795115	1.774469	-0.62789	-0.35701	-1.46461	0.051042	-0.80366
PMSB-BWBK-SB-PM04-0105	699.8447	1.006018	0.115813	0.129438	-0.93024	0.332725	0.528707	14.200172	0.987041	-0.18849	0.145816	1.159434	0.008148	-0.05877
PMSB-BWBK-SB-PM05-0105	706.47119	0.96577	0.136214	-0.0315	-0.92798	0.56054	-0.38445	13.959365	0.951484	-0.14688	0.018169	0.838094	0.097325	-0.36238
PMSB-BWBK-SB-PM06-0105	188.94965	0.92245	0.011633	-0.24396	-2.39732	0.697605	-0.09477	13.993589	0.899896	-0.23691	-0.18696	1.385461	0.187658	-0.19755
PMSB-BWBK-SB-PM07-0105	1149.1984	0.476632	0.299044	-0.4865	0.436977	1.523342	-3.06278	13.256098	0.462512	0.300248	-0.44078	0.020226	0.590999	-1.19462
PMSB-BWBK-SB-PM08-0106	719.08396	0.705173	0.134067	-0.1472	-0.78613	0.863045	-1.59441	13.433601	0.688991	-0.01607	-0.1083	0.620307	0.278252	-0.71268
PMSB-BWBK-SB-PM09-0106	811.66238	0.330456	-0.66385	-0.40544	-0.56716	0.711597	-0.98379	10.881649	0.301641	-0.92871	-0.41824	0.783323	0.322019	-0.38041
PMSB-BWBK-SB-PM10-0105	227.82101	0.333375	1.298447	-0.55848	-1.75395	1.230099	-1.42588	15.235682	0.410634	1.209756	-0.35077	0.531739	0.222197	-0.86651
PMSB-BWBK-SB-PM11-0104	1234.9942	0.922565	0.123922	-0.3419	0.455756	0.971184	-2.98798	13.457581	0.888075	0.014551	-0.28761	-0.1238	0.338016	-1.18144
PMSB-BWBK-SB-PM12-0105	-344.2245	-0.33793	-0.03833	-0.30566	-3.20005	0.943411	0.736525	11.497624	-0.28297	-0.33676	-0.26888	2.176226	0.292654	0.061504
PMSB-BWBK-SB-PM13-0106	-147.4373	-0.28365	1.093487	-0.62267	-2.51836	1.381809	-0.22083	14.217027	-0.20067	1.143482	-0.45645	0.829261	0.383398	-0.29496
PMSB-BWBK-SB-PM14-0106	-203.9034	-0.35192	0.064138	-0.31981	-2.75642	0.673925	-0.36107	12.104052	-0.34046	0.104584	-0.35022	1.969844	0.312524	-0.16235
PMSB-BWBK-SB-PM15-0105	622.5449	0.274238	0.266681	-0.31537	-0.80834	0.565875	0.178174	13.066644	0.294506	0.111691	-0.24655	0.578149	0.125042	-0.10318
PMSB-BWBK-SB-PM16-0106	558.3378	-0.0767	0.011065	-0.30028	-0.84836	0.558112	0.446769	12.281557	-0.07651	0.013323	-0.30774	0.790573	0.246874	0.136905
PMSB-BWBK-SB-PM17-0105	1425.1355	0.898529	0.343846	0.186518	1.157275	0.745696	-1.98545	14.108379	0.867501	0.288987	0.189711	-0.17867	0.237431	-0.85731
PMSB-BWBK-SB-PM18-0105	2410.2732	1.414062	-0.27384	-0.48246	3.276962	0.093495	0.931905	13.083431	1.379493	-0.75057	-0.36999	-1.49382	-0.12051	0.120372
PMSB-BWBK-SB-PM19-0105	1134.593	0.688589	0.068527	-0.26855	0.35281	0.052584	0.465495	13.119613	0.682444	-0.13829	-0.18643	-0.28406	-0.08753	0.037495
PMSB-BWBK-SB-PM20-0106	675.15361	0.402622	0.057945	-0.21224	-0.74284	0.282129	0.292462	12.909716	0.400229	-0.09365	-0.17859	0.638961	0.050063	-0.01445
PMSB-BWBK-SB-SO01-0107-PM	2302.0991	1.485226	-0.28441	-0.4952	3.003543	-0.53704	-0.32863	13.257701	1.417033	-0.54511	-0.40963	-1.65801	-0.29679	-0.18871
PMSB-BWBK-SB-SO02-0109-PM	1922.899	1.466525	-0.2193	-0.95648	1.888306	-0.45247	0.366266	13.270861	1.429947	-0.63463	-0.77636	-1.38252	-0.35218	-0.02823
PMSB-BWBK-SB-SO13-0104-PM	3817.5374	1.833131	-0.29796	-0.50632	6.896657	-0.01709	-2.34687	12.570168	1.769857	-0.72198	-0.36597	-3.74793	-0.15829	-0.99747
PMSB-BWBK-SB-SO14-0105-PM	2455.2513	2.065647	-0.42835	-0.41873	3.087279	-0.5582	-0.88867	13.388584	1.994628	-0.94365	-0.26913	-2.02318	-0.40476	-0.48582
SESB-BWBK-SB-SO03-0108	3596.2264	2.953196	-0.04607	-0.20725	5.838215	-0.76414	-0.2856	15.715486	2.854996	-0.6214	-0.05142	-2.96197	-0.57515	-0.41873
SESB-BWBK-SB-SO04-0108	2152.6411	1.926089	-0.30405	-0.30869	2.401496	-0.58577	-1.14371	13.511416	1.864088	-0.78795	-0.17861	-1.48447	-0.41756	-0.60289
SESB-BWBK-SB-SO05-0106	1474.6194	1.433729	0.305105	-0.371	0.922348	-0.27269	0.622773	14.765189	1.416475	-0.02992	-0.22166	-0.65926	-0.32891	-0.03224
SESB-BWBK-SB-SO06-0108	2880.5336	2.588448	0.08258	-0.70014	4.004643	-0.50332	-0.42359	15.662233	2.51306	-0.46432	-0.52484	-1.80345	-0.46669	-0.50062
SESB-BWBK-SB-SO07-0106	1729.1325	1.926404	-0.23777	-0.43293	1.241487	-0.45947	-2.08571	14.043481	1.847585	-0.63656	-0.35639	-0.28913	-0.31518	-0.94902
SESB-BWBK-SB-SO08-0107	2332.6514	2.560883	0.27493	-0.14174	2.715235	-0.707	-0.50712	16.251833	2.491792	-0.24166	-0.0125	-0.9644	-0.5659	-0.57363
SESB-BWBK-SB-SO09-0106	894.88146	1.242273	0.152356	-0.15728	-0.5421	-0.16295	0.377329	14.131153	1.232432	-0.19159	-0.01369	-0.24919	-0.26922	-0.07151
SESB-BWBK-SB-SO11-0106	927.68255	1.896626	0.039046	-0.02123	-0.80928	-0.13942	-0.2049	15.278175	1.842219	-0.39801	0.058403	0.720021	-0.24871	-0.36022
SESB-BWBK-SB-SO12-0106	2419.1542	2.053885	-0.4225	-0.63757	2.969595	-0.80984	-0.73602	13.504518	1.97952	-0.96609	-0.51734	-1.28784	-0.49867	-0.48979
SESB-BWBK-SB-SO15-0103	629.29568	0.241747	0.421978	-0.44579	-0.74509	0.427811	-0.41027	13.340717	0.257916	0.418004	-0.34645	0.01579	0.086148	-0.23322
SESB-BWBK-SB-SO16-0105	995.84335	0.82034	-0.29438	-0.45157	-0.21493	0.126785	-0.77362	12.464273	0.788686	-0.57422	-0.40809	0.428812	-0.00518	-0.392
SESB-BWBK-SB-SO17-0106	485.23635	0.294726	-0.10609	0.034518	-1.18448	0.373349	-0.46799	12.300897	0.287785	-0.27923	0.014011	1.183869	0.121537	-0.28254
SESB-BWBK-SB-SO18-0105	352.54532	0.021646	-0.17593	0.090931	-1.4108	0.563056	-0.71384	11.630842	0.023985	-0.32013	0.058955	1.215317	0.22406	-0.33285
SESB-BWBK-SB-SO19-0104	-59.57663	0.614624	0.078916	0.402942	-2.71829	0.716688	-2.99341	13.240261	0.590726	-0.02027	0.371476	1.721635	0.256701	-1.18655
SESB-BWBK-SB-SO20-0104	1807.3714	1.469528	-0.50072	-0.59135	1.595614	-0.45355	-0.76075	12.706351	1.40582	-0.91512	-0.52043	-0.51584	-0.27287	-0.41096

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

COBALT

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
6.9960	Mean					
4.3390	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0438	0.2747	0.0108	-0.3252	0.0037	-0.0504
AS	-0.0504	0.0051	0.0553	0.1287	-0.0102	-0.0415
BA	-0.1011	0.1938	0.2648	0.1733	-0.0229	0.1019
BE	-0.0096	0.1198	-0.0190	-0.0170	0.1558	-0.0759
CA	-0.0164	0.0080	-0.0832	0.1881	0.0449	0.0407
CR	-0.0964	0.2816	-0.1693	0.0912	0.2695	-0.2330
CO	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
CU	0.1429	-0.0525	0.0513	-0.3081	-0.0892	-0.0328
FE	0.5218	-0.1362	-0.5248	-0.4908	0.0911	0.2359
PB	0.0277	0.0346	0.0189	-0.0552	-0.1649	0.0292
MG	0.1085	-0.0939	0.6838	0.2820	0.0310	-0.4791
MN	-0.0061	0.0086	-0.0070	0.0622	0.0177	0.0135
NI	0.1876	-0.0602	-0.0559	-0.1247	0.0469	0.0607
K	-0.0120	0.0820	0.6918	-0.0597	-0.0498	0.1693
V	-0.1213	0.3755	0.0823	0.1737	-0.0781	0.1184
ZN	0.3588	-0.0725	-0.1320	0.5434	-0.5310	-0.2643

COPPER

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
11.6362	Mean					
6.3904	Std. deviation					

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0372	0.2684	0.0097	-0.1833	0.0386	0.0897
AS	-0.0429	0.0050	0.0492	0.0725	-0.1059	0.0739
BA	-0.0859	0.1893	0.2359	0.0977	-0.2363	-0.1815
BE	-0.0082	0.1170	-0.0169	-0.0096	1.6092	0.1352
CA	-0.0140	0.0079	-0.0741	0.1060	0.4634	-0.0724
CR	-0.0820	0.2751	-0.1508	0.0514	2.7829	0.4149
CO	0.2549	-0.0290	0.1405	-0.0592	1.7412	-1.0741
CU	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
FE	0.4436	-0.1330	-0.4675	-0.2765	0.9413	-0.4200
PB	0.0236	0.0338	0.0169	-0.0311	-1.7030	-0.0520
MG	0.0922	-0.0917	0.6091	0.1589	0.3206	0.8532
MN	-0.0052	0.0084	-0.0062	0.0351	0.1831	-0.0241
NI	0.1595	-0.0588	-0.0498	-0.0703	0.4840	-0.1080
K	-0.0102	0.0801	0.6162	-0.0336	-0.5139	-0.3016
V	-0.1032	0.3668	0.0733	0.0979	-0.8071	-0.2109
ZN	0.3050	-0.0709	-0.1176	0.3062	-5.4836	0.4706

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							COPPER						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1.832423	-1.61035	-2.35604	-1.45819	-1.29537	-1.24132	-1.43664	1.9201845	-1.54304	-2.33342	-1.24453	-0.61751	-13.1197	-2.2951
MAXIMUM DOMAIN VALUE	20.56242	3.255967	2.774733	4.853863	1.534847	0.801112	1.480924	27.931409	3.038155	2.699101	4.310476	0.844785	11.54397	2.483068
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**CU predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	3.3241664	-0.63831	-2.1517	-0.04846	0.293907	0.080075	0.261276	7.3132866	-0.69111	-2.13179	-0.15145	0.019608	-2.36193	0.868639
BASS-BWBK-SS-BA102-0001	1.9802653	-0.84462	-2.35604	-0.43167	0.064381	0.093073	0.580345	5.5646031	-0.87462	-2.33342	-0.49892	-0.11921	-2.42015	0.379265
BASS-BWBK-SS-BA103-0001	2.1677908	-0.84402	-2.19714	-0.2152	0.324338	0.131236	0.601116	5.6494734	-0.86236	-2.17952	-0.29963	0.024539	-1.94576	0.292769
BASS-BWBK-SS-BA104-0001	3.211237	-0.71282	-1.91032	0.406681	0.288946	0.083731	0.26642	7.6473047	-0.72699	-1.89851	0.269437	0.012702	-2.10912	0.734798
BASS-BWBK-SS-BA105-0001	2.4632884	-0.81838	-2.17888	-1.0515	1.515125	0.369753	0.758673	3.3096663	-0.82087	-2.16276	-1.03303	0.695489	0.706908	-0.08865
BASS-BWBK-SS-BA106-0001	3.7525623	-0.60868	-1.93347	0.049101	0.356422	0.124958	0.111228	7.5970254	-0.66247	-1.9137	-0.05964	0.074503	-1.62822	1.040988
BASS-BWBK-SS-BA107-0001	1.866535	-0.87772	-2.26114	-0.29256	0.122358	0.068633	0.628484	5.6620665	-0.89706	-2.24313	-0.37287	-0.09469	-2.7158	0.29628
BASS-BWBK-SS-BA108-0001	2.06848	-0.86375	-2.26985	-0.37037	0.248658	0.149503	0.55274	5.3221119	-0.89072	-2.24749	-0.44323	-0.00859	-1.75399	0.400932
BASS-BWBK-SS-BA109-0001	3.512522	-0.64858	-2.19089	0.028069	0.203227	0.209405	0.088938	6.8908615	-0.72819	-2.15628	-0.0929	0.016044	-0.72667	1.134347
BASS-BWBK-SS-BA110-0001	3.3659476	-0.70373	-1.7157	0.896493	0.19399	0.148269	0.346003	8.0551565	-0.72289	-1.70502	0.705395	-0.02859	-1.33038	0.563755
BASS-BWBK-SS-BA111-0001	2.4638298	-0.8154	-2.17769	-0.25581	0.240146	0.168876	0.419732	5.98309	-0.83043	-2.16374	-0.33295	-0.03377	-1.61469	0.619433
BASS-BWBK-SS-BA112-0001	2.2588908	-0.88163	-2.2002	-0.4807	0.91878	0.309993	0.594056	4.4141018	-0.89071	-2.18586	-0.53579	0.347275	-0.21181	0.334663
BASS-BWBK-SS-BA113-0001	4.1451384	-0.31397	-2.27809	-0.72832	0.978428	-0.48198	0.345887	7.9633378	-0.53316	-2.20458	-0.80078	0.577135	-7.23127	0.64759
MASB-BWBK-SB-MA01-0105	12.621567	1.290383	-0.16399	-0.36797	0.676669	-0.18512	-0.57193	17.253085	1.276002	-0.14149	-0.2069	0.491247	1.136982	-0.33054
MASB-BWBK-SB-MA02-0107	13.866403	1.516621	-0.12716	-0.04729	0.597765	-0.22767	-0.90156	19.373228	1.471797	-0.11059	0.077993	0.427786	0.501967	0.313281
MASB-BWBK-SB-MA03-0108	14.213121	1.860562	-0.64356	-0.77269	0.743454	-0.74805	-0.55189	20.962053	2.165502	-0.64142	-0.33595	0.491647	-1.2264	-2.2951
MASB-BWBK-SB-MA04-0106	15.073496	1.617413	0.061512	0.561683	1.304015	-0.34997	-1.43664	21.090197	1.524484	0.08042	0.6039	0.844785	-0.84953	1.360591
MASB-BWBK-SB-MA05-0108	12.690804	1.180421	-0.07081	0.024296	0.90538	-0.17844	-0.92013	17.506365	1.095799	-0.04645	0.09138	0.617535	0.339526	0.744224
MASB-BWBK-SB-MA06-0105	12.598157	1.229816	-0.08864	-0.00933	0.551009	-0.25756	-0.78721	17.907269	1.122241	-0.06093	0.053523	0.426019	-0.52903	0.555205
MASB-BWBK-SB-MA07-0108	11.781265	1.18568	-0.66149	-0.57291	0.396465	-0.27548	-0.55142	17.430891	1.075434	-0.65472	-0.47359	0.204623	-2.4217	0.709925
MASB-BWBK-SB-MA08-0108	20.28161	3.036985	0.4651	-1.43735	0.318982	-0.38224	-1.39437	26.619849	2.814419	0.464072	-1.13157	0.265876	-0.66985	0.952967
MASB-BWBK-SB-MA09-0108	14.79885	1.983329	-0.52949	-0.99856	0.191343	-0.73188	-0.77284	20.480743	1.719765	-0.44622	-0.82836	0.390312	-3.83118	0.095296
MASB-BWBK-SB-MA10-0104	10.215477	0.96177	-0.90158	-1.45819	-0.04103	-0.22553	-0.21083	15.039083	0.918251	-0.89423	-1.24453	-0.05416	-1.73396	-0.01853
MASB-BWBK-SB-MA11-0108	14.99745	1.850929	0.123339	-0.63677	0.39734	-0.49306	-0.9216	20.754236	1.65198	0.163582	-0.49442	0.40727	-2.12743	0.519584
MASB-BWBK-SB-MA12-0108	15.066413	1.865459	-0.33715	-0.2066	0.749725	-0.46244	-0.95766	21.094635	1.836238	-0.30998	-0.01883	0.549946	-0.82861	-0.07815
MASB-BWBK-SB-MA13-0105	5.1178401	-0.65722	0.662709	-0.33194	0.627202	0.577239	0.069536	6.7316816	-0.56626	0.641629	-0.30361	0.329321	5.59872	0.009319
MASB-BWBK-SB-MA14-0104	10.261695	0.670478	1.043424	-0.84521	-0.07421	0.246766	-0.09298	13.630944	0.700554	1.028656	-0.66719	0.021407	4.567696	-0.75174
MASB-BWBK-SB-MA15-0105	7.5709119	-0.09478	1.405698	-0.45852	0.031269	0.577072	0.032428	9.8243946	-0.03371	1.377147	-0.37737	0.042293	6.708507	-0.39482
MASB-BWBK-SB-MA16-0104	7.4760223	0.086975	0.200305	-0.65238	0.392942	0.184038	0.084684	10.613701	0.151738	0.1919	-0.53534	0.222975	2.668874	-0.55575
MASB-BWBK-SB-MA17-0104	6.2808591	-0.20984	0.480296	-0.90755	0.366385	0.151594	0.147855	10.286533	-0.01417	0.41804	-0.73632	0.042348	1.170545	-0.46127
MASB-BWBK-SB-MA18-0104	6.1501138	-0.59166	1.242667	-0.17168	0.911317	0.639639	-0.30162	7.7770962	-0.52452	1.206882	-0.17024	0.481293	6.010582	0.773866
MASB-BWBK-SB-MA19-0103	4.5546678	-0.66218	0.271044	-0.45051	0.760185	0.336354	0.283686	7.2550478	-0.53728	0.234083	-0.40293	0.314652	2.351261	-0.19064
MASB-BWBK-SB-MA20-0103	11.241949	1.021192	-0.24184	-0.62634	0.331907	-0.17177	-0.42572	15.767914	0.991532	-0.21942	-0.47236	0.278069	0.511278	-0.23158
MASS-BWBK-SS-MA01-0001	-0.206539	-1.53917	-0.253	-0.4361	0.284071	-0.02163	0.939109	3.9216085	-1.4053	-0.29504	-0.47525	-0.04571	-3.6347	-0.36878
MASS-BWBK-SS-MA02-0001	1.4287368	-1.44024	0.927283	0.183209	0.679175	0.115031	0.533899	5.4726685	-1.31222	0.868757	0.088001	0.220326	-1.61404	0.136527
MASS-BWBK-SS-MA03-0001	2.3194915	-1.09412	0.082231	-0.34351	0.503687	0.150963	0.53063	5.7919306	-1.03128	0.0488	-0.38616	0.140458	-1.14204	0.135955
MASS-BWBK-SS-MA04-0001	3.5318777	-0.85633	0.084032	-0.20847	0.788807	0.028328	0.272168	7.5123562	-0.79354	0.050028	-0.24427	0.306492	-2.00105	0.392718
MASS-BWBK-SS-MA05-0001	7.1039857	-0.13935	0.699189	-0.14551	0.763525	-0.15183	-0.2902	11.935514	-0.15795	0.674451	-0.15883	0.388544	-2.45053	0.88277
MASS-BWBK-SS-MA06-0001	5.9539031	-0.64345	1.745109	0.546948	1.534847	0.217817	-0.08832	9.3152234	-0.63177	1.699077	0.431687	0.824589	0.94819	0.749702
MASS-BWBK-SS-MA07-0001	-1.832423	-1.61035	-1.30355	-1.09126	-0.3767	-0.09439	1.480924	1.9201845	-1.54304	-1.31142	-1.10072	-0.39554	-4.85902	-1.02605
MASS-BWBK-SS-MA08-0001	4.0360347	-0.44278	0.666388	-0.64143	0.223672	-0.90198	0.829125	11.570536	-0.40397	0.622855	-0.60431	0.011062	-10.9658	-0.88419
MASS-BWBK-SS-MA09-0001	7.6081984	-0.098	2.774733	0.234647	1.054343	-1.08571	-0.19545	16.377035	-0.03401	2.699101	0.232732	0.559066	-11.16	0.232767
MASS-BWBK-SS-MA10-0001	7.1732533	-0.08247	1.864912	-0.35608	1.011854	-0.82468	-0.03718	14.917204	0.029845	1.781591	-0.27853	0.434643	-9.18675	0.085547
MASS-BWBK-SS-MA11-0001	7.073404	-0.16359	2.209378	-0.09454	0.838933	-0.39236	0.213072	13.659211	-0.0215	2.116113	-0.03585	0.333109	-4.6015	-0.43437
MASS-BWBK-SS-MA12-0001	5.1186749	-0.42517	-0.01889	-0.46862	0.570852	-0.23513	0.068609	10.357525	-0.4548	-0.05146	-0.49366	0.174222	-5.10374	0.934887
MASS-BWBK-SS-MA13-0001	2.4020726	-1.25493	1.732646	0.104355	0.703854	-0.00419	0.582695	6.9902088	-1.12671	1.658245	0.036519	0.250473	-2.38015	-0.15753
MASS-BWBK-SS-MA14-0001	0.1595743	-1.47991	1.056498	-0.14026	0.505292	-0.58842	1.123867	5.8860656	-1.41871	1.020297	-0.23056	0.205222	-8.58141	-0.86632
MASS-BWBK-SS-MA15-0001	0.4642899	-1.52806	1.167138	-0.0959	0.368083	-0.24372	0.885439	5.6728035	-1.40641	1.105895	-0.17104	0.051846	-5.42503	-0.41615
MASS-BWBK-SS-MA16-0001	2.8941682	-0.94104	0.774242	-0.63543	0.269886	-0.1139	0.589617	7.0184109	-0.94263	0.746021	-0.65973	0.082048	-3.39363	-0.04417
MASS-BWBK-SS-MA17-0001	2.9974114	-0.93315	0.903433	-0.67887	0.261665	-0.13979	0.547741	7.6165116	-0.81722	0.85109	-0.63733	0.020253	-3.20634	-0.35378
MASS-BWBK-SS-MA18-0001	1.4152109	-1.20616	0.945402	-0.77263	0.402616	-0.39502	0.907903	6.5987256	-1.1305	0.891947	-0.77092	0.082156	-6.83536	-0.51023
MASS-BWBK-SS-MA19-0001	2.7601959	-1.00202	1.191744	-0.63568	0.497448	-0.19304	0.677296	7.4345859	-0.87784	1.131819	-0.60066	0.149043	-3.82522	-0.55791
MASS-BWBK-SS-MA20-0001	5.1796321	-0.40197	0.594696	-0.55798	0.449221	-0.24434	0.338998	9.7710182	-0.42216	0.578789	-0.5478	0.227784	-3.60353	-0.09193
MMSB-BWBK-SB-MM101-0110	6.7036668	0.031657	-0.89108	0.936439	-0.28093	-0.03748	0.073827	12.012619	-0.00828	-0.8556	0.820931	-0.10772	-0.11681	-0.14949
MMSB-BWBK-SB-MM102-0109	8.202791	0.135935	-0.52504	1.810221	-0.06996	0.21704	-0.47345	13.312729	0.069302	-0.48969	1.597139	0.04102	2.765006	0.764639
MMSB-BWBK-SB-MM103-0107	6.4749382	-0.12742	-0.73483	1.145618	-0.19664	0.147432	-0.0791	11.617869	0.109057	-0.73171	1.146475	-0.11894	3.518464	-0.94157
MMSB-BWBK-SB-MM104-0110	13.338716	1.351666	-0.27525	3.767993	-1.29537	-0.44805	-1.1038	19.560063	0.645501	-0.0234	3.185567	0.11647	0.71831	1.226242
MMSB-BWBK-SB-MM105-0110	4.7611849	-0.47846	-0.92954	-0.01995	-0.36972	0.517228	0.16577	7.277425	-0.49653	-0.90456	-0.07103	-0.2133	4.417136	0.184496
MMSB-BWBK-SB-MM106-0110	11.182366	0.553231	0.584398	3.471028	0.5719	-0.03972	-1.02212	18.636784	0.462401	0.601551	3.104277	0.439273	0.923227	1.401656
MMSB-BWBK-SB-MM107-0110	6.2455162	-0.37384	-0.21848	1.324832	0.012358	0.534142	-0.24528	9.5884986	-0.37271	-0.19743	1.155364	0.057567	5.597355	0.519626
MMSB-BWBK-SB-MM108-0110	6.3796888	-0.16983	-0.55066	1.590812	-0.10508	0.085457	-0.01022	11.935738	-0.18354	-0.53313	1.395621	-0.04866	0.632535	0.17752
MMSB-BWBK-SB-MM109-0110	6.9452341	-0.18241	0.544622	2.311449	-0.20942	0.197294	0.055915	12.829663	-0.1666	0.546084	2.059745	-0.06611	2.55174	-0.2441
MMSB-BWBK-SB-MM110-0109	6.6855157	-0.20137	-0.05522	1.401467	-0.18497	0.265204	-0.14528	11.195891	-0.26289	-0.02964	1.205673	-0.02914	2.760226	0.434163
MMSB-BWBK-SB-MM111-0110	7.7259297	0.089604	-0.07802	2.764362	-0.13015	-0.0131	0.026564	14.821306	0.038737	-0.06396	2.446224	-0.03361	-0.01739	-0.01125
MMSB-BWBK-SB-MM112-0110	7.2930473	-0.08273	0.201305	2.243144	0.191026	0.181949	0.030354	13.56839	-0.04728	0.179744	2.002635	0.046866	1.369046	0.066214
MMSB-BWBK-SB-MM113-0110	8.0424537	-0.10598	-0.00231	1.432909	0.109266	0.618585	-0.78619	11.205668	-0.16175	0.024472	1.247389	0.150189	6.765914	1.419669
MMSB-BWBK-SB-MM114-0110	4.4701669	-0.50775	-0.82864	1.180711	-0.0895	0.149574	0.412917	9.2426066	-0.48842	-0.81269	1.014958	-0.07445	0.708576	-0.35007

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							COPPER						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1.832423	-1.61035	-2.35604	-1.45819	-1.29537	-1.24132	-1.43664	1.9201845	-1.54304	-2.33342	-1.24453	-0.61751	-13.1197	-2.2951
MAXIMUM DOMAIN VALUE	20.56242	3.255967	2.774733	4.853863	1.534847	0.801112	1.480924	27.931409	3.038155	2.699101	4.310476	0.844785	11.54397	2.483068
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**CU predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	5.70109	-0.45397	0.457074	4.853863	0.5419	-0.25399	0.500458	15.255072	-0.39606	0.434571	4.310476	0.256836	-3.30503	-0.64901
MMSB-BWBK-SB-MM116-0110	7.0353784	-0.02979	-0.62781	1.872228	0.070436	-9.5E-05	-0.11092	12.915513	-0.06475	-0.60115	1.650306	0.078737	0.089683	0.246412
MMSB-BWBK-SB-MM117-0110	5.0794057	-0.22057	-1.3441	1.024281	-0.39937	-0.12488	0.414367	10.745275	-0.21372	-1.30743	0.899466	-0.20839	-1.34159	-0.66888
MMSB-BWBK-SB-MM118-0110	8.4495604	0.434841	-0.99157	1.622857	-0.39105	-0.12434	-0.08129	14.167912	0.308351	-0.91735	1.436944	-0.03405	0.369549	-0.27186
MMSB-BWBK-SB-MM119-0110	6.8085611	-0.07891	-0.73428	2.162305	0.17101	-0.0018	-0.05271	13.113176	-0.10572	-0.71728	1.902292	0.088596	-0.48422	0.322383
MMSB-BWBK-SB-MM120-0110	3.1138685	-0.64518	-1.55567	0.677513	-0.42963	0.087407	0.67509	7.5858327	-0.65052	-1.52016	0.54046	-0.26468	-0.35229	-0.59052
MMSS-BWBK-SS-MM101-0001	4.5390703	-0.68105	1.247451	-0.08502	-0.64257	0.172306	0.25181	8.9486083	-0.74199	1.222385	-0.17403	-0.38186	-0.02911	0.464872
MMSS-BWBK-SS-MM102-0001	2.8249336	-0.90822	0.087766	-0.59072	-0.66407	0.38532	0.595073	6.0810131	-0.91367	0.065854	-0.62466	-0.48085	1.330889	0.084496
MMSS-BWBK-SS-MM103-0001	3.9273558	-0.75859	1.073746	-0.40763	-0.75918	0.184501	0.401492	8.0740344	-0.80636	1.048398	-0.46286	-0.46385	-0.08431	0.254217
MMSS-BWBK-SS-MM104-0001	5.1045936	-0.54576	1.03364	0.184927	-0.62946	0.149141	0.15995	9.56686	-0.62182	1.025823	0.076598	-0.32564	0.369796	0.410335
MMSS-BWBK-SS-MM105-0001	1.5323416	-1.08256	-0.08352	-0.7653	-0.73178	0.121063	0.885653	5.23209	-1.07502	-0.09412	-0.78407	-0.4932	-1.21399	-0.46686
MMSS-BWBK-SS-MM106-0001	4.9465405	-0.68906	1.263971	0.394109	-0.49846	0.432669	0.120205	8.6664453	-0.70114	1.240139	0.283021	-0.28445	3.314357	0.391233
MMSS-BWBK-SS-MM107-0001	5.1746828	-0.595	1.097946	0.336692	-0.54738	0.279745	0.058826	9.6796035	-0.64759	1.070971	0.211648	-0.34454	1.088676	0.7636
MMSS-BWBK-SS-MM108-0001	2.7517244	-1.07106	1.396591	-0.39593	-0.88379	0.346932	0.565028	6.3476622	-1.08806	1.361525	-0.46363	-0.54626	1.291672	0.093152
MMSS-BWBK-SS-MM109-0001	3.1789185	-0.97075	0.81667	-0.50592	-0.82806	0.492978	0.365309	6.4437025	-0.95889	0.778232	-0.54408	-0.57055	2.551834	0.442328
MMSS-BWBK-SS-MM110-0001	-0.194585	-1.37459	-0.37529	-1.03875	-0.76123	0.043088	1.210613	3.5186894	-1.35006	-0.38962	-1.05006	-0.55589	-2.83237	-0.7275
MMSS-BWBK-SS-MM111-0001	0.5561355	-1.27781	-0.34029	-0.89445	-0.83678	0.166926	0.947087	4.2850414	-1.23478	-0.36211	-0.905	-0.61751	-1.46496	-0.35266
MMSS-BWBK-SS-MM112-0001	0.2221088	-1.26014	-0.67964	-0.99088	-0.76276	-0.02093	1.069566	4.2045566	-1.2664	-0.68481	-1.01461	-0.5513	-3.5594	-0.42773
MMSS-BWBK-SS-MM113-0001	2.0555043	-1.05311	0.838225	-0.25631	-0.7244	-0.14442	0.801233	7.3086598	-1.08299	0.813077	-0.34722	-0.47	-4.04431	-0.22208
MMSS-BWBK-SS-MM114-0001	-0.010146	-1.31615	-0.94512	-1.14547	-0.69609	0.170467	1.083029	3.1280718	-1.28896	-0.95113	-1.14083	-0.53549	-1.60333	-0.49482
MMSS-BWBK-SS-MM115-0001	0.8510018	-1.19386	-0.36934	-1.05122	-0.72414	0.194492	0.999153	4.0965607	-1.20211	-0.38139	-1.06331	-0.52684	-1.22548	-0.35367
MMSS-BWBK-SS-MM116-0001	0.4217103	-1.2757	-0.47441	-0.9995	-0.65452	0.124329	1.030552	3.9739242	-1.24076	-0.49167	-1.00252	-0.51073	-1.93061	-0.47745
MMSS-BWBK-SS-MM117-0001	3.108861	-0.84535	0.449348	-0.28259	-0.70428	0.081149	0.553522	7.5325283	-0.88046	0.434905	-0.35368	-0.44649	-1.31844	0.038469
MMSS-BWBK-SS-MM118-0001	3.9518867	-0.6766	-0.59817	0.695658	-0.3982	0.27746	0.28293	8.2997857	-0.65062	-0.59596	0.566627	-0.28501	1.408726	0.12063
MMSS-BWBK-SS-MM119-0001	3.0821116	-0.78223	-0.89167	0.240984	-0.39666	0.282001	0.529378	6.8830144	-0.76045	-0.88511	0.147923	-0.29767	1.099527	-0.16242
MMSS-BWBK-SS-MM120-0001	4.8219904	-0.46308	-0.24517	-1.15504	-0.66088	0.614086	0.283209	6.5232984	-0.5097	-0.24119	-1.10124	-0.4031	4.854486	0.210928
NESB-BWBK-SB-NE01-0108	12.084155	0.970217	-0.37398	0.300357	-0.19736	0.172922	-1.29858	16.763768	0.885313	-0.34371	0.317093	-0.01464	3.531931	1.623514
NESB-BWBK-SB-NE02-0109	10.324546	0.628088	-0.29613	0.54023	0.242447	0.035169	-0.79724	15.210897	0.599648	-0.27529	0.529618	0.204679	1.815911	0.815942
NESB-BWBK-SB-NE03-0105	9.4751915	0.548781	-0.54633	-0.02513	-0.56631	0.236383	-0.53536	13.659699	0.467099	-0.51758	-0.01286	-0.25637	3.202434	0.704355
NESB-BWBK-SB-NE04-0110	9.4245095	0.480731	-0.59774	0.253964	-0.22059	0.135984	-0.7213	13.954617	0.432744	-0.57049	0.248685	-0.06703	2.326069	0.936463
NESB-BWBK-SB-NE05-0108	11.161458	0.852108	-0.51227	-0.00149	-0.25472	0.113562	-1.0109	15.692619	0.75813	-0.47929	0.031467	-0.05438	2.571557	1.277595
NESB-BWBK-SB-NE06-0109	9.9470326	0.634342	-0.67532	-0.02613	-0.29061	0.152761	-0.71847	14.231076	0.575424	-0.64413	0.007862	-0.09564	2.746333	0.826928
NESB-BWBK-SB-NE07-0107	11.459668	0.876754	-0.33706	0.051811	-0.31796	0.151784	-1.11384	15.972779	0.774415	-0.30523	0.077708	-0.07984	3.044021	1.444876
NESB-BWBK-SB-NE08-0104	8.1566075	0.220178	-0.54691	-0.23467	-0.28646	0.277311	-0.46482	11.813406	0.231979	-0.5314	-0.17979	-0.1408	3.54372	0.517264
NESB-BWBK-SB-NE09-0110	9.5366509	0.53101	-0.716	-0.08633	-0.18559	0.177648	-0.70553	13.653746	0.481106	-0.6893	-0.05283	-0.05885	2.671431	0.92487
NESB-BWBK-SB-NE10-0107	7.4531177	-0.0867	0.283143	0.22952	-0.0981	0.302031	-0.4628	11.212449	-0.12514	0.287544	0.178973	-0.02367	3.004617	0.963792
NESB-BWBK-SB-NE101-0110	6.2654613	-0.31765	0.58789	2.988355	-0.23617	0.109439	0.268724	13.247241	-0.29245	0.578443	2.650364	-0.12187	1.049502	-0.40769
NESB-BWBK-SB-NE102-0110	4.662401	-0.60587	0.269771	2.854807	-0.09044	-0.00707	0.512169	11.70941	-0.56787	0.260551	2.508656	-0.07363	-0.85467	-0.55249
NESB-BWBK-SB-NE103-0110	3.8757166	-0.66289	-0.28856	2.122434	-0.24169	0.008533	0.665405	10.120271	-0.64692	-0.28378	1.838119	-0.16085	-1.012	-0.66082
NESB-BWBK-SB-NE104-0110	3.2306541	-0.74036	-0.66272	1.634202	-0.26186	0.035303	0.761677	8.9845029	-0.69877	-0.65795	1.406953	-0.20276	-0.9687	-0.78417
NESB-BWBK-SB-NE105-0110	5.9859187	-0.34481	0.488614	3.54744	-0.10171	-0.00981	0.446873	13.733164	-0.34715	0.48212	3.12927	-0.05013	-0.53504	-0.5471
NESB-BWBK-SB-NE106-0110	5.366512	-0.40956	0.046937	2.780755	-0.1658	-0.02699	0.442968	12.382631	-0.39633	0.049951	2.449595	-0.0876	-0.67236	-0.5649
NESB-BWBK-SB-NE107-0510	4.6825841	-0.43432	-0.79398	1.982684	-0.18187	-0.07285	0.468231	10.860237	-0.48613	-0.7661	1.699492	-0.08977	-1.72536	-0.28444
NESB-BWBK-SB-NE108-0110	5.0685138	-0.44565	0.029529	2.288966	-0.37004	-0.04727	0.435884	11.388674	-0.48041	0.053695	1.990438	-0.13341	-0.56157	-0.55036
NESB-BWBK-SB-NE109-0110	4.8819563	-0.49484	-0.0276	2.477247	-0.30109	-0.00264	0.483053	11.487753	-0.49612	-0.01859	2.16487	-0.15294	-0.55253	-0.53909
NESB-BWBK-SB-NE110-0110	5.2214679	-0.44078	-0.13621	2.3285	-0.34242	0.036463	0.294613	11.694119	-0.42477	-0.12817	2.04604	-0.18441	-0.00261	-0.30162
NESS-BKG-SS03-NEB-0016	5.8028152	-0.13628	1.361851	-0.21476	-0.58173	-1.24132	0.208475	14.803177	-0.25454	1.360135	-0.25986	-0.24179	-13.1197	0.002219
NESS-BKG-SS09-NEB-0018	2.8554068	-0.93138	0.484609	-0.62879	-0.57278	-0.01006	0.381847	6.989287	-0.94307	0.475783	-0.65191	-0.34527	-1.83222	0.183794
NESS-BWBK-SS-NE01-0001	9.8793287	0.447411	1.689089	-0.46049	-0.0009	-0.55408	-0.81975	15.914239	0.267219	1.69805	-0.45266	0.161446	-4.86109	1.404349
NESS-BWBK-SS-NE02-0001	12.190393	1.056058	0.815434	-0.74565	0.37228	-0.97406	-1.36522	19.090263	0.721065	0.862329	-0.73571	0.427448	-9.13971	2.483068
NESS-BWBK-SS-NE03-0001	6.3720132	-0.30055	1.13348	-0.8761	-0.73169	0.262523	-0.22208	9.9580731	-0.38432	1.116536	-0.85449	-0.40364	1.574671	1.021877
NESS-BWBK-SS-NE04-0001	7.8352516	-0.07198	1.15733	-0.2292	-0.64387	0.352556	-0.57362	11.605083	-0.07479	1.143736	-0.20511	-0.31497	4.086267	0.903555
NESS-BWBK-SS-NE05-0001	7.1534486	-0.16888	1.151247	-0.69633	-0.4039	0.055689	-0.5096	10.884054	-0.31526	1.161075	-0.70533	-0.12254	0.186935	1.375422
NESS-BWBK-SS-NE06-0001	7.4708889	-0.16486	0.934738	-0.36171	-0.59594	0.52328	-0.57232	10.463266	-0.19556	0.92399	-0.35018	-0.30555	5.235055	1.184504
NESS-BWBK-SS-NE07-0001	6.9176781	-0.06844	1.338311	-0.47472	-0.70439	-0.4447	-0.16914	11.857908	-0.36173	1.392293	-0.56162	-0.13155	-4.31984	0.816078
NESS-BWBK-SS-NE08-0001	6.4968561	-0.29835	1.017209	-0.59368	-0.67501	0.380726	-0.24488	9.7951178	-0.36846	1.004285	-0.59356	-0.36358	3.028024	0.958896
NESS-BWBK-SS-NE09-0001	5.1601135	-0.63924	1.867881	-0.38608	-0.90477	0.260178	0.01692	8.8978595	-0.7241	1.850481	-0.44059	-0.44817	1.689519	0.654085
NESS-BWBK-SS-NE10-0001	6.5569286	-0.08019	0.94388	-0.26817	-0.68862	-0.56057	-0.076	11.93081	-0.37949	1.008423	-0.38159	-0.11859	-5.54221	0.674057
NESS-BWBK-SS-NE101-0001	2.2123514	-1.13285	0.661403	0.011609	-0.80351	0.389008	0.643015	6.1472858	-1.06146	0.622529	-0.06367	-0.56491	1.718847	-0.20074
NESS-BWBK-SS-NE102-0001	1.1118104	-1.19628	-0.06442	-0.43462	-0.58967	0.039989	0.895955	5.500047	-1.16098	-0.08725	-0.48961	-0.45657	-2.47127	-0.36975
NESS-BWBK-SS-NE103-0001	0.7540938	-1.25863	-0.33288	-0.60355	-0.53084	0.100024	0.910095	4.5820195	-1.23161	-0.34751	-0.6498	-0.41932	-1.97164	-0.32067
NESS-BWBK-SS-NE104-0001	1.9716792	-0.92865	-0.23632	-0.47758	-0.72165	-0.26027	0.768975	7.8162339	-0.91825	-0.26161	-0.52216	-0.55266	-5.68754	-0.13632
NESS-BWBK-SS-NE105-0001	0.496023	-1.30002	-0.50894	-0.80108	-0.61534	0.240786	0.967874	3.8509557	-1.2578	-0.52876	-0.82545	-0.50087	-0.84007	-0.33652
NESS-BWBK-SS-NE106-0001	0.8765085	-1.16305	-0.22065	-0.45373	-0.75472	-0.2635	0.931632	6.4814993	-1.14862	-0.24041	-0.51672	-0.55497	-5.82379	-0.33062
NESS-BWBK-SS-NE107-0001	0.3563389	-1.34267	-0.1181	-0.74137	-0.72176	0.112515	1.009024	4.1022764	-1.33242	-0.13434	-0.78874	-0.52007	-2.04328	-0.37308
NESS-BWBK-SS-NE108-0001	1.006556	-1.22367	-0.05147	-0.27468	-0.52746	-0.01894	0.899312	5.4738506	-1.2209	-0.06455	-0.364	-0.39025	-3.05612	-0.3106
NESS-BWBK-SS-NE109-0001	0.3530592	-1.33283	-0.48468	-0.67781	-0.64561	0.220394	0.990188	3.7886387	-1.30695	-0.4997	-0.72569	-0.50161	-1.05887	-0.33131
NESS-BWBK-SS-NE110-0001	-0.076967	-1.33897	-0.22146	-0.64047	-0.68756	-0.19844	1.222569	4.573269	-1.34034	-0.22702	-0.70097	-0.47093	-5.0015	-0.81383

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	COBALT							COPPER						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	-1.832423	-1.61035	-2.35604	-1.45819	-1.29537	-1.24132	-1.43664	1.9201845	-1.54304	-2.33342	-1.24453	-0.61751	-13.1197	-2.2951
MAXIMUM DOMAIN VALUE	20.56242	3.255967	2.774733	4.853863	1.534847	0.801112	1.480924	27.931409	3.038155	2.699101	4.310476	0.844785	11.54397	2.483068
SAMPLE	**CO predict**	D1	D2	D3	D4	D5	D6	**CU predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	8.6852156	0.232562	0.492578	-0.14524	0.313194	0.25375	-0.30553	13.12672	0.560238	0.433279	0.066667	0.066357	4.786011	-0.88223
PMSB-BWBK-SB-PM02-0104	13.108725	1.095867	1.630068	-1.24863	-0.19314	0.790599	-0.70247	15.254033	1.279275	1.574423	-0.90837	-0.10631	11.54397	-0.541
PMSB-BWBK-SB-PM03-0106	14.603609	1.761011	-0.04948	-1.04369	-0.02214	-0.02937	-0.81241	19.601625	1.973432	-0.06641	-0.64656	0.016992	4.639827	-1.11066
PMSB-BWBK-SB-PM04-0105	12.092451	1.029518	0.153273	-0.11349	0.480465	0.075574	-0.7713	16.365452	1.04353	0.160293	0.008553	0.346785	3.317846	0.212387
PMSB-BWBK-SB-PM05-0105	11.418906	0.899406	0.177494	-0.32551	0.425152	0.137936	-0.60824	15.661325	1.039526	0.160667	-0.12787	0.247618	4.169596	-0.3577
PMSB-BWBK-SB-PM06-0105	11.58468	0.963242	0.043639	-0.50939	0.501155	0.267747	-0.49495	15.315371	1.031961	0.0252	-0.33241	0.259328	4.539756	-0.12036
PMSB-BWBK-SB-PM07-0105	7.9308276	0.168389	0.337628	-0.90674	0.198241	0.619023	0.240152	10.406291	0.570124	0.272801	-0.57711	-0.02022	8.916483	-2.09879
PMSB-BWBK-SB-PM08-0106	9.4796616	0.476152	0.180053	-0.48325	0.366928	0.250358	-0.31464	13.432331	0.791842	0.135727	-0.2149	0.131877	5.411727	-1.12999
PMSB-BWBK-SB-PM09-0106	7.7245987	0.187704	-0.60783	-0.70546	0.282647	0.293532	-0.09838	10.936025	0.389072	-0.62545	-0.505	0.084619	4.342845	-0.70837
PMSB-BWBK-SB-PM10-0105	8.4511593	0.10749	1.284086	-0.91961	0.391144	0.52132	-0.12457	10.296921	0.31169	1.250324	-0.68582	0.250246	7.865669	-1.02463
PMSB-BWBK-SB-PM11-0104	10.065131	0.754293	0.17028	-0.72144	0.177385	0.288384	0.164341	13.561841	1.007901	0.140238	-0.43164	0.075307	6.213116	-2.07549
PMSB-BWBK-SB-PM12-0105	5.8014102	-0.47127	-0.02773	-0.48787	0.607648	0.592559	-0.21811	7.5240771	-0.35997	-0.04602	-0.42026	0.277526	5.73008	0.434413
PMSB-BWBK-SB-PM13-0106	6.4402111	-0.34981	1.04728	-0.77571	0.284575	0.801112	0.15223	8.1457522	-0.22887	0.985205	-0.6703	0.027598	7.334255	-0.10141
PMSB-BWBK-SB-PM14-0106	5.254339	-0.48458	0.067964	-0.47732	0.489969	0.424451	0.186262	7.6639251	-0.36558	0.04506	-0.40872	0.203067	3.95068	-0.28295
PMSB-BWBK-SB-PM15-0105	8.58024	0.258305	0.27121	-0.50547	0.24114	0.287946	-0.25358	11.700619	0.280113	0.266659	-0.412	0.155103	3.788354	0.065905
PMSB-BWBK-SB-PM16-0106	6.9819399	-0.0852	0.012137	-0.41283	0.190167	0.35506	-0.09395	9.7504194	-0.095	0.014216	-0.38028	0.111578	3.502813	0.265662
PMSB-BWBK-SB-PM17-0105	10.13711	0.611152	0.395292	-0.13591	0.209244	0.121269	-0.40915	14.458608	0.920138	0.372926	0.118115	0.150197	5.499953	-1.45155
PMSB-BWBK-SB-PM18-0105	14.186217	1.693403	-0.2377	-0.77281	-0.21757	-0.04415	-0.76538	18.647771	1.480063	-0.19303	-0.6412	0.03777	1.865478	0.526464
PMSB-BWBK-SB-PM19-0105	10.580444	0.806579	0.079194	-0.4189	0.024676	-0.0348	-0.4232	14.758444	0.685898	0.109998	-0.35448	0.140411	1.166495	0.256263
PMSB-BWBK-SB-PM20-0106	9.0991666	0.418202	0.072121	-0.38241	0.241402	0.1202	-0.32424	12.851491	0.409735	0.078451	-0.3027	0.178326	2.273124	0.133559
PMSB-BWBK-SB-SO01-0107-PM	13.511285	1.648669	-0.2381	-0.81423	-0.25553	-0.51641	-0.61751	19.691729	1.559854	-0.20331	-0.61116	0.002639	-2.0425	-0.28691
PMSB-BWBK-SB-SO02-0109-PM	13.950043	1.742932	-0.18821	-1.3309	-0.18816	-0.40831	-0.6514	19.899322	1.619981	-0.17694	-1.0964	-0.05028	-2.21368	0.2326
PMSB-BWBK-SB-SO13-0104-PM	14.141515	1.873537	-0.2275	-0.94869	-0.65707	-0.36745	-0.35381	19.329397	1.846517	-0.16803	-0.65796	-0.10707	1.81983	-1.70336
PMSB-BWBK-SB-SO14-0105-PM	15.971076	2.259088	-0.3603	-0.79371	-0.24167	-0.63877	-0.77392	22.801957	2.183991	-0.32	-0.52656	0.042858	-1.90244	-0.67482
SESB-BWBK-SB-SO03-0108	20.56242	3.255967	0.032395	-0.68885	-0.35862	-0.82996	-1.36192	27.931409	3.038155	0.111588	-0.40182	0.164196	-1.55701	-0.3966
SESB-BWBK-SB-SO04-0108	15.215082	2.071767	-0.23903	-0.67524	-0.10398	-0.6366	-0.65021	21.680127	1.996054	-0.19122	-0.43285	0.154411	-1.74725	-0.88133
SESB-BWBK-SB-SO05-0106	14.210412	1.648519	0.324018	-0.64777	0.039101	-0.30654	-0.81151	19.48158	1.479904	0.359637	-0.50421	0.205411	-0.20119	0.323534
SESB-BWBK-SB-SO06-0108	18.786882	2.820481	0.152848	-1.31841	-0.08507	-0.62676	-1.16048	25.477798	2.743306	0.180191	-0.94404	0.143872	-0.83421	-0.45716
SESB-BWBK-SB-SO07-0106	14.513828	1.886344	-0.1518	-0.99128	0.24524	-0.62637	-0.60618	20.501251	1.987169	-0.12353	-0.6327	0.314332	-0.65279	-1.57765
SESB-BWBK-SB-SO08-0107	18.751298	2.773732	0.340949	-0.63686	0.138046	-0.72788	-1.12089	25.670815	2.645664	0.389329	-0.35821	0.355836	-1.39724	-0.56925
SESB-BWBK-SB-SO09-0106	13.082237	1.361954	0.176992	-0.35509	0.140654	-0.28418	-0.80593	18.599712	1.299873	0.198194	-0.21447	0.20691	-0.02903	0.206272
SESB-BWBK-SB-SO11-0106	15.858632	2.015046	0.098908	-0.39301	0.471578	-0.33789	-0.96648	21.80248	2.016274	0.11001	-0.15574	0.380927	0.818892	-0.28523
SESB-BWBK-SB-SO12-0106	15.878933	2.26549	-0.35077	-1.13262	-0.0617	-0.71719	-0.71688	22.016046	2.109598	-0.28693	-0.86412	0.21969	-2.5727	-0.66307
SESB-BWBK-SB-SO15-0103	8.1149063	0.193205	0.41727	-0.62198	0.091371	0.15348	-0.13216	12.093686	0.29026	0.390746	-0.48602	0.012271	2.326426	-0.25672
SESB-BWBK-SB-SO16-0105	10.352653	0.84558	-0.2525	-0.76374	0.233308	-0.04397	-0.19449	14.813134	0.901002	-0.25648	-0.57369	0.131514	1.300905	-0.58755
SESB-BWBK-SB-SO17-0106	8.0687997	0.189467	-0.0748	-0.14004	0.395207	0.14689	-0.17119	11.941652	0.305557	-0.08329	-0.04156	0.213298	2.79561	-0.39896
SESB-BWBK-SB-SO18-0105	6.5000427	-0.20545	-0.14057	-0.06819	0.399568	0.2311	-0.14008	10.174039	0.023736	-0.16307	0.046828	0.166829	3.595196	-0.53876
SESB-BWBK-SB-SO19-0104	7.9139431	0.08142	0.155	0.06499	0.721258	0.022851	-0.3172	12.855984	0.672041	0.090788	0.394708	0.297294	4.728069	-2.09722
SESB-BWBK-SB-SO20-0104	13.186972	1.608811	-0.43957	-0.99983	0.048621	-0.44112	-0.4378	18.308031	1.505227	-0.38956	-0.78324	0.210689	-1.02299	-0.64449

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

IRON

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111

19133.0460	**Mean**
8451.5786	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0583	0.2475	0.0061	-0.1316	0.0051	-0.5134
AS	-0.0672	0.0046	0.0309	0.0520	-0.0141	-0.4228
BA	-0.1346	0.1746	0.1482	0.0701	-0.0314	1.0385
BE	-0.0128	0.1079	-0.0106	-0.0069	0.2138	-0.7732
CA	-0.0219	0.0073	-0.0466	0.0761	0.0616	0.4145
CR	-0.1284	0.2537	-0.0948	0.0369	0.3698	-2.3738
CO	0.3994	-0.0268	0.0883	-0.0425	0.2314	6.1450
CU	0.1904	-0.0473	0.0287	-0.1246	-0.1224	-0.3339
FE	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
PB	0.0369	0.0312	0.0106	-0.0223	-0.2263	0.2977
MG	0.1445	-0.0846	0.3828	0.1141	0.0426	-4.8816
MN	-0.0081	0.0078	-0.0039	0.0252	0.0243	0.1380
NI	0.2499	-0.0543	-0.0313	-0.0504	0.0643	0.6182
K	-0.0160	0.0739	0.3872	-0.0241	-0.0683	1.7254
V	-0.1616	0.3383	0.0461	0.0703	-0.1073	1.2068
ZN	0.4780	-0.0653	-0.0739	0.2198	-0.7287	-2.6924

LEAD

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120

10.2776	**Mean**
5.8329	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0335	0.2942	0.0093	-0.4018	-0.0222	0.1231
AS	-0.0386	0.0055	0.0477	0.1589	0.0609	0.1014
BA	-0.0774	0.2076	0.2283	0.2141	0.1359	-0.2490
BE	-0.0074	0.1283	-0.0164	-0.0210	-0.9251	0.1854
CA	-0.0126	0.0086	-0.0717	0.2323	-0.2664	-0.0994
CR	-0.0738	0.3016	-0.1460	0.1127	-1.5999	0.5692
CO	0.2296	-0.0318	0.1360	-0.1299	-1.0010	-1.4735
CU	0.1094	-0.0563	0.0442	-0.3806	0.5295	0.0801
FE	0.3996	-0.1459	-0.4525	-0.6063	-0.5412	-0.5763
PB	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MG	0.0831	-0.1006	0.5895	0.3484	-0.1843	1.1706
MN	-0.0047	0.0092	-0.0060	0.0769	-0.1053	-0.0331
NI	0.1437	-0.0645	-0.0482	-0.1540	-0.2783	-0.1482
K	-0.0092	0.0878	0.5964	-0.0737	0.2954	-0.4137
V	-0.0929	0.4022	0.0709	0.2146	0.4640	-0.2894
ZN	0.2748	-0.0777	-0.1138	0.6713	3.1526	0.6456

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	IRON							LEAD						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	3349.12239	-1.73036	-2.2597	-1.19444	-0.49366	-1.76752	-15.5979	-13.68274	-1.56519	-2.43534	-1.20245	-1.66802	-6.30328	-3.05689
MAXIMUM DOMAIN VALUE	46987.5591	3.532789	2.520985	2.600185	0.835643	1.174271	12.70468	37.669151	3.050542	2.816358	4.169306	2.02474	4.953662	3.580061
SAMPLE	**FE predict**	D1	D2	D3	D4	D5	D6	**PB predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	11107.8929	-0.49676	-2.05234	-0.47851	-0.06613	-0.01381	-1.71073	-3.600473	-0.73205	-2.2212	-0.18112	0.430486	1.921787	1.003206
BASS-BWBK-SS-BA102-0001	9321.18106	-0.65694	-2.2597	-0.75924	-0.19667	0.013638	1.607163	-3.879963	-0.90447	-2.43534	-0.51977	0.151242	1.980968	0.320654
BASS-BWBK-SS-BA103-0001	9430.3376	-0.66898	-2.11225	-0.6208	-0.08455	0.071055	1.993983	-2.729881	-0.89379	-2.26723	-0.32716	0.467563	1.691452	0.20321
BASS-BWBK-SS-BA104-0001	11108.8294	-0.52286	-1.84275	-0.22504	-0.08079	0.022758	-0.85638	-2.533529	-0.76411	-1.96885	0.225818	0.414069	1.71759	0.825734
BASS-BWBK-SS-BA105-0001	9891.33055	-0.65311	-2.08855	-1.05748	0.408935	0.409815	3.97524	2.8640371	-0.85554	-2.25506	-1.03757	1.934814	0.065495	-0.309
BASS-BWBK-SS-BA106-0001	12284.4495	-0.41232	-1.86014	-0.42216	-0.04791	0.068749	-2.69975	-1.420667	-0.69374	-1.99509	-0.08828	0.506595	1.440273	1.260728
BASS-BWBK-SS-BA107-0001	9053.98047	-0.70022	-2.17435	-0.68172	-0.17345	-0.01976	2.100468	-4.003797	-0.93092	-2.3356	-0.40068	0.226374	2.075723	0.206716
BASS-BWBK-SS-BA108-0001	9517.5783	-0.65514	-2.18586	-0.73054	-0.12828	0.099673	1.530082	-2.355918	-0.91529	-2.34629	-0.46491	0.380575	1.555706	0.359034
BASS-BWBK-SS-BA109-0001	11962.4753	-0.39678	-2.1067	-0.47778	-0.13362	0.187818	-2.96387	-1.400831	-0.73353	-2.262	-0.11117	0.311961	1.181182	1.386626
BASS-BWBK-SS-BA110-0001	10703.095	-0.59366	-1.65175	0.090088	-0.09387	0.100088	-0.22239	-1.165677	-0.7504	-1.75856	0.652344	0.289091	1.378464	0.592442
BASS-BWBK-SS-BA111-0001	9820.82621	-0.65224	-2.09096	-0.63449	-0.1125	0.118864	0.072015	-1.772627	-0.8726	-2.24767	-0.36273	0.365897	1.434398	0.648809
BASS-BWBK-SS-BA112-0001	9051.36844	-0.74639	-2.1112	-0.76379	0.162047	0.307797	1.717868	0.6067801	-0.92789	-2.26977	-0.55919	1.204899	0.653161	0.254421
BASS-BWBK-SS-BA113-0001	14963.1037	0.044799	-2.18502	-0.90235	0.180318	-0.76364	-0.41532	-13.68274	-0.48737	-2.36808	-0.77056	1.295086	4.953662	0.800927
MASB-BWBK-SB-MA01-0105	30966.5311	1.551103	-0.06566	0.173361	0.407488	-0.09299	-0.69402	8.6929966	1.267937	-0.20634	-0.15086	0.666349	0.096204	-0.38439
MASB-BWBK-SB-MA02-0107	32189.4221	1.669606	-0.00221	0.41831	0.424511	-0.19165	-4.90439	7.0768388	1.433171	-0.16096	0.121294	0.566673	0.51248	0.480299
MASB-BWBK-SB-MA03-0108	38800.5465	2.830333	-0.51183	0.183436	0.413049	-0.48898	9.76118	1.3066422	2.114632	-0.77206	-0.25652	0.510145	1.779587	-3.05689
MASB-BWBK-SB-MA04-0106	34287.2297	1.865759	0.152823	0.709324	0.68592	-0.36306	-10.5813	3.5991355	1.491745	0.048525	0.635719	1.442922	1.44839	1.914845
MASB-BWBK-SB-MA05-0108	29000.7336	1.22247	0.032296	0.363258	0.522343	-0.18276	-6.84768	6.7999745	1.092108	-0.08697	0.133707	0.991074	0.639651	1.06535
MASB-BWBK-SB-MA06-0105	30082.7548	1.385009	-0.00285	0.291704	0.348076	-0.28129	-5.37861	5.3624287	1.118991	-0.10523	0.09817	0.560459	1.138777	0.809757
MASB-BWBK-SB-MA07-0108	25900.064	0.951966	-0.47407	0.009994	0.357826	-0.45044	-6.57584	2.0278653	0.97479	-0.70218	-0.45294	0.430072	1.763258	0.944393
MASB-BWBK-SB-MA08-0108	36782.7173	1.915573	0.855023	0.448603	0.835643	-0.68909	-15.0345	10.176146	2.63402	0.442312	-1.05796	0.2383	0.573191	1.408178
MASB-BWBK-SB-MA09-0108	32392.8039	1.770286	-0.27575	0.088297	0.403992	-0.98844	-5.72386	-2.120432	1.767093	-0.6031	-0.71409	0.098152	3.222926	0.293399
MASB-BWBK-SB-MA10-0104	24164.4058	0.79016	-0.70943	-0.5136	0.150121	-0.33894	-2.08492	4.1407801	0.827215	-0.96748	-1.20245	-0.11717	1.233805	-0.04894
MASB-BWBK-SB-MA11-0108	33715.3277	1.753485	0.279216	0.193734	0.433495	-0.65033	-7.23668	5.6213756	1.62868	0.081422	-0.42596	0.40153	1.433481	0.862121
MASB-BWBK-SB-MA12-0108	33638.1563	1.930906	-0.13635	0.527686	0.575405	-0.48061	-4.09307	3.2775247	1.799423	-0.40238	0.042368	0.702195	1.400888	-0.023
MASB-BWBK-SB-MA13-0105	15815.4589	-0.6471	0.551748	-0.31174	0.180271	0.815097	0.953788	21.767128	-0.51548	0.738194	-0.29087	0.744292	-2.66204	-0.04891
MASB-BWBK-SB-MA14-0104	23371.478	0.215597	1.095484	0.023865	0.222115	0.347375	0.61213	22.145025	0.702398	1.093087	-0.61666	-0.20073	-2.2469	-0.98258
MASB-BWBK-SB-MA15-0105	19027.8309	-0.43942	1.334872	-0.04704	0.123583	0.783571	0.679555	27.14747	0.003611	1.508785	-0.3489	-0.02355	-3.39524	-0.54628
MASB-BWBK-SB-MA16-0104	20348.1499	0.085299	0.202025	-0.25721	0.194121	0.306043	2.518306	15.486227	0.156505	0.211565	-0.50831	0.421282	-1.23154	-0.76849
MASB-BWBK-SB-MA17-0104	17840.6228	-0.32424	0.450726	-0.42962	0.177515	0.236921	2.454362	15.369911	-0.09893	0.522251	-0.7443	0.394737	-0.73264	-0.7313
MASB-BWBK-SB-MA18-0104	16903.9867	-0.71172	1.09705	-0.18152	0.332	0.858684	-3.79237	24.785204	-0.48862	1.358554	-0.16692	1.114268	-3.04096	1.001081
MASB-BWBK-SB-MA19-0103	14763.2686	-0.65136	0.192417	-0.41465	0.223501	0.462865	2.484963	15.516474	-0.55249	0.320503	-0.41301	0.931214	-1.16051	-0.36345
MASB-BWBK-SB-MA20-0103	28675.2374	1.260996	-0.16199	-0.08316	0.225382	-0.1138	-0.50459	7.7297433	0.991326	-0.27309	-0.41468	0.27066	0.507763	-0.27841
MASS-BWBK-SS-MA01-0001	6504.28284	-1.51073	-0.37255	-0.76232	-0.11999	-0.11252	6.058698	6.6488199	-1.43979	-0.23843	-0.53085	0.503611	1.170259	-0.62531
MASS-BWBK-SS-MA02-0001	9770.65532	-1.41467	0.705199	-0.35316	0.063231	0.098003	2.685008	13.425457	-1.32242	1.018737	0.027572	0.970093	0.140731	0.095451
MASS-BWBK-SS-MA03-0001	9809.99984	-1.23155	-0.00709	-0.5305	0.071641	0.097291	1.690622	11.601216	-1.05806	0.112255	-0.42708	0.755643	-0.10618	0.105885
MASS-BWBK-SS-MA04-0001	12801.3033	-0.84934	-0.00895	-0.43516	0.181478	-0.02983	0.161813	9.5929256	-0.83506	0.105772	-0.28671	1.088597	0.370245	0.470564
MASS-BWBK-SS-MA05-0001	19453.4832	-0.19628	0.617744	-0.15966	0.288865	-0.2616	-4.52626	10.372093	-0.19195	0.739334	-0.17792	1.021545	0.699417	1.221302
MASS-BWBK-SS-MA06-0001	13841.5968	-1.17277	1.604809	0.303472	0.673105	0.157746	-4.51176	20.859798	-0.63293	1.853586	0.385256	2.02474	-1.62337	1.058206
MASS-BWBK-SS-MA07-0001	3349.12239	-1.62604	-1.32802	-1.19444	-0.40203	-0.26203	10.13571	2.2675767	-1.56519	-1.36286	-1.13848	-0.26004	1.672499	-1.50863
MASS-BWBK-SS-MA08-0001	13800.2831	-0.77286	0.610546	-0.41181	0.106526	-1.35156	5.403839	5.4163594	-0.53	0.599359	-0.6792	0.582177	2.417397	-1.02875
MASS-BWBK-SS-MA09-0001	22575.5403	-0.22126	2.520985	0.199538	0.460692	-1.48785	-1.75157	11.832673	-0.13543	2.816358	0.151179	1.567296	2.314686	0.599145
MASS-BWBK-SS-MA10-0001	20397.6735	-0.30319	1.715361	-0.11145	0.466218	-1.16277	-0.93296	11.28039	-0.12687	1.875879	-0.35692	1.469449	1.679552	0.288327
MASS-BWBK-SS-MA11-0001	17217.7213	-0.79487	2.096433	0.214851	0.510779	-0.62745	0.619895	16.577565	-0.1422	2.296747	-0.09827	1.147396	0.470192	-0.52899
MASS-BWBK-SS-MA12-0001	14996.857	-0.5861	-0.05382	-0.49074	0.170646	-0.47314	-3.75655	4.1444652	-0.54371	-0.00252	-0.53432	0.846153	2.012067	1.211735
MASS-BWBK-SS-MA13-0001	9493.32783	-1.66001	1.525722	-0.14188	0.226978	-0.12479	2.358863	16.441078	-1.14981	1.855205	-0.02429	1.014071	0.126921	-0.25628
MASS-BWBK-SS-MA14-0001	8038.49613	-1.57903	0.838271	-0.50487	0.019795	-0.89852	7.981025	6.9601303	-1.41234	1.083001	-0.29426	0.904673	2.372425	-1.09719
MASS-BWBK-SS-MA15-0001	7502.17376	-1.73036	0.953338	-0.4432	-0.01081	-0.44113	5.250385	11.370089	-1.43066	1.233966	-0.24175	0.6755	1.181811	-0.57709
MASS-BWBK-SS-MA16-0001	10910.2711	-1.27239	0.661593	-0.5786	0.050275	-0.30291	1.664956	11.972923	-0.94625	0.824067	-0.68479	0.512312	0.681751	-0.0523
MASS-BWBK-SS-MA17-0001	12290.2849	-1.10637	0.766667	-0.57384	0.028917	-0.25164	3.532694	12.868624	-0.85372	0.953902	-0.6707	0.448407	0.550273	-0.49947
MASS-BWBK-SS-MA18-0001	9176.12947	-1.48871	0.78862	-0.73102	0.059926	-0.67513	5.051649	8.8105843	-1.17645	0.989889	-0.82114	0.721533	1.899773	-0.6901
MASS-BWBK-SS-MA19-0001	11748.3418	-1.23199	1.031392	-0.54127	0.132317	-0.33449	4.62575	14.186855	-0.92194	1.245656	-0.64443	0.775436	0.419519	-0.74777
MASS-BWBK-SS-MA20-0001	15892.9153	-0.57671	0.522948	-0.41317	0.160565	-0.41613	1.119918	9.886448	-0.43394	0.615897	-0.55931	0.680484	0.967523	-0.08157
MMSB-BWBK-SB-MM101-0110	18551.2567	0.234426	-0.83671	0.443147	-0.16848	-0.01669	1.421271	5.4716166	0.023285	-0.95659	0.806541	-0.34339	0.167484	-0.17779
MMSB-BWBK-SB-MM102-0109	21372.4509	0.474004	-0.52267	0.901545	-0.10859	0.358082	-3.5871	9.087176	0.125013	-0.54624	1.574778	-0.12504	-0.86951	1.053436
MMSB-BWBK-SB-MM103-0107	21018.5432	0.574573	-0.75004	0.581676	-0.22116	0.494514	6.493231	11.136659	0.137728	-0.80549	1.128338	-0.39608	-1.51962	-1.29385
MMSB-BWBK-SB-MM104-0110	29758.3447	1.566513	-0.18847	2.314963	-0.42733	-0.59074	-10.0751	-2.762145	1.134953	-0.30058	3.308263	-1.66802	2.441706	2.069692
MMSB-BWBK-SB-MM105-0110	15686.6854	-0.22529	-0.92931	-0.29768	-0.29852	0.714321	1.032054	14.445554	-0.45739	-0.9654	-0.0694	-0.43013	-2.20094	0.207333
MMSB-BWBK-SB-MM106-0110	24770.4547	0.672584	0.553045	2.059214	0.274535	-0.01082	-8.98536	7.2667257	0.51049	0.627552	3.045082	0.638331	0.220788	1.962236
MMSB-BWBK-SB-MM107-0110	17207.0077	-0.1699	-0.25874	0.579412	-0.09525	0.777564	-1.79937	16.252519	-0.29461	-0.209	1.139473	-0.01357	-2.49637	0.691182
MMSB-BWBK-SB-MM108-0110	17392.5277	0.008972	-0.54414	0.75275	-0.12034	0.135866	-0.00016	6.0988641	-0.15287	-0.56522	1.359965	-0.14707	0.166604	0.206067
MMSB-BWBK-SB-MM109-0110	18456.7852	-0.08698	0.468219	1.257723	-0.12096	0.317379	1.662551	13.459881	-0.10838	0.587825	2.012099	-0.28875	-1.07326	-0.32342
MMSB-BWBK-SB-MM110-0109	17478.0532	-0.15788	-0.07726	0.69064	-0.11947	0.354574	-1.97254	12.023643	-0.18806	-0.03883	1.18965	-0.23132	-1.0087	0.59739
MMSB-BWBK-SB-MM111-0110	18438.9762	0.095828	-0.06811	1.545657	-0.04915	-0.02942	-0.02593	6.1309186	0.061448	-0.07656	2.379507	-0.16519	0.270313	-0.00909
MMSB-BWBK-SB-MM112-0110	17224.4602	-0.18096	0.18986	1.262008	0.090945	0.222422	-0.37008	9.7191072	-0.07039	0.242892	1.932141	0.203054	-0.34649	0.013469
MMSB-BWBK-SB-MM113-0110	20198.5479	0.090227	-0.0449	0.692639	-0.02513	0.883399	-7.42525	18.396865	-0.07815	0.022364	1.239475	0.097819	-3.01031	1.942336
MMSB-BWBK-SB-MM114-0110	14394.8882	-0.28505	-0.83072	0.406844	-0.17265	0.220715	3.917579	5.956696	-0.45429	-0.85263	0.981593	-0.10997	0.091118	-0.54702

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	IRON							LEAD						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	3349.12239	-1.73036	-2.2597	-1.19444	-0.49366	-1.76752	-15.5979	-13.68274	-1.56519	-2.43534	-1.20245	-1.66802	-6.30328	-3.05689
MAXIMUM DOMAIN VALUE	46987.5591	3.532789	2.520985	2.600185	0.835643	1.174271	12.70468	37.669151	3.050542	2.816358	4.169306	2.02474	4.953662	3.580061
SAMPLE	**FE predict**	D1	D2	D3	D4	D5	D6	**PB predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	13712.5703	-0.45427	0.376205	2.600185	0.161432	-0.35443	4.635589	-1.361323	-0.37844	0.525307	4.169306	0.642698	2.483124	-0.97445
MMSB-BWBK-SB-MM116-0110	18807.3382	0.228241	-0.6154	0.920145	-0.05209	0.039045	-0.47385	4.4142944	-0.02755	-0.65621	1.612734	0.067728	0.439604	0.326649
MMSB-BWBK-SB-MM117-0110	16450.2583	0.142195	-1.29091	0.371506	-0.29096	-0.10379	5.404351	-0.080061	-0.17157	-1.41485	0.883777	-0.52636	1.410221	-0.95564
MMSB-BWBK-SB-MM118-0110	24309.0785	1.056697	-0.96346	0.789802	-0.27137	-0.03312	2.36379	2.8313567	0.411251	-1.0656	1.446098	-0.53773	0.595201	-0.29139
MMSB-BWBK-SB-MM119-0110	17384.8987	0.086519	-0.7044	1.076239	-0.00034	-0.00091	-0.85825	2.5944525	-0.09556	-0.75849	1.845521	0.198561	0.784305	0.391727
MMSB-BWBK-SB-MM120-0110	12201.9462	-0.37827	-1.51067	0.033879	-0.35073	0.118483	5.911255	1.5717529	-0.6028	-1.61718	0.522932	-0.51725	0.869288	-0.89659
MMSS-BWBK-SS-MM101-0001	13270.8737	-1.12868	1.126723	-0.16709	-0.25598	0.064441	-2.1481	18.438064	-0.72543	1.338942	-0.19639	-0.64259	-0.81824	0.651556
MMSS-BWBK-SS-MM102-0001	10362.2139	-1.20066	0.033132	-0.59504	-0.34375	0.368887	1.268337	15.046116	-0.91919	0.142017	-0.6401	-0.71775	-0.85776	0.008711
MMSS-BWBK-SS-MM103-0001	12253.2648	-1.21751	0.965651	-0.36564	-0.31058	0.076433	-0.79256	18.969038	-0.79977	1.146704	-0.48414	-0.76661	-1.04593	0.368465
MMSS-BWBK-SS-MM104-0001	14525.6876	-0.89126	0.932059	0.00724	-0.25382	0.072351	-2.00791	18.008399	-0.58385	1.096409	0.058044	-0.6363	-1.06669	0.618988
MMSS-BWBK-SS-MM105-0001	9215.97424	-1.25101	-0.15229	-0.76371	-0.42144	0.04263	4.967675	11.41875	-1.05943	-0.0632	-0.7967	-0.76577	0.134271	-0.6948
MMSS-BWBK-SS-MM106-0001	13890.3805	-1.03713	1.135657	0.12899	-0.2071	0.484282	-1.81793	22.170394	-0.65715	1.366926	0.262664	-0.53559	-2.13743	0.528847
MMSS-BWBK-SS-MM107-0001	14016.9556	-0.99564	0.990793	0.07303	-0.21944	0.222558	-3.83108	17.942891	-0.63803	1.196415	0.181828	-0.56609	-0.99874	1.01841
MMSS-BWBK-SS-MM108-0001	10542.7161	-1.51532	1.230573	-0.43878	-0.40306	0.302295	0.734203	21.687635	-1.05535	1.514013	-0.48189	-0.93834	-1.42502	0.104453
MMSS-BWBK-SS-MM109-0001	10704.1422	-1.38071	0.708927	-0.49484	-0.37915	0.506584	-1.18746	20.630404	-0.96087	0.913709	-0.56408	-0.91227	-1.74453	0.516828
MMSS-BWBK-SS-MM110-0001	5969.7909	-1.57616	-0.43853	-1.01488	-0.47139	-0.097	7.181873	8.8383888	-1.3495	-0.37202	-1.07228	-0.75686	0.739813	-1.07141
MMSS-BWBK-SS-MM111-0001	7209.84741	-1.45318	-0.40191	-0.90789	-0.49366	0.086593	4.915565	10.617213	-1.24839	-0.32728	-0.93087	-0.8809	0.180808	-0.583
MMSS-BWBK-SS-MM112-0001	6966.26479	-1.37959	-0.72253	-1.01857	-0.4879	-0.18428	5.677665	6.0961473	-1.2717	-0.6953	-1.03673	-0.75511	1.199644	-0.66134
MMSS-BWBK-SS-MM113-0001	9597.47532	-1.4213	0.71111	-0.41396	-0.36521	-0.37414	2.943942	12.73106	-1.0846	0.880658	-0.39085	-0.65927	0.577562	-0.26336
MMSS-BWBK-SS-MM114-0001	6654.43851	-1.36342	-0.97572	-1.13162	-0.48356	0.10209	6.348305	6.7261568	-1.28763	-0.95251	-1.15114	-0.73139	0.772406	-0.81722
MMSS-BWBK-SS-MM115-0001	7457.43097	-1.4275	-0.41691	-0.98293	-0.43008	0.094212	4.708942	10.019385	-1.19943	-0.34529	-1.07409	-0.74849	0.377985	-0.59394
MMSS-BWBK-SS-MM116-0001	6964.09551	-1.44313	-0.52503	-0.97568	-0.42365	0.025759	5.681196	9.2442516	-1.25207	-0.47021	-1.02457	-0.65274	0.456797	-0.75296
MMSS-BWBK-SS-MM117-0001	11172.5746	-1.15411	0.369497	-0.38314	-0.34279	-0.04055	1.155572	13.252112	-0.86916	0.492685	-0.37674	-0.71737	-0.03365	0.039252
MMSS-BWBK-SS-MM118-0001	12768.8624	-0.62576	-0.61171	0.130934	-0.2793	0.342314	1.20486	9.1915945	-0.62978	-0.5966	0.536338	-0.46907	-0.39342	0.07131
MMSS-BWBK-SS-MM119-0001	11747.7246	-0.68189	-0.89712	-0.19486	-0.31272	0.34171	3.349451	7.9007415	-0.73952	-0.9015	0.127793	-0.45856	-0.14767	-0.33683
MMSS-BWBK-SS-MM120-0001	13747.4024	-0.74821	-0.22589	-0.75669	-0.27592	0.716372	-0.63834	19.346935	-0.49069	-0.22126	-1.07423	-0.77106	-2.45089	0.217486
NESB-BWBK-SB-NE01-0108	28331.9372	1.156647	-0.28671	0.379846	0.001917	0.308594	-10.8414	11.808035	0.891332	-0.40139	0.348591	-0.35544	-1.14448	2.253092
NESB-BWBK-SB-NE02-0109	25015.1053	0.796604	-0.2365	0.455869	0.147525	0.125742	-5.73177	8.956881	0.613066	-0.31644	0.545709	0.198032	-0.27415	1.131338
NESB-BWBK-SB-NE03-0105	22939.9106	0.553853	-0.45182	0.114409	-0.16354	0.325753	-5.07475	11.738993	0.480425	-0.57036	0.016112	-0.76618	-1.04514	0.959627
NESB-BWBK-SB-NE04-0110	23766.2293	0.689179	-0.53399	0.198819	-0.08165	0.243336	-5.74872	9.5813457	0.448019	-0.63091	0.268137	-0.34639	-0.60846	1.28296
NESB-BWBK-SB-NE05-0108	26772.6853	1.005262	-0.41891	0.169857	-0.0337	0.204305	-8.60341	10.025645	0.767207	-0.54349	0.068553	-0.40917	-0.60851	1.768544
NESB-BWBK-SB-NE06-0109	24893.0787	0.840175	-0.59039	0.088416	-0.08805	0.271411	-5.46617	10.041522	0.587924	-0.71504	0.040041	-0.44837	-0.74999	1.136532
NESB-BWBK-SB-NE07-0107	27390.6545	1.026249	-0.25845	0.207663	-0.05508	0.256468	-9.63825	11.727735	0.786545	-0.35999	0.114396	-0.48178	-0.94769	2.0104
NESB-BWBK-SB-NE08-0104	22273.1044	0.480897	-0.51371	-0.13929	-0.14959	0.458605	-2.76538	12.706422	0.246088	-0.57064	-0.15401	-0.43412	-1.29022	0.68051
NESB-BWBK-SB-NE09-0110	23871.7418	0.710437	-0.63297	0.024709	-0.05526	0.29045	-5.80105	9.8294102	0.486792	-0.75213	-0.02456	-0.31102	-0.71002	1.251625
NESB-BWBK-SB-NE10-0107	19544.4975	-0.09363	0.245231	0.083913	-0.05576	0.396542	-5.29397	15.057564	-0.08783	0.325343	0.186965	-0.13585	-1.18957	1.299094
NESB-BWBK-SB-NE101-0110	16237.8274	-0.32434	0.509233	1.613385	-0.12864	0.157104	2.754648	9.8740244	-0.24847	0.65022	2.575074	-0.31656	-0.0985	-0.59124
NESB-BWBK-SB-NE102-0110	13691.3557	-0.5464	0.18296	1.405023	-0.13408	-0.0141	4.587046	5.4180973	-0.52451	0.322611	2.427708	-0.11296	0.981341	-0.82224
NESB-BWBK-SB-NE103-0110	12580.2837	-0.57527	-0.33493	0.936674	-0.21942	-0.0081	5.597396	3.6901731	-0.59985	-0.26593	1.778048	-0.28913	1.16453	-0.98506
NESB-BWBK-SB-NE104-0110	11869.0399	-0.58536	-0.68997	0.615154	-0.25665	0.039878	6.735484	3.0884159	-0.66584	-0.66339	1.353415	-0.31365	1.098942	-1.17361
NESB-BWBK-SB-NE105-0110	15037.173	-0.40028	0.419754	1.901656	-0.07443	-0.03945	3.663667	5.8940531	-0.30522	0.550919	3.035972	-0.13301	0.82138	-0.79244
NESB-BWBK-SB-NE106-0110	15160.0164	-0.30464	-0.00927	1.401554	-0.15067	-0.02661	4.362631	4.5449161	-0.34734	0.080884	2.379815	-0.22219	1.001039	-0.8242
NESB-BWBK-SB-NE107-0510	13729.547	-0.32569	-0.7821	0.872779	-0.18201	-0.1352	3.233879	0.0430517	-0.43218	-0.80527	1.653286	-0.21249	1.707546	-0.45423
NESB-BWBK-SB-NE108-0110	14918.935	-0.36192	-0.02434	1.124246	-0.2323	-0.05978	4.148835	4.5277227	-0.37918	0.064878	1.953542	-0.47502	1.194867	-0.7766
NESB-BWBK-SB-NE109-0110	14191.6556	-0.43039	-0.07831	1.213103	-0.20852	-0.01008	4.289852	4.8409426	-0.43345	0.004612	2.105902	-0.37852	0.965504	-0.78752
NESB-BWBK-SB-NE110-0110	15093.0065	-0.31333	-0.18009	1.134506	-0.23151	0.066395	2.964849	5.6302898	-0.37107	-0.11498	1.990059	-0.44097	0.632673	-0.46236
NESS-BKG-SS03-NEB-0016	19743.0129	-0.2106	1.216004	-0.20249	-0.25332	-1.76752	0.271263	8.6019831	-0.31154	1.255946	-0.32948	-0.27629	2.078161	0.445392
NESS-BKG-SS09-NEB-0018	11772.9812	-1.10658	0.378694	-0.6099	-0.32602	-0.11449	0.62584	13.446142	-0.91094	0.512694	-0.66227	-0.54832	0.01696	0.280621
NESS-BWBK-SS-NE01-0001	25584.9846	0.278389	1.577891	-0.12326	0.09043	-0.81745	-9.44588	11.157741	0.308586	1.749352	-0.42322	0.109016	1.707313	2.116733
NESS-BWBK-SS-NE02-0001	30498.8035	1.076124	0.788049	-0.30695	0.236884	-1.41458	-15.5979	-2.434893	0.759918	0.83753	-0.67578	0.547549	4.853395	3.580061
NESS-BWBK-SS-NE03-0001	17323.7756	-0.67679	1.044835	-0.52146	-0.25818	0.218796	-5.95875	20.368762	-0.36962	1.219607	-0.83917	-0.80551	-1.32233	1.414976
NESS-BWBK-SS-NE04-0001	20825.7685	-0.1958	1.064401	-0.06213	-0.22525	0.480728	-5.74612	22.978135	-0.03856	1.228341	-0.18863	-0.79202	-2.40845	1.280417
NESS-BWBK-SS-NE05-0001	19773.914	-0.36487	1.041791	-0.4489	-0.15633	-0.02212	-7.86728	18.988815	-0.26088	1.202524	-0.68278	-0.35586	-1.06566	2.010053
NESS-BWBK-SS-NE06-0001	19966.5004	-0.28098	0.845966	-0.21777	-0.23501	0.681535	-6.80742	23.862313	-0.16135	1.009423	-0.33231	-0.72095	-2.86621	1.628795
NESS-BWBK-SS-NE07-0001	19916.8127	-0.31723	1.221503	-0.31214	-0.25986	-0.73908	-5.13556	13.264752	-0.22987	1.362574	-0.52328	-0.63554	0.856272	1.397315
NESS-BWBK-SS-NE08-0001	17722.8857	-0.57947	0.927452	-0.37958	-0.25562	0.412712	-5.4255	21.618816	-0.34313	1.098488	-0.58036	-0.75916	-1.94859	1.322595
NESS-BWBK-SS-NE09-0001	15924.3211	-0.99112	1.679314	-0.3228	-0.37223	0.229181	-3.37987	25.249316	-0.66345	1.97604	-0.44038	-0.95067	-2.09523	0.99536
NESS-BWBK-SS-NE10-0001	19790.2761	-0.19405	0.84063	-0.26113	-0.29479	-0.87679	-3.81642	10.34049	-0.2518	0.927436	-0.35422	-0.5885	1.214821	1.229426
NESS-BWBK-SS-NE101-0001	9905.08156	-1.35227	0.531953	-0.27289	-0.42913	0.429931	3.145693	17.546197	-1.05035	0.748078	-0.09687	-0.90927	-1.13136	-0.37521
NESS-BWBK-SS-NE102-0001	8435.85475	-1.33241	-0.15148	-0.63195	-0.39058	-0.07073	4.875787	10.069284	-1.17351	-0.04998	-0.52863	-0.55953	0.439367	-0.56454
NESS-BWBK-SS-NE103-0001	7668.94193	-1.37483	-0.40354	-0.76146	-0.38333	0.007951	4.830988	9.5983839	-1.23314	-0.32835	-0.68059	-0.49073	0.336762	-0.51067
NESS-BWBK-SS-NE104-0001	9861.76433	-1.10746	-0.28313	-0.60038	-0.40638	-0.50649	3.127099	8.4486226	-1.00202	-0.29265	-0.59139	-0.61492	0.677906	-0.14171
NESS-BWBK-SS-NE105-0001	7229.27631	-1.40248	-0.57005	-0.90141	-0.43031	0.195055	5.185323	10.105698	-1.26943	-0.49502	-0.85161	-0.62241	0.090541	-0.58789
NESS-BWBK-SS-NE106-0001	8417.08259	-1.27561	-0.29847	-0.67163	-0.46751	-0.4997	4.8434	9.5541468	-1.2118	-0.28883	-0.59036	-0.61454	0.369755	-0.37267
NESS-BWBK-SS-NE107-0001	7269.03623	-1.48758	-0.21494	-0.86789	-0.46858	0.006571	5.287215	10.915714	-1.32614	-0.09843	-0.81675	-0.7046	0.277239	-0.57522
NESS-BWBK-SS-NE108-0001	8265.54309	-1.34718	-0.14667	-0.56938	-0.37656	-0.15872	4.655735	9.1413578	-1.21437	-0.04091	-0.40321	-0.46082	0.673831	-0.4574
NESS-BWBK-SS-NE109-0001	6845.11023	-1.4498	-0.54956	-0.84274	-0.44482	0.159066	5.180602	9.5054567	-1.30478	-0.46693	-0.75132	-0.65498	0.274548	-0.57571
NESS-BWBK-SS-NE110-0001	6633.04091	-1.48562	-0.30553	-0.7983	-0.4506	-0.41337	7.672243	7.4907711	-1.3331	-0.24625	-0.73916	-0.60282	1.137415	-1.09633

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	IRON							LEAD						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	3349.12239	-1.73036	-2.2597	-1.19444	-0.49366	-1.76752	-15.5979	-13.68274	-1.56519	-2.43534	-1.20245	-1.66802	-6.30328	-3.05689
MAXIMUM DOMAIN VALUE	46987.5591	3.532789	2.520985	2.600185	0.835643	1.174271	12.70468	37.669151	3.050542	2.816358	4.169306	2.02474	4.953662	3.580061
SAMPLE	**FE predict**	D1	D2	D3	D4	D5	D6	**PB predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	25250.0986	0.690538	0.435086	0.101685	0.113645	0.630134	4.576014	19.585715	0.49499	0.502113	0.064155	0.181818	-2.39623	-1.25737
PMSB-BWBK-SB-PM02-0104	27570.177	0.50459	1.70881	0.125765	0.311857	1.174271	-2.66	37.669151	1.215867	1.695139	-0.85335	-0.45334	-6.30328	-0.69848
PMSB-BWBK-SB-PM03-0106	34557.8966	1.962949	0.124863	0.176382	0.267055	0.262191	1.4922	15.54571	1.894587	-0.10752	-0.57454	-0.36585	-1.64012	-1.48419
PMSB-BWBK-SB-PM04-0105	28283.0537	1.081563	0.234661	0.325895	0.351428	0.217111	-3.9157	14.927529	1.026739	0.13101	0.043238	0.458965	-1.49159	0.355109
PMSB-BWBK-SB-PM05-0105	27648.149	1.018683	0.24908	0.231633	0.317292	0.366691	-0.5548	16.350707	0.997868	0.160879	-0.09635	0.331309	-1.80302	-0.4753
PMSB-BWBK-SB-PM06-0105	25492.4649	0.733407	0.176709	0.184496	0.425771	0.415708	-2.54744	16.430058	0.962985	0.040779	-0.30339	0.456202	-1.89621	-0.19556
PMSB-BWBK-SB-PM07-0105	21405.4313	0.236521	0.370602	-0.10956	0.188886	1.101886	9.959656	27.190127	0.502761	0.335798	-0.55793	-0.003	-4.61108	-2.94364
PMSB-BWBK-SB-PM08-0106	25530.2619	0.794574	0.202507	0.064918	0.214838	0.622563	4.818957	19.36293	0.734102	0.159371	-0.19619	0.219431	-2.62358	-1.57351
PMSB-BWBK-SB-PM09-0106	21761.4987	0.485837	-0.55291	-0.28098	0.106412	0.577772	3.76991	14.067708	0.352949	-0.64522	-0.48104	0.181863	-1.72203	-1.04572
PMSB-BWBK-SB-PM10-0105	22481.7501	0.054515	1.221969	-0.1867	0.264399	0.879794	3.808723	28.15306	0.350483	1.354658	-0.63249	0.308567	-3.82762	-1.39018
PMSB-BWBK-SB-PM11-0104	25906.3003	0.880208	0.247009	0.069785	0.224488	0.634507	9.043439	20.435568	0.964453	0.149247	-0.39102	-0.02838	-2.85143	-2.85052
PMSB-BWBK-SB-PM12-0105	17469.1728	-0.28853	-0.08584	-0.42217	0.1473	0.870774	-1.15446	19.650216	-0.35081	-0.00242	-0.41192	0.70465	-2.79493	0.514333
PMSB-BWBK-SB-PM13-0106	14804.1945	-0.93663	1.021606	-0.26468	0.24134	0.99654	-0.62061	28.469059	-0.28223	1.146324	-0.67512	0.328048	-4.09198	-0.2436
PMSB-BWBK-SB-PM14-0106	16123.378	-0.42963	0.022154	-0.36413	0.134933	0.617859	2.538939	17.105902	-0.36246	0.097541	-0.40395	0.563956	-1.86394	-0.46871
PMSB-BWBK-SB-PM15-0105	21481.0024	0.16453	0.291199	-0.11792	0.17363	0.418155	-1.5531	17.03732	0.285705	0.293977	-0.38227	0.226217	-1.67435	0.080884
PMSB-BWBK-SB-PM16-0106	18776.0833	-0.11434	0.007092	-0.25418	0.070631	0.472584	-1.3949	15.439102	-0.07355	0.038031	-0.35858	0.206088	-1.43307	0.321456
PMSB-BWBK-SB-PM17-0105	28034.1043	1.107217	0.391129	0.309866	0.142807	0.535469	6.291552	19.489483	0.92656	0.365914	0.154909	-0.00936	-2.55774	-1.9331
PMSB-BWBK-SB-PM18-0105	29871.8182	1.310777	-0.01605	0.150825	0.23313	-0.11659	-7.65784	10.358353	1.466201	-0.26862	-0.56512	-0.37783	-0.22275	0.798942
PMSB-BWBK-SB-PM19-0105	25125.9941	0.684064	0.158446	0.037445	0.151249	-0.05171	-3.68104	10.450159	0.719305	0.082275	-0.29991	-0.04315	0.072009	0.400763
PMSB-BWBK-SB-PM20-0106	23049.6675	0.43297	0.104064	-0.06061	0.161205	0.205263	-1.86185	12.8632	0.419659	0.080839	-0.26921	0.217627	-0.68255	0.182545
PMSB-BWBK-SB-SO01-0107-PM	33271.7156	1.848465	-0.09965	0.005557	0.083461	-0.57636	-1.67077	3.7811519	1.542172	-0.296	-0.53665	-0.47069	1.788342	-0.28864
PMSB-BWBK-SB-SO02-0109-PM	30239.4634	1.35699	0.037059	-0.12358	0.258918	-0.60154	-6.01591	5.7294229	1.521859	-0.23455	-1.03731	-0.32838	1.421221	0.380042
PMSB-BWBK-SB-SO13-0104-PM	34764.4236	2.101094	-0.04554	0.163432	-0.0062	-0.24803	4.806394	9.6817468	1.904167	-0.31232	-0.54031	-1.07216	0.039783	-2.15303
PMSB-BWBK-SB-SO14-0105-PM	36742.1103	2.34175	-0.12709	0.306303	0.22331	-0.70628	-1.51563	2.6590645	2.146533	-0.44724	-0.43804	-0.52906	1.881419	-0.78705
SESB-BWBK-SB-SO03-0108	46987.5591	3.532789	0.279113	0.588809	0.261307	-0.8904	-4.90594	3.0923583	3.050542	-0.06049	-0.26577	-0.73279	2.018132	-0.27565
SESB-BWBK-SB-SO04-0108	36356.4575	2.288601	-0.0535	0.283682	0.221264	-0.67164	0.314031	2.9557989	1.997777	-0.31661	-0.33904	-0.35597	1.89164	-1.05533
SESB-BWBK-SB-SO05-0106	32585.4423	1.557848	0.446954	0.156298	0.267448	-0.38104	-5.85911	8.7038717	1.484576	0.315474	-0.42705	-0.07612	0.829626	0.556435
SESB-BWBK-SB-SO06-0108	41274.9783	2.721243	0.418897	0.277919	0.422378	-0.68808	-4.69654	7.7617005	2.664924	0.072328	-0.8397	-0.36056	0.94689	-0.43906
SESB-BWBK-SB-SO07-0106	38934.6304	2.641801	-0.05565	0.001229	0.232312	-0.45768	5.582685	6.5985422	1.980054	-0.2555	-0.53932	0.026336	0.884869	-1.98497
SESB-BWBK-SB-SO08-0107	42494.0489	2.88974	0.548141	0.564839	0.44754	-0.78349	-3.44048	5.7531724	2.631403	0.272816	-0.25083	-0.08527	1.518968	-0.55153
SESB-BWBK-SB-SO09-0106	31064.6414	1.435938	0.273666	0.239918	0.242552	-0.2852	-4.35487	8.4199786	1.293018	0.156859	-0.15794	0.029684	0.648631	0.368108
SESB-BWBK-SB-SO11-0106	36038.1635	2.114343	0.268383	0.483367	0.48226	-0.27943	-3.24954	9.275815	1.9547	0.046027	-0.09545	0.353874	0.134815	-0.28385
SESB-BWBK-SB-SO12-0106	37310.8084	2.398345	-0.13252	0.063701	0.27331	-0.82547	-1.37225	1.2085705	2.121421	-0.43458	-0.74816	-0.28735	2.431961	-0.73655
SESB-BWBK-SB-SO15-0103	21448.6732	0.1485	0.415353	-0.18339	0.101101	0.264716	0.477348	15.912539	0.260123	0.44295	-0.46872	0.033252	-1.09204	-0.37821
SESB-BWBK-SB-SO16-0105	26495.3468	0.993162	-0.16663	-0.15168	0.193526	0.05182	1.624368	10.119245	0.853357	-0.2806	-0.53487	0.145999	-0.14402	-0.8155
SESB-BWBK-SB-SO17-0106	23505.3995	0.595486	-0.09968	-0.05725	0.108107	0.366416	2.520698	13.197993	0.303596	-0.08302	-0.0251	0.371774	-1.05284	-0.56801
SESB-BWBK-SB-SO18-0105	21388.7731	0.361144	-0.2064	-0.11664	0.033133	0.549201	4.285641	14.67826	0.023763	-0.15386	0.050502	0.360506	-1.57797	-0.78476
SESB-BWBK-SB-SO19-0104	28435.2407	1.318549	0.03395	0.15916	0.122622	0.642632	12.70468	17.076645	0.637073	0.102023	0.397828	0.543907	-2.22289	-2.88805
SESB-BWBK-SB-SO20-0104	32200.2521	1.771673	-0.27598	-0.08239	0.214906	-0.47361	0.188125	3.9903519	1.521305	-0.50491	-0.69016	-0.11199	1.519658	-0.77635

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

MAGNESIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785

2386.6149	**Mean**
798.3953	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0360	0.2576	0.0275	0.6803	0.0072	0.0304
AS	-0.0415	0.0048	0.1404	-0.2691	-0.0198	0.0250
BA	-0.0832	0.1817	0.6726	-0.3625	-0.0442	-0.0615
BE	-0.0079	0.1123	-0.0483	0.0356	0.3008	0.0458
CA	-0.0135	0.0075	-0.2114	-0.3934	0.0866	-0.0245
CR	-0.0793	0.2641	-0.4301	-0.1908	0.5201	0.1406
CO	0.2468	-0.0279	0.4006	0.2199	0.3254	-0.3639
CU	0.1176	-0.0493	0.1302	0.6444	-0.1722	0.0198
FE	0.4294	-0.1277	-1.3330	1.0266	0.1759	-0.1423
PB	0.0228	0.0325	0.0481	0.1156	-0.3183	-0.0176
MG	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
MN	-0.0050	0.0081	-0.0177	-0.1302	0.0342	-0.0082
NI	0.1544	-0.0565	-0.1419	0.2608	0.0905	-0.0366
K	-0.0099	0.0769	1.7570	0.1249	-0.0960	-0.1022
V	-0.0999	0.3521	0.2090	-0.3634	-0.1508	-0.0715
ZN	0.2953	-0.0680	-0.3353	-1.1367	-1.0249	0.1594

MANGANESE

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772

303.3037	**Mean**
254.9406	**Std. deviation**

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0326	0.2860	0.0091	-0.9009	0.0079	0.1125
AS	-0.0375	0.0053	0.0465	0.3564	-0.0217	0.0927
BA	-0.0752	0.2018	0.2226	0.4801	-0.0485	-0.2276
BE	-0.0072	0.1247	-0.0160	-0.0472	0.3305	0.1695
CA	-0.0122	0.0084	-0.0699	0.5210	0.0952	-0.0908
CR	-0.0717	0.2932	-0.1423	0.2527	0.5716	0.5203
CO	0.2231	-0.0309	0.1326	-0.2913	0.3576	-1.3469
CU	0.1064	-0.0547	0.0431	-0.8534	-0.1892	0.0732
FE	0.3883	-0.1418	-0.4411	-1.3595	0.1933	-0.5267
PB	0.0206	0.0361	0.0159	-0.1530	-0.3498	-0.0653
MG	0.0807	-0.0978	0.5747	0.7812	0.0659	1.0699
MN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NI	0.1396	-0.0627	-0.0470	-0.3453	0.0994	-0.1355
K	-0.0089	0.0854	0.5814	-0.1654	-0.1055	-0.3782
V	-0.0903	0.3909	0.0692	0.4812	-0.1658	-0.2645
ZN	0.2670	-0.0755	-0.1110	1.5053	-1.1263	0.5901

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MAGNESIUM							MANGANESE						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	936.09934	-1.47013	-2.25505	-6.81724	-3.87524	-2.48673	-0.93139	27.406789	-1.5194	-2.4076	-1.17817	-3.73067	-2.75007	-2.6927
MAXIMUM DOMAIN VALUE	5344.2828	3.124982	2.589422	9.931936	4.421573	2.013572	0.722779	718.67015	2.976248	2.88755	4.052494	4.640688	2.211184	3.193032
SAMPLE	**MG predict**	D1	D2	D3	D4	D5	D6	**MN predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	1805.9395	-0.79096	-2.00909	-0.12233	-1.03312	-0.21139	0.34813	145.04193	-0.74008	-2.19811	-0.20028	1.269985	-0.22535	0.978409
BASS-BWBK-SS-BA102-0001	1778.232	-0.92079	-2.25505	-0.01387	-0.94506	-0.17052	0.365437	118.84777	-0.90962	-2.4076	-0.53227	0.675981	-0.21779	0.355214
BASS-BWBK-SS-BA103-0001	1820.5218	-0.92458	-2.09187	0.24983	-1.37522	-0.09237	0.285451	161.20773	-0.89876	-2.24382	-0.34406	1.377894	-0.12138	0.247578
BASS-BWBK-SS-BA104-0001	2097.6931	-0.83839	-1.77159	0.797012	-0.90134	-0.17659	0.256035	158.38446	-0.77021	-1.94958	0.19703	1.237554	-0.17314	0.809109
BASS-BWBK-SS-BA105-0001	936.09934	-0.87625	-2.08173	-1.75027	-3.87524	0.40103	0.171339	330.55228	-0.85888	-2.22813	-1.03444	4.640688	0.415631	-0.22689
BASS-BWBK-SS-BA106-0001	1848.3253	-0.75952	-1.79399	-0.09239	-1.06117	-0.10713	0.367667	158.05335	-0.70005	-1.97335	-0.10761	1.420329	-0.10115	1.204724
BASS-BWBK-SS-BA107-0001	1855.6754	-0.94916	-2.16495	0.317673	-1.05894	-0.21845	0.332776	125.3301	-0.93417	-2.30897	-0.41524	0.833194	-0.27037	0.248308
BASS-BWBK-SS-BA108-0001	1739.9717	-0.9398	-2.16604	-0.02298	-1.26633	-0.0601	0.344742	143.72634	-0.91866	-2.31868	-0.47762	1.177679	-0.09028	0.386175
BASS-BWBK-SS-BA109-0001	1837.3262	-0.80714	-2.03325	-0.17976	-0.74971	0.036743	0.400268	137.14675	-0.74301	-2.23878	-0.13346	1.028319	0.060777	1.329375
BASS-BWBK-SS-BA110-0001	2510.9163	-0.83305	-1.58199	1.897999	-0.64594	-0.04977	0.174297	175.7907	-0.75799	-1.74828	0.612183	0.955645	-0.03065	0.602483
BASS-BWBK-SS-BA111-0001	1750.6919	-0.91333	-2.0615	-0.0926	-1.11785	-0.02797	0.355052	141.96257	-0.87731	-2.22389	-0.37798	1.138601	-0.04286	0.6537
BASS-BWBK-SS-BA112-0001	1355.3913	-0.97688	-2.07866	-0.73827	-2.52023	0.23467	0.247411	232.92839	-0.93183	-2.24644	-0.57017	3.028484	0.248981	0.294861
BASS-BWBK-SS-BA113-0001	1562.1779	-0.46357	-2.18475	-0.72412	-2.8429	-1.25388	0.47934	182.62069	-0.49671	-2.32891	-0.77092	3.184733	-1.40869	0.770081
MASB-BWBK-SB-MA01-0105	2405.5617	1.284962	-0.11514	-1.87549	-0.66881	-0.01606	-0.3279	508.49055	1.253601	-0.25872	-0.11706	0.546855	-0.17715	-0.16655
MASB-BWBK-SB-MA02-0107	2418.9247	1.403884	-0.02416	-2.16714	-0.14447	-0.15072	-0.29329	529.04879	1.391	-0.1779	0.119557	1.13077	-0.11176	0.493192
MASB-BWBK-SB-MA03-0108	2830.4811	2.20893	-0.63087	-1.86623	-0.52903	-0.51386	-0.93139	718.67015	2.060265	-0.78589	-0.23964	0.734919	-0.62316	-2.6927
MASB-BWBK-SB-MA04-0106	2338.8723	1.390289	0.22815	-2.09312	-1.15433	-0.46632	-0.17589	535.17559	1.448636	0.015058	0.623308	2.992202	-0.4307	1.833594
MASB-BWBK-SB-MA05-0108	2333.6238	1.058542	0.016894	-1.69797	-1.01678	-0.16068	-0.07551	492.65009	1.056136	-0.10312	0.127763	2.180857	-0.11943	1.015406
MASB-BWBK-SB-MA06-0105	2393.971	1.093415	-0.00406	-1.69307	-0.32263	-0.32465	-0.12083	461.724	1.082064	-0.11917	0.092678	1.233648	-0.29918	0.77699
MASB-BWBK-SB-MA07-0108	1884.8168	0.95835	-0.5482	-2.91588	-0.24252	-0.50286	-0.02	401.99826	0.938606	-0.69544	-0.44856	1.046601	-0.48846	0.884732
MASB-BWBK-SB-MA08-0108	1624.8957	2.647216	0.586394	-6.81724	0.89688	-0.41947	-0.27659	626.35558	2.569985	0.434708	-1.02154	0.347182	-0.34989	1.289598
MASB-BWBK-SB-MA09-0108	2190.4	1.827991	-0.45581	-3.50147	0.313597	-1.10818	-0.16115	470.41043	1.72185	-0.59257	-0.69053	0.065702	-1.1972	0.291749
MASB-BWBK-SB-MA10-0104	1630.3479	0.877975	-0.85103	-3.64983	0.199186	-0.31828	-0.02302	373.66478	0.797054	-0.94775	-1.17817	-0.17514	-0.33612	-0.03519
MASB-BWBK-SB-MA11-0108	2207.6564	1.660387	0.189428	-3.21609	0.056872	-0.70495	-0.12723	495.30026	1.595846	0.094207	-0.40399	0.736806	-0.71719	0.767393
MASB-BWBK-SB-MA12-0108	2581.1995	1.808002	-0.24212	-2.22233	-0.42512	-0.45536	-0.38981	593.27012	1.747433	-0.40833	0.042553	1.457959	-0.44577	0.022751
MASB-BWBK-SB-MA13-0105	1965.6197	-0.53374	0.589765	-0.2001	-1.57098	1.100769	0.114266	369.37457	-0.51722	0.698695	-0.29751	1.869541	1.205176	-0.01868
MASB-BWBK-SB-MA14-0104	2313.4846	0.75974	0.950036	-1.70629	0.29723	0.74675	-0.22325	483.44848	0.683978	1.05666	-0.59893	-0.52911	0.797856	-0.88065
MASB-BWBK-SB-MA15-0105	2297.5441	0.021489	1.284928	-0.55119	-0.16674	1.228696	-0.04687	415.80769	-0.00211	1.451587	-0.34376	-0.05345	1.320145	-0.46798
MASB-BWBK-SB-MA16-0104	2062.4731	0.184794	0.155864	-1.08114	-0.88587	0.490297	-0.11441	415.09222	0.1496	0.192386	-0.49622	0.88969	0.502735	-0.67103
MASB-BWBK-SB-MA17-0104	1861.2607	-0.06344	0.392517	-1.19726	-1.06023	0.402938	-0.00446	371.02738	-0.10405	0.491954	-0.73148	0.92875	0.400243	-0.63855
MASB-BWBK-SB-MA18-0104	1718.0806	-0.55509	1.188075	-0.85242	-1.83826	1.15594	0.201566	374.77812	-0.4884	1.304204	-0.17425	2.660391	1.299559	0.938362
MASB-BWBK-SB-MA19-0103	1831.4583	-0.5574	0.211965	-0.27385	-1.9756	0.600561	0.082453	344.3484	-0.54804	0.287784	-0.41067	2.136185	0.613763	-0.28575
MASB-BWBK-SB-MA20-0103	2233.4523	1.015093	-0.21004	-2.05184	-0.22553	-0.07427	-0.19734	473.81721	0.955294	-0.27827	-0.41064	0.676394	-0.04812	-0.23229
MASS-BWBK-SS-MA01-0001	1799.3471	-1.40252	-0.34665	1.217472	-1.78561	-0.31314	0.306193	127.4506	-1.40179	-0.21955	-0.52197	1.287935	-0.41181	-0.60764
MASS-BWBK-SS-MA02-0001	2187.238	-1.31138	0.790409	2.168139	-2.33505	-0.01337	0.367711	197.46925	-1.28675	1.003114	0.023346	2.318245	-0.05826	0.05074
MASS-BWBK-SS-MA03-0001	1761.7434	-1.04887	0.01996	0.395319	-1.82021	0.040974	0.297276	205.29722	-1.0288	0.122548	-0.4189	1.81876	0.015044	0.060389
MASS-BWBK-SS-MA04-0001	1729.7721	-0.84455	0.052912	0.094284	-2.13221	-0.16051	0.266645	239.81884	-0.8101	0.117542	-0.28019	2.532182	-0.1841	0.393215
MASS-BWBK-SS-MA05-0001	1797.1607	-0.21459	0.684907	-0.89736	-1.53231	-0.41152	0.225741	296.27237	-0.17863	0.744184	-0.16902	2.328526	-0.41097	1.060345
MASS-BWBK-SS-MA06-0001	1884.9327	-0.69522	1.685915	0.495462	-3.09522	0.224713	0.132361	380.25751	-0.59881	1.837081	0.387143	4.476789	0.288335	0.897437
MASS-BWBK-SS-MA07-0001	1613.4959	-1.47013	-1.38507	0.645407	-0.87693	-0.50569	0.285077	46.227014	-1.5194	-1.30376	-1.11129	-0.44468	-0.66619	-1.43199
MASS-BWBK-SS-MA08-0001	1804.704	-0.39912	0.550082	-0.07717	-1.17515	-1.8452	-0.02402	199.72492	-0.44519	0.714926	-0.60975	0.871304	-2.07158	-1.1882
MASS-BWBK-SS-MA09-0001	2262.1874	-0.04231	2.589422	0.830907	-2.24379	-2.05138	0.107005	299.16826	-0.04807	2.88755	0.211256	2.926755	-2.25279	0.272986
MASS-BWBK-SS-MA10-0001	1793.719	-0.04668	1.733223	-0.59759	-2.21213	-1.57376	0.063166	315.57723	-0.05678	1.942497	-0.29708	2.824418	-1.73454	0.045721
MASS-BWBK-SS-MA11-0001	1958.3692	-0.11317	2.070891	-0.23192	-1.7244	-0.72804	-0.16727	382.5041	-0.10128	2.298137	-0.06751	2.308391	-0.79644	-0.60328
MASS-BWBK-SS-MA12-0001	1590.6839	-0.5429	-0.02588	-0.89212	-1.62314	-0.73055	0.404703	193.04416	-0.52557	0.016086	-0.5207	1.989237	-0.79765	1.062655
MASS-BWBK-SS-MA13-0001	1957.4368	-1.14803	1.574756	1.367367	-2.11707	-0.20677	0.158958	240.28697	-1.10704	1.834645	-0.01763	2.307681	-0.25072	-0.30213
MASS-BWBK-SS-MA14-0001	1940.7302	-1.32643	0.879322	1.993256	-2.2156	-1.37043	0.149184	136.92669	-1.33128	1.138954	-0.25714	1.84064	-1.5787	-1.17079
MASS-BWBK-SS-MA15-0001	1923.5626	-1.38619	1.002937	1.714356	-1.79561	-0.71858	0.227856	139.87939	-1.36765	1.255204	-0.22055	1.480793	-0.84308	-0.64189
MASS-BWBK-SS-MA16-0001	1616.7284	-0.90591	0.662145	-0.21888	-1.35798	-0.45152	0.263021	183.94883	-0.90465	0.841751	-0.65822	1.159743	-0.52988	-0.13377
MASS-BWBK-SS-MA17-0001	1744.6676	-0.80059	0.765309	-0.02923	-1.31141	-0.37624	0.179456	214.8036	-0.81521	0.962309	-0.64418	0.980549	-0.46361	-0.52831
MASS-BWBK-SS-MA18-0001	1497.85	-1.10427	0.788189	0.122832	-1.89465	-0.99189	0.215634	157.87335	-1.11764	1.022612	-0.78303	1.557344	-1.1488	-0.75315
MASS-BWBK-SS-MA19-0001	1702.8126	-0.85849	1.031924	0.158256	-1.83921	-0.48352	0.124166	239.75647	-0.87191	1.26381	-0.61133	1.651867	-0.5823	-0.7886
MASS-BWBK-SS-MA20-0001	1804.5302	-0.3877	0.514654	-0.49936	-1.41512	-0.58331	0.146277	263.54333	-0.40388	0.637552	-0.53265	1.457623	-0.66553	-0.15137
MMSB-BWBK-SB-MM101-0110	3066.0965	-0.00261	-0.8072	1.816671	0.778729	-0.09143	-0.13842	278.84333	0.023691	-0.92767	0.787096	-0.77552	-0.07854	-0.16662
MMSB-BWBK-SB-MM102-0109	3324.7338	0.006807	-0.37861	2.346733	0.927611	0.35593	-0.10923	309.47696	0.110944	-0.54671	1.526788	-0.18024	0.483162	0.989164
MMSB-BWBK-SB-MM103-0107	3468.9318	0.109317	-0.68662	2.712287	0.83147	0.58687	-0.41218	386.23919	0.126963	-0.79673	1.094991	-0.85165	0.663563	-1.15621
MMSB-BWBK-SB-MM104-0110	5026.5945	0.96983	-0.02778	4.965168	4.421573	-0.89415	-0.27946	239.95751	1.099286	-0.30056	3.22282	-3.73067	-0.80641	1.908695
MMSB-BWBK-SB-MM105-0110	2518.9991	-0.45392	-0.90663	0.702337	0.362008	0.888188	0.213433	235.80885	-0.45524	-0.95104	-0.07683	-0.83375	0.954665	0.207276
MMSB-BWBK-SB-MM106-0110	4091.3007	0.303427	0.772624	4.335513	0.448924	-0.12324	-0.27823	393.25596	0.491675	0.592596	2.966699	1.383996	0.018072	1.833069
MMSB-BWBK-SB-MM107-0110	3271.0288	-0.35967	-0.1733	2.75531	0.148688	0.981552	0.085825	307.10962	-0.29962	-0.22261	1.100077	0.100232	1.109019	0.663748
MMSB-BWBK-SB-MM108-0110	3325.9149	-0.22946	-0.46005	2.950947	0.536821	0.080972	-0.11105	278.43837	-0.16082	-0.56634	1.315764	-0.20152	0.138107	0.215237
MMSB-BWBK-SB-MM109-0110	4091.0566	-0.17217	0.557534	4.930898	0.798584	0.384599	-0.24014	336.90301	-0.11007	0.563937	1.957852	-0.60493	0.46202	-0.2829
MMSB-BWBK-SB-MM110-0109	3247.0496	-0.25724	-0.00108	2.58672	0.651987	0.421179	0.004735	276.89018	-0.19192	-0.0496	1.152153	-0.41612	0.506297	0.564002
MMSB-BWBK-SB-MM111-0110	4177.0329	-0.03618	0.025528	5.081194	0.915015	-0.10629	-0.3194	325.74262	0.056196	-0.07902	2.316909	-0.33161	-0.04051	-0.00125
MMSB-BWBK-SB-MM112-0110	3572.8049	-0.18996	0.289323	3.728059	0.236769	0.254826	-0.30673	342.59154	-0.07544	0.199542	1.881664	0.308118	0.299305	0.098571
MMSB-BWBK-SB-MM113-0110	3097.1627	-0.19157	0.09102	1.808327	0.377285	1.116764	0.189011	311.96528	-0.08958	0.000236	1.197554	0.339687	1.301236	1.812307
MMSB-BWBK-SB-MM114-0110	3163.2235	-0.4933	-0.77707	3.049088	0.047368	0.183012	-0.0923	260.69788	-0.45506	-0.85162	0.946349	-0.13781	0.19609	-0.45943

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MAGNESIUM							MANGANESE						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	936.09934	-1.47013	-2.25505	-6.81724	-3.87524	-2.48673	-0.93139	27.406789	-1.5194	-2.4076	-1.17817	-3.73067	-2.75007	-2.6927
MAXIMUM DOMAIN VALUE	5344.2828	3.124982	2.589422	9.931936	4.421573	2.013572	0.722779	718.67015	2.976248	2.88755	4.052494	4.640688	2.211184	3.193032
SAMPLE	**MG predict**	D1	D2	D3	D4	D5	D6	**MN predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	5344.2828	-0.54352	0.551704	9.931936	-0.39318	-0.63728	-0.61176	359.9747	-0.38376	0.481952	4.052494	1.55463	-0.61407	-0.83832
MMSB-BWBK-SB-MM116-0110	3543.8036	-0.10431	-0.5223	3.452452	0.274945	-0.06279	-0.12547	299.98804	-0.03453	-0.6525	1.566454	0.200666	-0.02286	0.325968
MMSB-BWBK-SB-MM117-0110	3237.5746	-0.19093	-1.26598	2.719061	0.771126	-0.25824	-0.20104	250.0455	-0.18025	-1.39564	0.850727	-1.05303	-0.28202	-0.83931
MMSB-BWBK-SB-MM118-0110	3661.4977	0.363566	-0.86576	2.808276	1.379278	-0.18449	-0.30886	319.21407	0.400001	-1.05072	1.412311	-1.33681	-0.18279	-0.22632
MMSB-BWBK-SB-MM119-0110	3543.5694	-0.20351	-0.59646	3.704994	0.17571	-0.12946	-0.17668	296.27809	-0.10483	-0.7581	1.790002	0.534717	-0.07747	0.39568
MMSB-BWBK-SB-MM120-0110	2962.7329	-0.61063	-1.49945	2.601615	0.402866	0.027036	-0.02294	194.86573	-0.60532	-1.59881	0.493713	-0.95464	0.004196	-0.77691
MMSS-BWBK-SS-MM101-0001	2204.2363	-0.71846	1.147024	0.358368	0.853939	0.094152	0.300463	140.80239	-0.69426	1.329417	-0.18454	-1.44364	0.089803	0.537256
MMSS-BWBK-SS-MM102-0001	1987.5149	-0.89838	0.012737	0.022528	0.511096	0.480593	0.330621	132.14627	-0.90445	0.127618	-0.634	-1.45018	0.475575	0.019153
MMSS-BWBK-SS-MM103-0001	2045.9214	-0.77018	0.96224	-0.02263	0.932542	0.118454	0.302961	126.27778	-0.76242	1.150297	-0.46201	-1.74713	0.100516	0.264011
MMSS-BWBK-SS-MM104-0001	2385.1521	-0.58622	0.965637	0.639261	1.029617	0.092929	0.209148	164.03998	-0.55196	1.100144	0.067408	-1.47928	0.102622	0.497267
MMSS-BWBK-SS-MM105-0001	1988.4498	-0.99481	-0.18936	0.393247	0.3844	0.005787	0.280887	100.69116	-1.02955	-0.05046	-0.77832	-1.6255	-0.07261	-0.66411
MMSS-BWBK-SS-MM106-0001	2602.6241	-0.67583	1.173564	1.316238	0.738938	0.673957	0.217684	207.54535	-0.63797	1.336973	0.255537	-1.14597	0.73644	0.462334
MMSS-BWBK-SS-MM107-0001	2395.2746	-0.67205	1.040828	0.751791	0.901423	0.292518	0.284264	161.05034	-0.6197	1.171869	0.176314	-1.2022	0.332277	0.907675
MMSS-BWBK-SS-MM108-0001	2144.6819	-1.02336	1.236234	0.591765	0.95357	0.416248	0.351221	108.62922	-1.0214	1.49145	-0.46839	-2.03101	0.40991	0.049155
MMSS-BWBK-SS-MM109-0001	1933.2227	-0.96308	0.719304	-0.2222	1.026794	0.686887	0.372814	116.39266	-0.94136	0.886431	-0.55747	-1.89283	0.725889	0.465774
MMSS-BWBK-SS-MM110-0001	1753.8163	-1.26551	-0.49267	0.32539	0.134691	-0.20928	0.308203	52.473249	-1.30955	-0.34381	-1.04605	-1.59028	-0.32902	-1.02366
MMSS-BWBK-SS-MM111-0001	1817.8166	-1.19095	-0.43495	0.187167	0.496987	0.041067	0.343493	56.2685	-1.21669	-0.31074	-0.91219	-1.83663	-0.03558	-0.55754
MMSS-BWBK-SS-MM112-0001	1779.6331	-1.19207	-0.76755	0.245771	0.18982	-0.35416	0.379654	34.48737	-1.23469	-0.6592	-1.01197	-1.57974	-0.48101	-0.64684
MMSS-BWBK-SS-MM113-0001	2117.4364	-1.0291	0.712947	0.952936	0.585131	-0.56068	0.249508	72.334597	-1.02849	0.912684	-0.36311	-1.5674	-0.66639	-0.35333
MMSS-BWBK-SS-MM114-0001	1740.0412	-1.21472	-1.02972	0.106559	-0.01928	0.03839	0.39386	59.116047	-1.26585	-0.93752	-1.13547	-1.4177	-0.06053	-0.73737
MMSS-BWBK-SS-MM115-0001	1778.0664	-1.13095	-0.47308	0.017442	0.15096	0.07343	0.389793	72.427581	-1.174	-0.33967	-1.05518	-1.52718	-0.0165	-0.54449
MMSS-BWBK-SS-MM116-0001	1727.3951	-1.18674	-0.56814	0.069919	0.056742	-0.04318	0.327955	71.870289	-1.21999	-0.45022	-1.00319	-1.33553	-0.13647	-0.71105
MMSS-BWBK-SS-MM117-0001	2130.2392	-0.8429	0.368021	0.472242	0.741073	-0.08929	0.2606	112.25504	-0.83755	0.502161	-0.3634	-1.57081	-0.13285	-0.01531
MMSS-BWBK-SS-MM118-0001	2712.9111	-0.67899	-0.55956	1.821073	0.617906	0.365362	0.076072	193.12997	-0.62898	-0.60132	0.508619	-0.85745	0.409562	0.097049
MMSS-BWBK-SS-MM119-0001	2497.6365	-0.75868	-0.87177	1.415772	0.310873	0.356895	0.111662	182.62009	-0.73838	-0.90278	0.108229	-0.81559	0.369148	-0.26658
MMSS-BWBK-SS-MM120-0001	1845.7989	-0.44771	-0.30315	-1.39354	0.629843	1.037665	0.362868	209.22748	-0.49076	-0.23069	-1.05926	-1.55346	1.091696	0.21976
NESB-BWBK-SB-NE01-0108	2273.0719	0.778527	-0.20161	-2.26712	1.655624	0.416251	0.020765	345.52015	0.856962	-0.40991	0.333283	-0.75914	0.573235	2.098193
NESB-BWBK-SB-NE02-0109	2461.5687	0.524601	-0.17081	-0.81545	0.424931	0.157878	-0.11171	370.15618	0.591787	-0.33639	0.532047	0.293313	0.215732	1.10438
NESB-BWBK-SB-NE03-0105	2385.7316	0.432267	-0.4483	-1.35819	1.698355	0.476539	0.017857	299.2087	0.454868	-0.5752	0.006445	-1.62779	0.576284	0.914639
NESB-BWBK-SB-NE04-0110	2359.5051	0.372166	-0.47261	-1.1345	1.172826	0.294734	0.009599	305.38832	0.425554	-0.63309	0.254229	-0.72608	0.389939	1.210802
NESB-BWBK-SB-NE05-0108	2179.2789	0.685726	-0.36795	-2.28889	1.469266	0.280692	0.035675	327.16977	0.735335	-0.54867	0.059331	-0.86289	0.396248	1.655523
NESB-BWBK-SB-NE06-0109	2262.9334	0.52582	-0.55235	-1.72194	1.310009	0.36012	-0.01117	325.04639	0.560002	-0.71584	0.030461	-0.92999	0.462184	1.077353
NESB-BWBK-SB-NE07-0107	2250.273	0.7055	-0.20064	-2.21415	1.626245	0.355968	0.082721	323.86547	0.755504	-0.36512	0.104696	-1.01303	0.487644	1.864892
NESB-BWBK-SB-NE08-0104	2187.0583	0.204585	-0.47614	-1.36235	0.958252	0.595303	0.033412	308.73594	0.224922	-0.57633	-0.16156	-0.84163	0.694617	0.658536
NESB-BWBK-SB-NE09-0110	2165.5212	0.422448	-0.59478	-1.77498	1.019507	0.379285	0.042293	315.7129	0.46003	-0.75513	-0.03379	-0.61159	0.477296	1.188619
NESB-BWBK-SB-NE10-0107	2264.404	-0.15484	0.318272	-0.43659	0.502589	0.505013	0.168652	268.39858	-0.09614	0.300968	0.173455	-0.19501	0.599575	1.212042
NESB-BWBK-SB-NE101-0110	4455.2398	-0.34017	0.614279	6.358721	0.88786	0.147511	-0.33764	318.90954	-0.2527	0.616343	2.501268	-0.59353	0.21665	-0.51537
NESB-BWBK-SB-NE102-0110	4300.8564	-0.60528	0.288807	6.592338	0.298242	-0.13662	-0.28003	277.84725	-0.52401	0.293451	2.355094	-0.10657	-0.11911	-0.71923
NESB-BWBK-SB-NE103-0110	3870.3859	-0.65172	-0.26759	5.400983	0.334135	-0.13011	-0.19669	242.59797	-0.60032	-0.28237	1.719106	-0.46499	-0.13589	-0.86262
NESB-BWBK-SB-NE104-0110	3587.9863	-0.69661	-0.64454	4.680078	0.187701	-0.0713	-0.15349	231.51678	-0.66618	-0.66989	1.303524	-0.49186	-0.08734	-1.03437
NESB-BWBK-SB-NE105-0110	4840.0295	-0.40121	0.524567	7.735819	0.563745	-0.13442	-0.38279	316.73715	-0.3075	0.515188	2.951605	-0.22751	-0.10566	-0.68655
NESB-BWBK-SB-NE106-0110	4310.7461	-0.42534	0.086546	6.254641	0.547706	-0.14432	-0.31279	291.02317	-0.35188	0.057238	2.308543	-0.36104	-0.1228	-0.71776
NESB-BWBK-SB-NE107-0510	3616.6462	-0.50287	-0.71028	4.433979	0.404594	-0.31909	-0.16472	232.47928	-0.43799	-0.8074	1.596972	-0.28651	-0.32031	-0.37622
NESB-BWBK-SB-NE108-0110	3953.7916	-0.45066	0.060934	5.192139	0.903345	-0.18421	-0.26755	256.58335	-0.38459	0.041232	1.891223	-0.89302	-0.16816	-0.67565
NESB-BWBK-SB-NE109-0110	4095.1572	-0.50485	0.005976	5.707902	0.721755	-0.11831	-0.25999	261.75457	-0.4365	-0.01636	2.040468	-0.68663	-0.09924	-0.68703
NESB-BWBK-SB-NE110-0110	3955.0607	-0.45047	-0.08577	5.116875	0.913456	-0.02146	-0.22149	256.0454	-0.37552	-0.13266	1.927908	-0.83507	0.015121	-0.38914
NESS-BKG-SS03-NEB-0016	2193.016	-0.15969	1.244779	0.148218	0.850229	-2.48673	0.148032	76.017059	-0.18525	1.432831	-0.23155	-1.4371	-2.75007	0.018075
NESS-BKG-SS09-NEB-0018	1876.2224	-0.8684	0.386207	-0.1341	0.422545	-0.21283	0.350056	97.020167	-0.87	0.533156	-0.6351	-1.27456	-0.28291	0.186684
NESS-BWBK-SS-NE01-0001	2095.5937	0.354683	1.597653	-1.43759	0.09325	-1.07846	0.449527	222.30617	0.33295	1.759122	-0.38722	0.006236	-1.17305	1.827774
NESS-BWBK-SS-NE02-0001	1815.6262	0.797016	0.81131	-2.79533	-0.51317	-1.94688	0.722779	196.62122	0.75901	0.855426	-0.64373	1.119467	-2.09512	3.193032
NESS-BWBK-SS-NE03-0001	1829.3037	-0.34608	1.036386	-1.61453	1.118275	0.348543	0.483246	155.06725	-0.354	1.201889	-0.81517	-1.78395	0.367567	1.257503
NESS-BWBK-SS-NE04-0001	2157.5807	-0.07131	1.117346	-1.22654	1.598791	0.687296	0.198713	242.50337	-0.03369	1.203903	-0.18145	-1.7766	0.788585	1.149579
NESS-BWBK-SS-NE05-0001	1890.2972	-0.22717	1.067487	-1.45985	0.576205	-0.0252	0.556847	162.15417	-0.23001	1.216261	-0.64843	-0.92036	-0.03233	1.746268
NESS-BWBK-SS-NE06-0001	2022.2618	-0.20025	0.905729	-1.46885	1.376293	0.941086	0.322759	228.95384	-0.1606	0.982408	-0.32801	-1.52336	1.070247	1.479958
NESS-BWBK-SS-NE07-0001	2145.3735	-0.15271	1.231149	-0.65112	1.088413	-1.01131	0.432061	111.35306	-0.17638	1.414974	-0.4751	-1.70491	-1.12219	1.106458
NESS-BWBK-SS-NE08-0001	1970.647	-0.34166	0.94463	-1.25188	1.152995	0.593194	0.398291	184.9895	-0.33192	1.078222	-0.56574	-1.64907	0.65231	1.183421
NESS-BWBK-SS-NE09-0001	2291.2308	-0.61395	1.699475	0.146162	1.280383	0.340281	0.454728	129.94101	-0.62101	1.967737	-0.41185	-2.2615	0.333884	0.820112
NESS-BWBK-SS-NE10-0001	2213.7528	-0.17701	0.870708	-0.3098	1.109471	-1.24847	0.355296	99.961838	-0.18998	1.004442	-0.30419	-1.66533	-1.37858	0.931408
NESS-BWBK-SS-NE101-0001	2457.9751	-1.04113	0.548881	1.560935	0.865479	0.545463	0.223752	132.62704	-1.03081	0.719821	-0.10372	-1.87796	0.551994	-0.33837
NESS-BWBK-SS-NE102-0001	2063.3378	-1.12346	-0.15674	0.956885	0.148166	-0.18896	0.268391	87.02025	-1.1349	-0.02743	-0.51279	-1.19962	-0.27638	-0.5639
NESS-BWBK-SS-NE103-0001	1910.1763	-1.18513	-0.4132	0.630662	-0.03444	-0.09108	0.30674	82.564184	-1.19716	-0.30397	-0.66449	-1.00028	-0.17022	-0.5052
NESS-BWBK-SS-NE104-0001	1897.6316	-0.93561	-0.28596	0.216933	0.638485	-0.7903	0.240006	50.912719	-0.93563	-0.20659	-0.54878	-1.56857	-0.91404	-0.27975
NESS-BWBK-SS-NE105-0001	1903.0785	-1.21355	-0.59878	0.54287	-0.02289	0.173362	0.370532	80.22235	-1.24312	-0.48568	-0.83934	-1.22436	0.101437	-0.53933
NESS-BWBK-SS-NE106-0001	1997.7357	-1.11997	-0.29958	0.849676	0.4805	-0.80552	0.27679	27.406789	-1.1307	-0.18732	-0.54103	-1.63129	-0.95403	-0.51917
NESS-BWBK-SS-NE107-0001	1949.7758	-1.255	-0.23592	0.773963	0.156324	-0.08585	0.37877	52.366694	-1.28435	-0.07889	-0.79422	-1.53614	-0.19378	-0.5638
NESS-BWBK-SS-NE108-0001	2133.8943	-1.1653	-0.14046	1.291912	0.017606	-0.32671	0.284282	77.534982	-1.1707	-0.01185	-0.3875	-1.00783	-0.42626	-0.47816
NESS-BWBK-SS-NE109-0001	1964.4921	-1.25439	-0.57231	0.789649	0.046534	0.117348	0.365877	69.827935	-1.27782	-0.45899	-0.74183	-1.29476	0.041694	-0.52708
NESS-BWBK-SS-NE110-0001	1936.2434	-1.24371	-0.33105	0.987771	0.11562	-0.67317	0.223035	46.158866	-1.2727	-0.18518	-0.70511	-1.40176	-0.82534	-1.11207

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	MAGNESIUM							MANGANESE						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	936.09934	-1.47013	-2.25505	-6.81724	-3.87524	-2.48673	-0.93139	27.406789	-1.5194	-2.4076	-1.17817	-3.73067	-2.75007	-2.6927
MAXIMUM DOMAIN VALUE	5344.2828	3.124982	2.589422	9.931936	4.421573	2.013572	0.722779	718.67015	2.976248	2.88755	4.052494	4.640688	2.211184	3.193032
SAMPLE	**MG predict**	D1	D2	D3	D4	D5	D6	**MN predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	2481.9698	0.484205	0.461458	-0.55829	-0.11457	0.900089	-0.42308	501.88994	0.476106	0.462435	0.061164	0.303692	0.978655	-1.08876
PMSB-BWBK-SB-PM02-0104	2033.8269	1.238505	1.54966	-3.82801	1.2099	2.013572	-0.39038	610.62774	1.18707	1.634325	-0.82442	-1.24762	2.211184	-0.59508
PMSB-BWBK-SB-PM03-0106	2265.3685	1.915199	-0.00391	-3.83542	1.277686	0.628074	-0.70958	650.80749	1.832247	-0.12765	-0.56585	-0.81848	0.753307	-1.30832
PMSB-BWBK-SB-PM04-0105	2298.6952	0.995775	0.221089	-1.96812	-0.06485	0.411381	-0.26116	505.89132	1.001581	0.120001	0.0471	0.884716	0.500182	0.349561
PMSB-BWBK-SB-PM05-0105	2248.782	0.974261	0.219002	-2.05866	-0.00285	0.633391	-0.40405	532.38081	0.968901	0.131811	-0.09127	0.557644	0.711023	-0.37071
PMSB-BWBK-SB-PM06-0105	1957.2143	0.923974	0.110451	-2.80226	-0.20736	0.752324	-0.34975	497.98492	0.944347	-0.0259	-0.27786	0.296752	0.718521	0.006729
PMSB-BWBK-SB-PM07-0105	2310.3073	0.548643	0.250158	-1.22534	-0.22243	1.720683	-0.64064	587.72731	0.484892	0.283809	-0.54168	-0.27725	1.79329	-2.58347
PMSB-BWBK-SB-PM08-0106	2349.5767	0.740449	0.163048	-1.34621	-0.16888	0.967793	-0.50506	549.03524	0.709543	0.128464	-0.19144	0.357684	1.047837	-1.37397
PMSB-BWBK-SB-PM09-0106	2062.3591	0.355719	-0.58949	-1.53163	-0.38385	0.83439	-0.25495	448.1556	0.32734	-0.66316	-0.47982	0.452626	0.900443	-0.88351
PMSB-BWBK-SB-PM10-0105	2042.128	0.378165	1.162102	-1.67274	-0.64095	1.381333	-0.3011	528.34271	0.336618	1.293217	-0.61735	0.584758	1.473092	-1.21433
PMSB-BWBK-SB-PM11-0104	2538.9464	1.019989	0.118865	-1.27086	0.021123	1.08621	-0.71057	591.97767	0.945589	0.089139	-0.36483	-0.70675	1.039941	-2.44561
PMSB-BWBK-SB-PM12-0105	1768.835	-0.38702	-0.03164	-1.1248	-1.3177	1.140827	0.160122	352.75414	-0.35472	-0.03008	-0.41175	1.653299	1.241142	0.52322
PMSB-BWBK-SB-PM13-0106	1786.7233	-0.28519	0.954837	-1.4142	-0.82476	1.529895	0.049898	391.5299	-0.28065	1.083671	-0.66041	0.623654	1.615315	-0.15127
PMSB-BWBK-SB-PM14-0106	1923.7845	-0.37001	0.030534	-0.55417	-1.25627	0.835104	0.006685	352.86521	-0.36083	0.062034	-0.39797	1.18264	0.852975	-0.3544
PMSB-BWBK-SB-PM15-0105	2034.6114	0.276511	0.266021	-1.56562	-0.28526	0.654093	-0.04316	400.00153	0.271223	0.268403	-0.37676	0.504314	0.721104	0.110406
PMSB-BWBK-SB-PM16-0106	2002.7347	-0.09079	0.012093	-1.04891	-0.43012	0.656896	0.0959	329.02918	-0.08147	0.010899	-0.3561	0.465645	0.701406	0.34811
PMSB-BWBK-SB-PM17-0105	2652.3636	0.92653	0.380371	-0.8308	0.433204	0.835238	-0.68769	578.94121	0.900208	0.344434	0.152427	-0.10966	0.942063	-1.7375
PMSB-BWBK-SB-PM18-0105	2133.2069	1.470412	-0.14431	-3.61963	1.272535	0.080533	-0.12199	455.49269	1.421124	-0.27204	-0.55313	-0.85749	0.152059	0.753817
PMSB-BWBK-SB-PM19-0105	2205.1547	0.716884	0.111594	-1.86189	0.367436	0.034853	-0.05649	386.97933	0.695759	0.064227	-0.29346	-0.15599	0.05235	0.403191
PMSB-BWBK-SB-PM20-0106	2133.5046	0.408309	0.089057	-1.45214	-0.20178	0.337799	-0.0535	394.65954	0.399995	0.060705	-0.26789	0.511221	0.386034	0.202684
PMSB-BWBK-SB-SO01-0107-PM	2479.8271	1.606792	-0.20624	-2.58634	1.145733	-0.63375	-0.24001	460.75212	1.498673	-0.2836	-0.5237	-1.02309	-0.64936	-0.27459
PMSB-BWBK-SB-SO02-0109-PM	1871.562	1.575398	-0.13641	-4.29481	0.999919	-0.56086	-0.11683	439.96793	1.482295	-0.2213	-1.00874	-0.75616	-0.56755	0.33471
PMSB-BWBK-SB-SO13-0104-PM	2841.6783	2.005551	-0.22824	-2.42146	2.108986	-0.07021	-0.67201	580.00905	1.850633	-0.2972	-0.52739	-2.35738	-0.03237	-1.98438
PMSB-BWBK-SB-SO14-0105-PM	2674.2101	2.217932	-0.29893	-3.05557	1.507139	-0.7012	-0.49039	562.28692	2.087357	-0.43074	-0.42612	-1.1856	-0.70036	-0.72775
SESB-BWBK-SB-SO03-0108	2968.1453	3.124982	0.12307	-3.94472	2.373956	-0.90902	-0.60578	651.35336	2.976248	-0.04777	-0.24857	-1.81176	-0.90006	-0.26377
SESB-BWBK-SB-SO04-0108	2859.964	2.087142	-0.21324	-2.19832	1.021945	-0.685	-0.46251	568.53765	1.942503	-0.30317	-0.33	-0.78597	-0.7015	-0.97499
SESB-BWBK-SB-SO05-0106	2431.6671	1.52622	0.345641	-2.61316	0.591916	-0.32318	-0.08866	476.72871	1.443504	0.306531	-0.41544	-0.19059	-0.30738	0.510158
SESB-BWBK-SB-SO06-0108	2312.252	2.743831	0.211248	-5.0223	1.546726	-0.56703	-0.54627	653.32454	2.599844	0.091259	-0.8112	-0.85874	-0.51864	-0.4418
SESB-BWBK-SB-SO07-0106	2649.6979	2.087882	-0.15851	-2.55268	0.344336	-0.47025	-0.6625	619.72008	1.946801	-0.25742	-0.50145	-0.51048	-0.58806	-1.75739
SESB-BWBK-SB-SO08-0107	2814.4933	2.704842	0.390642	-3.35193	1.10475	-0.76072	-0.58521	662.8716	2.572544	0.276994	-0.23046	-0.43171	-0.76995	-0.5128
SESB-BWBK-SB-SO09-0106	2483.8709	1.308726	0.214473	-2.01944	0.471342	-0.24926	-0.16653	475.52667	1.253603	0.154525	-0.1572	0.146393	-0.19926	0.326838
SESB-BWBK-SB-SO11-0106	2476.5291	1.963295	0.179801	-2.9825	0.3279	-0.1602	-0.52151	594.87061	1.919172	0.011242	-0.06832	0.088207	-0.22494	-0.14238
SESB-BWBK-SB-SO12-0106	2474.5964	2.217084	-0.31127	-3.47766	0.936577	-0.87693	-0.39722	554.61396	2.066499	-0.42217	-0.72433	-0.75159	-0.93417	-0.6666
SESB-BWBK-SB-SO15-0103	2059.4321	0.270375	0.381038	-1.44557	-0.07226	0.444803	-0.09678	385.10766	0.248946	0.416002	-0.45882	0.038316	0.473245	-0.31285
SESB-BWBK-SB-SO16-0105	2231.2113	0.891704	-0.24587	-1.88797	-0.20169	0.182918	-0.24156	477.85312	0.820023	-0.28979	-0.52845	0.388354	0.210002	-0.71382
SESB-BWBK-SB-SO17-0106	2475.002	0.310556	-0.08337	-0.1912	-0.65245	0.490583	-0.14757	436.62919	0.283206	-0.09392	-0.03462	0.982416	0.55928	-0.50143
SESB-BWBK-SB-SO18-0105	2412.151	0.013851	-0.15313	0.136988	-0.67824	0.686881	-0.18178	413.07182	0.010875	-0.16726	0.039301	0.929105	0.762473	-0.68831
SESB-BWBK-SB-SO19-0104	2946.4868	0.659712	0.09245	0.841332	-0.86011	0.836171	-0.75815	621.9653	0.611564	0.084002	0.382346	1.258575	0.926224	-2.61064
SESB-BWBK-SB-SO20-0104	2369.6202	1.597566	-0.41347	-2.70044	0.396389	-0.46892	-0.29888	500.41125	1.479825	-0.50533	-0.66928	-0.40367	-0.52861	-0.66899

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

NICKEL

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
13.5583						
6.5557						

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0389	0.2663	0.0087	-0.3027	0.0065	0.1517
AS	-0.0448	0.0050	0.0444	0.1197	-0.0179	0.1250
BA	-0.0897	0.1879	0.2125	0.1613	-0.0399	-0.3069
BE	-0.0086	0.1161	-0.0152	-0.0159	0.2717	0.2285
CA	-0.0146	0.0078	-0.0668	0.1750	0.0782	-0.1225
CR	-0.0856	0.2730	-0.1359	0.0849	0.4698	0.7016
CO	0.2662	-0.0288	0.1266	-0.0979	0.2940	-1.8163
CU	0.1269	-0.0509	0.0411	-0.2867	-0.1555	0.0987
FE	0.4633	-0.1320	-0.4212	-0.4567	0.1589	-0.7103
PB	0.0246	0.0336	0.0152	-0.0514	-0.2875	-0.0880
MG	0.0963	-0.0910	0.5488	0.2625	0.0541	1.4428
MN	-0.0054	0.0083	-0.0056	0.0579	0.0309	-0.0408
NI	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
K	-0.0107	0.0795	0.5551	-0.0556	-0.0868	-0.5100
V	-0.1078	0.3640	0.0660	0.1617	-0.1363	-0.3567
ZN	0.3186	-0.0703	-0.1059	0.5057	-0.9258	0.7958

POTASSIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
627.0805						
395.6632						

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0324	0.3105	0.0282	-0.3935	0.0159	0.7728
AS	-0.0373	0.0058	0.1437	0.1557	-0.0436	0.6364
BA	-0.0748	0.2190	0.6887	0.2097	-0.0974	-1.5632
BE	-0.0071	0.1354	-0.0494	-0.0206	0.6631	1.1640
CA	-0.0122	0.0091	-0.2164	0.2276	0.1910	-0.6239
CR	-0.0714	0.3183	-0.4403	0.1104	1.1467	3.5733
CO	0.2220	-0.0336	0.4101	-0.1272	0.7175	-9.2500
CU	0.1058	-0.0594	0.1333	-0.3728	-0.3796	0.5027
FE	0.3864	-0.1539	-1.3647	-0.5938	0.3879	-3.6175
PB	0.0205	0.0392	0.0492	-0.0668	-0.7018	-0.4481
MG	0.0803	-0.1061	1.7781	0.3412	0.1321	7.3483
MN	-0.0045	0.0097	-0.0181	0.0753	0.0754	-0.2077
NI	0.1389	-0.0681	-0.1453	-0.1508	0.1995	-0.9305
K	-0.0089	0.0927	1.7988	-0.0722	-0.2118	-2.5973
V	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ZN	0.2657	-0.0820	-0.3433	0.6575	-2.2596	4.0529

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	NICKEL							POTASSIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2.736999	-1.5338	-2.3227	-1.1415	-1.2579	-2.2469	-3.5311	-661.838	-1.5996	-1.6379	-3.5789	-1.5727	-5.1202	-19.529
MAXIMUM DOMAIN VALUE	31.82473	2.95001	2.69947	3.84258	1.47558	1.79326	4.40084	5066.47	2.99464	2.04219	12.5379	2.42293	5.19981	23.0462
SAMPLE	**NI predict**	D1	D2	D3	D4	D5	D6	**K predict**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	7.562351	-0.6849	-2.1204	-0.2399	0.25291	-0.1102	1.13289	562.27	-0.9218	-1.5031	-0.1592	0.94567	-1.1991	3.04875
BASS-BWBK-SS-BA102-0001	6.22351	-0.8688	-2.3227	-0.561	0.03368	-0.0991	0.27811	248.756	-1.1098	-1.6379	-1.1366	0.72326	-1.2669	-1.607
BASS-BWBK-SS-BA103-0001	6.487146	-0.8687	-2.1655	-0.378	0.27994	-0.0253	0.14577	439.893	-1.0847	-1.5281	-0.5893	0.99811	-1.0179	-2.0597
BASS-BWBK-SS-BA104-0001	7.367628	-0.7509	-1.879	0.14811	0.25825	-0.0849	0.94155	975.115	-0.9153	-1.4048	0.98555	0.84047	-0.9671	2.63454
BASS-BWBK-SS-BA105-0001	7.334272	-0.8391	-2.1442	-1.0327	1.39149	0.40901	-0.4766	-319.795	-1.0434	-1.5191	-2.7304	2.42293	0.06995	-5.2924
BASS-BWBK-SS-BA106-0001	7.762089	-0.6867	-1.8937	-0.1381	0.3377	-0.0325	1.49258	631.622	-0.8558	-1.3829	0.06522	0.94976	-0.8532	5.13355
BASS-BWBK-SS-BA107-0001	6.13376	-0.8982	-2.2307	-0.4493	0.08763	-0.1417	0.13314	365.734	-1.1217	-1.5904	-0.8051	0.76382	-1.3241	-2.0896
BASS-BWBK-SS-BA108-0001	6.26117	-0.8898	-2.2362	-0.5061	0.21	0.00107	0.33053	299.284	-1.1135	-1.5668	-0.9807	0.93061	-0.9902	-1.2873
BASS-BWBK-SS-BA109-0001	7.163019	-0.7464	-2.1385	-0.1599	0.20697	0.09344	1.67411	638.895	-0.9279	-1.5311	0.0579	0.84148	-0.6455	5.40563
BASS-BWBK-SS-BA110-0001	7.569855	-0.7469	-1.6874	0.54683	0.17471	0.02944	0.67118	1445.42	-0.9125	-1.1429	2.29018	0.74378	-0.7093	1.01815
BASS-BWBK-SS-BA111-0001	6.604929	-0.8432	-2.1467	-0.4106	0.20159	0.04038	0.692	390.545	-1.0635	-1.5061	-0.6949	0.89624	-0.8578	0.72213
BASS-BWBK-SS-BA112-0001	6.633088	-0.8955	-2.1723	-0.5974	0.82655	0.2859	0.19496	186.163	-1.1213	-1.5137	-1.2805	1.72873	-0.2871	-1.8113
BASS-BWBK-SS-BA113-0001	9.323732	-0.3862	-2.2459	-0.7861	0.8835	-1.0831	0.8488	-106.843	-0.6836	-1.625	-1.9115	1.783	-3.5995	1.55317
MASB-BWBK-SB-MA01-0105	21.61053	1.25326	-0.1192	-0.0864	0.66	-0.0742	-0.2235	477.355	1.22867	-0.2577	-0.4811	0.65025	0.09786	-2.1852
MASB-BWBK-SB-MA02-0107	22.4439	1.40124	-0.068	0.17602	0.6194	-0.1819	0.89741	738.896	1.37876	-0.1804	0.35105	0.57755	-0.1431	3.15049
MASB-BWBK-SB-MA03-0108	26.89636	2.14312	-0.6041	-0.1627	0.61044	-0.5777	-3.4095	495.892	2.0142	-0.7143	-0.7326	0.57714	-1.1382	-19.529
MASB-BWBK-SB-MA04-0106	22.91756	1.44079	0.12651	0.65988	1.30337	-0.4347	2.70403	1173.78	1.47088	-0.1433	1.80639	1.35503	-0.5892	12.9767
MASB-BWBK-SB-MA05-0108	20.28564	1.04008	-0.0152	0.17722	0.91698	-0.187	1.58404	703.216	1.06237	-0.1726	0.35153	0.96285	-0.1446	7.13841
MASB-BWBK-SB-MA06-0105	20.35805	1.0793	-0.0338	0.14235	0.58639	-0.3348	1.25913	676.011	1.09413	-0.2168	0.23228	0.52726	-0.4943	5.63585
MASB-BWBK-SB-MA07-0108	19.17031	0.97985	-0.5993	-0.3896	0.44214	-0.4746	1.35285	123.89	0.91424	-0.6603	-1.337	0.49485	-1.065	5.69272
MASB-BWBK-SB-MA08-0108	31.18141	2.76265	0.51638	-0.8991	0.37127	-0.4101	2.03533	-661.838	2.70417	-0.2309	-3.533	-0.1406	-0.0853	11.7335
MASB-BWBK-SB-MA09-0108	24.50788	1.8481	-0.4738	-0.6098	0.21254	-1.0564	0.57962	-154.736	1.71806	-0.6755	-2.1724	0.07347	-2.305	1.99854
MASB-BWBK-SB-MA10-0104	18.37817	0.89554	-0.8647	-1.108	-0.0347	-0.3125	0.02595	-611.788	0.76859	-0.91	-3.5789	-0.0365	-0.7898	-0.7063
MASB-BWBK-SB-MA11-0108	24.05065	1.66935	0.17307	-0.3258	0.43676	-0.6888	1.27031	90.7235	1.64322	-0.1642	-1.3951	0.22324	-1.1907	6.33218
MASB-BWBK-SB-MA12-0108	24.79029	1.79965	-0.2744	0.11112	0.73743	-0.4762	0.30167	673.025	1.73431	-0.4325	0.11636	0.7057	-0.828	-0.0397
MASB-BWBK-SB-MA13-0105	10.94698	-0.5821	0.63455	-0.2894	0.57261	0.98859	-0.0369	251.744	-0.4547	0.48189	-1.0467	0.63917	2.58695	1.15104
MASB-BWBK-SB-MA14-0104	19.11664	0.7184	1.02128	-0.549	-0.083	0.62443	-1.1034	-64.9572	0.76558	0.74008	-2.0695	-0.398	1.96062	-4.3877
MASB-BWBK-SB-MA15-0105	14.75157	-0.0433	1.36783	-0.3194	0.02698	1.07535	-0.6005	165.665	0.12078	0.99203	-1.3649	-0.2911	3.13135	-0.7655
MASB-BWBK-SB-MA16-0104	15.03443	0.15681	0.19014	-0.4717	0.34264	0.42033	-0.9058	76.6023	0.18942	0.01123	-1.647	0.32797	1.20736	-3.8504
MASB-BWBK-SB-MA17-0104	13.70038	-0.0801	0.4433	-0.711	0.28721	0.35427	-0.9145	-195.434	-0.0701	0.37504	-2.3457	0.33457	0.93663	-3.7228
MASB-BWBK-SB-MA18-0104	11.47709	-0.5764	1.20925	-0.165	0.8655	1.05658	1.27895	251.774	-0.3254	0.66261	-0.9087	0.75794	3.16089	9.7419
MASB-BWBK-SB-MA19-0103	10.36831	-0.6182	0.25705	-0.4035	0.70636	0.53041	-0.4362	142.732	-0.5126	0.15476	-1.3558	0.87262	1.37565	-1.3291
MASB-BWBK-SB-MA20-0103	19.49455	0.95117	-0.1934	-0.3408	0.3548	-0.1345	-0.1029	191.727	0.95949	-0.3434	-1.2896	0.26993	-0.0701	-1.4066
MASS-BWBK-SS-MA01-0001	4.265072	-1.4574	-0.2863	-0.5493	0.22862	-0.2665	-1.0088	86.7873	-1.4468	0.01855	-1.4623	0.61933	-1.1106	-5.1067
MASS-BWBK-SS-MA02-0001	5.68227	-1.4069	0.88288	-0.0057	0.63845	-0.0164	-0.0286	602.404	-1.3218	1.2953	0.19786	1.04856	-0.3566	-0.3784
MASS-BWBK-SS-MA03-0001	7.018031	-1.0817	0.05741	-0.4332	0.46275	0.055	-0.0383	156.438	-1.0546	0.28887	-1.1976	0.81087	-0.1636	-0.1091
MASS-BWBK-SS-MA04-0001	8.323959	-0.8799	0.07433	-0.2857	0.75075	-0.1333	0.46925	293.948	-0.8538	0.36153	-0.7321	1.17043	-0.6134	1.82067
MASS-BWBK-SS-MA05-0001	12.81759	-0.2181	0.69014	-0.1551	0.74809	-0.3636	1.46778	292.632	-0.1172	0.5301	-0.647	0.8305	-0.6646	8.58693
MASS-BWBK-SS-MA06-0001	11.06803	-0.7057	1.70474	0.37017	1.47558	0.22746	1.21985	847.569	-0.5185	1.63399	1.02555	1.74787	0.82658	7.77474
MASS-BWBK-SS-MA07-0001	2.736999	-1.5338	-1.3187	-1.1286	-0.4024	-0.4469	-2.1868	-449.828	-1.5996	-0.9886	-3.198	-0.059	-1.7607	-11.482
MASS-BWBK-SS-MA08-0001	11.07497	-0.4248	0.62447	-0.6065	0.18585	-1.6709	-1.6907	-172.468	-0.3431	0.31145	-2.1068	0.10777	-3.8422	-6.0709
MASS-BWBK-SS-MA09-0001	14.91685	-0.0927	2.69947	0.21286	0.99535	-1.8769	0.41779	465.647	0.18408	2.04219	0.1081	0.72086	-3.6827	6.59022
MASS-BWBK-SS-MA10-0001	14.50541	-0.0679	1.80763	-0.2824	0.94005	-1.4314	0.06958	-2.17314	0.13897	1.18755	-1.3797	0.76572	-2.7717	4.28493
MASS-BWBK-SS-MA11-0001	14.76069	-0.1063	2.13424	-0.0679	0.76174	-0.6498	-0.8263	263.525	0.14665	1.32709	-0.7961	0.42511	-0.6883	0.86667
MASS-BWBK-SS-MA12-0001	9.848611	-0.5781	-0.0074	-0.5046	0.59025	-0.6588	1.41707	-25.1357	-0.5396	0.10551	-1.5479	0.85538	-1.7366	7.05594
MASS-BWBK-SS-MA13-0001	7.629097	-1.1932	1.65834	-0.0456	0.64337	-0.1701	-0.5105	411.202	-0.9611	1.33746	-0.3661	0.62802	-0.0562	0.85732
MASS-BWBK-SS-MA14-0001	5.412927	-1.4122	0.99322	-0.287	0.44977	-1.2396	-1.7327	174.013	-1.1894	0.60728	-1.0933	0.43271	-2.7445	-5.2071
MASS-BWBK-SS-MA15-0001	5.272721	-1.4601	1.10226	-0.25	0.32562	-0.641	-1.0091	237.003	-1.2558	0.87744	-0.9048	0.33855	-1.3912	-2.1714
MASS-BWBK-SS-MA16-0001	8.158554	-0.9513	0.73319	-0.6568	0.25304	-0.402	-0.2802	-239.843	-0.7792	0.35264	-2.2992	0.16704	-0.6959	1.62843
MASS-BWBK-SS-MA17-0001	8.908968	-0.8537	0.85048	-0.6429	0.21462	-0.3425	-0.8154	-202.607	-0.7042	0.54603	-2.2308	0.13977	-0.5883	-1.396
MASS-BWBK-SS-MA18-0001	6.780274	-1.1848	0.89399	-0.7811	0.36917	-0.9025	-1.1354	-419.178	-0.9421	0.31799	-2.8005	0.2223	-1.7613	-1.6272
MASS-BWBK-SS-MA19-0001	8.767905	-0.9261	1.13243	-0.6098	0.43984	-0.4446	-1.1581	-207.347	-0.7187	0.6764	-2.2269	0.33076	-0.6776	-2.3296
MASS-BWBK-SS-MA20-0001	11.21864	-0.45	0.57946	-0.5139	0.44257	-0.5468	-0.2176	-72.4628	-0.3207	0.31421	-1.8278	0.41708	-1.0772	0.65448
MMSB-BWBK-SB-MM101-0110	13.18609	0.06796	-0.8778	0.74093	-0.2891	-0.0457	-0.2674	1613.49	-0.0771	-0.5315	2.67524	-0.1044	-0.5316	-3.1771
MMSB-BWBK-SB-MM102-0109	13.36664	0.028	-0.4735	1.48694	0.00359	0.34064	1.45578	2356.79	0.04743	-0.2943	4.87804	0.05834	0.72171	5.53892
MMSB-BWBK-SB-MM103-0107	14.19277	0.16512	-0.7459	1.04106	-0.2899	0.55564	-1.579	2014.71	0.02243	-0.3754	3.63205	-0.1222	0.95632	-10.053
MMSB-BWBK-SB-MM104-0110	20.77442	1.32774	-0.2847	3.07184	-1.2579	-0.6508	2.55049	4152.31	1.07298	-0.2291	10.0168	-1.5727	-1.6836	12.6722
MMSB-BWBK-SB-MM105-0110	10.03594	-0.4584	-0.9176	-0.0936	-0.359	0.81403	0.20363	694.773	-0.5747	-0.4536	0.06255	-0.1033	1.43126	-0.9933
MMSB-BWBK-SB-MM106-0110	17.36478	0.52407	0.57742	2.84531	0.53975	0.00345	2.51372	3759.65	0.52778	0.45471	9.06997	0.55166	0.23188	13.3012
MMSB-BWBK-SB-MM107-0110	11.70681	-0.3014	-0.2284	1.03683	-0.0178	0.93144	0.84425	1908.91	-0.3752	0.12516	3.59359	0.20935	1.91848	3.02643
MMSB-BWBK-SB-MM108-0110	12.31726	-0.1254	-0.5523	1.24025	-0.1285	0.13713	0.22988	2140.59	-0.2198	-0.3295	4.22072	0.03443	0.0312	0.30129
MMSB-BWBK-SB-MM109-0110	13.25205	-0.127	0.52323	1.8685	-0.2091	0.38014	-0.3838	2793.49	-0.1097	0.61378	6.05915	-0.2671	0.92136	-1.9409
MMSB-BWBK-SB-MM110-0109	12.33623	-0.1881	-0.0621	1.09077	-0.1818	0.42792	0.72726	1920.72	-0.2246	0.10796	3.6518	-0.1191	0.86832	3.22218
MMSB-BWBK-SB-MM111-0110	13.92607	0.07411	-0.0766	2.21085	-0.1213	-0.0329	-0.0052	3215.49	0.01433	0.11168	7.26967	-0.0535	-0.2436	-0.8386
MMSB-BWBK-SB-MM112-0110	13.19171	-0.1128	0.20305	1.79257	0.19718	0.28305	0.09083	2666.22	-0.0503	0.08332	5.72118	0.16979	0.82427	1.00909
MMSB-BWBK-SB-MM113-0110	12.92237	-0.1326	0.00834	1.15128	0.12454	1.05234	2.4786	1955.73	-0.1504	0.29115	3.85481	0.28269	2.37111	11.2246
MMSB-BWBK-SB-MM114-0110	9.966237	-0.4828	-0.8144	0.88773	-0.0913	0.18885	-0.683	1801.98	-0.5632	-0.4024	3.19231	0.19446	-0.0204	-5.3808

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	NICKEL							POTASSIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2.736999	-1.5338	-2.3227	-1.1415	-1.2579	-2.2469	-3.5311	-661.838	-1.5996	-1.6379	-3.5789	-1.5727	-5.1202	-19.529
MAXIMUM DOMAIN VALUE	31.82473	2.95001	2.69947	3.84258	1.47558	1.79326	4.40084	5066.47	2.99464	2.04219	12.5379	2.42293	5.19981	23.0462
SAMPLE	**NI predict**	D1	D2	D3	D4	D5	D6	**K predict**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	11.81504	-0.3601	0.4147	3.84258	0.45623	-0.4555	-1.2396	5066.47	-0.3825	0.52566	12.5379	0.68296	-1.2307	-5.7742
MMSB-BWBK-SB-MM116-0110	12.90862	-0.0274	-0.612	1.49142	0.06122	-0.0099	0.42142	2432.71	-0.1372	-0.2235	5.08925	0.33229	-0.4206	0.15273
MMSB-BWBK-SB-MM117-0110	11.50559	-0.1389	-1.3274	0.79309	-0.4173	-0.2009	-1.2064	1745.56	-0.309	-0.9005	2.9463	-0.1692	-1.0635	-8.3631
MMSB-BWBK-SB-MM118-0110	14.23089	0.24256	-0.8901	1.40511	-0.2356	-0.2344	-0.0909	2299.85	0.31031	-0.737	4.55159	-0.3188	-0.6062	-3.4356
MMSB-BWBK-SB-MM119-0110	12.49796	-0.0829	-0.7207	1.69772	0.15	-0.0432	0.48757	2655.16	-0.1752	-0.4882	5.70681	0.39906	-0.4183	1.28505
MMSB-BWBK-SB-MM120-0110	8.696701	-0.5686	-1.5453	0.43304	-0.4512	0.06435	-1.1961	1374.94	-0.7472	-1.0466	1.88483	-0.1062	-0.5676	-8.2137
MMSS-BWBK-SS-MM101-0001	9.681562	-0.7249	1.19797	-0.2002	-0.587	0.10615	0.63662	299.609	-0.5984	1.01324	-0.7751	-0.8824	0.47143	5.62182
MMSS-BWBK-SS-MM102-0001	7.582471	-0.9401	0.06655	-0.6389	-0.6137	0.44082	-0.1012	-52.4739	-0.898	0.13529	-1.9505	-0.6736	0.91127	0.23622
MMSS-BWBK-SS-MM103-0001	9.085443	-0.7958	1.02733	-0.4676	-0.698	0.11885	0.25844	9.8107	-0.6571	0.77576	-1.6543	-1.0387	0.5237	3.93518
MMSS-BWBK-SS-MM104-0001	10.43489	-0.581	0.99428	0.04661	-0.5751	0.10749	0.60625	603.582	-0.4772	0.85924	0.04983	-0.8435	0.43157	4.92335
MMSS-BWBK-SS-MM105-0001	6.648071	-1.0507	-0.1135	-0.7864	-0.7055	0.00552	-1.0599	-193.798	-1.0219	-0.0591	-2.395	-0.7584	-0.1968	-4.4336
MMSS-BWBK-SS-MM106-0001	10.25279	-0.671	1.21047	0.22272	-0.471	0.6352	0.54457	813.201	-0.5538	1.07383	0.61007	-0.7178	1.73777	4.86282
MMSS-BWBK-SS-MM107-0001	10.07875	-0.654	1.05793	0.14884	-0.4905	0.29831	1.15357	711.017	-0.548	0.95364	0.39636	-0.7181	0.87479	7.68032
MMSS-BWBK-SS-MM108-0001	7.559719	-1.0862	1.3374	-0.4776	-0.8151	0.37692	-0.0442	2.23515	-0.905	1.10189	-1.6927	-1.196	1.16572	2.67564
MMSS-BWBK-SS-MM109-0001	7.814954	-0.9834	0.77186	-0.565	-0.7708	0.64209	0.50697	-47.946	-0.869	0.65042	-1.866	-1.03	1.64327	4.6488
MMSS-BWBK-SS-MM110-0001	4.609907	-1.3328	-0.4062	-1.0545	-0.7413	-0.1868	-1.592	-454.698	-1.3267	-0.2516	-3.155	-0.6955	-0.8274	-7.4071
MMSS-BWBK-SS-MM111-0001	5.230725	-1.2376	-0.3696	-0.9229	-0.81	0.04874	-0.9491	-298.957	-1.2581	-0.1042	-2.686	-0.7437	-0.3212	-4.6931
MMSS-BWBK-SS-MM112-0001	4.847164	-1.246	-0.6991	-1.0212	-0.7364	-0.3132	-1.0807	-394.686	-1.2956	-0.3893	-2.9461	-0.59	-1.2934	-5.6943
MMSS-BWBK-SS-MM113-0001	7.101171	-1.0643	0.78806	-0.3855	-0.679	-0.492	-0.6216	132.426	-0.9339	0.57624	-1.3158	-0.9407	-1.0718	-0.5326
MMSS-BWBK-SS-MM114-0001	4.592715	-1.2758	-0.9604	-1.1415	-0.6842	0.03779	-1.2133	-479.586	-1.363	-0.5202	-3.2431	-0.4307	-0.5796	-7.0577
MMSS-BWBK-SS-MM115-0001	5.546743	-1.1927	-0.3933	-1.059	-0.6926	0.06721	-0.9329	-454.4	-1.2236	-0.0998	-3.1143	-0.5787	-0.2968	-4.785
MMSS-BWBK-SS-MM116-0001	5.210573	-1.2342	-0.5016	-1.0122	-0.6434	-0.0286	-1.1669	-400.652	-1.2544	-0.2891	-2.9858	-0.5371	-0.4922	-5.6139
MMSS-BWBK-SS-MM117-0001	8.163434	-0.8648	0.41621	-0.3786	-0.6566	-0.0649	-0.138	199.616	-0.8111	0.44703	-1.1588	-0.7804	-0.2435	0.42257
MMSS-BWBK-SS-MM118-0001	9.062227	-0.632	-0.6046	0.45718	-0.3972	0.37828	0.02388	1277.27	-0.6964	-0.3142	1.7556	-0.2414	0.51545	-0.7014
MMSS-BWBK-SS-MM119-0001	8.036521	-0.7652	-0.8842	0.0755	-0.3805	0.3443	-0.4643	878.2	-0.8324	-0.5133	0.58114	-0.1586	0.33524	-3.75
MMSS-BWBK-SS-MM120-0001	10.43023	-0.4644	-0.2606	-1.0403	-0.6344	0.93939	0.18769	-460.652	-0.528	-0.0571	-3.1677	-0.6194	1.99559	0.76806
NESB-BWBK-SB-NE01-0108	18.67643	0.88309	-0.3314	0.35421	-0.1461	0.41011	2.97219	994.18	0.80433	-0.2189	1.14005	-0.2042	0.99101	13.4062
NESB-BWBK-SB-NE02-0109	17.10206	0.59136	-0.2646	0.52974	0.24874	0.16455	1.55459	1237.06	0.50489	0.01648	1.80859	0.40858	0.24147	5.7357
NESB-BWBK-SB-NE03-0105	16.05396	0.49093	-0.5175	0.02017	-0.5113	0.44797	1.29067	710.084	0.38175	-0.2896	0.18894	-0.5458	0.89302	4.85001
NESB-BWBK-SB-NE04-0110	15.84464	0.45504	-0.57	0.2558	-0.1986	0.30001	1.68318	955.828	0.35363	-0.3594	0.94817	-0.1435	0.53859	6.88552
NESB-BWBK-SB-NE05-0108	17.83639	0.77009	-0.4723	0.08447	-0.2069	0.27815	2.34313	709.068	0.68541	-0.3788	0.28941	-0.2588	0.6376	10.4163
NESB-BWBK-SB-NE06-0109	16.59579	0.58296	-0.6362	0.0516	-0.2497	0.34016	1.54345	719.99	0.49508	-0.4843	0.24045	-0.2568	0.70288	6.13549
NESB-BWBK-SB-NE07-0107	17.94187	0.76836	-0.2934	0.13589	-0.2483	0.3351	2.66145	755.425	0.69537	-0.1299	0.45856	-0.3114	0.7684	11.6693
NESB-BWBK-SB-NE08-0104	14.50974	0.22007	-0.5209	-0.1399	-0.2594	0.54091	0.94989	518.173	0.17182	-0.378	-0.3706	-0.2583	1.18369	3.49391
NESB-BWBK-SB-NE09-0110	16.0353	0.49408	-0.6834	-0.018	-0.1631	0.36802	1.65941	650.711	0.38289	-0.4671	0.0715	-0.087	0.68757	6.64069
NESB-BWBK-SB-NE10-0107	13.15141	-0.0968	0.27259	0.1623	-0.0895	0.49447	1.6248	758.695	-0.0626	0.1731	0.46408	-0.1763	1.30558	9.01713
NESB-BWBK-SB-NE101-0110	12.32566	-0.2734	0.56247	2.38221	-0.2318	0.18396	-0.7148	3393.17	-0.2544	0.68595	7.75231	-0.2676	0.40181	-3.5723
NESB-BWBK-SB-NE102-0110	10.28525	-0.5587	0.24801	2.2327	-0.098	-0.075	-1.0293	3257.78	-0.5585	0.49703	7.38282	0.02129	-0.403	-5.655
NESB-BWBK-SB-NE103-0110	9.41711	-0.62	-0.2992	1.61816	-0.2444	-0.0775	-1.2507	2610.12	-0.6638	0.01177	5.48798	-0.0729	-0.5544	-7.2222
NESB-BWBK-SB-NE104-0110	8.788854	-0.6764	-0.6685	1.21617	-0.2748	-0.0304	-1.5015	2192.53	-0.7514	-0.3033	4.25804	-0.0401	-0.5489	-8.8356
NESB-BWBK-SB-NE105-0110	11.95782	-0.3201	0.46375	2.80497	-0.1051	-0.0614	-0.9806	3887.29	-0.3158	0.60476	9.15285	-0.0717	-0.2415	-4.9218
NESB-BWBK-SB-NE106-0110	11.24433	-0.374	0.03579	2.19333	-0.1652	-0.0859	-1.0079	3223.04	-0.3911	0.25835	7.24613	-0.0761	-0.4185	-5.7327
NESB-BWBK-SB-NE107-0510	10.33209	-0.3995	-0.7975	1.49445	-0.2039	-0.2165	-0.6234	2486.4	-0.523	-0.4602	5.15989	0.05249	-1.0025	-4.2985
NESB-BWBK-SB-NE108-0110	11.14718	-0.369	0.00444	1.78413	-0.3831	-0.1068	-0.9921	2747.96	-0.3941	0.10289	5.88903	-0.3879	-0.4143	-4.8263
NESB-BWBK-SB-NE109-0110	10.75028	-0.4336	-0.0481	1.92716	-0.3104	-0.0505	-1.0058	2938.31	-0.482	0.21133	6.43632	-0.2111	-0.4077	-5.6408
NESB-BWBK-SB-NE110-0110	11.1425	-0.3534	-0.1587	1.81741	-0.3632	0.04848	-0.6141	2810.38	-0.417	0.06413	6.07658	-0.2835	-0.1585	-3.5122
NESS-BKG-SS03-NEB-0016	12.62649	-0.1666	1.31252	-0.233	-0.5418	-2.2469	-0.0171	154.898	-0.0674	1.00759	-0.9836	-0.9266	-5.1202	2.53417
NESS-BKG-SS09-NEB-0018	8.075257	-0.879	0.43751	-0.6458	-0.5654	-0.1709	0.1	-131.71	-0.8242	0.38837	-2.0496	-0.6854	-0.4588	2.17824
NESS-BWBK-SS-NE01-0001	16.73786	0.37872	1.64407	-0.3643	0.0122	-0.9751	2.48758	-60.5965	0.44495	1.37364	-1.4671	-0.2665	-1.9376	14.8564
NESS-BWBK-SS-NE02-0001	18.70834	0.83264	0.82001	-0.5927	0.4097	-1.7687	4.40084	-355.171	0.80866	0.68013	-2.1095	0.34341	-4.035	23.0462
NESS-BWBK-SS-NE03-0001	11.74548	-0.3754	1.09977	-0.7879	-0.6558	0.31056	1.66456	-377.513	-0.3001	1.06366	-2.6335	-0.9295	0.89013	9.7411
NESS-BWBK-SS-NE04-0001	13.92844	-0.0529	1.12412	-0.1684	-0.5987	0.63536	1.57337	328.599	0.03741	0.97429	-0.7246	-0.9547	1.82641	9.35202
NESS-BWBK-SS-NE05-0001	12.61125	-0.2354	1.11634	-0.627	-0.3567	-0.02	2.32947	-236.733	-0.1752	1.07134	-2.1231	-0.5517	0.09927	13.1214
NESS-BWBK-SS-NE06-0001	12.82125	-0.213	0.91919	-0.3041	-0.5222	0.85353	2.04108	183.858	-0.1075	0.82507	-1.1258	-0.818	2.29749	11.2754
NESS-BWBK-SS-NE07-0001	12.91765	-0.158	1.2959	-0.4642	-0.6362	-0.9133	1.4577	-96.1547	-0.0599	0.9957	-1.7309	-1.0473	-1.869	9.99452
NESS-BWBK-SS-NE08-0001	11.74009	-0.3794	0.99508	-0.5414	-0.5908	0.52881	1.59923	-80.6907	-0.2853	0.96327	-1.8441	-0.8557	1.43256	9.09189
NESS-BWBK-SS-NE09-0001	10.4334	-0.6691	1.80482	-0.4102	-0.8278	0.29861	1.04254	34.7226	-0.541	1.77664	-1.4479	-1.1893	0.92418	7.22657
NESS-BWBK-SS-NE10-0001	12.4459	-0.1797	0.91596	-0.3	-0.6157	-1.1246	1.22466	125.354	-0.1008	0.67865	-1.1387	-0.9619	-2.479	8.2313
NESS-BWBK-SS-NE101-0001	7.087069	-1.088	0.61646	-0.1329	-0.7633	0.5027	-0.5833	519.344	-1.0125	0.72631	-0.3345	-0.8911	1.09938	-1.9854
NESS-BWBK-SS-NE102-0001	5.921008	-1.1686	-0.095	-0.5347	-0.5696	-0.1592	-0.9319	92.1944	-1.1429	0.0424	-1.5342	-0.5367	-0.6682	-4.0676
NESS-BWBK-SS-NE103-0001	5.312588	-1.2398	-0.3542	-0.6797	-0.5098	-0.0736	-0.8517	-54.2749	-1.2189	-0.1905	-1.9674	-0.4229	-0.5158	-3.9371
NESS-BWBK-SS-NE104-0001	6.903148	-0.9538	-0.2537	-0.563	-0.6764	-0.694	-0.5244	37.7868	-0.9519	-0.1178	-1.6287	-0.6795	-1.9727	-2.2662
NESS-BWBK-SS-NE105-0001	5.040189	-1.267	-0.5327	-0.8545	-0.6011	0.16522	-0.9308	-197.76	-1.3101	-0.1738	-2.4019	-0.4107	-0.1335	-5.097
NESS-BWBK-SS-NE106-0001	5.74896	-1.1382	-0.2527	-0.5686	-0.7318	-0.703	-0.8998	62.9495	-1.1622	-0.0202	-1.5658	-0.6697	-2.1128	-4.2369
NESS-BWBK-SS-NE107-0001	4.991517	-1.3045	-0.1569	-0.8158	-0.7045	-0.0658	-0.9849	-200.24	-1.3103	0.07326	-2.3645	-0.6308	-0.5587	-4.4615
NESS-BWBK-SS-NE108-0001	5.766392	-1.191	-0.0876	-0.4206	-0.519	-0.2723	-0.8387	224.56	-1.1876	0.10203	-1.1252	-0.4315	-1.002	-3.6622
NESS-BWBK-SS-NE109-0001	4.864907	-1.2932	-0.5132	-0.7655	-0.6354	0.12359	-0.931	-93.5793	-1.3446	-0.1448	-2.1002	-0.4414	-0.2534	-5.0128
NESS-BWBK-SS-NE110-0001	4.91704	-1.2889	-0.2584	-0.729	-0.6772	-0.5944	-1.7117	-125.326	-1.2522	-0.2585	-2.1908	-0.701	-1.6818	-7.2498

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	NICKEL							POTASSIUM						
	PREDICTED CASE VALUES (CONCENTRATIONS) = (CFS) X FPM													
	CASE FACTOR SCORES = ADJUSTED FACTOR PATTERN COEFFICIENTS X STANDARDIZED CONC													
MINIMUM DOMAIN VALUE	2.736999	-1.5338	-2.3227	-1.1415	-1.2579	-2.2469	-3.5311	-661.838	-1.5996	-1.6379	-3.5789	-1.5727	-5.1202	-19.529
MAXIMUM DOMAIN VALUE	31.82473	2.95001	2.69947	3.84258	1.47558	1.79326	4.40084	5066.47	2.99464	2.04219	12.5379	2.42293	5.19981	23.0462
SAMPLE	**NI predict**	D1	D2	D3	D4	D5	D6	**K predict**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	16.71508	0.36594	0.50795	0.1057	0.29759	0.73919	-1.2937	724.181	0.5031	0.35178	0.0902	0.12947	2.16512	-7.0021
PMSB-BWBK-SB-PM02-0104	23.30158	1.27333	1.58069	-0.7582	-0.2454	1.79326	-0.7094	-354.294	1.35351	0.94473	-3.0003	-0.8594	5.19981	-0.7633
PMSB-BWBK-SB-PM03-0106	25.92677	1.93373	-0.0274	-0.4755	-0.0743	0.51068	-1.5087	64.3883	1.89298	-0.4735	-1.93	-0.4911	1.81174	-7.6281
PMSB-BWBK-SB-PM04-0105	20.22288	0.99643	0.18674	0.09258	0.4808	0.34168	0.65034	642.373	1.03943	-0.0814	0.01977	0.34038	1.23869	3.16843
PMSB-BWBK-SB-PM05-0105	20.36201	1.0028	0.18534	-0.0556	0.36864	0.5554	-0.396	521.434	1.00989	-0.089	-0.431	0.22559	1.72259	-1.7812
PMSB-BWBK-SB-PM06-0105	20.06324	0.9628	0.06419	-0.2548	0.4724	0.67031	-0.0339	303.264	0.9485	-0.1247	-1.0182	0.41812	1.91366	-0.3329
PMSB-BWBK-SB-PM07-0105	17.89117	0.53038	0.29499	-0.5193	0.05655	1.52238	-3.5311	141.146	0.52662	0.07501	-1.8427	-0.0854	3.95855	-17.101
PMSB-BWBK-SB-PM08-0106	18.728	0.71984	0.17162	-0.1569	0.27195	0.83842	-1.7684	468.068	0.74551	-0.0604	-0.72	0.1398	2.35617	-8.7751
PMSB-BWBK-SB-PM09-0106	15.45232	0.31054	-0.5861	-0.4402	0.23559	0.71809	-1.1276	206.61	0.29587	-0.5849	-1.4282	0.30074	1.74323	-6.7311
PMSB-BWBK-SB-PM10-0105	17.38774	0.35718	1.22604	-0.5844	0.2807	1.22204	-1.6347	-158.413	0.54332	0.40851	-2.4344	-0.1683	3.8171	-4.2423
PMSB-BWBK-SB-PM11-0104	20.03575	0.9141	0.18508	-0.3201	0.13834	0.89015	-3.2584	320.52	0.95961	-0.0397	-1.2938	-0.0814	2.54086	-16.907
PMSB-BWBK-SB-PM12-0105	11.49621	-0.4026	-0.0339	-0.4002	0.55247	1.03742	0.67306	178.723	-0.3616	0.00559	-1.2594	0.75596	2.47753	3.39472
PMSB-BWBK-SB-PM13-0106	13.09388	-0.2862	0.99936	-0.6517	0.23782	1.39017	-0.311	-168.423	-0.1855	0.7203	-2.2996	0.12739	3.69352	0.72297
PMSB-BWBK-SB-PM14-0106	11.59205	-0.3915	0.05087	-0.3979	0.42702	0.75551	-0.5697	192.636	-0.3425	-0.0228	-1.3008	0.54594	1.86912	-2.2225
PMSB-BWBK-SB-PM15-0105	15.78217	0.27995	0.26756	-0.3505	0.21955	0.58352	0.17981	192.067	0.30395	0.12629	-1.2572	0.16414	1.60627	1.40452
PMSB-BWBK-SB-PM16-0106	13.15643	-0.101	0.01477	-0.3425	0.18664	0.59175	0.44984	228.451	-0.073	-0.0324	-1.1357	0.21736	1.48407	2.49547
PMSB-BWBK-SB-PM17-0105	20.49473	0.98955	0.35453	0.16374	0.05717	0.75461	-2.2805	827.094	0.98637	-0.0615	0.23714	-0.2179	2.28503	-10.177
PMSB-BWBK-SB-PM18-0105	22.69027	1.50009	-0.183	-0.4773	-0.1372	0.03806	1.21852	27.2363	1.41065	-0.2821	-1.7108	-0.349	0.31709	5.07581
PMSB-BWBK-SB-PM19-0105	18.07056	0.70902	0.10613	-0.2518	0.06443	0.00369	0.64864	276.325	0.71268	-0.0333	-0.9736	-0.077	0.23554	3.11074
PMSB-BWBK-SB-PM20-0106	16.26709	0.39483	0.08703	-0.2353	0.24271	0.28525	0.35208	315.752	0.42085	-0.0448	-0.8904	0.18607	0.88199	1.82446
PMSB-BWBK-SB-SO01-0107-PM	22.78036	1.53437	-0.1766	-0.43	-0.1797	-0.6663	-0.0808	70.2899	1.50454	-0.3679	-1.645	-0.4933	-1.2754	-1.5898
PMSB-BWBK-SB-SO02-0109-PM	23.05606	1.57475	-0.1383	-0.9106	-0.1211	-0.563	0.66598	-508.105	1.51086	-0.4093	-3.2051	-0.4169	-1.0095	3.02893
PMSB-BWBK-SB-SO13-0104-PM	25.25621	1.90413	-0.1724	-0.4192	-0.5992	-0.1875	-2.3261	154.38	1.886	-0.5288	-1.7275	-1.1565	0.06753	-12.688
PMSB-BWBK-SB-SO14-0105-PM	26.5718	2.14704	-0.2812	-0.3138	-0.1635	-0.7471	-0.6006	212.031	2.0824	-0.492	-1.3287	-0.5358	-1.3929	-4.88
SESB-BWBK-SB-SO03-0108	31.82473	2.95001	0.16999	-0.0795	-0.1585	-1.0154	0.27678	356.878	2.99464	-0.2149	-0.8645	-0.8313	-1.6299	-1.2101
SESB-BWBK-SB-SO04-0108	25.70813	1.98218	-0.1656	-0.2237	-0.0384	-0.7463	-0.9396	311.166	1.9476	-0.3968	-1.0516	-0.3874	-1.3668	-6.3815
SESB-BWBK-SB-SO05-0106	22.77342	1.44133	0.38454	-0.3217	0.137	-0.3873	0.99174	113.795	1.47706	0.13949	-1.385	-0.1722	-0.4572	4.31497
SESB-BWBK-SB-SO06-0108	30.35501	2.67523	0.23341	-0.6583	-0.0011	-0.6419	-0.1189	-286.994	2.6678	-0.2804	-2.6968	-0.576	-0.7583	-1.3793
SESB-BWBK-SB-SO07-0106	25.60625	1.91247	-0.0772	-0.3886	0.27091	-0.5878	-2.0546	106.739	1.97976	-0.5138	-1.7361	-0.1354	-0.7561	-11.546
SESB-BWBK-SB-SO08-0107	30.21726	2.62154	0.42078	-0.1058	0.21605	-0.8223	-0.2423	328.444	2.63483	-0.0639	-0.9177	-0.3054	-1.1838	-2.1113
SESB-BWBK-SB-SO09-0106	21.48158	1.24294	0.22978	-0.0791	0.20253	-0.302	0.73777	421.097	1.27958	0.02063	-0.5508	-0.0386	-0.3194	2.9443
SESB-BWBK-SB-SO11-0106	25.90207	1.92164	0.16557	0.00557	0.5043	-0.2305	0.02395	510.166	1.94173	-0.1855	-0.4038	0.22441	0.0382	-0.8003
SESB-BWBK-SB-SO12-0106	26.49587	2.13168	-0.2727	-0.6052	0.00754	-0.9148	-0.556	-154.54	2.08791	-0.6135	-2.3308	-0.3696	-1.7106	-3.9977
SESB-BWBK-SB-SO15-0103	15.56505	0.24012	0.41029	-0.426	0.07774	0.3767	-0.3812	81.8698	0.32108	0.09976	-1.6076	-0.1247	1.26384	-0.7198
SESB-BWBK-SB-SO16-0105	18.62382	0.80179	-0.2076	-0.4574	0.25644	0.08775	-0.7713	83.0855	0.83698	-0.4144	-1.6865	0.12397	0.50401	-4.484
SESB-BWBK-SB-SO17-0106	15.30111	0.23252	-0.0534	-0.0016	0.37962	0.39323	-0.54	631.263	0.27793	-0.0786	-0.0852	0.40966	1.06712	-3.4707
SESB-BWBK-SB-SO18-0105	13.68056	-0.025	-0.1438	0.04928	0.32688	0.60082	-0.8764	737.341	-0.0103	-0.0792	0.17819	0.44125	1.43145	-5.1293
SESB-BWBK-SB-SO19-0104	18.4582	0.65433	0.10541	0.3845	0.48188	0.7284	-3.4434	1152.25	0.64009	-0.0592	1.10431	0.48375	1.98606	-17.306
SESB-BWBK-SB-SO20-0104	23.04065	1.57117	-0.3957	-0.5938	0.05508	-0.4958	-0.7363	-69.0981	1.47111	-0.5537	-2.0966	-0.1071	-0.9719	-4.7419

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

VANADIUM

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
16.7241						
4.9727						

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0297	0.4723	0.0100	5.0311	0.0276	0.2649
AS	-0.0342	0.0088	0.0509	-1.9904	-0.0756	0.2181
BA	-0.0686	0.3332	0.2437	-2.6811	-0.1689	-0.5359
BE	-0.0065	0.2059	-0.0175	0.2635	1.1498	0.3990
CA	-0.0112	0.0138	-0.0766	-2.9094	0.3311	-0.2139
CR	-0.0654	0.4842	-0.1558	-1.4113	1.9885	1.2249
CO	0.2035	-0.0511	0.1451	1.6266	1.2442	-3.1709
CU	0.0970	-0.0903	0.0472	4.7658	-0.6582	0.1723
FE	0.3542	-0.2341	-0.4829	7.5923	0.6726	-1.2401
PB	0.0188	0.0596	0.0174	0.8546	-1.2169	-0.1536
MG	0.0736	-0.1615	0.6291	-4.3629	0.2291	2.5190
MN	-0.0041	0.0148	-0.0064	-0.9627	0.1308	-0.0712
NI	0.1273	-0.1035	-0.0514	1.9287	0.3459	-0.3190
K	-0.0082	0.1410	0.6364	0.9235	-0.3672	-0.8903
V	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ZN	0.2435	-0.1247	-0.1215	-8.4065	-3.9183	1.3893

ZINC

Factor Pattern Coefficients (FPC) after Varimax rotation:

0.0000	D1	D2	D3	D4	D5	D6
AL	-0.0328	0.2834	0.0092	-0.5433	0.0091	0.1047
AS	-0.0377	0.0053	0.0468	0.2150	-0.0250	0.0863
BA	-0.0756	0.1999	0.2241	0.2895	-0.0559	-0.2119
BE	-0.0072	0.1236	-0.0161	-0.0285	0.3807	0.1578
CA	-0.0123	0.0083	-0.0704	0.3142	0.1096	-0.0846
CR	-0.0721	0.2905	-0.1433	0.1524	0.6583	0.4843
CO	0.2243	-0.0306	0.1335	-0.1757	0.4119	-1.2537
CU	0.1069	-0.0542	0.0434	-0.5147	-0.2179	0.0681
FE	0.3903	-0.1405	-0.4441	-0.8199	0.2227	-0.4903
PB	0.0207	0.0357	0.0160	-0.0923	-0.4029	-0.0607
MG	0.0811	-0.0969	0.5787	0.4712	0.0758	0.9960
MN	-0.0045	0.0089	-0.0059	0.1040	0.0433	-0.0282
NI	0.1403	-0.0621	-0.0473	-0.2083	0.1145	-0.1261
K	-0.0090	0.0846	0.5854	-0.0997	-0.1216	-0.3520
V	-0.0908	0.3873	0.0696	0.2902	-0.1909	-0.2462
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493
ZN	0.2684	-0.0748	-0.1117	0.9078	-1.2972	0.5493

FACTOR PATTERN MATRIX

0.0000	D1	D2	D3	D4	D5	D6
AL	0.2307	0.8392	-0.0588	-0.2449	-0.1047	0.1825
AS	0.7742	0.2257	-0.2411	0.0918	-0.0701	-0.0471
BA	0.0028	0.7910	0.2306	0.1929	-0.1011	-0.1329
BE	0.4329	0.7158	-0.1100	-0.1424	0.2476	0.0008
CA	0.3511	-0.1515	-0.1346	0.6340	0.0515	0.0068
CR	0.6796	0.6159	-0.0083	0.0978	0.1660	0.1831
CO	0.9233	0.1059	0.0397	0.0600	0.1641	-0.2218
CU	0.8606	0.1141	0.1911	-0.1617	-0.0434	0.1048
FE	0.9245	0.2709	-0.0980	-0.0059	0.0457	-0.0111
PB	-0.0621	0.6071	-0.2198	-0.0777	-0.5571	-0.0120
MG	0.8018	-0.0041	0.4468	0.1132	0.1259	0.2785
MN	0.6048	0.0540	0.0495	0.1425	0.2318	-0.1772
NI	0.9584	0.1203	0.0016	0.0643	0.0469	-0.0122
K	0.0253	-0.1038	0.9007	-0.0601	0.0429	-0.0147
V	0.2530	0.8862	-0.1708	0.0327	-0.0618	-0.0960
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
ZN	0.9148	0.2576	-0.0842	0.1678	-0.1608	0.0811
35.0764						
13.9980						

ADJUSTED FACTOR PATTERN COEFFICIENTS

	ADJ. D1	ADJ. D2	ADJ. D3	ADJ. D4	ADJ. D5	ADJ. D6
AL	-0.0469	0.2631	0.0081	0.2203	-0.0026	0.0446
AS	-0.0540	0.0049	0.0414	-0.0872	0.0071	0.0367
BA	-0.1082	0.1856	0.1986	-0.1174	0.0158	-0.0902
BE	-0.0103	0.1147	-0.0142	0.0115	-0.1074	0.0672
CA	-0.0176	0.0077	-0.0624	-0.1274	-0.0309	-0.0360
CR	-0.1032	0.2697	-0.1270	-0.0618	-0.1857	0.2062
CO	0.3211	-0.0284	0.1182	0.0712	-0.1162	-0.5337
CU	0.1530	-0.0503	0.0384	0.2087	0.0615	0.0290
FE	0.5588	-0.1304	-0.3935	0.3325	-0.0628	-0.2087
PB	0.0297	0.0332	0.0142	0.0374	0.1136	-0.0259
MG	0.1162	-0.0899	0.5127	-0.1911	-0.0214	0.4240
MN	-0.0065	0.0082	-0.0052	-0.0422	-0.0122	-0.0120
NI	0.2009	-0.0577	-0.0419	0.0845	-0.0323	-0.0537
K	-0.0129	0.0785	0.5186	0.0404	0.0343	-0.1499
V	-0.1299	0.3596	0.0617	-0.1177	0.0539	-0.1048
ZN	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PRED.CASE VALUES (CONC) = CFS X FPM							PRED.CASE VALUES (CONC) = CFS X FPM						
	CFS = ADJ. FPCs X STANDARDIZED CONC							CFS = ADJ. FPCs X STANDARDIZED CONC						
MINIMUM DOMAIN VALUE	1.95307	-1.4663	-2.4914	-1.2663	-30.978	-8.8786	-6.6945	9.09478	-1.70619	-2.3051	-1.1594	-1.4729	-1.0128	-1.5688
MAXIMUM DOMAIN VALUE	29.9805	2.74495	3.10642	4.43607	20.1075	9.01659	7.90015	80.738	3.196953	2.76668	3.58853	1.45565	0.87212	0.79442
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predic**	D1	D2	D3	D4	D5	D6
BASS-BWBK-SS-BA101-0001	3.80926	-0.845	-2.2864	-0.0563	-12.091	-2.0792	1.0451	17.2306	-0.69078	-2.094	-0.2705	-0.6373	0.43358	0.62079
BASS-BWBK-SS-BA102-0001	4.2429	-1.0173	-2.4914	-0.4022	-9.2471	-2.1969	-0.5509	14.6849	-0.83786	-2.3051	-0.5907	-0.5787	0.52416	0.4338
BASS-BWBK-SS-BA103-0001	4.21352	-0.9943	-2.3244	-0.2085	-12.761	-1.7651	-0.7061	14.7012	-0.83888	-2.1513	-0.4187	-0.7358	0.47681	0.3808
BASS-BWBK-SS-BA104-0001	4.29427	-0.839	-2.1369	0.3487	-10.746	-1.6769	0.90311	17.3383	-0.70338	-1.8716	0.07659	-0.6546	0.44643	0.57311
BASS-BWBK-SS-BA105-0001	1.95307	-0.9564	-2.3107	-0.9661	-30.978	0.12129	-1.8142	13.9353	-0.8477	-2.1245	-1.0178	-1.4729	0.23898	0.15206
BASS-BWBK-SS-BA106-0001	4.08986	-0.7844	-2.1035	0.02308	-12.143	-1.4795	1.75977	18.4829	-0.6606	-1.8824	-0.1807	-0.6476	0.36713	0.69382
BASS-BWBK-SS-BA107-0001	4.47327	-1.0282	-2.4191	-0.2848	-9.7657	-2.2961	-0.7163	14.233	-0.87606	-2.2138	-0.4857	-0.6154	0.53838	0.38953
BASS-BWBK-SS-BA108-0001	4.03731	-1.0206	-2.3834	-0.347	-11.898	-1.717	-0.4413	14.549	-0.8537	-2.2227	-0.5413	-0.6993	0.47997	0.44426
BASS-BWBK-SS-BA109-0001	3.08506	-0.8506	-2.329	0.02048	-10.759	-1.1193	1.85303	17.9706	-0.63948	-2.1421	-0.2245	-0.6268	0.39405	0.79442
BASS-BWBK-SS-BA110-0001	5.98889	-0.8364	-1.7385	0.8103	-9.5095	-1.23	0.34902	18.0787	-0.67253	-1.6884	0.44299	-0.6018	0.41234	0.49874
BASS-BWBK-SS-BA111-0001	4.08817	-0.9748	-2.291	-0.2459	-11.459	-1.4874	0.24754	15.5233	-0.81372	-2.1317	-0.4477	-0.6735	0.44564	0.53797
BASS-BWBK-SS-BA112-0001	2.52701	-1.0278	-2.3025	-0.4531	-22.102	-0.4979	-0.6209	13.7107	-0.88108	-2.1546	-0.6219	-1.1454	0.36152	0.40269
BASS-BWBK-SS-BA113-0001	3.57819	-0.6266	-2.4719	-0.6763	-22.796	-6.2416	0.53242	16.5595	-0.7144	-2.1477	-0.6823	-0.7412	0.46277	0.31172
MASB-BWBK-SB-MA01-0105	15.5122	1.12623	-0.392	-0.1702	-8.3137	0.16968	-0.7491	51.8164	1.269563	-0.1012	-0.0059	0.10368	-0.4856	-0.4368
MASB-BWBK-SB-MA02-0107	15.36	1.2638	-0.2744	0.1242	-7.3842	-0.2481	1.07998	54.4548	1.436669	-0.0537	0.2446	0.21172	-0.5084	-0.1572
MASB-BWBK-SB-MA03-0108	17.0814	1.84626	-1.0866	-0.2592	-7.379	-1.9737	-6.6945	61.4877	2.175493	-0.5614	-0.0288	0.44788	-0.5652	-1.5688
MASB-BWBK-SB-MA04-0106	12.2926	1.34824	-0.2179	0.63913	-17.325	-1.0217	4.44837	53.3683	1.347578	0.15982	0.73337	-0.1129	-0.5729	0.26358
MASB-BWBK-SB-MA05-0108	13.5951	0.97379	-0.2626	0.12438	-12.31	-0.2507	2.44703	48.7239	1.015859	0.00028	0.23982	-0.0782	-0.4446	0.09109
MASB-BWBK-SB-MA06-0105	14.7086	1.00291	-0.3298	0.08219	-6.7412	-0.8572	1.93195	49.5069	1.053959	-0.0155	0.20916	0.15861	-0.3847	-0.0019
MASB-BWBK-SB-MA07-0108	12.3623	0.83801	-1.0044	-0.4731	-6.3268	-1.8467	1.95144	46.6368	0.967955	-0.5714	-0.3006	0.11705	-0.205	0.11872
MASB-BWBK-SB-MA08-0108	17.774	2.4787	-0.3513	-1.25	1.79734	-0.1479	4.02222	76.2419	2.696036	0.58659	-0.6585	0.83703	-0.8456	-0.1053
MASB-BWBK-SB-MA09-0108	15.5793	1.57481	-1.0276	-0.7686	-0.9393	-3.9969	0.68509	58.6573	1.785287	-0.4138	-0.4435	0.60577	-0.2757	-0.3128
MASB-BWBK-SB-MA10-0104	13.1987	0.7045	-1.3842	-1.2663	0.46637	-1.3695	-0.2421	45.5178	0.895536	-0.8282	-0.9843	0.29674	-0.1286	-0.1648
MASB-BWBK-SB-MA11-0108	17.0728	1.50621	-0.2497	-0.4936	-2.8542	-2.0647	2.17065	58.1824	1.565319	0.22215	-0.1753	0.49745	-0.4662	-0.1447
MASB-BWBK-SB-MA12-0108	14.7717	1.5897	-0.6578	0.04117	-9.0227	-1.4357	-0.0136	58.5684	1.819101	-0.2435	0.21087	0.26621	-0.523	-0.4215
MASB-BWBK-SB-MA13-0105	16.8487	-0.4168	0.73302	-0.3703	-8.172	4.48584	0.39457	29.1501	-0.61494	0.61519	-0.2947	-0.5535	-0.2649	0.07593
MASB-BWBK-SB-MA14-0104	23.6889	0.70175	1.12575	-0.7322	5.08846	3.39977	-1.5041	50.0362	0.72924	1.02145	-0.4719	0.34992	-0.5051	-0.5082
MASB-BWBK-SB-MA15-0105	22.9835	0.11071	1.509	-0.4829	3.72124	5.42983	-0.2624	40.6886	-0.03585	1.3432	-0.3003	0.02978	-0.462	-0.2079
MASB-BWBK-SB-MA16-0104	16.8175	0.17362	0.01709	-0.5827	-4.1932	2.09358	-1.3199	37.9192	0.14806	0.19283	-0.429	-0.1788	-0.2305	-0.3111
MASB-BWBK-SB-MA17-0104	19.2766	-0.0643	0.57049	-0.8299	-4.2776	1.62414	-1.2762	34.2185	-0.24167	0.46987	-0.6295	-0.1443	-0.2182	-0.3099
MASB-BWBK-SB-MA18-0104	16.2094	-0.2983	1.00792	-0.3215	-9.6905	5.48106	3.33949	30.8665	-0.65667	1.1881	-0.1643	-0.6736	-0.3756	0.40348
MASB-BWBK-SB-MA19-0103	15.2487	-0.4698	0.23541	-0.4797	-11.157	2.38541	-0.4556	26.4031	-0.67837	0.24653	-0.3964	-0.6403	-0.0959	-0.0481
MASB-BWBK-SB-MA20-0103	15.6228	0.87949	-0.5224	-0.4563	-3.4512	-0.1216	-0.4822	48.3244	0.992959	-0.1875	-0.2675	0.2038	-0.3475	-0.3238
MASS-BWBK-SS-MA01-0001	15.7604	-1.3262	0.02821	-0.5174	-7.9183	-1.9258	-1.7506	11.4105	-1.60783	-0.283	-0.5641	-0.6589	0.52969	0.01638
MASS-BWBK-SS-MA02-0001	21.8963	-1.2116	1.97031	0.07001	-13.406	-0.6183	-0.1297	14.6601	-1.70619	0.88969	-0.0102	-0.6609	0.16312	0.11618
MASS-BWBK-SS-MA03-0001	16.2245	-0.9667	0.43941	-0.4237	-10.367	-0.2836	-0.0374	18.3497	-1.21473	0.05859	-0.4361	-0.6578	0.25338	0.19258
MASS-BWBK-SS-MA04-0001	15.9801	-0.7826	0.54993	-0.259	-14.964	-1.0636	0.62412	20.5448	-1.0436	0.08087	-0.2763	-0.701	0.18054	0.23603
MASS-BWBK-SS-MA05-0001	17.5605	-0.1075	0.80634	-0.2289	-10.618	-1.1524	2.94357	31.6737	-0.44532	0.71358	-0.0975	-0.3555	-0.0416	0.3112
MASS-BWBK-SS-MA06-0001	21.4262	-0.4753	2.4855	0.36285	-22.347	1.43331	2.66516	27.2426	-0.92552	1.69829	0.36461	-1.0138	-0.152	0.32011
MASS-BWBK-SS-MA07-0001	12.1541	-1.4663	-1.5038	-1.1315	0.75397	-3.0532	-3.9361	9.09478	-1.50482	-1.33	-1.1594	-0.4921	0.87212	-0.1439
MASS-BWBK-SS-MA08-0001	21.8672	-0.3145	0.47375	-0.7454	-1.3779	-6.6624	-2.0811	27.337	-0.64558	0.65417	-0.5384	-0.1791	0.67199	-0.469
MASS-BWBK-SS-MA09-0001	29.9805	0.16873	3.10642	0.03825	-9.2164	-6.3859	2.25911	34.9096	-0.69139	2.76668	0.35031	-0.1084	0.14073	-0.2687
MASS-BWBK-SS-MA10-0001	24.445	0.12739	1.80641	-0.4882	-9.79	-4.8062	1.46886	34.0619	-0.52319	1.86526	-0.1501	-0.2598	0.14407	-0.2493
MASS-BWBK-SS-MA11-0001	25.3699	0.13442	2.01867	-0.2817	-5.4352	-1.1935	0.29709	36.3232	-0.42043	2.16291	0.011	-0.2981	-0.0024	-0.4057
MASS-BWBK-SS-MA12-0001	15.2686	-0.4946	0.1605	-0.5477	-10.936	-3.0113	2.41875	24.3895	-0.80383	0.01765	-0.4466	-0.4018	0.21877	0.3987
MASS-BWBK-SS-MA13-0001	23.2758	-0.881	2.03444	-0.1295	-8.0294	-0.0974	0.29389	20.2674	-1.47049	1.65967	-0.0418	-0.6435	0.20295	-0.0388
MASS-BWBK-SS-MA14-0001	21.168	-1.0902	0.92375	-0.3868	-5.5323	-4.759	-1.785	14.0022	-1.67755	0.99853	-0.2849	-0.6375	0.74485	-0.3122
MASS-BWBK-SS-MA15-0001	21.8231	-1.1511	1.33469	-0.3201	-4.3285	-2.4124	-0.7443	14.9417	-1.69893	1.09902	-0.2594	-0.5734	0.53604	-0.0828
MASS-BWBK-SS-MA16-0001	18.6379	-0.7143	0.5364	-0.8135	-2.1356	-1.2067	0.55822	22.4719	-1.1156	0.73437	-0.629	-0.4198	0.35475	0.06733
MASS-BWBK-SS-MA17-0001	20.4943	-0.6454	0.83058	-0.7893	-1.7869	-1.0201	-0.4785	23.8166	-1.06011	0.8605	-0.5996	-0.3196	0.26178	-0.1359
MASS-BWBK-SS-MA18-0001	19.3544	-0.8636	0.48371	-0.9908	-2.8421	-3.0541	-0.5578	18.3739	-1.41623	0.89926	-0.7415	-0.5199	0.56176	-0.1741
MASS-BWBK-SS-MA19-0001	21.1538	-0.6588	1.02889	-0.7879	-4.2288	-1.175	-0.7986	23.0603	-1.15225	1.13924	-0.5671	-0.4704	0.2907	-0.2449
MASS-BWBK-SS-MA20-0001	18.6104	-0.294	0.47795	-0.6467	-5.3325	-1.868	0.22436	28.7553	-0.60354	0.58718	-0.4662	-0.3128	0.19771	-0.0699
MMSB-BWBK-SB-MM101-0110	13.2886	-0.0706	-0.8085	0.94654	1.33476	-0.9219	-1.0891	33.4323	0.206481	-0.8845	0.65778	0.02532	0.1898	0.03903
MMSB-BWBK-SB-MM102-0109	11.928	0.04347	-0.4477	1.72592	-0.7459	1.25146	1.89872	35.8931	0.30551	-0.5303	1.32538	-0.088	-0.0171	0.48204
MMSB-BWBK-SB-MM103-0107	14.5308	0.02056	-0.571	1.28507	1.56179	1.65829	-3.4463	35.6912	0.368025	-0.7656	0.92825	0.02566	-0.0397	-0.3462
MMSB-BWBK-SB-MM104-0110	15.5075	0.98352	-0.3486	3.54408	20.1075	-2.9195	4.344	52.4251	1.476122	-0.2564	2.90105	1.00783	0.16052	0.69103
MMSB-BWBK-SB-MM105-0110	12.616	-0.5267	-0.69	0.02213	1.32043	2.48183	-0.3405	27.811	-0.32397	-0.9372	-0.1513	-0.0956	0.00739	0.28661
MMSB-BWBK-SB-MM106-0110	14.2089	0.48378	0.69167	3.20908	-7.0532	0.40208	4.5596	41.0935	0.49178	0.58811	2.69782	-0.1596	-0.2148	0.5905
MMSB-BWBK-SB-MM107-0110	14.0973	-0.344	0.19038	1.27146	-2.6766	3.32669	1.03745	30.5633	-0.22171	-0.2442	0.92887	-0.2142	-0.1595	0.39236
MMSB-BWBK-SB-MM108-0110	12.8564	-0.2015	-0.5012	1.49335	-0.4402	0.0541	0.10328	30.7325	-0.05466	-0.5547	1.12994	-0.1071	0.1251	0.19504
MMSB-BWBK-SB-MM109-0110	19.2723	-0.1006	0.93364	2.14381	3.41555	1.59766	-0.6653	34.1882	-0.07087	0.5025	1.72417	0.06662	-0.0664	-0.0584
MMSB-BWBK-SB-MM110-0109	15.3487	-0.2059	0.16421	1.29205	1.52307	1.50569	1.10455	32.5201	-0.10777	-0.0778	0.98603	-0.0476	-0.0026	0.328
MMSB-BWBK-SB-MM111-0110	15.6828	0.01314	0.16988	2.5721	0.68385	-0.4224	-0.2875	34.3976	0.17414	-0.0902	2.04323	-0.0038	0.10255	0.05701
MMSB-BWBK-SB-MM112-0110	14.5478	-0.0461	0.12673	2.02423	-2.1708	1.4293	0.34591	33.3531	0.006341	0.17292	1.63889	-0.255	0.00354	0.09747
MMSB-BWBK-SB-MM113-0110	13.6558	-0.1378	0.44287	1.36388	-3.6143	4.11156	3.84776	34.7373	-0.01611	-0.0212	1.04009	-0.1845	-0.3145	0.78796
MMSB-BWBK-SB-MM114-0110	12.9051	-0.5163	-0.6121	1.12948	-2.4862	-0.0354	-1.8445	25.6283	-0.3422	-0.8402	0.76398	-0.2632	0.23438	0.00867

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC							PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC						
MINIMUM DOMAIN VALUE	1.95307	-1.4663	-2.4914	-1.2663	-30.978	-8.8786	-6.6945	9.09478	-1.70619	-2.3051	-1.1594	-1.4729	-1.0128	-1.5688
MAXIMUM DOMAIN VALUE	29.9805	2.74495	3.10642	4.43607	20.1075	9.01659	7.90015	80.738	3.196953	2.76668	3.58853	1.45565	0.87212	0.79442
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predic**	D1	D2	D3	D4	D5	D6
MMSB-BWBK-SB-MM115-0110	16.2205	-0.3506	0.79959	4.43607	-8.7318	-2.1341	-1.9794	24.5011	-0.45157	0.42535	3.58853	-0.4786	0.29515	-0.2713
MMSB-BWBK-SB-MM116-0110	13.0473	-0.1257	-0.34	1.80065	-4.2484	-0.7293	0.05236	31.4946	0.048059	-0.6174	1.37162	-0.1458	0.10015	0.18817
MMSB-BWBK-SB-MM117-0110	11.7332	-0.2833	-1.3697	1.04244	2.16275	-1.8442	-2.8668	28.6997	0.018462	-1.3352	0.6886	0.00069	0.35741	-0.1619
MMSB-BWBK-SB-MM118-0110	12.3215	0.28443	-1.1211	1.61041	4.07657	-1.0512	-1.1777	38.8912	0.684229	-0.9795	1.22539	0.17815	0.15727	-0.031
MMSB-BWBK-SB-MM119-0110	10.7186	-0.1606	-0.7425	2.01915	-5.1022	-0.7253	0.44051	29.9272	0.004997	-0.7255	1.55653	-0.2799	0.17363	0.2517
MMSB-BWBK-SB-MM120-0110	10.1479	-0.6849	-1.592	0.66688	1.35717	-0.9842	-2.8156	22.2947	-0.41874	-1.5553	0.32686	-0.179	0.43204	-0.0291
MMSS-BWBK-SS-MM101-0001	23.7211	-0.5485	1.54125	-0.2742	11.2814	0.81747	1.92714	29.556	-0.82867	1.18806	-0.2047	0.21649	0.1364	0.32102
MMSS-BWBK-SS-MM102-0001	18.0568	-0.8231	0.20579	-0.6901	8.61184	1.58016	0.08097	24	-0.92804	0.04601	-0.6579	0.02329	0.20446	0.23929
MMSS-BWBK-SS-MM103-0001	22.8989	-0.6023	1.18002	-0.5853	13.2805	0.9081	1.34897	28.7584	-0.84692	1.00863	-0.4725	0.21593	0.20916	0.26161
MMSS-BWBK-SS-MM104-0001	22.6354	-0.4374	1.30701	0.01763	10.7839	0.74835	1.68771	31.3189	-0.60538	0.97458	0.01454	0.20233	0.14924	0.3156
MMSS-BWBK-SS-MM105-0001	18.2755	-0.9367	-0.0899	-0.8474	9.6967	-0.3413	-1.5198	21.1192	-1.0552	-0.1281	-0.7995	0.02083	0.43358	0.00157
MMSS-BWBK-SS-MM106-0001	22.8695	-0.5076	1.63343	0.21585	9.17761	3.01333	1.66696	30.624	-0.72376	1.19155	0.18085	0.11488	-0.0517	0.30491
MMSS-BWBK-SS-MM107-0001	22.1346	-0.5023	1.45061	0.14024	9.1813	1.5169	2.63279	30.1303	-0.7327	1.04556	0.11974	0.1658	0.04654	0.46052
MMSS-BWBK-SS-MM108-0001	25.001	-0.8296	1.67611	-0.5989	15.2909	2.02138	0.9172	25.9429	-1.16091	1.31066	-0.4922	0.23691	0.1655	0.21348
MMSS-BWBK-SS-MM109-0001	21.1462	-0.7965	0.98937	-0.6602	13.1693	2.84947	1.59359	26.2692	-0.99669	0.74571	-0.5847	0.15346	0.10923	0.40799
MMSS-BWBK-SS-MM110-0001	17.554	-1.2161	-0.3827	-1.1163	8.89171	-1.4347	-2.5391	16.0318	-1.33049	-0.4225	-1.0698	-0.0999	0.63971	-0.0615
MMSS-BWBK-SS-MM111-0001	17.8666	-1.1532	-0.1585	-0.9503	9.5079	-0.5569	-1.6088	17.9816	-1.23019	-0.3856	-0.9422	-0.0106	0.51228	0.10242
MMSS-BWBK-SS-MM112-0001	16.3537	-1.1875	-0.5921	-1.0424	7.54331	-2.2428	-1.952	15.9983	-1.26664	-0.7047	-1.028	-0.0601	0.64736	0.06115
MMSS-BWBK-SS-MM113-0001	22.5185	-0.856	0.87653	-0.4656	12.0268	-1.8585	-0.1826	22.76	-1.14659	0.7741	-0.4048	0.09869	0.53838	0.06868
MMSS-BWBK-SS-MM114-0001	14.9989	-1.2493	-0.7913	-1.1475	5.50609	-1.005	-2.4194	15.062	-1.28163	-0.9657	-1.1462	-0.1309	0.53885	0.04301
MMSS-BWBK-SS-MM115-0001	17.7239	-1.1216	-0.1518	-1.1019	7.39926	-0.5146	-1.6403	18.1375	-1.22751	-0.4004	-1.0558	-0.0382	0.44909	0.07046
MMSS-BWBK-SS-MM116-0001	16.5338	-1.1498	-0.4398	-1.0564	6.86704	-0.8536	-1.9244	17.0671	-1.24082	-0.5124	-1.0223	-0.1305	0.53908	0.03751
MMSS-BWBK-SS-MM117-0001	20.816	-0.7434	0.67999	-0.41	9.97822	-0.4222	0.14486	25.284	-0.89151	0.40057	-0.4005	0.11496	0.34587	0.1901
MMSS-BWBK-SS-MM118-0001	13.6294	-0.6383	-0.4779	0.62116	3.08691	0.89381	-0.2404	25.2162	-0.51828	-0.6265	0.35743	-0.1372	0.23831	0.27785
MMSS-BWBK-SS-MM119-0001	12.9135	-0.763	-0.7807	0.20562	2.02735	0.58131	-1.2855	22.8107	-0.62914	-0.912	-0.0118	-0.1928	0.29569	0.16196
MMSS-BWBK-SS-MM120-0001	16.7816	-0.484	-0.0869	-1.1208	7.91914	3.4604	0.26329	30.7096	-0.42076	-0.2674	-1.0148	0.13156	-0.0797	0.26499
NESB-BWBK-SB-NE01-0108	13.5442	0.73726	-0.333	0.40337	2.61107	1.71844	4.59559	49.289	1.044456	-0.3414	0.34438	0.35595	-0.3673	0.71488
NESB-BWBK-SB-NE02-0109	14.9572	0.46279	0.02507	0.6399	-5.2238	0.41872	1.96618	43.2694	0.688789	-0.2708	0.50755	0.02148	-0.233	0.32816
NESB-BWBK-SB-NE03-0105	15.0306	0.34992	-0.4406	0.06685	6.97865	1.54853	1.66257	43.4039	0.66495	-0.531	0.00313	0.38863	-0.1773	0.36886
NESB-BWBK-SB-NE04-0110	13.3225	0.32414	-0.5467	0.33548	1.83452	0.93393	2.36033	41.5794	0.588732	-0.5769	0.23175	0.19253	-0.1502	0.46416
NESB-BWBK-SB-NE05-0108	13.3823	0.62826	-0.5761	0.1024	3.30873	1.10561	3.57068	46.9518	0.908297	-0.4765	0.09047	0.34731	-0.2724	0.56364
NESB-BWBK-SB-NE06-0109	13.1316	0.4538	-0.7367	0.08507	3.28386	1.21881	2.10323	43.9244	0.758138	-0.6493	0.03903	0.27021	-0.196	0.39741
NESB-BWBK-SB-NE07-0107	14.8458	0.6374	-0.1976	0.16225	3.9815	1.33242	4.00019	47.8893	0.908198	-0.3036	0.13958	0.41991	-0.3288	0.63021
NESB-BWBK-SB-NE08-0104	13.8341	0.1575	-0.5749	-0.1311	3.30233	2.05255	1.1977	39.3156	0.384637	-0.5424	-0.1585	0.1566	-0.1665	0.2996
NESB-BWBK-SB-NE09-0110	12.7411	0.35096	-0.7105	0.0253	1.11225	1.19226	2.27641	41.9917	0.625155	-0.6873	-0.0212	0.18115	-0.1906	0.448
NESB-BWBK-SB-NE10-0107	15.8677	-0.0574	0.26331	0.1642	2.25391	2.2639	3.09104	35.6476	-0.09094	0.26674	0.14398	0.01259	-0.1484	0.51088
NESB-BWBK-SB-NE101-0110	19.6252	-0.2332	1.04342	2.74287	3.42127	0.69675	-1.2246	31.3529	-0.22275	0.53975	2.19641	0.02163	0.06521	-0.1166
NESB-BWBK-SB-NE102-0110	18.2889	-0.5119	0.75605	2.61214	-0.2723	-0.6988	-1.9385	25.4269	-0.5442	0.22991	2.04864	-0.1609	0.24032	-0.155
NESB-BWBK-SB-NE103-0110	16.017	-0.6085	0.0179	1.94172	0.93206	-0.9614	-2.4757	23.7269	-0.56141	-0.3171	1.45818	-0.1572	0.33455	-0.1546
NESB-BWBK-SB-NE104-0110	14.3663	-0.6888	-0.4614	1.50655	0.51231	-0.9518	-3.0288	22.1458	-0.5992	-0.6846	1.07357	-0.1999	0.37371	-0.1871
NESB-BWBK-SB-NE105-0110	18.7461	-0.2895	0.91991	3.2384	0.9167	-0.4188	-1.6872	28.8978	-0.31187	0.45076	2.5986	-0.0731	0.1583	-0.1932
NESB-BWBK-SB-NE106-0110	17.1463	-0.3585	0.39298	2.56378	0.97281	-0.7256	-1.9651	27.831	-0.31618	0.01671	2.0117	-0.0832	0.22236	-0.1669
NESB-BWBK-SB-NE107-0510	12.6142	-0.4794	-0.7001	1.82564	-0.6711	-1.7384	-1.4735	24.9567	-0.34281	-0.7974	1.35321	-0.1858	0.38028	0.02912
NESB-BWBK-SB-NE108-0110	17.0062	-0.3612	0.15651	2.08362	4.95957	-0.7184	-1.6545	28.3586	-0.31282	-0.0082	1.62755	0.00615	0.28607	-0.1183
NESB-BWBK-SB-NE109-0110	17.2297	-0.4418	0.32146	2.27726	2.6996	-0.707	-1.9337	27.0013	-0.38495	-0.0615	1.75982	-0.0481	0.26596	-0.1214
NESB-BWBK-SB-NE110-0110	16.0951	-0.3822	0.09754	2.14998	3.62407	-0.2748	-1.204	28.1432	-0.29883	-0.1679	1.65956	-0.0122	0.22699	-0.0047
NESS-BKG-SS03-NEB-0016	27.9368	-0.0618	1.53266	-0.348	11.8466	-8.8786	0.8687	34.277	-0.40742	1.34057	-0.1676	0.50532	0.76169	-0.0754
NESS-BKG-SS09-NEB-0018	20.3055	-0.7555	0.59075	-0.7252	8.76342	-0.7956	0.7467	24.5998	-0.96944	0.43586	-0.6359	0.06465	0.36391	0.24984
NESS-BWBK-SS-NE01-0001	26.042	0.40785	2.08947	-0.5191	3.40724	-3.3598	5.09271	42.4414	-0.08938	1.72036	-0.1986	0.54575	-0.16	0.37873
NESS-BWBK-SS-NE02-0001	20.5171	0.74124	1.03457	-0.7464	-4.3906	-6.9968	7.90015	44.1136	0.207056	0.94453	-0.344	0.58981	-0.1604	0.72917
NESS-BWBK-SS-NE03-0001	24.1622	-0.2751	1.61795	-0.9318	11.8834	1.54351	3.33922	35.26	-0.51271	1.10296	-0.7232	0.46063	-0.1199	0.49983
NESS-BWBK-SS-NE04-0001	22.9956	0.03429	1.48202	-0.2564	12.2065	3.16703	3.20584	40.7985	-0.04509	1.1053	-0.1614	0.44086	-0.2518	0.45921
NESS-BWBK-SS-NE05-0001	23.2881	-0.1606	1.62963	-0.7512	7.0541	0.17214	4.49796	35.807	-0.45272	1.13803	-0.5444	0.35986	-0.1032	0.62094
NESS-BWBK-SS-NE06-0001	21.0989	-0.0986	1.25504	-0.3983	10.4583	3.98391	3.86517	38.6049	-0.17107	0.88942	-0.3048	0.33772	-0.2877	0.62679
NESS-BWBK-SS-NE07-0001	25.3871	-0.0549	1.51459	-0.6124	13.3902	-3.2409	3.42609	36.6058	-0.38025	1.32079	-0.3878	0.56214	0.24716	0.3655
NESS-BWBK-SS-NE08-0001	22.9329	-0.2615	1.46525	-0.6525	10.9404	2.4841	3.11667	35.6002	-0.42311	0.97857	-0.5155	0.37357	-0.1572	0.50589
NESS-BWBK-SS-NE09-0001	29.2403	-0.4959	2.70248	-0.5123	15.2051	1.60254	2.47724	32.951	-0.84548	1.7988	-0.3775	0.523	-0.0606	0.35697
NESS-BWBK-SS-NE10-0001	23.473	-0.0924	1.0323	-0.4029	12.2981	-4.2986	2.82166	35.1413	-0.32886	0.93081	-0.2541	0.48143	0.39767	0.33882
NESS-BWBK-SS-NE101-0001	22.1158	-0.9281	1.10481	-0.1183	11.3931	1.90635	-0.6806	23.3722	-1.09295	0.58713	-0.1888	0.11511	0.19618	0.10847
NESS-BWBK-SS-NE102-0001	18.2885	-1.0476	0.06449	-0.5428	6.86206	-1.1586	-1.3944	18.7267	-1.19561	-0.1092	-0.5653	-0.0925	0.51062	0.04834
NESS-BWBK-SS-NE103-0001	16.4312	-1.1172	-0.2897	-0.6961	5.40704	-0.8944	-1.3496	17.3525	-1.2242	-0.3752	-0.7157	-0.1952	0.53479	0.10949
NESS-BWBK-SS-NE104-0001	18.1611	-0.8726	-0.1791	-0.5763	8.68745	-3.4208	-0.7769	21.521	-0.93095	-0.2698	-0.5919	0.01792	0.69665	0.14735
NESS-BWBK-SS-NE105-0001	16.5289	-1.2008	-0.2644	-0.8498	5.25067	-0.2316	-1.7472	16.3911	-1.29072	-0.5419	-0.872	-0.1429	0.44582	0.09526
NESS-BWBK-SS-NE106-0001	18.9308	-1.0653	-0.0307	-0.554	8.56269	-3.6637	-1.4524	18.4359	-1.14845	-0.2636	-0.6012	-0.0267	0.76971	0.09104
NESS-BWBK-SS-NE107-0001	18.7534	-1.2011	0.11144	-0.8366	8.06502	-0.9688	-1.5294	16.6696	-1.37316	-0.1623	-0.827	-0.053	0.51866	0.07008
NESS-BWBK-SS-NE108-0001	18.4069	-1.0886	0.1552	-0.3981	5.51695	-1.7375	-1.2554	17.7332	-1.25539	-0.0933	-0.4515	-0.1317	0.55143	0.07726
NESS-BWBK-SS-NE109-0001	16.7067	-1.2325	-0.2203	-0.7431	5.64386	-0.4394	-1.7184	15.86	-1.32694	-0.5198	-0.7885	-0.1388	0.4783	0.10847
NESS-BWBK-SS-NE110-0001	17.7453	-1.1478	-0.3932	-0.7751	8.96211	-2.9162	-2.4852	16.2456	-1.29127	-0.274	-0.7622	-0.1334	0.78774	-0.1051

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	VANADIUM							ZINC						
	PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC							PRED.CASE VALUES (CONC) = CFS X FPM CFS = ADJ. FPCs X STANDARDIZED CONC						
MINIMUM DOMAIN VALUE	1.95307	-1.4663	-2.4914	-1.2663	-30.978	-8.8786	-6.6945	9.09478	-1.70619	-2.3051	-1.1594	-1.4729	-1.0128	-1.5688
MAXIMUM DOMAIN VALUE	29.9805	2.74495	3.10642	4.43607	20.1075	9.01659	7.90015	80.738	3.196953	2.76668	3.58853	1.45565	0.87212	0.79442
SAMPLE	**V predict**	D1	D2	D3	D4	D5	D6	**ZN predic**	D1	D2	D3	D4	D5	D6
PMSB-BWBK-SB-PM01-0105	19.3572	0.46116	0.5351	0.03192	-1.6553	3.75436	-2.4003	44.1737	0.557125	0.45561	0.08055	-0.0005	-0.446	-0.5175
PMSB-BWBK-SB-PM02-0104	24.657	1.24066	1.43704	-1.0615	10.9884	9.01659	-0.2617	62.5703	1.407704	1.56718	-0.6674	0.52692	-1.0128	-0.4297
PMSB-BWBK-SB-PM03-0106	17.6157	1.73514	-0.7202	-0.6828	6.27914	3.1416	-2.6149	65.1487	2.149898	-0.0262	-0.3825	0.64444	-0.7111	-0.8184
PMSB-BWBK-SB-PM04-0105	15.4847	0.95276	-0.1239	0.007	-4.3519	2.14792	1.08613	51.0407	1.122295	0.17393	0.11842	0.04889	-0.4713	-0.0623
PMSB-BWBK-SB-PM05-0105	16.326	0.92569	-0.1353	-0.1525	-2.8843	2.98701	-0.6106	50.9298	1.11292	0.18182	-0.0184	0.06662	-0.5072	-0.3292
PMSB-BWBK-SB-PM06-0105	15.4533	0.86941	-0.1897	-0.3603	-5.3458	3.31832	-0.1141	50.4099	1.099409	0.05684	-0.2139	-0.0549	-0.5093	-0.1936
PMSB-BWBK-SB-PM07-0105	19.2524	0.48272	0.1141	-0.652	1.09237	6.86421	-5.8623	45.9976	0.735321	0.26941	-0.5076	-0.072	-0.5598	-1.0182
PMSB-BWBK-SB-PM08-0106	17.2838	0.68335	-0.0919	-0.2548	-1.7874	4.08565	-3.0081	47.359	0.875527	0.15274	-0.1414	-0.0048	-0.4861	-0.6425
PMSB-BWBK-SB-PM09-0106	13.1208	0.2712	-0.8897	-0.5053	-3.845	3.0228	-2.3074	39.6773	0.505492	-0.6125	-0.4404	-0.1685	-0.2628	-0.3333
PMSB-BWBK-SB-PM10-0105	19.8289	0.49802	0.62139	-0.8613	2.15199	6.61895	-1.4543	45.4355	0.381283	1.21504	-0.5309	-0.0918	-0.5827	-0.5519
PMSB-BWBK-SB-PM11-0104	19.5339	0.8796	-0.0603	-0.4578	1.04106	4.4059	-5.7956	51.4609	1.19286	0.14191	-0.311	0.13122	-0.5229	-1.1049
PMSB-BWBK-SB-PM12-0105	13.276	-0.3314	0.00851	-0.4456	-9.6652	4.29609	1.1637	30.2342	-0.37522	-0.0506	-0.4036	-0.5442	-0.2757	0.28796
PMSB-BWBK-SB-PM13-0106	19.6771	-0.17	1.09567	-0.8136	-1.6287	6.40465	0.24783	35.7034	-0.30767	0.98745	-0.6218	-0.3003	-0.4401	-0.0106
PMSB-BWBK-SB-PM14-0106	14.7999	-0.314	-0.0347	-0.4603	-6.9801	3.24109	-0.7619	29.9891	-0.37849	0.03904	-0.3985	-0.475	-0.1494	-0.0632
PMSB-BWBK-SB-PM15-0105	16.8716	0.27861	0.19211	-0.4448	-2.0986	2.78531	0.48147	40.8733	0.304935	0.26487	-0.3166	-0.0592	-0.3178	-0.0111
PMSB-BWBK-SB-PM16-0106	15.1131	-0.0669	-0.0492	-0.4018	-2.779	2.57341	0.85544	34.7472	-0.07179	0.00541	-0.3328	-0.1821	-0.1877	0.16153
PMSB-BWBK-SB-PM17-0105	18.2772	0.90413	-0.0936	0.0839	2.78595	3.9623	-3.4886	51.0238	1.118991	0.35327	0.17693	0.16451	-0.478	-0.8011
PMSB-BWBK-SB-PM18-0105	16.6996	1.29303	-0.4291	-0.6053	4.46234	0.54984	1.73997	58.0245	1.606175	-0.169	-0.3822	0.6172	-0.469	0.02947
PMSB-BWBK-SB-PM19-0105	17.1405	0.65326	-0.0507	-0.3445	0.98413	0.40844	1.06635	46.4567	0.746877	0.10928	-0.2004	0.25287	-0.2628	0.00018
PMSB-BWBK-SB-PM20-0106	16.0211	0.38576	-0.0682	-0.315	-2.379	1.5294	0.62542	41.6978	0.427846	0.08431	-0.2026	0.00445	-0.2676	-0.0116
PMSB-BWBK-SB-SO01-0107-PM	18.4526	1.3791	-0.5596	-0.582	6.30666	-2.2116	-0.545	57.176	1.570092	-0.1565	-0.3144	0.8237	-0.3462	-0.4639
PMSB-BWBK-SB-SO02-0109-PM	17.595	1.38488	-0.6226	-1.134	5.32975	-1.7506	1.03831	57.9377	1.567209	-0.1015	-0.7538	0.7291	-0.3543	-0.2114
PMSB-BWBK-SB-SO13-0104-PM	20.316	1.72874	-0.8044	-0.6112	14.7866	0.1171	-4.3493	65.2134	2.206315	-0.1933	-0.3504	1.03124	-0.4224	-1.0616
PMSB-BWBK-SB-SO14-0105-PM	18.8813	1.90877	-0.7484	-0.4701	6.85076	-2.4154	-1.6728	66.0878	2.281721	-0.2663	-0.1935	0.98588	-0.4596	-0.7272
SESB-BWBK-SB-SO03-0108	21.7912	2.74495	-0.3268	-0.3059	10.6284	-2.8262	-0.4148	80.738	3.196953	0.15644	0.05399	1.45565	-0.7453	-0.7701
SESB-BWBK-SB-SO04-0108	19.2039	1.78521	-0.6036	-0.3721	4.95339	-2.3701	-2.1876	63.3837	2.070962	-0.149	-0.1067	0.89358	-0.461	-0.826
SESB-BWBK-SB-SO05-0106	19.6741	1.3539	0.21218	-0.49	2.20116	-0.7927	1.47916	57.5789	1.430893	0.39945	-0.2048	0.66126	-0.5163	-0.192
SESB-BWBK-SB-SO06-0108	20.5578	2.44536	-0.4266	-0.9542	7.36455	-1.315	-0.4728	75.8084	2.79751	0.25322	-0.4792	1.1232	-0.7292	-0.748
SESB-BWBK-SB-SO07-0106	18.6578	1.81469	-0.7816	-0.6142	1.73146	-1.311	-3.958	63.1088	2.073844	-0.0848	-0.2798	0.68224	-0.5193	-1.1625
SESB-BWBK-SB-SO08-0107	21.2207	2.41514	-0.0973	-0.3247	3.90484	-2.0527	-0.7237	74.0806	2.679778	0.44592	0.05147	1.04124	-0.7288	-0.8326
SESB-BWBK-SB-SO09-0106	18.2722	1.17289	0.03138	-0.1949	0.49335	-0.5539	1.0093	54.2327	1.281766	0.23354	-0.0028	0.48493	-0.43	-0.1849
SESB-BWBK-SB-SO11-0106	17.4852	1.77983	-0.2822	-0.1429	-2.8692	0.06624	-0.2743	63.6769	2.043156	0.1687	0.09635	0.47207	-0.6355	-0.5261
SESB-BWBK-SB-SO12-0106	18.0538	1.91382	-0.9332	-0.8247	4.72527	-2.9662	-1.3704	65.034	2.186119	-0.2424	-0.4467	0.9141	-0.4496	-0.7476
SESB-BWBK-SB-SO15-0103	17.9492	0.29431	0.15175	-0.5688	1.59468	2.19153	-0.2468	40.8249	0.261235	0.40345	-0.3875	0.06105	-0.2489	-0.1868
SESB-BWBK-SB-SO16-0105	15.6253	0.76719	-0.6304	-0.5967	-1.5851	0.87396	-1.5371	46.9034	0.896302	-0.2149	-0.3987	0.17428	-0.3388	-0.456
SESB-BWBK-SB-SO17-0106	15.691	0.25476	-0.1195	-0.0301	-5.2376	1.85042	-1.1897	38.6586	0.291724	-0.0686	0.00199	-0.108	-0.2894	-0.2657
SESB-BWBK-SB-SO18-0105	15.2867	-0.0095	-0.1205	0.06305	-5.6416	2.48217	-1.7583	34.6584	0.043862	-0.1605	0.02928	-0.2438	-0.2195	-0.2539
SESB-BWBK-SB-SO19-0104	17.5006	0.58672	-0.09	0.39072	-6.1849	3.44388	-5.9324	43.2747	0.683731	0.1136	0.39078	-0.1256	-0.4886	-1.155
SESB-BWBK-SB-SO20-0104	16.8555	1.34845	-0.8423	-0.7418	1.36879	-1.6853	-1.6255	55.8513	1.55951	-0.3546	-0.4572	0.5956	-0.3772	-0.6202

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

SUMMARY OF FACTOR ANALYSIS ANALYTE BACK-PREDICTION ERRORS (BEFORE REGRESSIONS)
Extent of Severe Overprediction or Underprediction Errors from Analyte Back-Prediction
No. of Samples With % Prediction Errors (OBSERVED - PREDICTED) / (OBSERVED)*100 > 100 or < -50

ALL SOIL TYPES:

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples)															
1 / 270	66 / 270	60 / 270	2 / 270	123 / 270	0 / 270	14 / 270	26 / 270	4 / 270	67 / 270	30 / 270	33 / 270	2 / 270	86 / 270	1 / 270	0 / 270

SOIL TYPE: BASS

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type BASS)															
1 / 13	13 / 13	13 / 13	0 / 13	11 / 13	0 / 13	4 / 13	10 / 13	2 / 13	11 / 13	0 / 13	3 / 13	1 / 13	3 / 13	0 / 13	0 / 13

SOIL TYPE: MASB

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASB)															
0 / 20	9 / 20	2 / 20	0 / 20	8 / 20	0 / 20	1 / 20	2 / 20	0 / 20	8 / 20	0 / 20	4 / 20	0 / 20	6 / 20	0 / 20	0 / 20

SOIL TYPE: MASS

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MASS)															
0 / 20	13 / 20	0 / 20	2 / 20	20 / 20	0 / 20	3 / 20	11 / 20	0 / 20	0 / 20	4 / 20	14 / 20	0 / 20	10 / 20	1 / 20	0 / 20

SOIL TYPE: MMSB

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSB)															
0 / 20	5 / 20	3 / 20	0 / 20	12 / 20	0 / 20	1 / 20	1 / 20	1 / 20	8 / 20	2 / 20	0 / 20	1 / 20	18 / 20	0 / 20	0 / 20

SOIL TYPE: MMSS

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type MMSS)															
0 / 20	6 / 20	19 / 20	0 / 20	20 / 20	0 / 20	2 / 20	0 / 20	0 / 20	7 / 20	7 / 20	0 / 20	0 / 20	11 / 20	0 / 20	0 / 20

SOIL TYPE: NESB

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESB)															
0 / 20	8 / 20	1 / 20	0 / 20	14 / 20	0 / 20	0 / 20	0 / 20	0 / 20	6 / 20	8 / 20	0 / 20	0 / 20	16 / 20	0 / 20	0 / 20

SOIL TYPE: NESS

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type NESS)															
0 / 22	6 / 22	19 / 22	0 / 22	21 / 22	0 / 22	3 / 22	2 / 22	0 / 22	6 / 22	9 / 22	0 / 22	0 / 22	12 / 22	0 / 22	0 / 22

SOIL TYPE: PMSB

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type PMSB)															
0 / 24	1 / 24	3 / 24	0 / 24	10 / 24	0 / 24	0 / 24	0 / 24	0 / 24	17 / 24	0 / 24	5 / 24	0 / 24	6 / 24	0 / 24	0 / 24

SOIL TYPE: SESB

AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
(Samples with Error >100% or < -50%) Versus (Total Samples of Soil Type SESB)															
0 / 35	5 / 35	0 / 35	0 / 35	7 / 35	0 / 35	0 / 35	0 / 35	1 / 35	4 / 35	0 / 35	7 / 35	0 / 35	4 / 35	0 / 35	0 / 35

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE																
MAXIMUM DOMAIN VALUE																
SAMPLE	**AL**	**AS**	**BA**	**BE**	**CA**	**CR**	**CO**	**CU**	**FE**	**PB**	**MG**	**MN**	**NI**	**K**	**V**	**ZN**
BASS-BWBK-SS-BA101-0001	-13	-214	273	1	134	-16	-75	-98	-22	220	17	-7	-28	-7	40	20
BASS-BWBK-SS-BA102-0001	-30	-100	229	-8	87	-10	-24	-74	-26	249	-7	-15	-20	46	18	19
BASS-BWBK-SS-BA103-0001	-22	-256	263	-6	105	-22	-20	-77	-21	201	-1	-47	-14	21	30	21
BASS-BWBK-SS-BA104-0001	-25	-140	195	-28	190	-7	-34	-101	-26	175	9	-40	-4	-46	48	15
BASS-BWBK-SS-BA105-0001	-16	-961	872	1	103	-33	-12	3	-17	16	47	-169	-15	167	68	34
BASS-BWBK-SS-BA106-0001	-27	-292	283	-22	164	8	-67	-65	-37	137	19	-18	1	-11	47	18
BASS-BWBK-SS-BA107-0001	-33	-130	212	-11	112	-16	-17	-95	-23	238	-11	-16	-18	29	24	22
BASS-BWBK-SS-BA108-0001	-29	-214	292	-3	99	-9	-22	-52	-33	179	0	-36	-12	39	27	20
BASS-BWBK-SS-BA109-0001	-33	-181	284	-24	140	15	-76	-25	-52	152	20	-24	13	-29	49	8
BASS-BWBK-SS-BA110-0001	-19	-84	108	-33	166	-2	-35	-87	-8	139	-6	-34	-1	-65	23	10
BASS-BWBK-SS-BA111-0001	-24	-200	278	-21	122	0	-37	-114	-22	161	8	-19	-16	23	32	18
BASS-BWBK-SS-BA112-0001	-11	-794	539	0	106	-31	-33	-64	-13	78	30	-104	-28	63	56	26
BASS-BWBK-SS-BA113-0001	-52	-1014	577	17	137	-23	-113	21	-91	388	6	-78	-67	120	41	53
MASB-BWBK-SB-MA01-0105	4	-49	65	-3	86	6	-4	6	-15	5	21	71	1	32	9	3
MASB-BWBK-SB-MA02-0107	8	-80	62	-24	64	12	-16	-11	-11	16	32	9	5	-6	8	2
MASB-BWBK-SB-MA03-0108	7	-41	52	-20	54	0	29	-1	-32	84	2	27	-6	8	-11	3
MASB-BWBK-SB-MA04-0106	0	-90	134	-3	184	3	-30	-17	-23	53	44	30	7	-75	35	13
MASB-BWBK-SB-MA05-0108	-4	38	104	2	138	9	-22	-1	-7	16	30	-10	8	-5	22	9
MASB-BWBK-SB-MA06-0105	-2	-101	61	-7	79	9	-24	-2	-17	35	27	-11	7	3	17	7
MASB-BWBK-SB-MA07-0108	10	7	76	-15	62	0	-45	-52	8	75	39	-49	0	76	21	5
MASB-BWBK-SB-MA08-0108	9	43	1	-5	-1	8	-57	-50	29	17	60	-24	-23	231	29	-7
MASB-BWBK-SB-MA09-0108	9	59	26	2	-15	-4	-27	16	7	120	28	10	-14	138	9	2
MASB-BWBK-SB-MA10-0104	-3	-3	-1	-10	-69	7	-19	-33	10	52	33	-59	-16	312	14	-3
MASB-BWBK-SB-MA11-0108	-6	-30	33	12	37	6	-34	-1	-4	58	33	-17	-6	85	14	6
MASB-BWBK-SB-MA12-0108	8	49	77	-11	85	8	-8	-7	0	63	25	-11	-1	7	12	3
MASB-BWBK-SB-MA13-0105	-38	-90	63	21	155	7	21	36	0	-240	5	-135	11	39	15	4
MASB-BWBK-SB-MA14-0104	-13	30	-3	10	-89	9	3	14	25	-120	1	-13	-11	115	-10	-13
MASB-BWBK-SB-MA15-0105	-18	22	-1	27	10	-1	9	26	22	-227	-6	-9	2	64	3	-12
MASB-BWBK-SB-MA16-0104	-29	-58	41	20	85	-2	13	15	5	-74	6	5	-5	82	12	-1
MASB-BWBK-SB-MA17-0104	-6	-52	39	13	154	-8	22	-69	14	-95	3	-12	-16	168	-4	11
MASB-BWBK-SB-MA18-0104	-31	-75	76	10	176	10	-1	22	2	-254	32	-96	14	49	36	8
MASB-BWBK-SB-MA19-0103	-24	-60	83	11	173	-6	23	-5	2	-128	6	6	14	65	18	15
MASB-BWBK-SB-MA20-0103	-9	-127	38	7	33	4	-4	7	-17	5	19	-66	7	61	9	1
MASS-BWBK-SS-MA01-0001	-11	-85	58	-35	254	-20	110	-145	8	38	-62	-164	20	71	-16	44
MASS-BWBK-SS-MA02-0001	7	-244	66	0	219	-13	51	-52	-16	-22	-53	-210	35	-30	-54	51
MASS-BWBK-SS-MA03-0001	-14	-37	72	-6	188	-7	20	-35	17	-4	-8	-146	12	53	-10	28
MASS-BWBK-SS-MA04-0001	1	-203	94	-21	167	-7	5	-53	-8	17	12	-105	19	16	-15	33
MASS-BWBK-SS-MA05-0001	-2	-210	74	-5	163	-5	-27	-27	-10	23	30	-135	8	29	12	25
MASS-BWBK-SS-MA06-0001	-5	26	96	-3	199	-10	-27	-4	32	-36	30	-92	17	-99	-3	27
MASS-BWBK-SS-MA07-0001	-31	125	-26	-110	-188	-28	316	-7	44	81	-191	-66	2	270	-5	13
MASS-BWBK-SS-MA08-0001	-15	-19	14	-45	104	-27	16	-84	27	82	-14	-34	-17	147	1	23
MASS-BWBK-SS-MA09-0001	-7	-95	43	-4	299	-14	-1	-55	-9	65	2	-23	1	15	-2	40
MASS-BWBK-SS-MA10-0001	-9	-65	53	-8	244	-15	-1	-123	6	62	20	-21	-7	101	11	34
MASS-BWBK-SS-MA11-0001	-14	-38	40	-29	291	-13	4	-104	35	20	18	-34	-14	42	17	20
MASS-BWBK-SS-MA12-0001	-2	-248	86	-42	245	-1	-71	-147	-1	66	24	-100	17	108	2	34
MASS-BWBK-SS-MA13-0001	-18	-106	52	-26	503	-13	35	-52	38	-16	-13	-138	12	-29	4	34
MASS-BWBK-SS-MA14-0001	-35	-182	39	-46	316	-31	94	9	15	70	-73	-57	20	50	12	47
MASS-BWBK-SS-MA15-0001	-15	-98	34	-55	471	-16	82	-53	29	37	-48	-143	25	29	2	41
MASS-BWBK-SS-MA16-0001	-31	-30	30	-16	266	-10	7	1	27	23	-2	-129	6	201	20	21
MASS-BWBK-SS-MA17-0001	-13	-46	21	-25	221	-8	36	-31	18	15	-16	-40	1	171	9	23
MASS-BWBK-SS-MA18-0001	-27	-29	29	-37	319	-28	50	-57	29	53	-20	-139	14	294	25	35
MASS-BWBK-SS-MA19-0001	-23	-58	34	-13	228	-16	40	-33	23	21	-16	-76	5	171	15	27
MASS-BWBK-SS-MA20-0001	-24	-66	47	-7	173	-10	-4	-1	9	38	4	-42	10	124	12	20
MMSB-BWBK-SB-MM101-0110	-10	15	-19	11	-183	1	4	11	-10	48	-16	7	-10	-75	-19	-16
MMSB-BWBK-SB-MM102-0109	-1	-8	-5	2	-31	12	-14	9	-35	-21	3	-18	25	-112	10	-20
MMSB-BWBK-SB-MM103-0107	-2	33	-48	-11	-197	22	43	14	-41	-36	-30	-17	-9	-90	-32	-26
MMSB-BWBK-SB-MM104-0110	4	116	-175	-5	-810	17	-52	55	-24	130	-10	28	-61	-129	1	-35
MMSB-BWBK-SB-MM105-0110	-25	65	-34	60	-201	-20	7	31	-31	-88	-29	-12	3	-14	-27	-20
MMSB-BWBK-SB-MM106-0110	-1	-142	35	4	203	1	-32	-12	-15	12	9	13	-9	-125	25	4
MMSB-BWBK-SB-MM107-0110	-36	12	-2	-8	26	39	5	28	-17	-139	-23	-25	-3	-52	-14	-11
MMSB-BWBK-SB-MM108-0110	-3	8	-18	17	-34	-6	-1	-2	-12	15	-16	-19	-12	-81	4	-7
MMSB-BWBK-SB-MM109-0110	-8	6	-31	19	-123	2	7	7	-4	-50	-44	-16	1	-81	-15	-7
MMSB-BWBK-SB-MM110-0109	-11	20	-29	-24	-71	26	-8	20	-3	-50	-16	-15	-3	-60	-4	-12
MMSB-BWBK-SB-MM111-0110	-1	15	-22	1	-36	-1	-14	-14	4	35	-28	-16	-5	-89	-9	-9
MMSB-BWBK-SB-MM112-0110	-4	-77	3	-14	129	-5	-11	-48	12	-51	-9	49	7	-85	21	-9
MMSB-BWBK-SB-MM113-0110	-25	-56	13	-33	69	45	-18	24	-26	-179	4	-16	12	-64	-3	-12
MMSB-BWBK-SB-MM114-0110	1	58	4	1	-9	-5	19	8	-13	8	-38	10	11	-67	-22	-8

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NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE																
MAXIMUM DOMAIN VALUE																
SAMPLE	AL	AS	BA	BE	CA	CR	CO	CU	FE	PB	MG	MN	NI	K	V	ZN
MMSB-BWBK-SB-MM115-0110	-1	-22	26	-18	236	-38	7	-62	16	124	-55	-15	-22	-108	3	22
MMSB-BWBK-SB-MM116-0110	-6	-29	18	-12	42	13	-4	0	-21	45	-19	6	1	-86	-18	0
MMSB-BWBK-SB-MM117-0110	2	64	-45	0	-308	-18	24	11	-22	101	-40	2	-9	-76	-24	-15
MMSB-BWBK-SB-MM118-0110	-4	1	-51	6	-256	-2	-1	26	-63	69	-20	41	37	-107	-2	-26
MMSB-BWBK-SB-MM119-0110	-10	-9	23	-5	96	-1	-12	-20	-10	62	-12	2	-5	-91	16	-2
MMSB-BWBK-SB-MM120-0110	-19	133	-54	13	-325	-11	32	21	-15	70	-58	-1	-14	-47	-18	-19
MMSS-BWBK-SS-MM101-0001	14	43	-70	8	-389	-14	-34	2	25	-32	-12	14	-1	43	-9	-2
MMSS-BWBK-SS-MM102-0001	11	77	-104	9	-445	-9	-9	-11	27	-93	-33	19	8	111	-8	-11
MMSS-BWBK-SS-MM103-0001	10	59	-112	-1	-586	-5	-23	4	30	-25	-16	18	1	98	-3	-10
MMSS-BWBK-SS-MM104-0001	10	48	-63	6	-425	-7	-22	15	19	-19	-9	14	2	-5	-10	-11
MMSS-BWBK-SS-MM105-0001	5	96	-121	-5	-716	-13	43	20	23	-3	-76	26	1	144	-9	-7
MMSS-BWBK-SS-MM106-0001	6	42	-68	-5	-236	13	-8	16	22	-102	-22	-7	-2	3	-8	-9
MMSS-BWBK-SS-MM107-0001	17	32	-63	5	-300	-8	-44	-13	21	-63	-5	9	2	-5	-9	-3
MMSS-BWBK-SS-MM108-0001	16	84	-118	6	-603	-11	-2	18	32	-75	-46	4	11	100	-10	-8
MMSS-BWBK-SS-MM109-0001	19	93	-146	2	-721	-4	-14	-13	31	-129	-12	8	5	110	-4	-18
MMSS-BWBK-SS-MM110-0001	6	140	-105	-41	-712	-18	113	16	40	26	-122	36	2	246	-16	-6
MMSS-BWBK-SS-MM111-0001	20	163	-126	-35	-858	-10	71	-16	31	-3	-75	42	1	185	-29	-10
MMSS-BWBK-SS-MM112-0001	12	142	-110	-23	-811	-24	83	2	24	48	-103	57	-1	224	-28	4
MMSS-BWBK-SS-MM113-0001	11	62	-102	-29	-469	-17	11	-4	32	31	-46	40	3	75	-5	2
MMSS-BWBK-SS-MM114-0001	12	162	-85	-1	-656	-27	101	13	19	7	-127	37	-2	274	-39	3
MMSS-BWBK-SS-MM115-0001	12	113	-72	5	-612	-26	43	9	32	-15	-94	49	-1	254	-31	1
MMSS-BWBK-SS-MM116-0001	8	113	-86	-14	-546	-22	77	-5	32	10	-79	36	-4	236	-16	-3
MMSS-BWBK-SS-MM117-0001	14	62	-70	-15	-647	-10	-4	3	26	-1	-28	19	3	57	-17	-6
MMSS-BWBK-SS-MM118-0001	8	93	-50	-10	-289	2	14	-1	3	-51	-20	-9	-1	-54	-7	-20
MMSS-BWBK-SS-MM119-0001	6	93	-35	8	-195	-12	23	7	-3	-49	-32	0	12	-30	-15	-18
MMSS-BWBK-SS-MM120-0001	-14	23	-113	15	-502	27	-15	28	22	-176	-18	-22	-17	202	-17	-24
NESB-BWBK-SB-NE01-0108	22	-82	-24	-13	-147	20	-26	-2	-20	-60	42	4	2	-104	4	-18
NESB-BWBK-SB-NE02-0109	12	-92	51	-23	69	10	-11	1	-13	-19	30	42	4	-179	-21	-6
NESB-BWBK-SB-NE03-0105	19	-2	-72	0	-373	15	-20	5	-3	-70	21	1	-3	-28	-17	-25
NESB-BWBK-SB-NE04-0110	16	-57	-14	6	-156	7	-14	3	-19	-31	28	11	-2	-94	-3	-16
NESB-BWBK-SB-NE05-0108	19	-83	-38	-8	-161	16	-25	1	-17	-39	38	4	-1	-57	6	-16
NESB-BWBK-SB-NE06-0109	16	-58	-36	7	-174	9	-14	5	-18	-44	30	-2	2	-57	1	-19
NESB-BWBK-SB-NE07-0107	21	-70	-32	-8	-221	20	-27	2	-19	-50	37	-8	5	-68	-9	-15
NESB-BWBK-SB-NE08-0104	13	-48	-49	9	-147	10	1	9	-22	-96	22	-21	6	-18	0	-20
NESB-BWBK-SB-NE09-0110	16	-77	-13	-3	-107	14	-16	2	-16	-51	31	2	-2	-42	-1	-15
NESB-BWBK-SB-NE10-0107	-1	-84	-17	11	-46	7	-17	10	-7	-101	20	-8	-2	-37	14	-7
NESB-BWBK-SB-NE101-0110	5	44	-29	7	-100	-10	7	-11	8	-33	-52	-31	1	-92	-19	-5
NESB-BWBK-SB-NE102-0110	4	46	-4	-3	35	-19	17	-16	5	18	-64	-21	7	-97	-25	8
NESB-BWBK-SB-NE103-0110	2	84	-17	-10	-85	-18	22	-4	4	37	-69	-19	4	-81	-24	2
NESB-BWBK-SB-NE104-0110	-3	96	-21	-3	-109	-19	33	-6	-1	44	-75	-32	2	-69	-23	0
NESB-BWBK-SB-NE105-0110	-4	56	-18	8	26	-16	0	-21	13	17	-65	2	-2	-91	-16	5
NESB-BWBK-SB-NE106-0110	2	42	-17	-3	-47	-15	12	-9	0	30	-59	-18	5	-92	-19	1
NESB-BWBK-SB-NE107-0510	0	42	-10	-3	-42	-26	2	1	-1	99	-41	-16	-17	-86	-7	-1
NESB-BWBK-SB-NE108-0110	5	63	-44	-19	-176	-14	16	18	2	27	-50	-24	-10	-88	-6	-7
NESB-BWBK-SB-NE109-0110	6	74	-27	-8	-135	-15	14	1	5	24	-58	-22	-5	-90	-23	-3
NESB-BWBK-SB-NE110-0110	7	83	-49	-8	-222	-7	14	-2	-2	13	-46	-14	-13	-86	-13	-7
NESS-BKG-SS03-NEB-0016	6	-41	-80	-6	-271	-21	-8	-6	-12	81	-10	63	-10	61	-21	15
NESS-BKG-SS09-NEB-0018	13	80	-97	-30	-365	2	21	23	14	12	-20	46	-9	136	-7	1
NESS-BWBK-SS-NE01-0001	12	3	-14	6	13	3	-41	10	-11	43	17	23	-17	115	-13	24
NESS-BWBK-SS-NE02-0001	12	-6	38	2	253	9	-88	2	-35	115	35	11	-13	211	-5	35
NESS-BWBK-SS-NE03-0001	21	42	-87	6	-619	7	-42	7	12	-66	9	19	1	223	-24	0
NESS-BWBK-SS-NE04-0001	20	17	-90	-3	-456	12	-6	15	0	-98	20	4	1	19	-12	-17
NESS-BWBK-SS-NE05-0001	6	20	-53	6	-246	19	-43	25	-6	-9	13	22	-4	166	-19	10
NESS-BWBK-SS-NE06-0001	17	11	-90	11	-366	12	-19	16	-5	-144	23	-24	12	52	-8	-17
NESS-BWBK-SS-NE07-0001	4	43	-88	7	-385	1	-50	41	-4	45	-6	37	-11	125	-10	8
NESS-BWBK-SS-NE08-0001	18	27	-77	11	-411	6	-33	13	7	-91	10	0	10	122	-20	-7
NESS-BWBK-SS-NE09-0001	20	64	-82	25	-551	-8	-23	29	10	-45	-31	41	3	92	-40	1
NESS-BWBK-SS-NE10-0001	0	25	-83	9	-356	-5	-46	41	-14	61	-5	48	-6	68	-9	6
NESS-BWBK-SS-NE101-0001	23	129	-95	-3	-616	-11	35	-8	25	-114	-61	9	13	22	-28	-11
NESS-BWBK-SS-NE102-0001	9	87	-71	-7	-462	-24	52	-17	21	21	-66	32	8	80	-16	3
NESS-BWBK-SS-NE103-0001	0	97	-62	-31	-475	-7	62	3	22	17	-62	21	16	114	-10	-2
NESS-BWBK-SS-NE104-0001	13	70	-119	-32	-593	-20	14	-100	20	61	-24	62	5	91	-18	-7
NESS-BWBK-SS-NE105-0001	11	137	-65	16	-464	-32	71	-17	21	-19	-95	33	3	153	-32	4
NESS-BWBK-SS-NE106-0001	6	120	-108	2	-716	-31	54	-51	17	61	-60	79	-7	85	-31	-4
NESS-BWBK-SS-NE107-0001	11	139	-86	20	-635	-46	76	13	22	11	-109	68	-6	154	-27	7
NESS-BWBK-SS-NE108-0001	6	82	-44	12	-356	-43	50	4	18	34	-69	40	-3	49	-20	10
NESS-BWBK-SS-NE109-0001	12	174	-62	16	-534	-39	77	0	24	-13	-97	41	-6	124	-34	5
NESS-BWBK-SS-NE110-0001	-5	115	-105	-22	-528	-38	105	23	31	58	-102	46	-5	132	-3	-4

APPENDIX F, TABLE F4-5
ANALYTE BACK-PREDICTION EQUATIONS FOR SIX FACTOR ANALYSIS OF ALL SOIL, OMIT Cd, Hg, Na, Se, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Relative Prediction Error: White Font, Black Background=> Overpredict >100%
or Underpredict <-50%. Absolute Value Error >30% => Bold, Underlined.

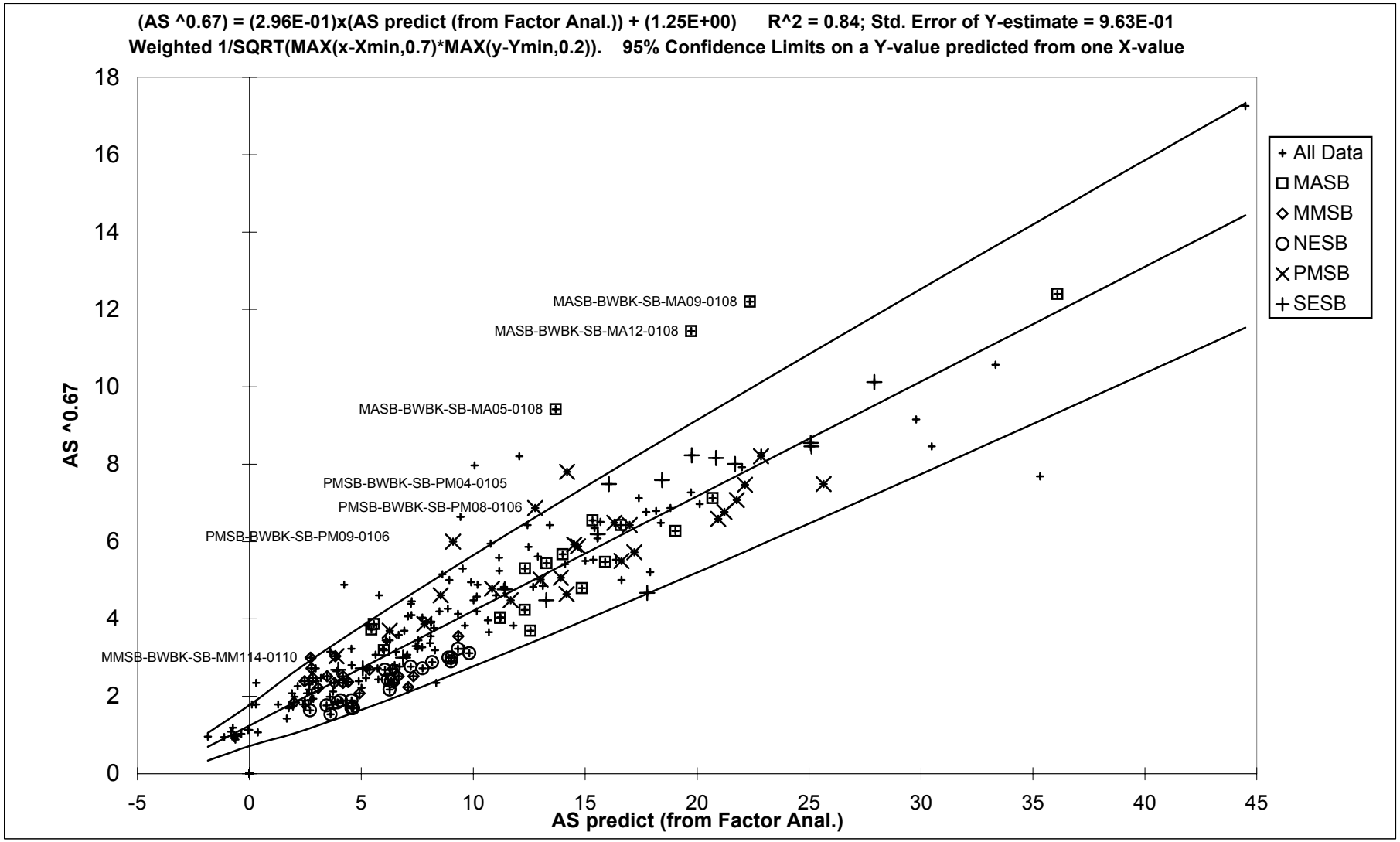
% Prediction Errors for Each Sample: (OBSERVED - PREDICTED) / (OBSERVED)*100

MINIMUM DOMAIN VALUE																
MAXIMUM DOMAIN VALUE																
SAMPLE	**AL**	**AS**	**BA**	**BE**	**CA**	**CR**	**CO**	**CU**	**FE**	**PB**	**MG**	**MN**	**NI**	**K**	**V**	**ZN**
PMSB-BWBK-SB-PM01-0105	12	-27	14	-2	**45**	0	**32**	-25	-20	**-158**	9	11	22	**-58**	-4	-12
PMSB-BWBK-SB-PM02-0104	-13	26	**-57**	9	**-195**	24	7	0	29	**-273**	**32**	6	-23	**183**	7	**-37**
PMSB-BWBK-SB-PM03-0106	9	1	**-66**	-14	**-104**	12	15	-10	2	**-116**	**33**	**-55**	-11	**84**	15	-24
PMSB-BWBK-SB-PM04-0105	0	29	**39**	10	**58**	5	-5	2	-2	**-45**	**31**	2	5	-9	20	-10
PMSB-BWBK-SB-PM05-0105	0	-9	28	0	**49**	6	10	-6	0	**-97**	30	19	-6	-3	17	-13
PMSB-BWBK-SB-PM06-0105	7	2	**54**	-6	**84**	1	-5	-20	16	**-149**	**40**	**67**	-6	26	16	-16
PMSB-BWBK-SB-PM07-0105	-16	28	-3	22	-4	-2	**43**	-2	20	**-318**	-6	**31**	-19	**68**	2	**-39**
PMSB-BWBK-SB-PM08-0106	0	25	12	8	**39**	2	**31**	-9	-3	**-152**	14	9	-2	0	10	-18
PMSB-BWBK-SB-PM09-0106	-4	28	**35**	-2	**35**	9	27	-2	-7	**-171**	15	-3	7	**50**	14	-18
PMSB-BWBK-SB-PM10-0105	**-45**	-1	-13	14	**78**	11	29	**32**	13	**-256**	11	5	-15	**135**	**30**	-18
PMSB-BWBK-SB-PM11-0104	-8	-5	5	6	-20	-1	29	5	9	**-180**	-5	**57**	5	**36**	-4	-28
PMSB-BWBK-SB-PM12-0105	-22	**-96**	**87**	6	**122**	20	16	18	-17	**-222**	24	1	10	**59**	19	0
PMSB-BWBK-SB-PM13-0106	-25	-8	25	20	**118**	7	1	-25	**39**	**-307**	15	**34**	-15	**139**	11	-14
PMSB-BWBK-SB-PM14-0106	-19	**-42**	**58**	16	**115**	-2	24	14	2	**-163**	8	**38**	2	**57**	17	-1
PMSB-BWBK-SB-PM15-0105	-11	-26	27	9	**47**	8	-1	11	7	**-113**	21	-1	-4	**57**	10	-7
PMSB-BWBK-SB-PM16-0106	-10	-24	29	24	**51**	-2	-6	16	0	**-127**	16	24	3	**49**	13	-4
PMSB-BWBK-SB-PM17-0105	-6	-21	-28	15	-12	-3	**35**	16	-11	**-107**	11	-24	-22	**-51**	17	-23
PMSB-BWBK-SB-PM18-0105	6	14	-17	4	**-110**	13	**-41**	2	12	-16	**35**	-22	-7	**94**	-1	-14
PMSB-BWBK-SB-PM19-0105	-3	-11	12	1	-24	6	-20	14	3	-22	22	15	1	**38**	5	-5
PMSB-BWBK-SB-PM20-0106	-5	-17	28	7	**43**	4	-5	9	-2	**-66**	20	-8	3	**33**	11	-3
PMSB-BWBK-SB-SO01-0107-PM	9	-19	**-49**	11	**-200**	-1	-10	0	-14	**64**	13	**-90**	4	**85**	-6	-1
PMSB-BWBK-SB-SO02-0109-PM	9	20	**-38**	-15	**-178**	9	**-32**	-28	13	**49**	**37**	**-50**	-9	**242**	6	-4
PMSB-BWBK-SB-SO13-0104-PM	-7	27	**-98**	-6	**-451**	13	11	25	-3	10	-3	**-171**	1	**69**	-6	-26
PMSB-BWBK-SB-SO14-0105-PM	9	26	**-33**	-13	**-280**	9	-7	-3	-2	**75**	16	**-99**	2	**59**	-11	-8
SESB-BWBK-SB-SO03-0108	19	12	**-50**	3	**-230**	5	-16	8	-15	**76**	23	**-44**	14	**33**	-17	-8
SESB-BWBK-SB-SO04-0108	-1	24	-25	0	**-161**	9	-3	7	-8	**73**	3	**-115**	4	**51**	-10	-3
SESB-BWBK-SB-SO05-0106	3	19	0	14	**-49**	7	-27	5	-3	16	19	**-45**	7	**79**	-4	2
SESB-BWBK-SB-SO06-0108	14	**31**	**-47**	-3	**-117**	7	-12	-8	3	**42**	**35**	**-155**	0	**170**	3	-9
SESB-BWBK-SB-SO07-0106	-1	**-34**	-26	2	**-34**	3	16	12	**-34**	**49**	7	**40**	12	**79**	6	-4
SESB-BWBK-SB-SO08-0107	7	7	-17	3	**-52**	6	-12	4	-7	**57**	22	-24	3	**52**	-1	-3
SESB-BWBK-SB-SO09-0106	0	23	14	5	-23	8	-12	1	-7	16	20	**-143**	9	15	1	0
SESB-BWBK-SB-SO11-0106	14	12	26	-8	**35**	3	-7	-10	-4	13	**32**	**55**	5	17	10	-6
SESB-BWBK-SB-SO12-0106	2	14	**-37**	-11	**-102**	10	-11	11	-7	**89**	17	-28	0	**129**	3	-2
SESB-BWBK-SB-SO15-0103	-6	-10	-6	6	11	0	10	-8	6	**-85**	15	9	1	**80**	14	-6
SESB-BWBK-SB-SO16-0105	-13	**-55**	17	5	18	6	3	-10	-6	**-33**	12	**-51**	9	**85**	13	-3
SESB-BWBK-SB-SO17-0106	-14	**-133**	**38**	17	**66**	6	18	6	-30	**-76**	-2	**-129**	14	3	4	2
SESB-BWBK-SB-SO18-0105	-5	**-131**	**37**	6	**73**	8	**36**	8	**-43**	**-107**	-1	**-67**	9	**-31**	1	-2
SESB-BWBK-SB-SO19-0104	-12	**-229**	26	19	**105**	-1	**55**	1	**-73**	**-114**	-17	**-86**	-12	**-86**	5	-3
SESB-BWBK-SB-SO20-0104	-11	**-72**	-2	7	**-53**	7	-6	13	-8	**58**	12	11	-10	**113**	0	-1

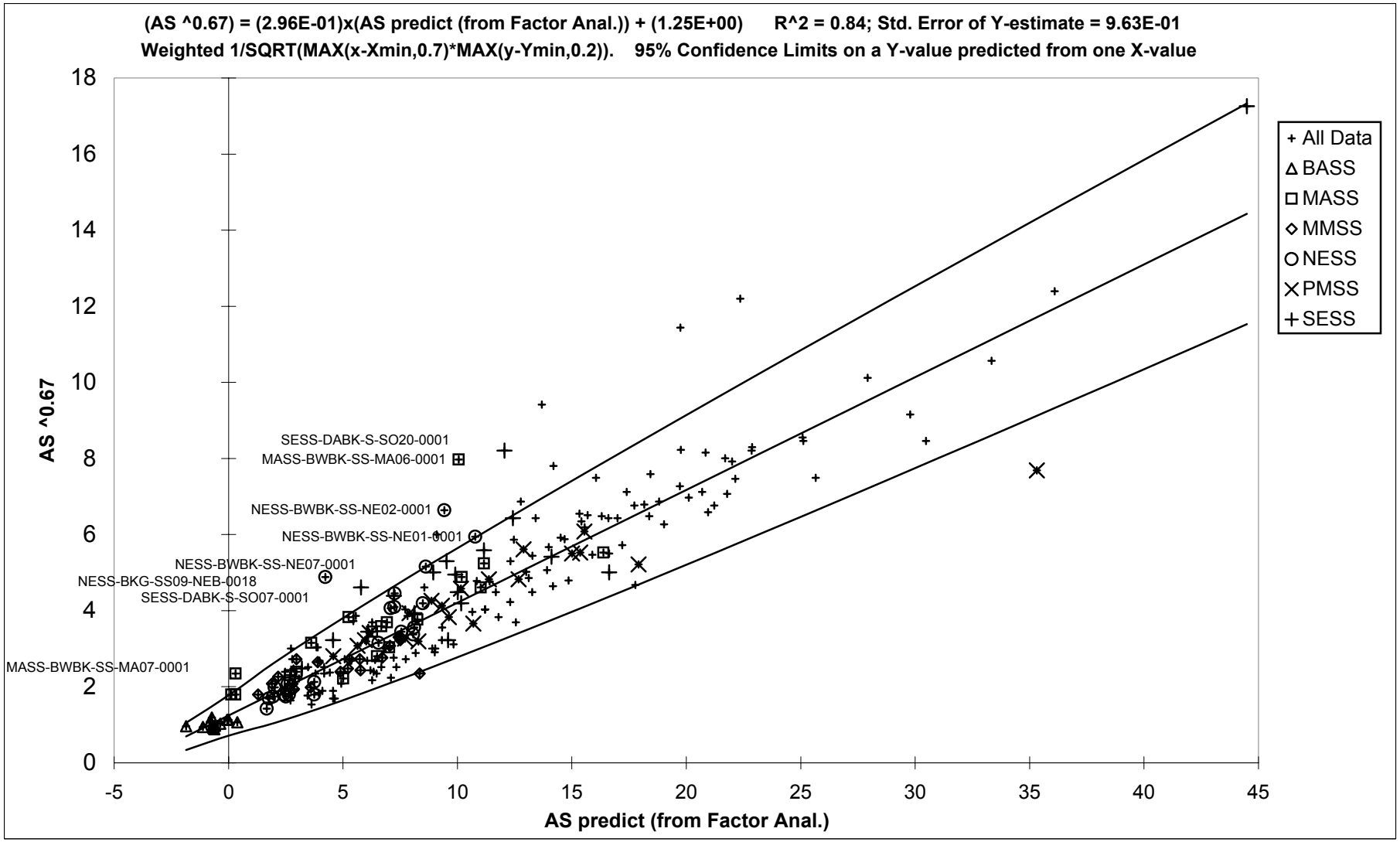
APPENDIX F, PART 5

GEOCHEMICAL REGRESSION PREDICTION LIMITS GRAPHS FOR SELECTED METALS

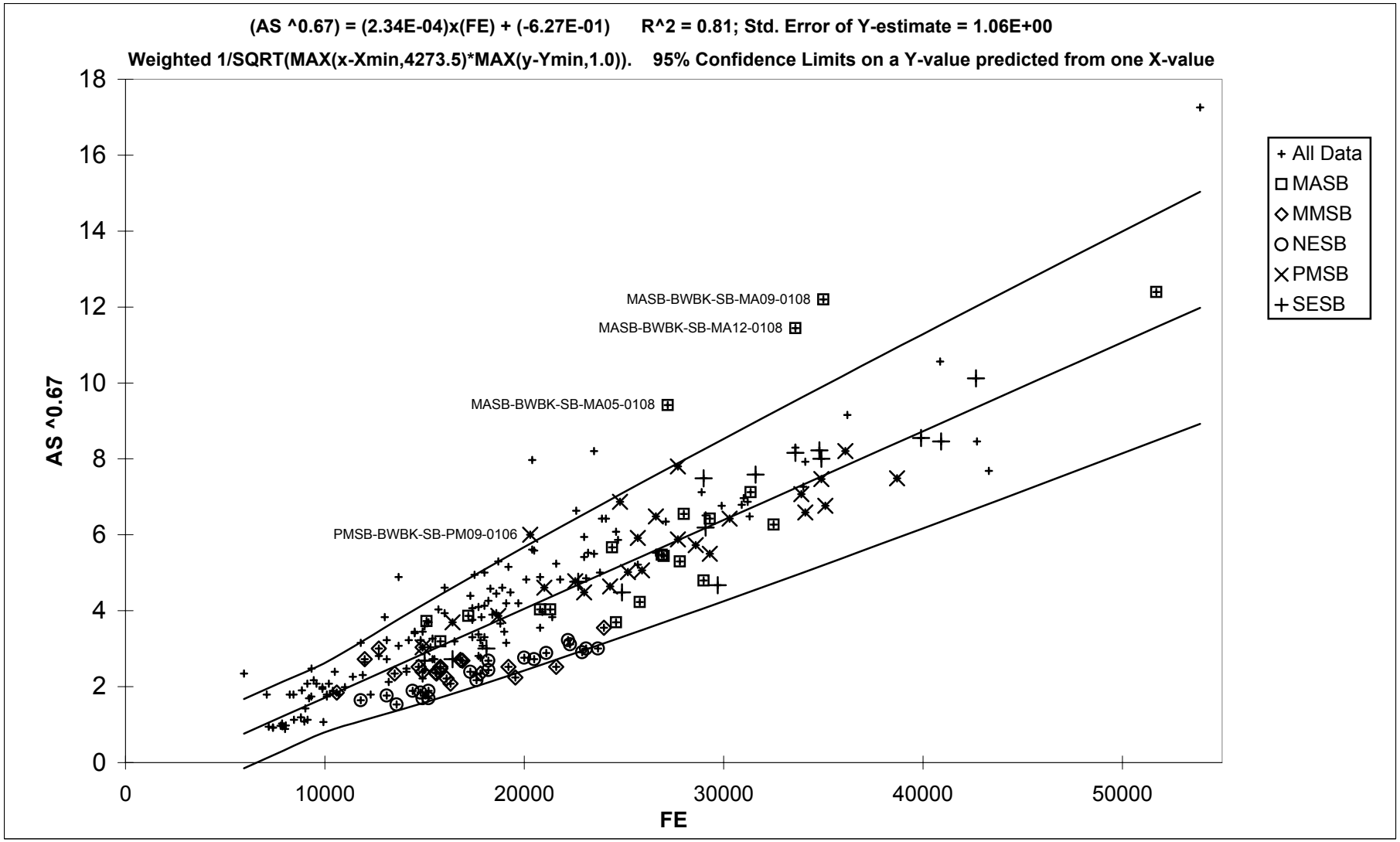
APPENDIX F, FIGURE F5-1
SUBSURFACE SOIL VIEW - ARSENIC 2/3 POWER REGRESSED ON PREDICTED ARSENIC FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



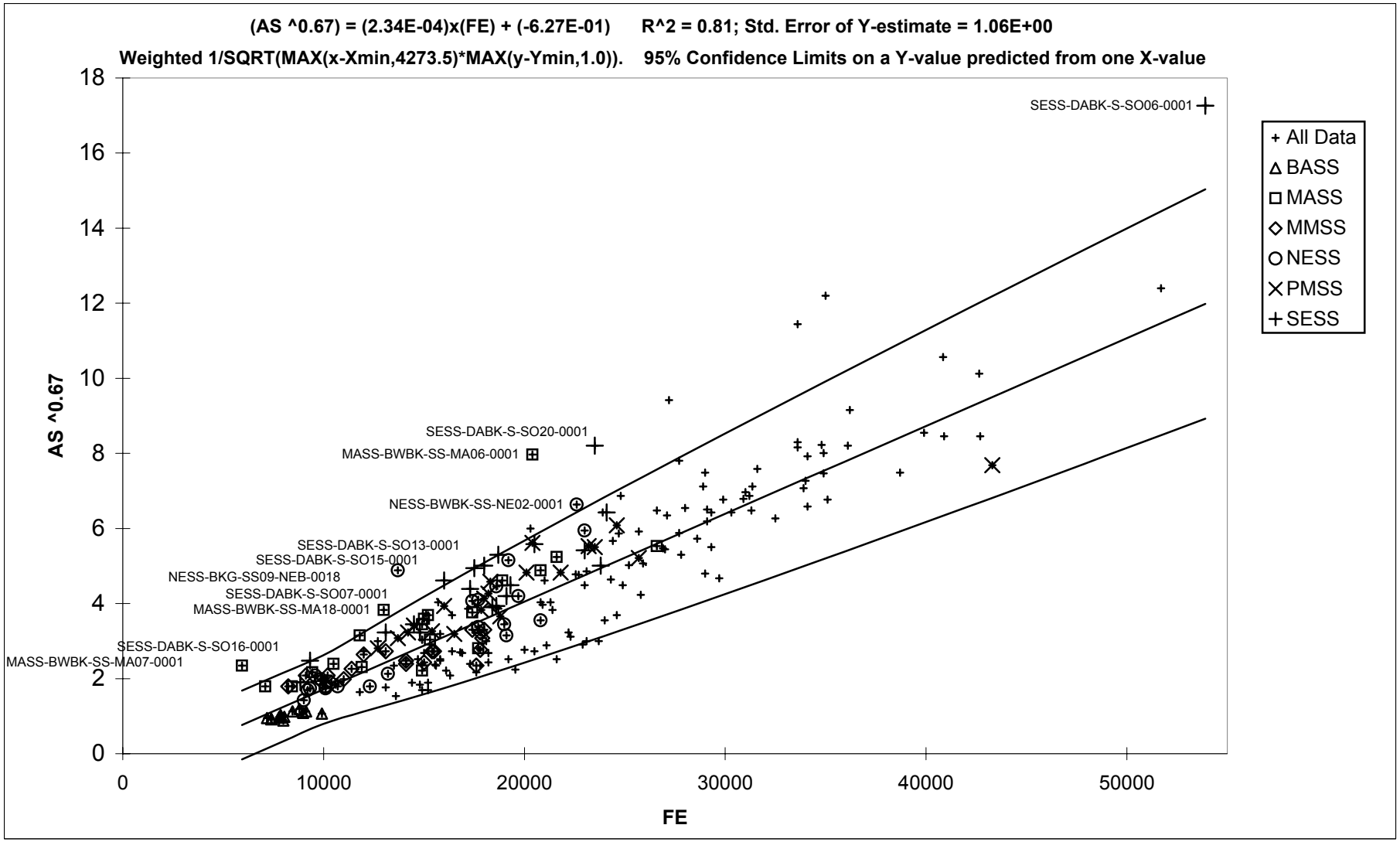
APPENDIX F, FIGURE F5-2
SURFACE SOIL VIEW - ARSENIC 2/3 POWER REGRESSED ON PREDICTED ARSENIC FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



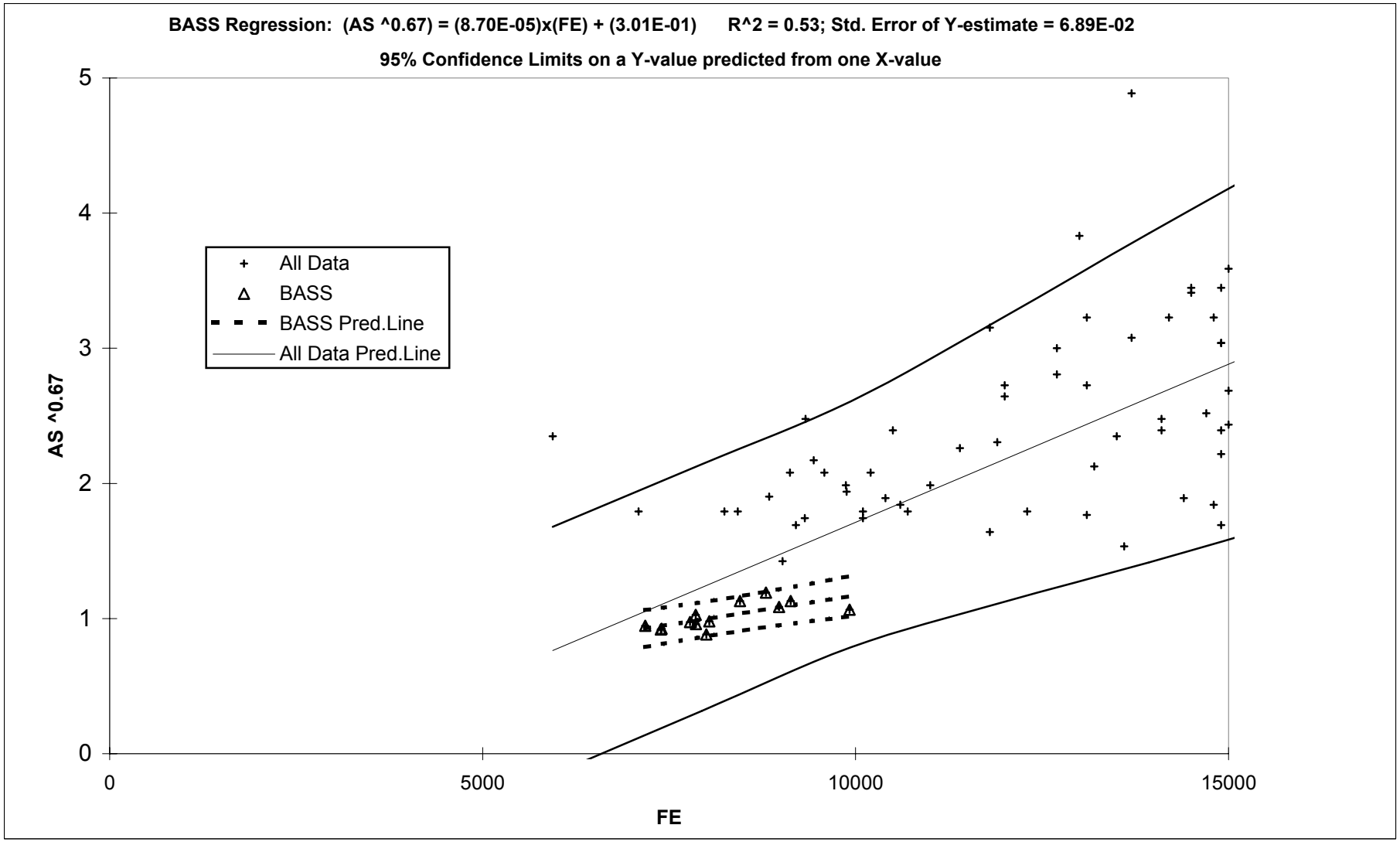
APPENDIX F, FIGURE F5-3
SUBSURFACE SOIL VIEW - ARSENIC 2/3 POWER REGRESSED ON ALL DATA FOR IRON, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



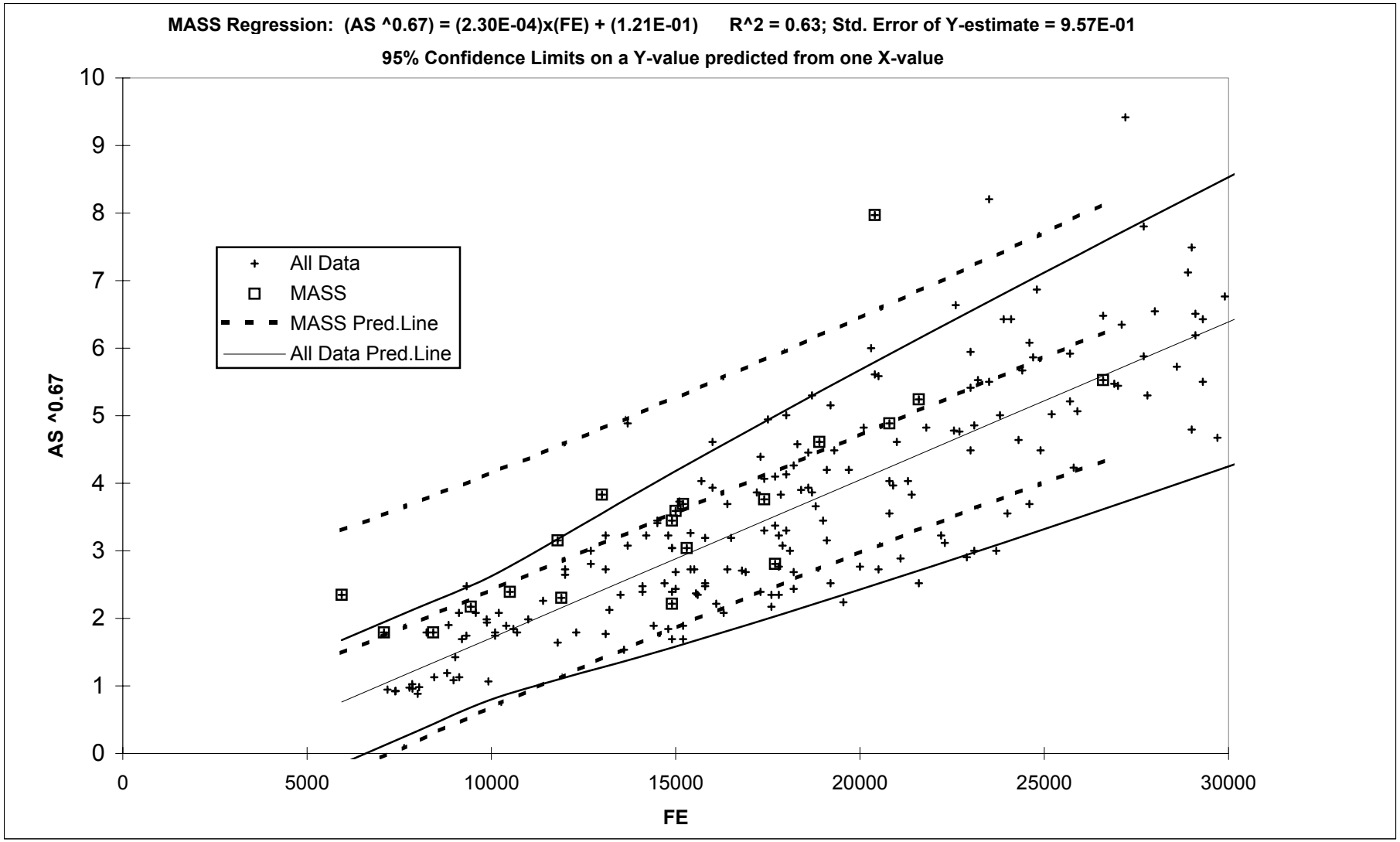
APPENDIX F, FIGURE F5-4
SURFACE SOIL VIEW - ARSENIC 2/3 POWER REGRESSED ON ALL DATA FOR IRON, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



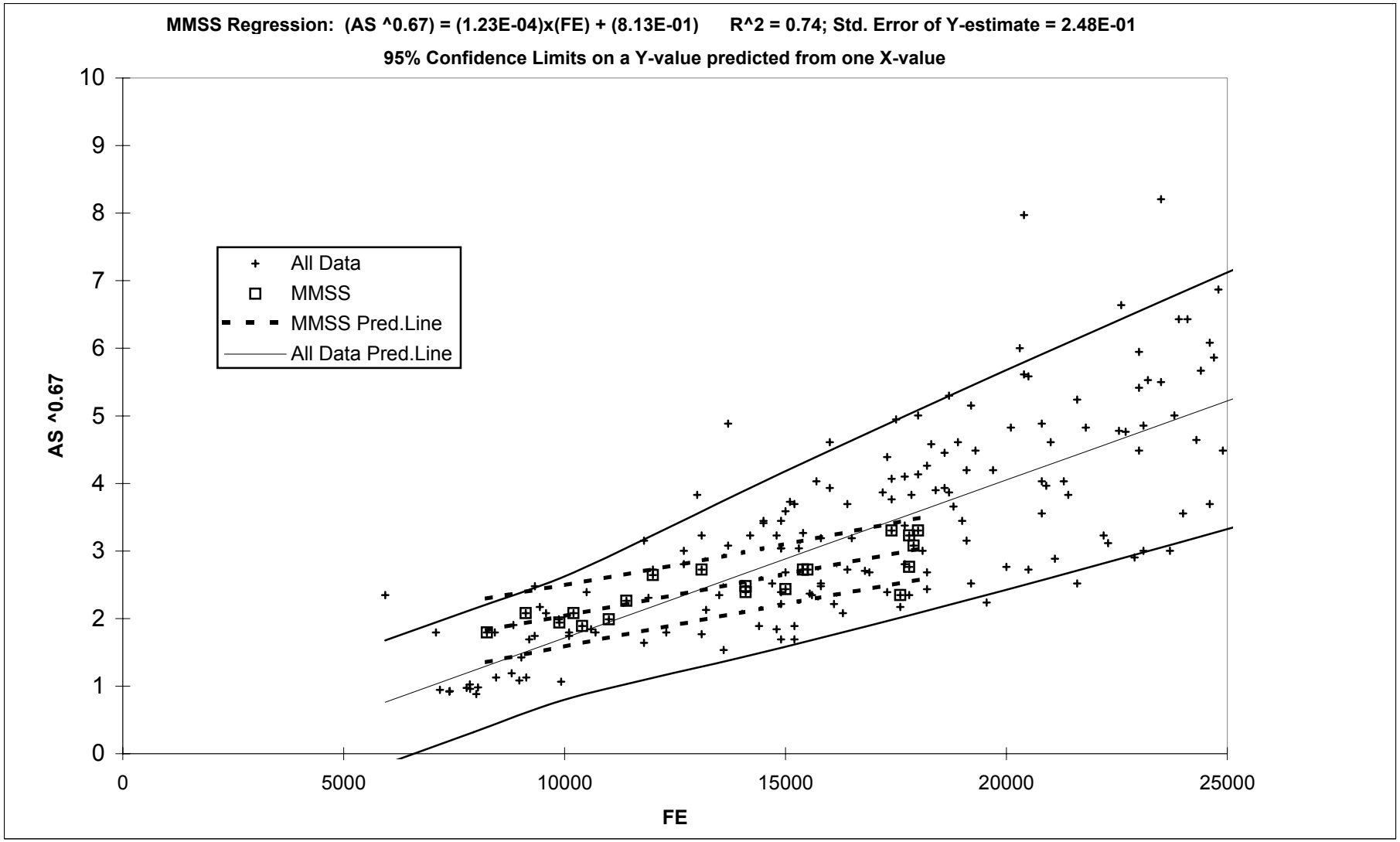
APPENDIX F, FIGURE F5-5
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (BASS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



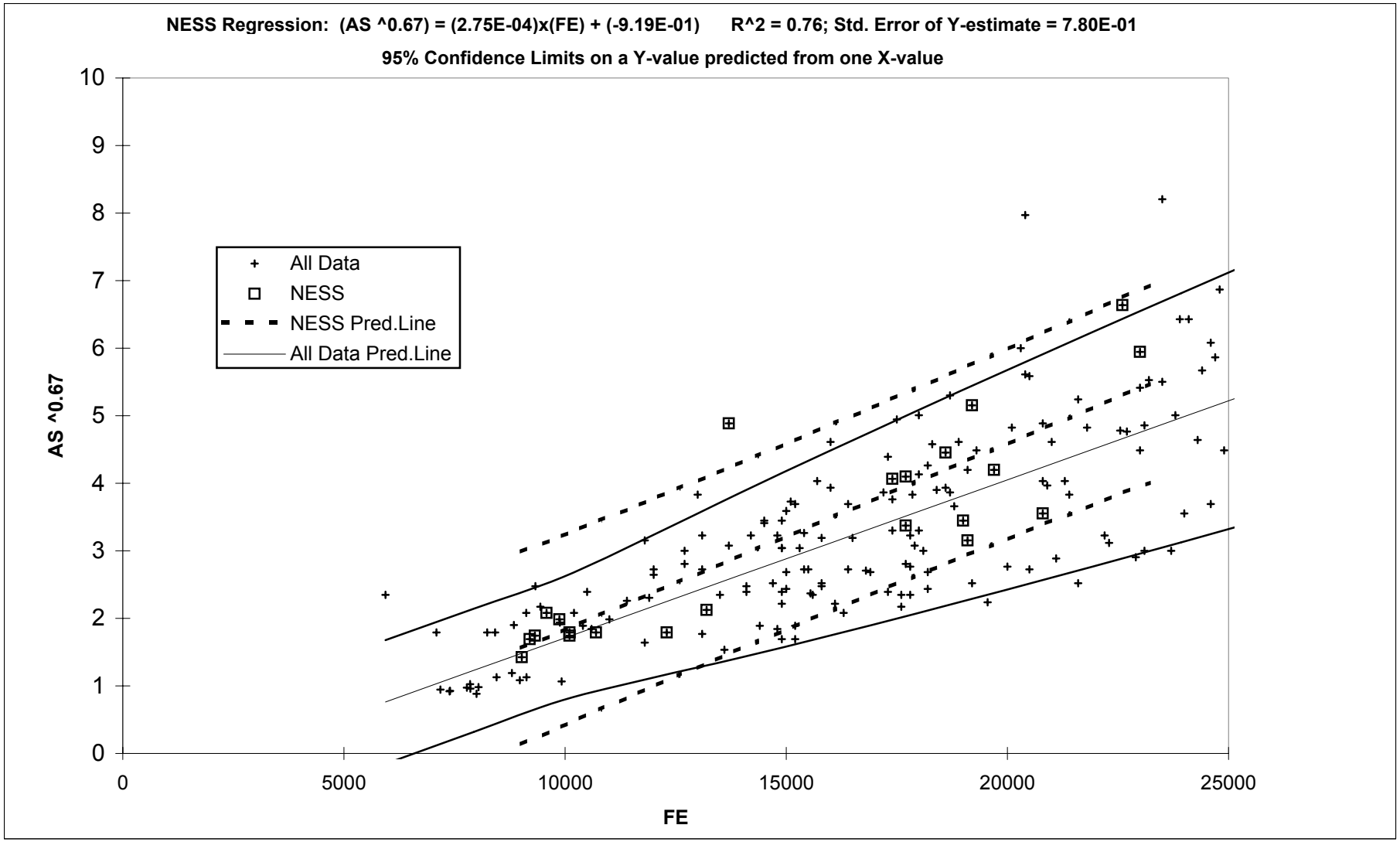
APPENDIX F, FIGURE F5-6
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MASS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



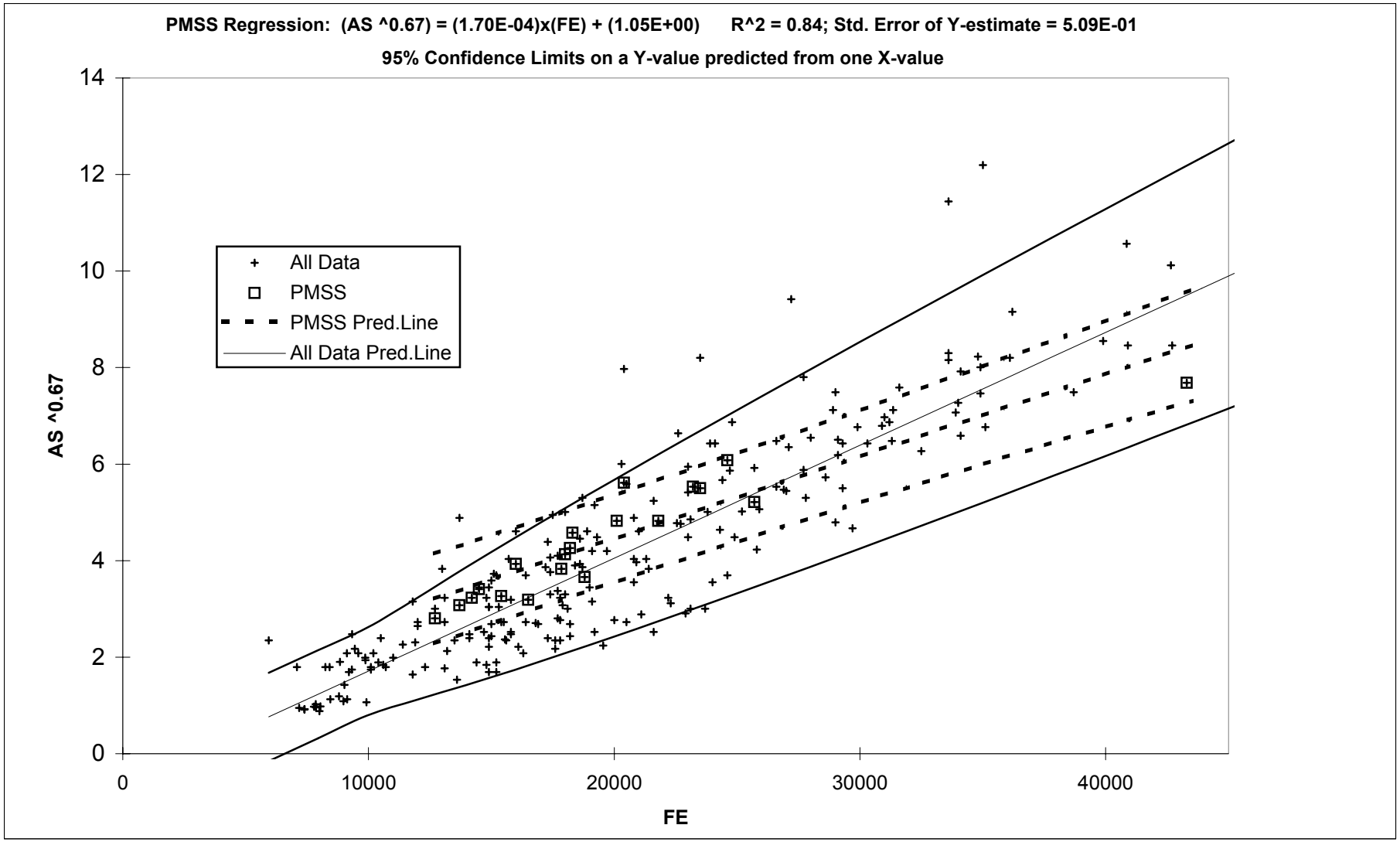
APPENDIX F, FIGURE F5-7
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MMSS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



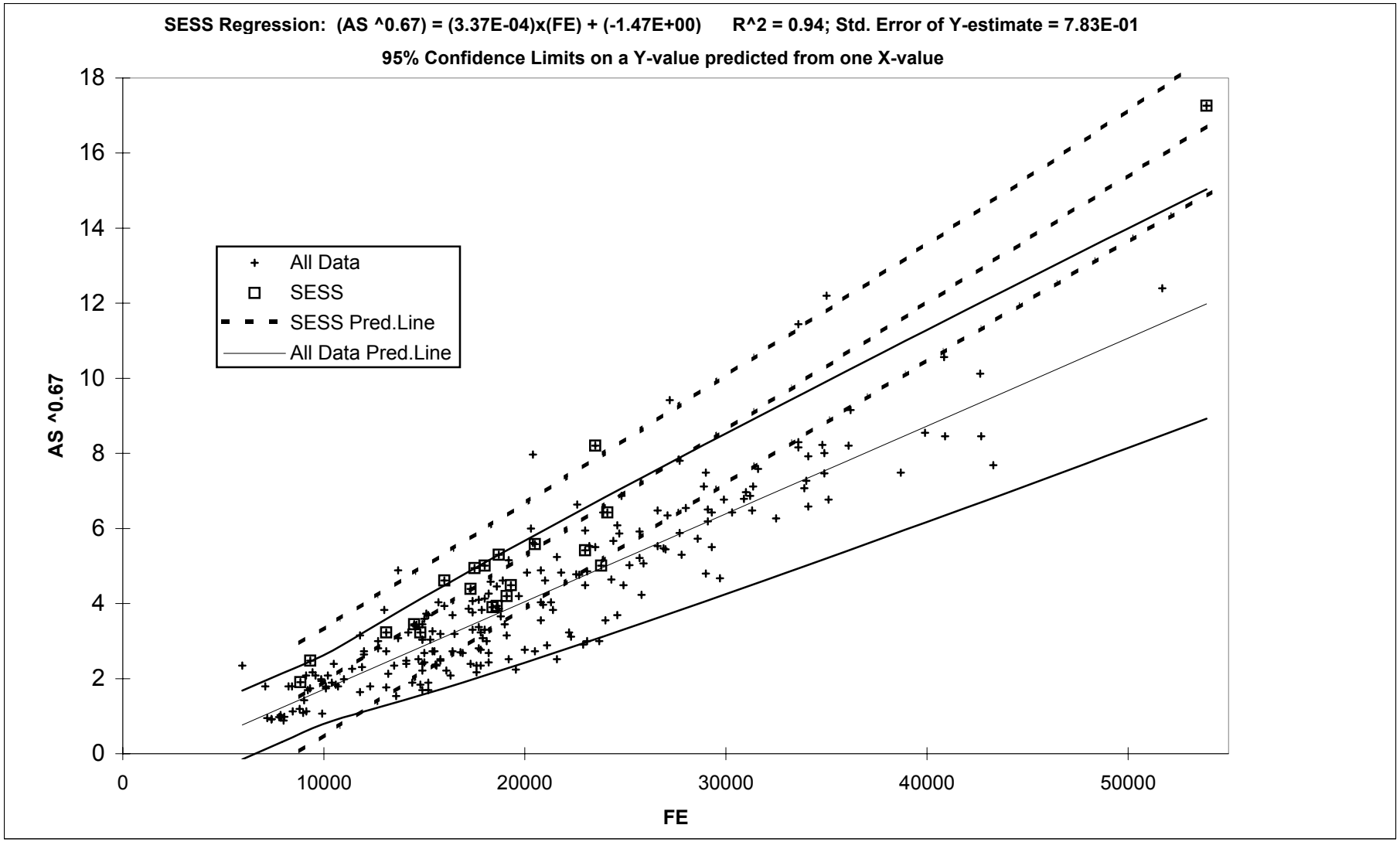
APPENDIX F, FIGURE F5-8
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (NESS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



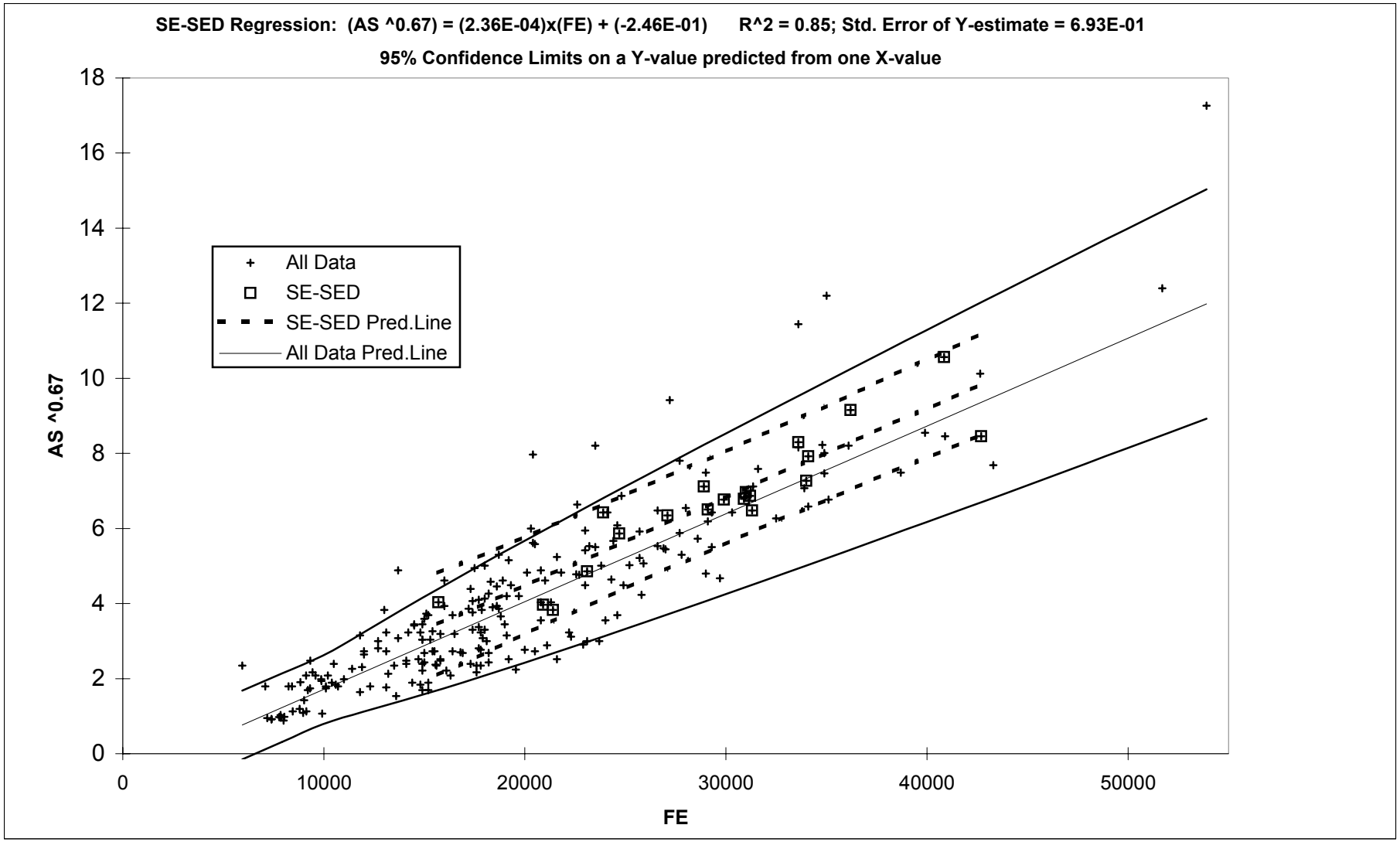
APPENDIX F, FIGURE F5-9
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (PMSS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



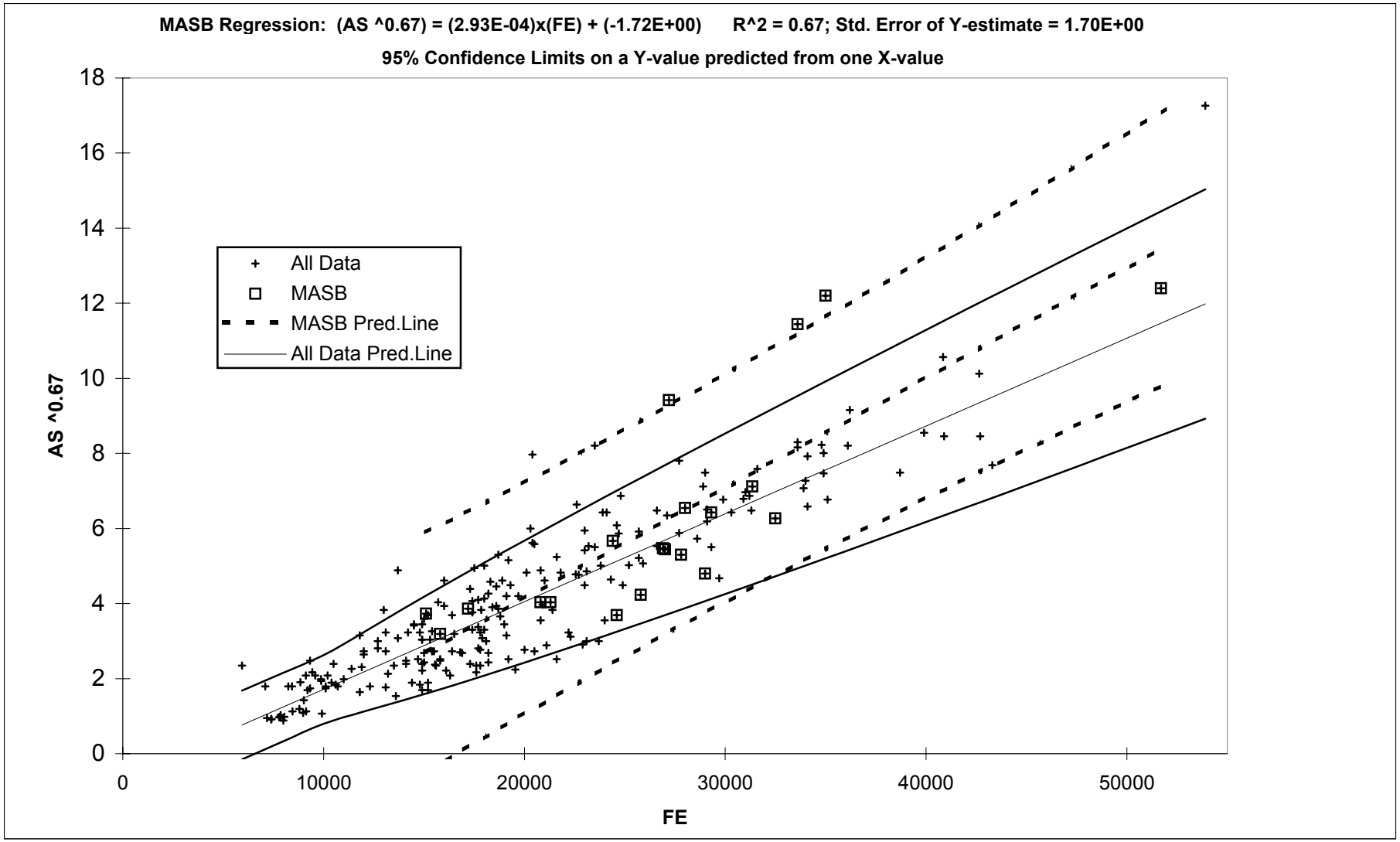
APPENDIX F, FIGURE F5-10
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (SESS) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



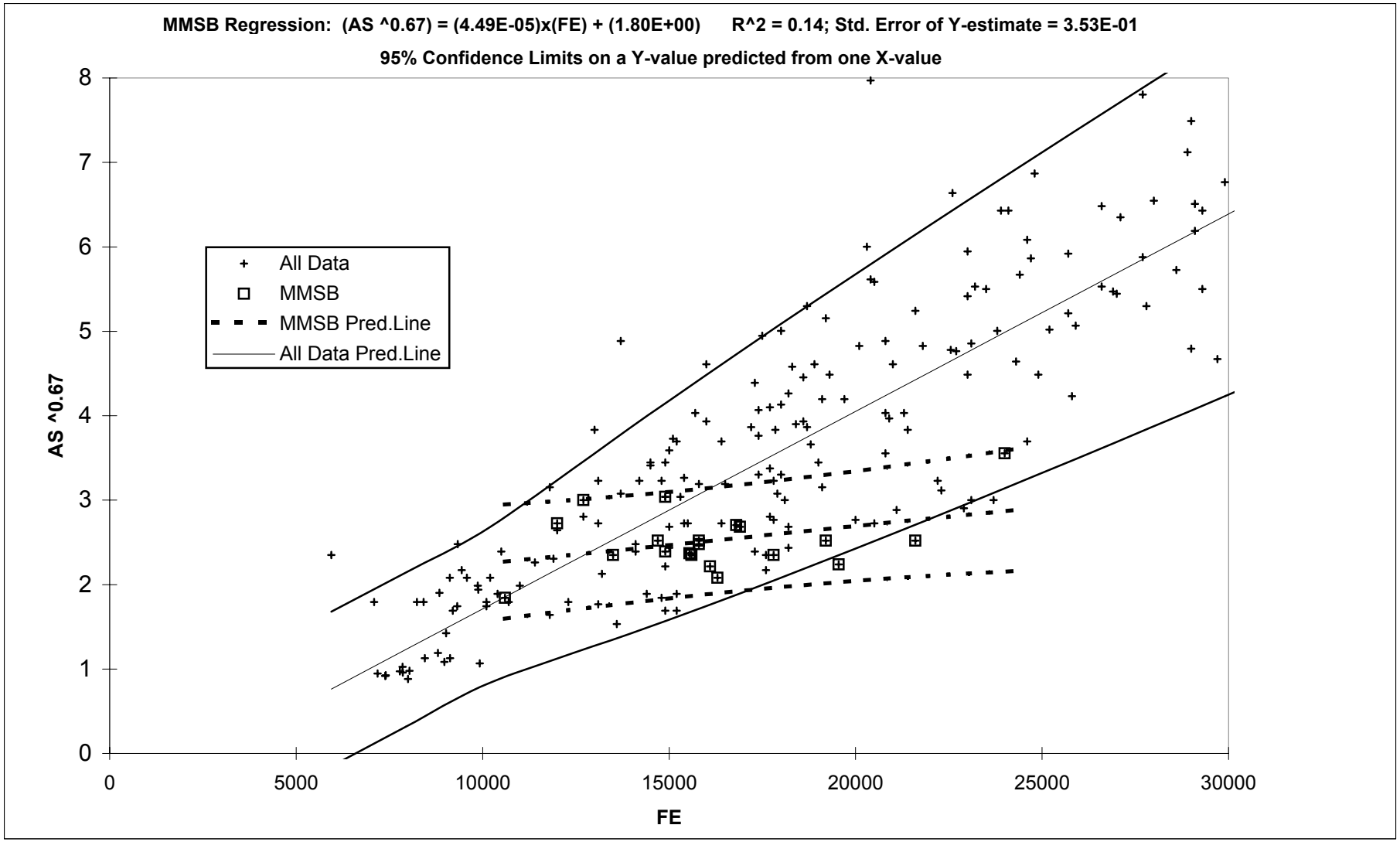
APPENDIX F, FIGURE F5-11
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (SE-SED) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



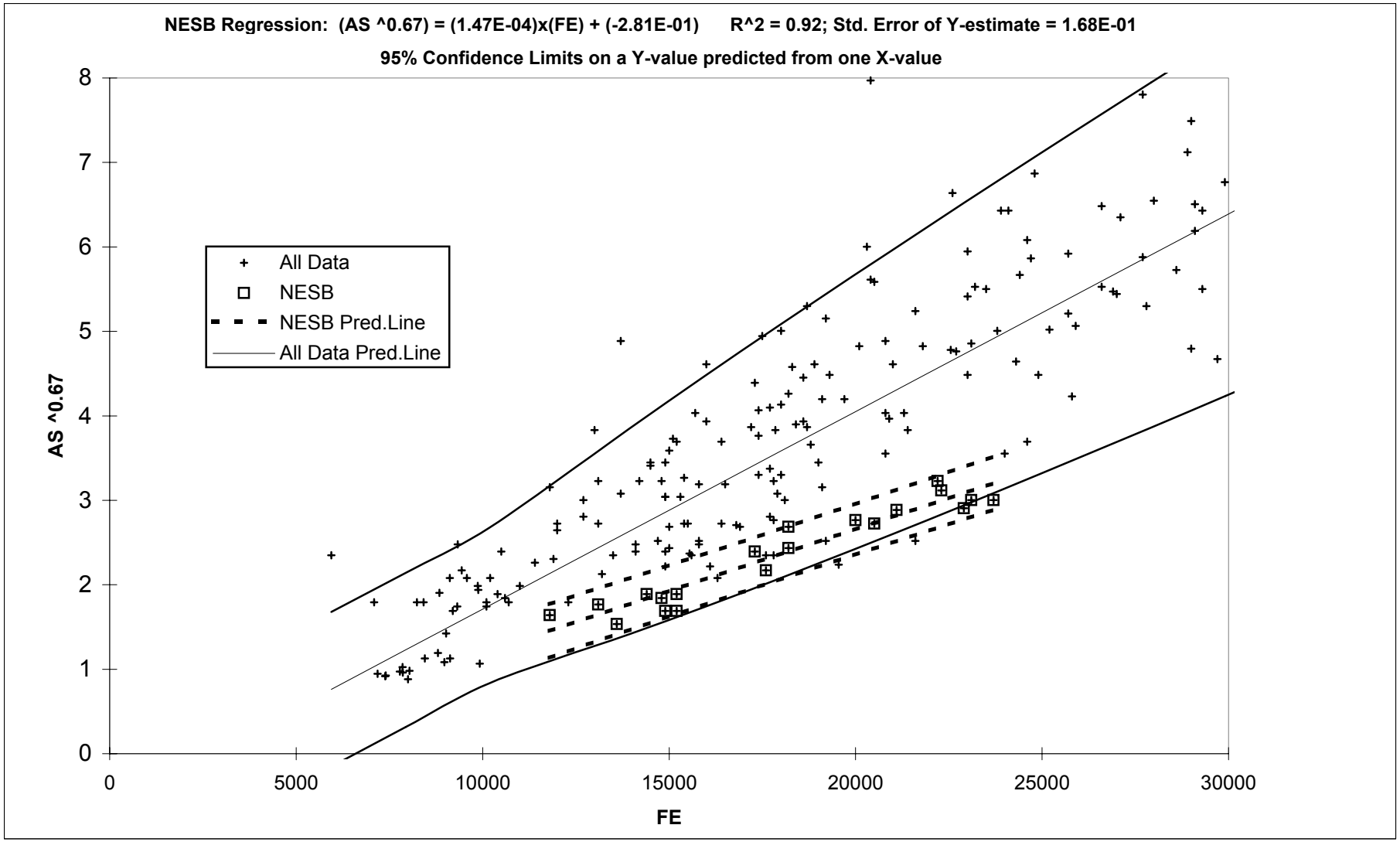
APPENDIX F, FIGURE F5-12
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MASB) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



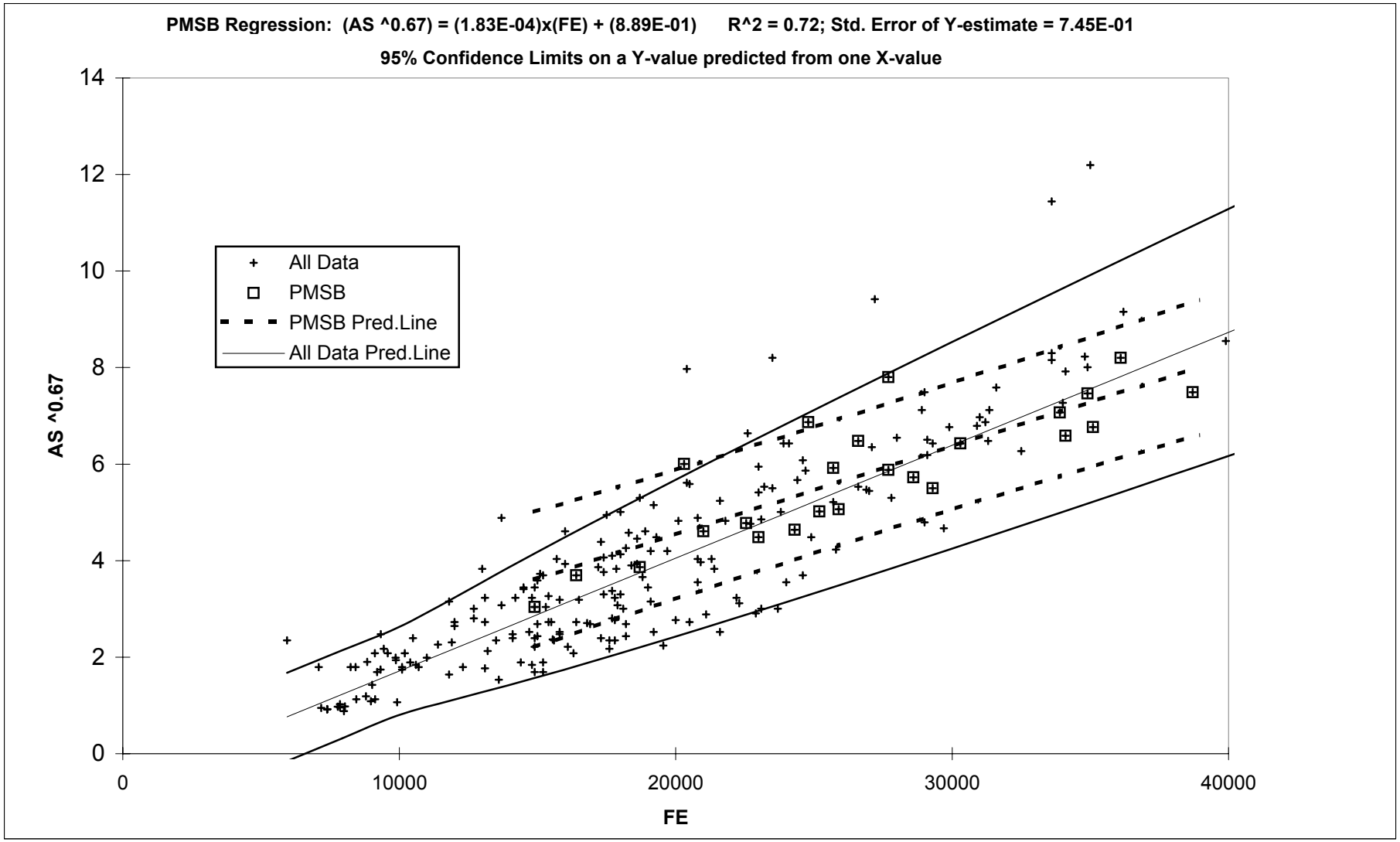
APPENDIX F, FIGURE F5-13
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MMSB) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



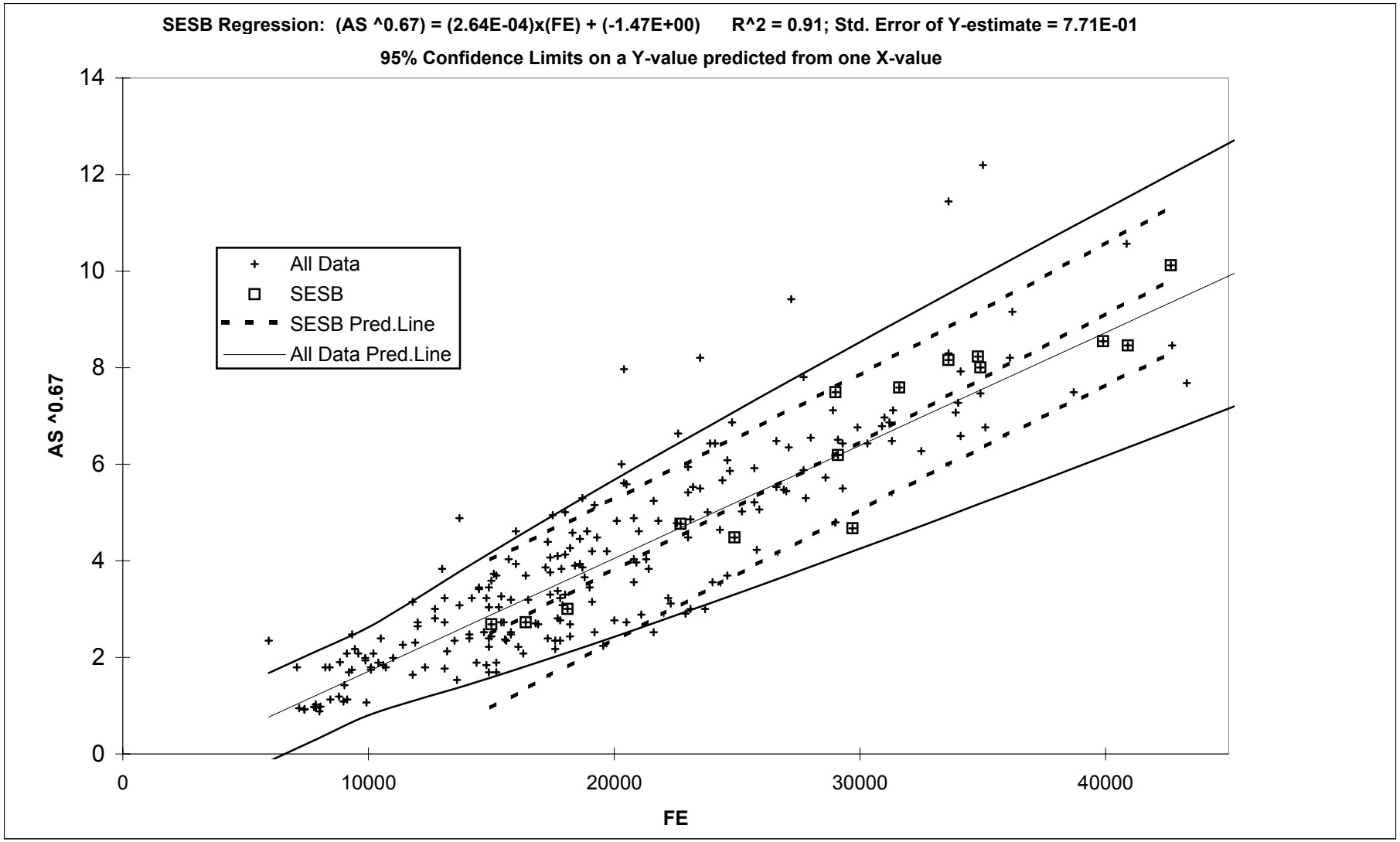
APPENDIX F, FIGURE F5-14
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (NESB) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



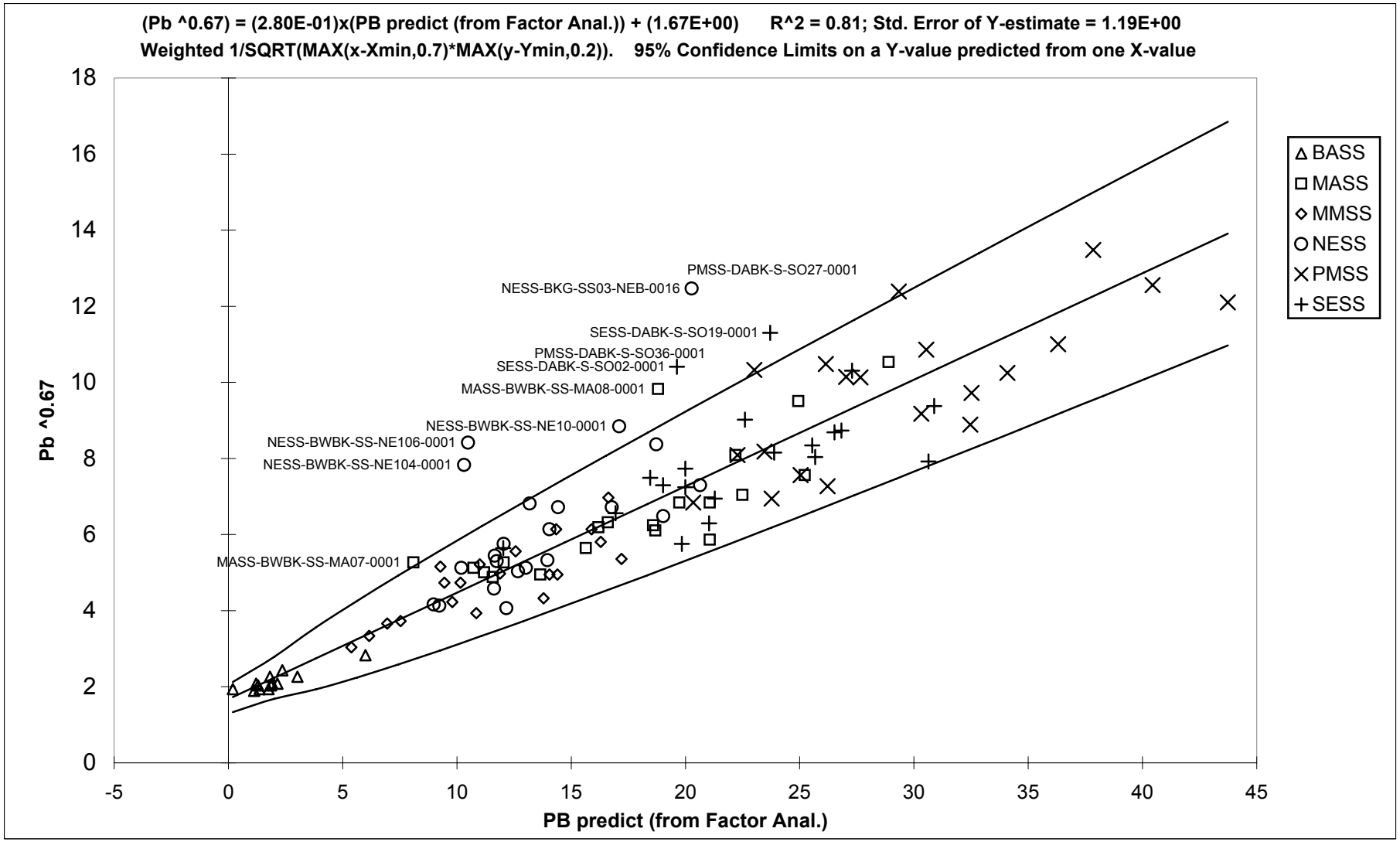
APPENDIX F, FIGURE F5-15
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (PMSB) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



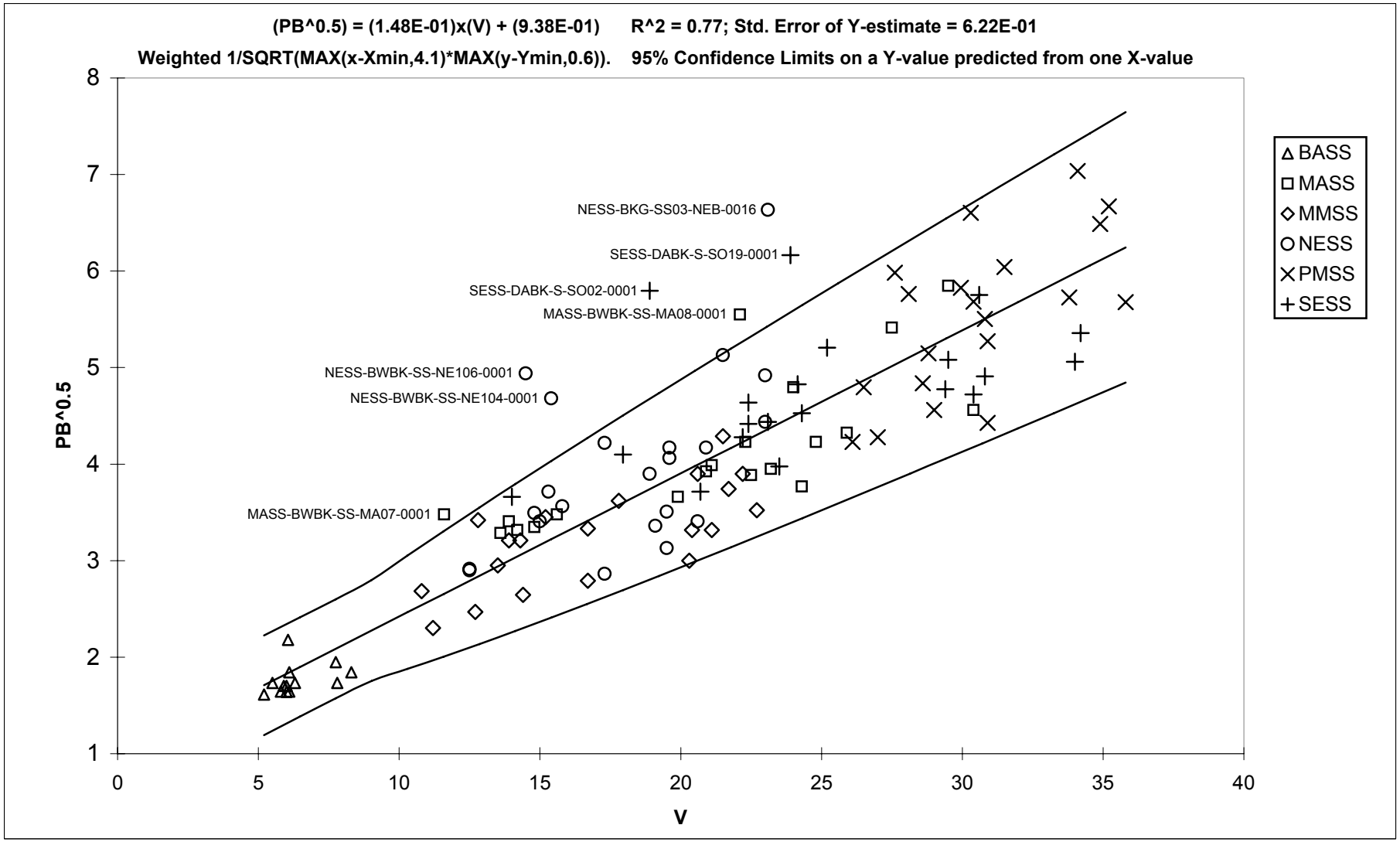
APPENDIX F, FIGURE F5-16
ARSENIC 2/3 POWER REGRESSION ON IRON, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (SESB) VS. LARGE (ALL SOIL TYPES)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



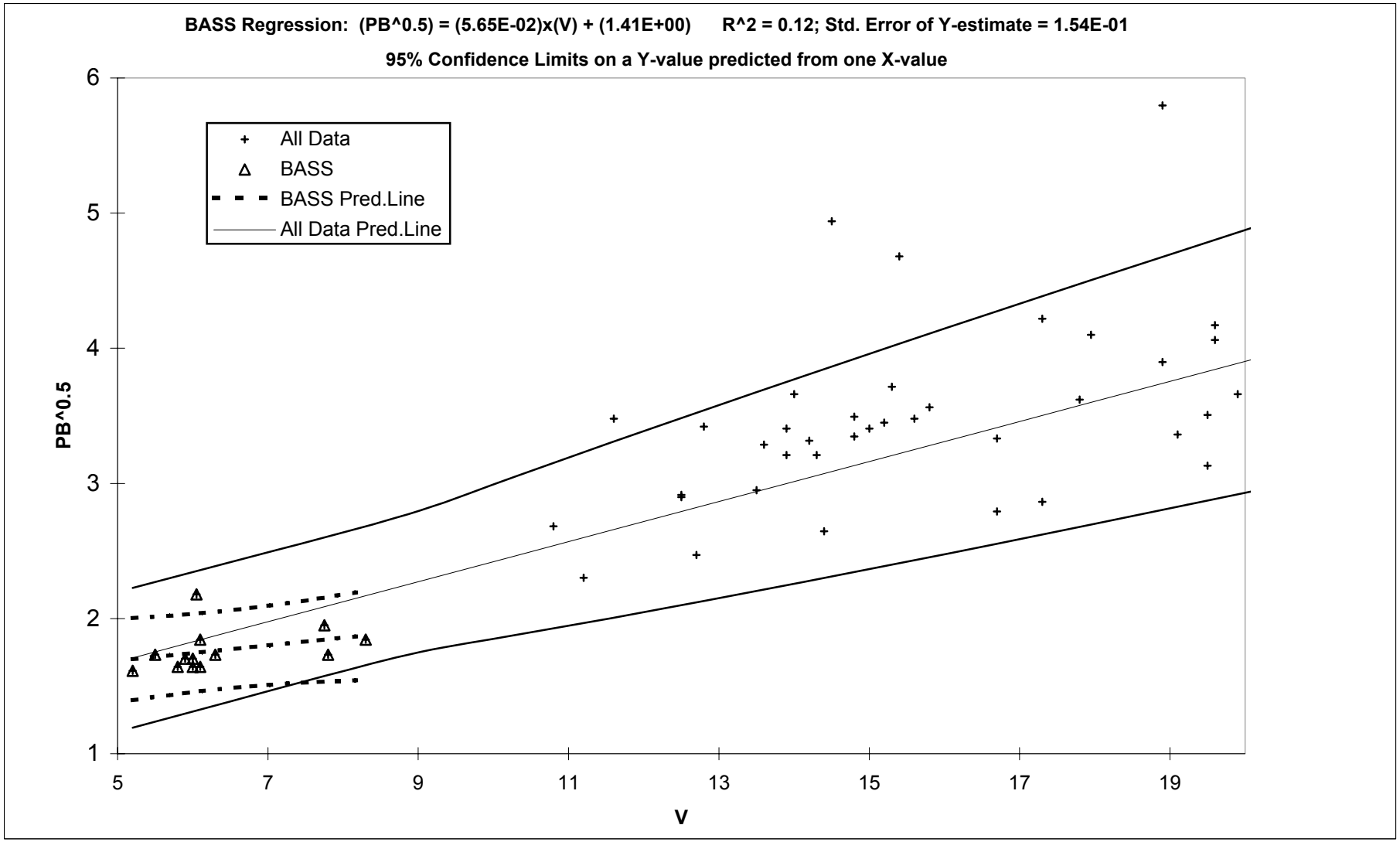
APPENDIX F, FIGURE F5-17
LEAD 2/3 POWER REGRESSED FOR SURFACE SOIL ON PREDICTED LEAD FROM 6 FACTORS ANALYSIS OF ALL SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



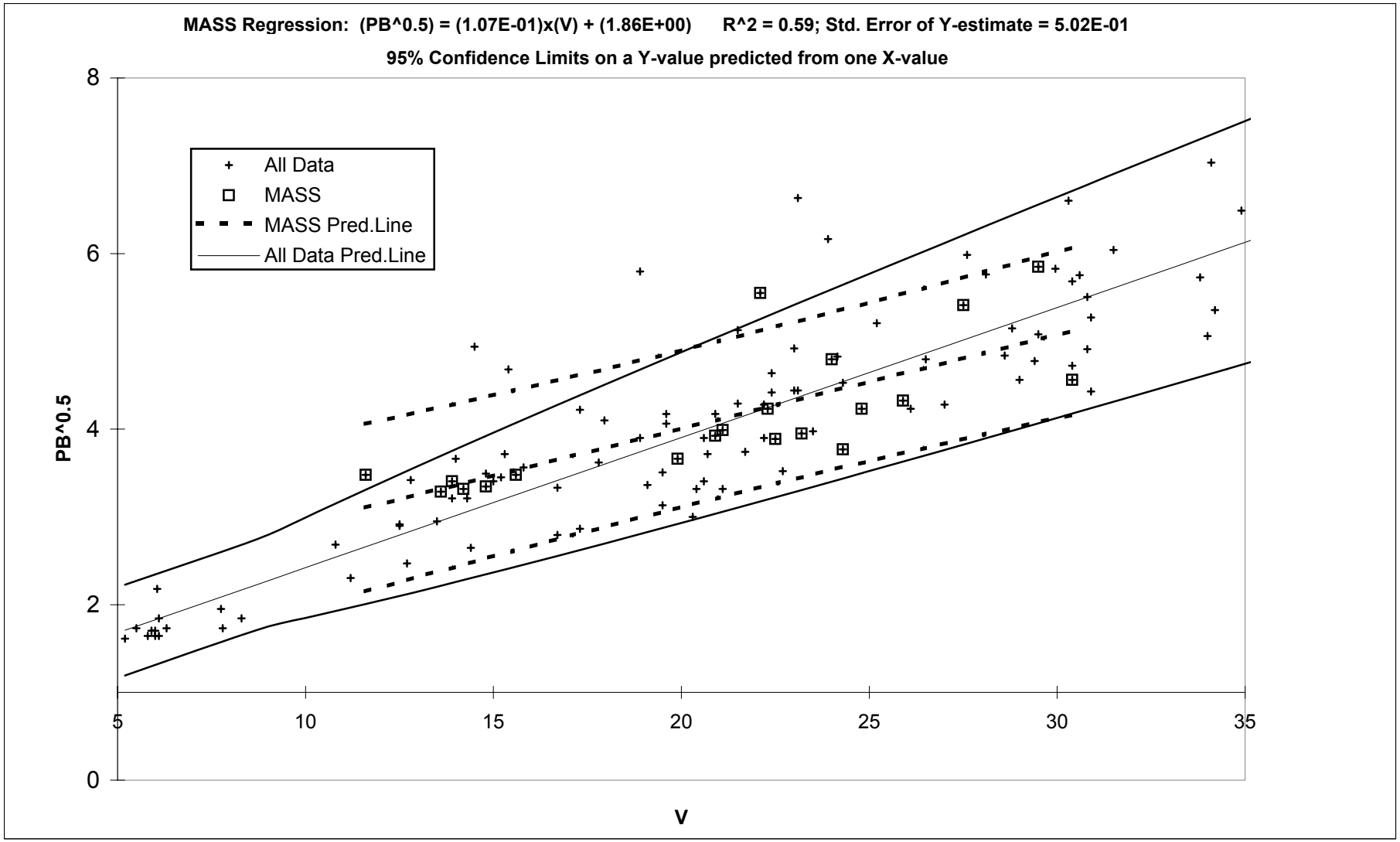
APPENDIX F, FIGURE F5-18
LEAD 1/2 POWER REGRESSED ON SURFACE SOIL DATA FOR VANADIUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



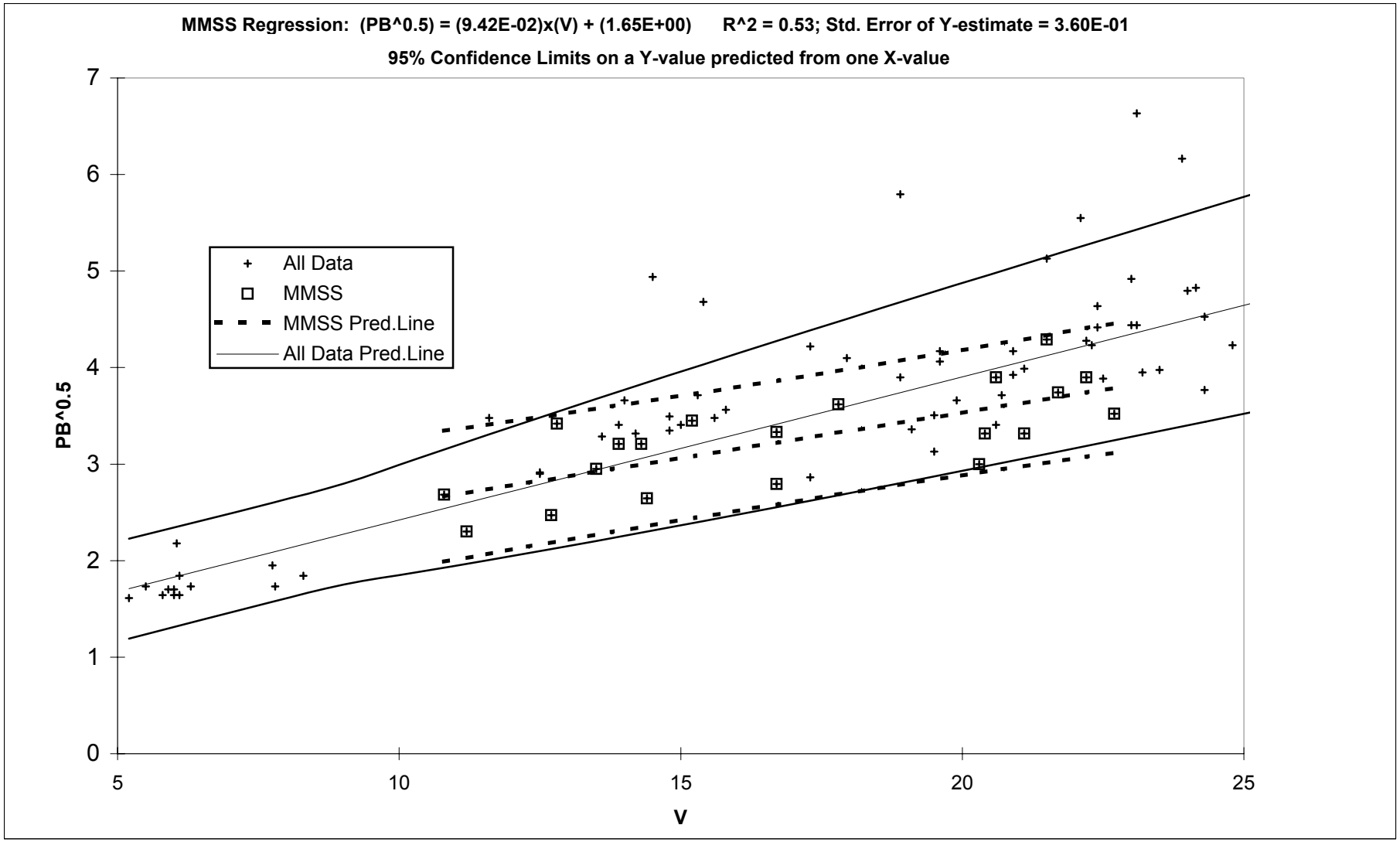
APPENDIX F, FIGURE F5-19
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (BASS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



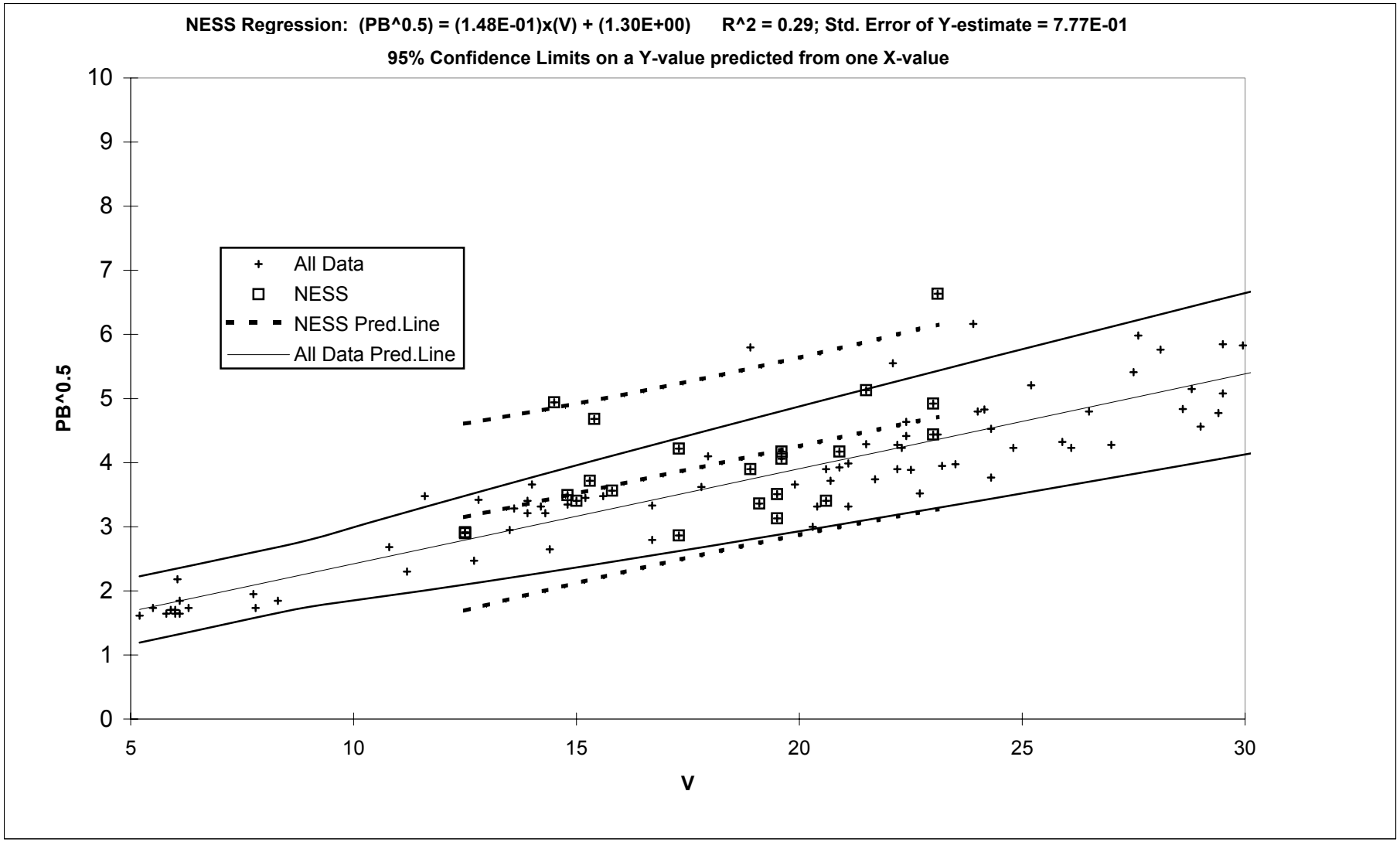
APPENDIX F, FIGURE F5-20
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MASS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



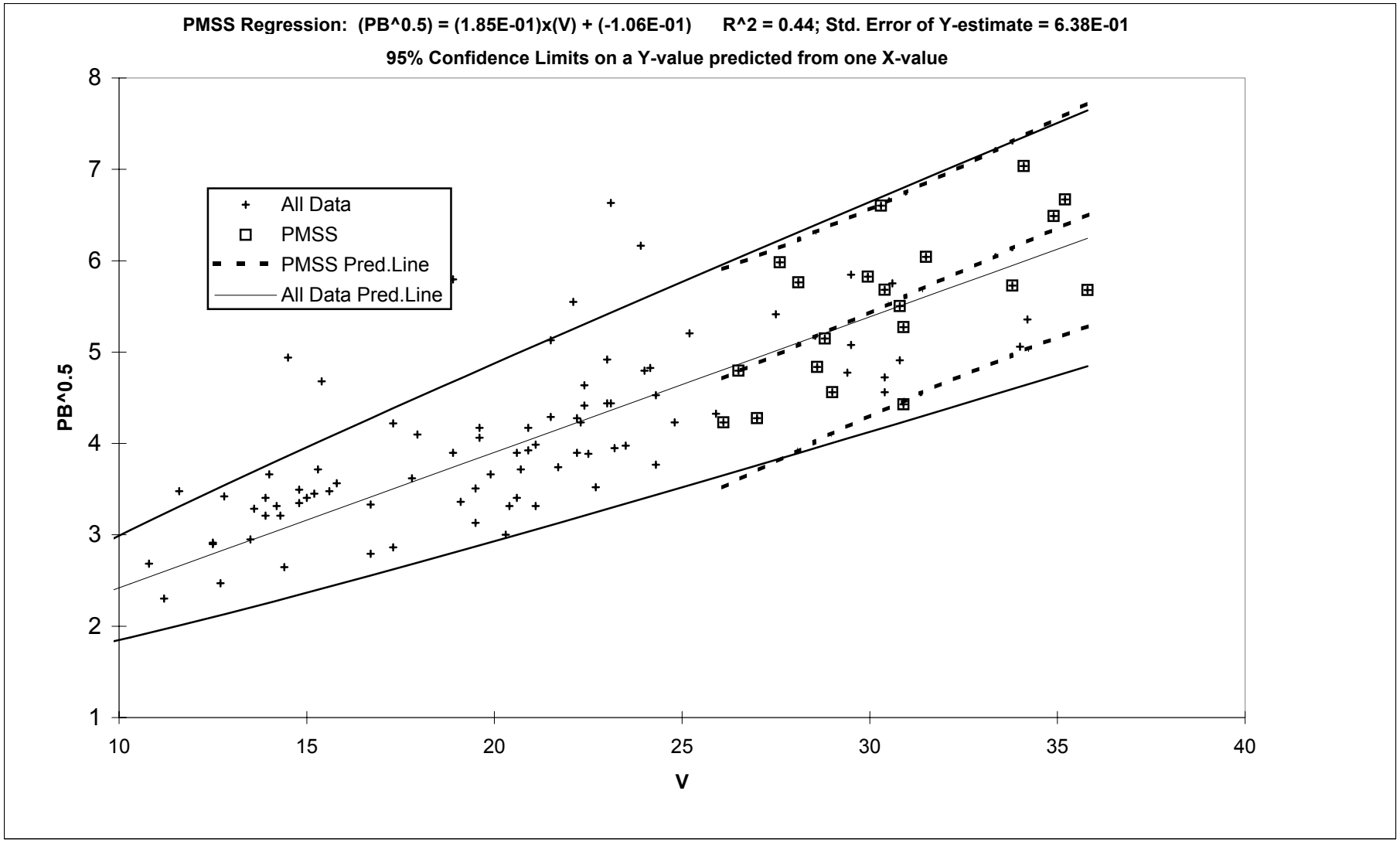
APPENDIX F, FIGURE F5-21
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (MMSS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



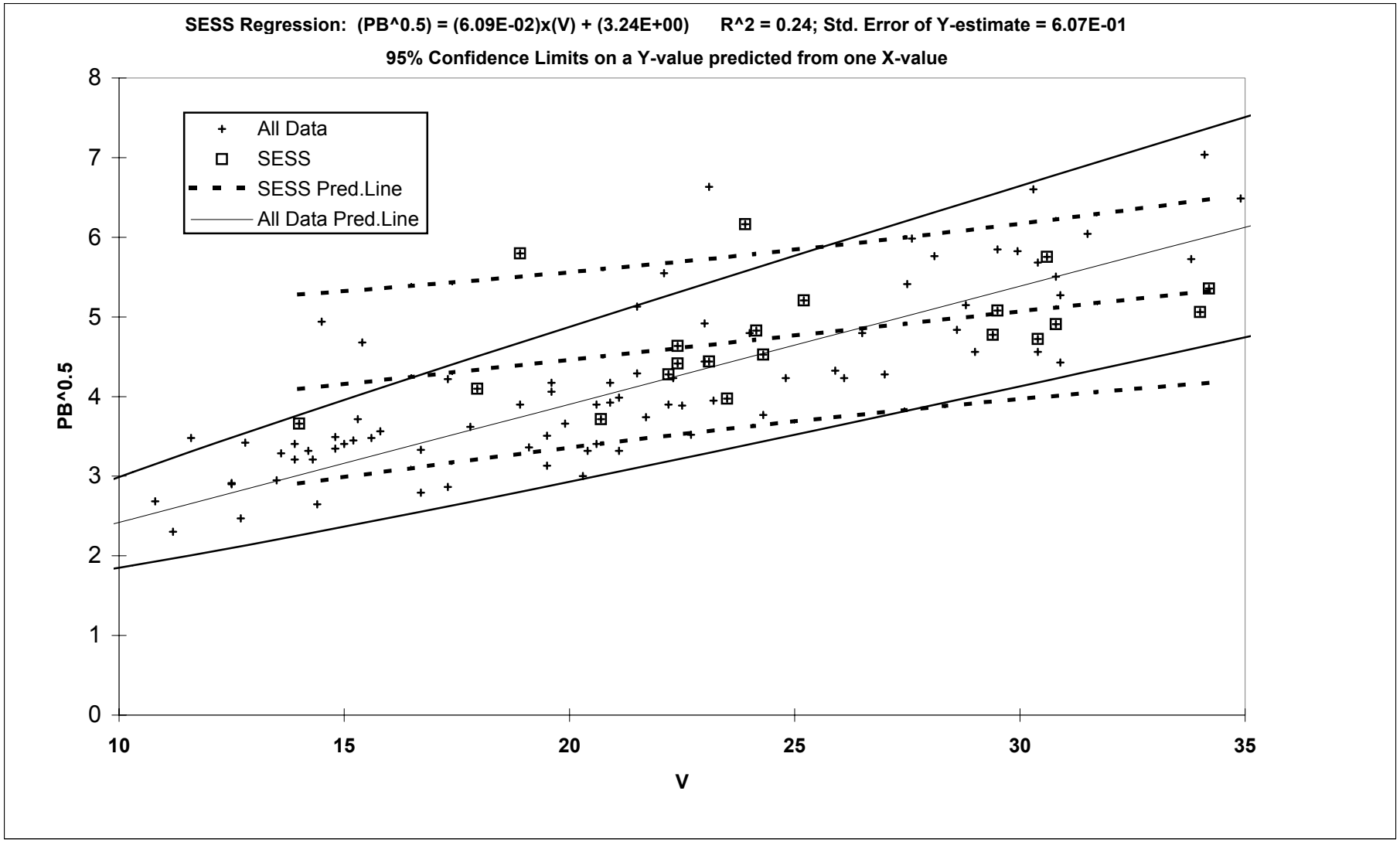
APPENDIX F, FIGURE F5-22
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (NESS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



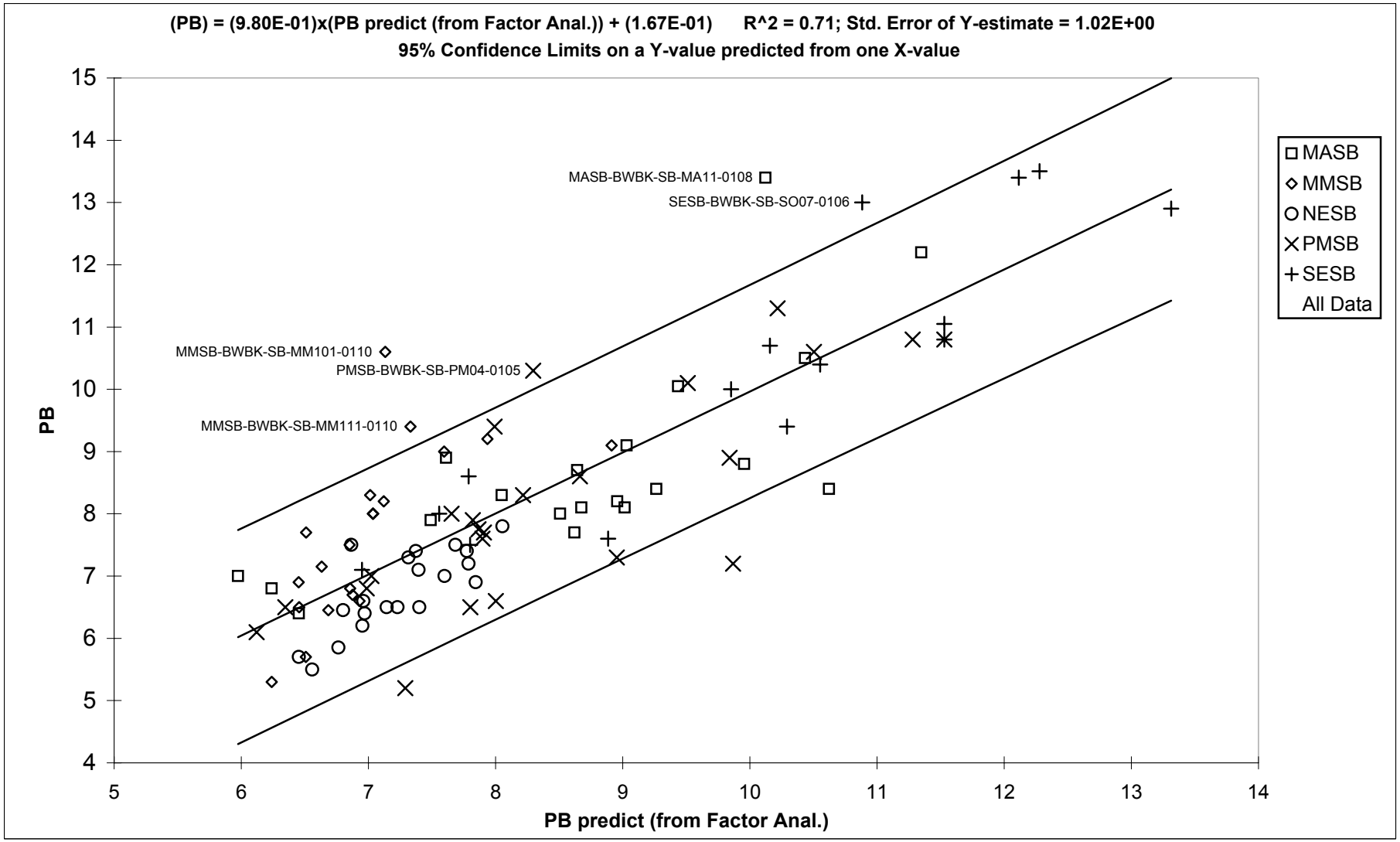
APPENDIX F, FIGURE F5-23
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (PMSS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



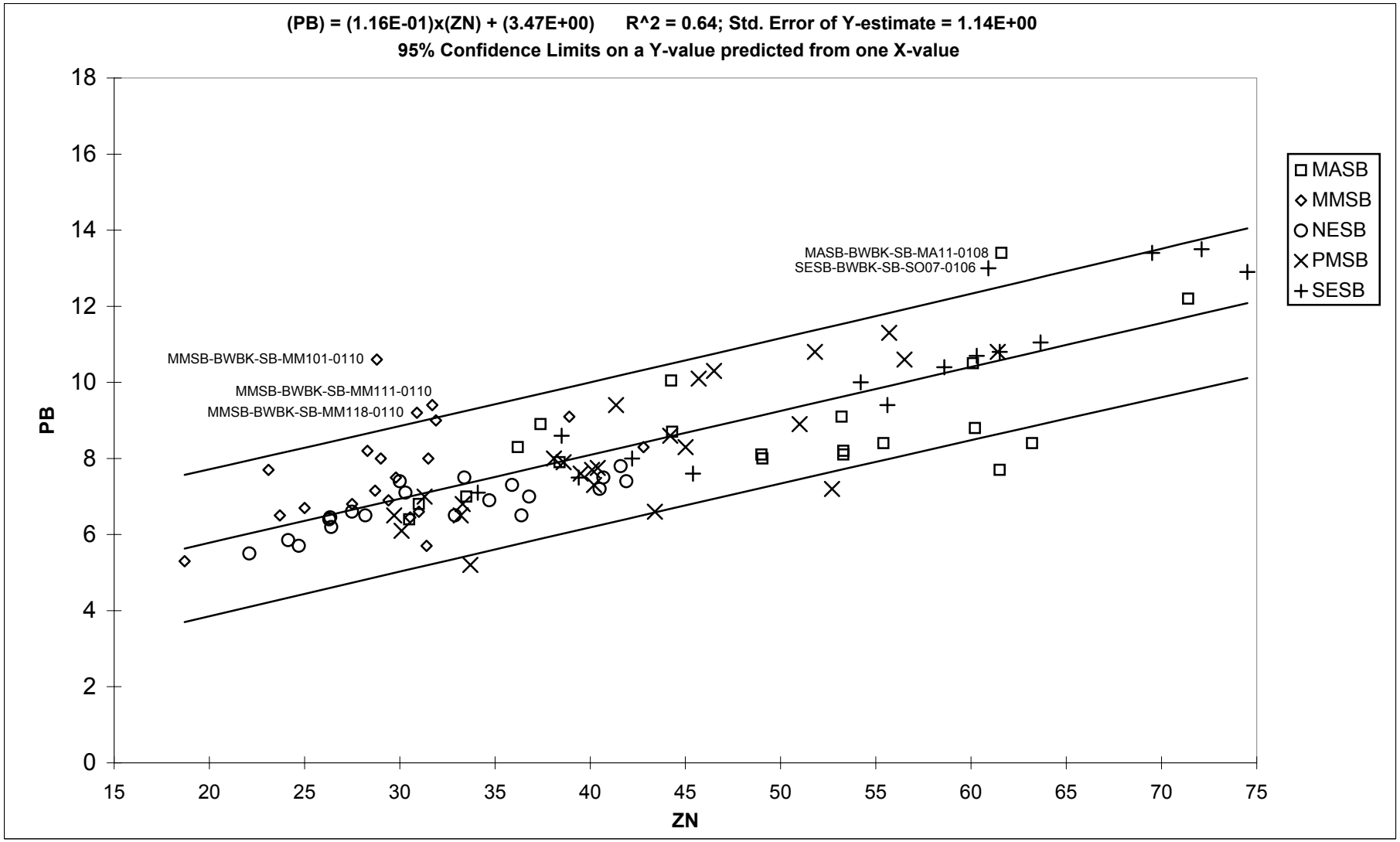
APPENDIX F, FIGURE F5-24
LEAD 1/2 POWER REGRESSION ON VANADIUM, EFFECTS OF DATA SET SIZE REGRESSED - SMALL (SESS) VS. LARGE (ALL SURFACE SOIL)
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



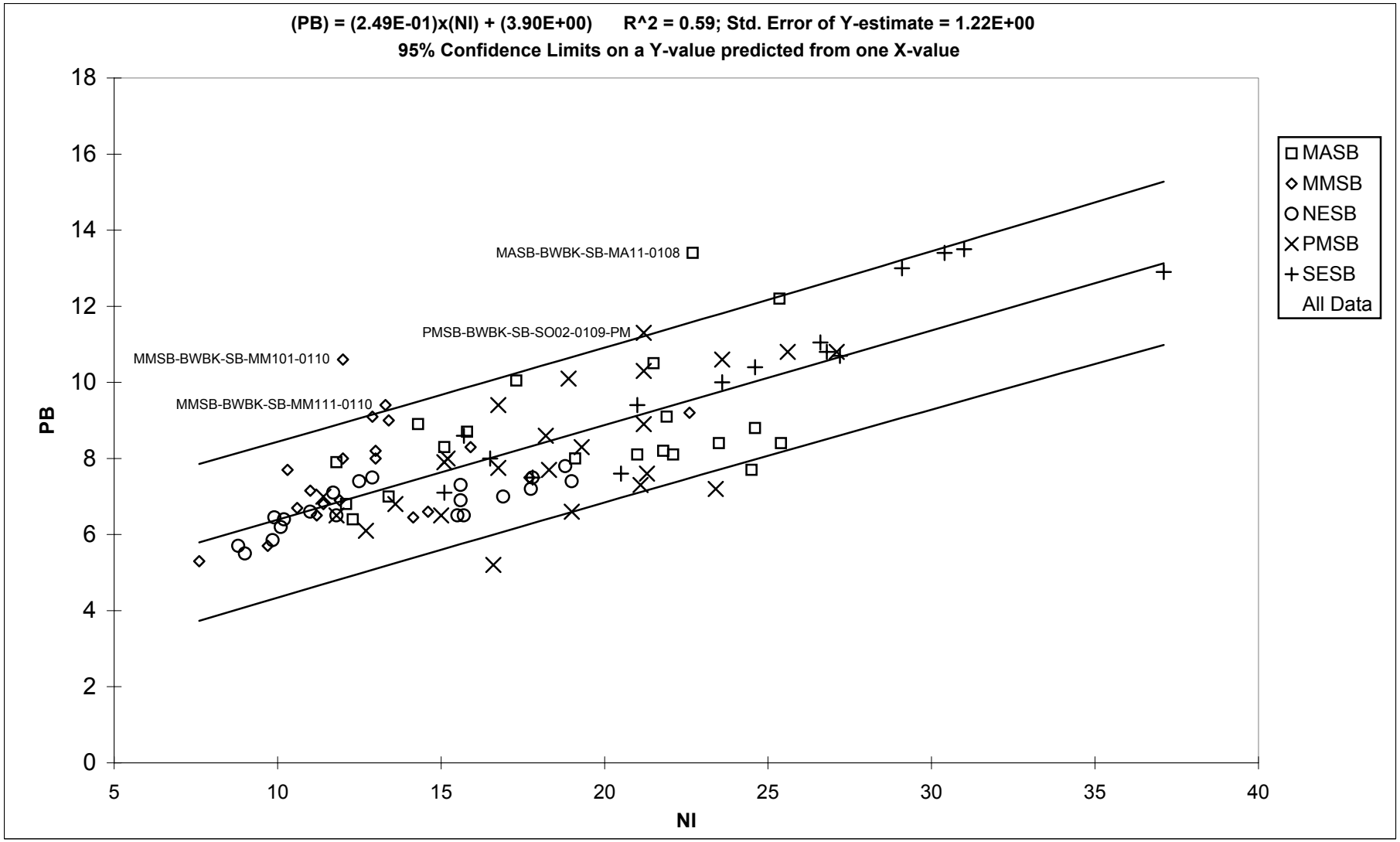
APPENDIX F, FIGURE F5-25
LEAD REGRESSED ON PREDICTED LEAD FROM 5 FACTORS ANALYSIS OF SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



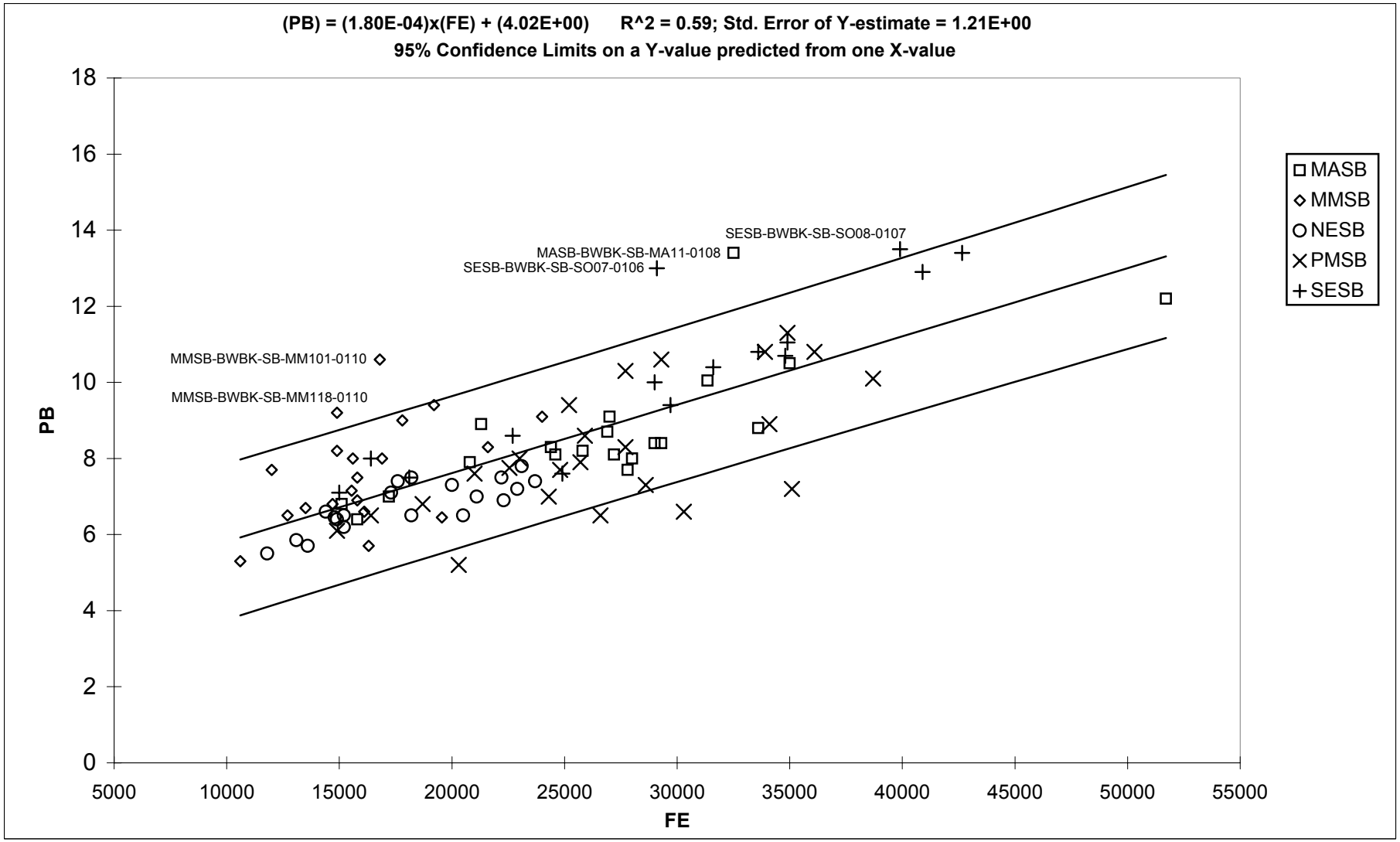
APPENDIX F, FIGURE F5-26
LEAD REGRESSED ON ZINC IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



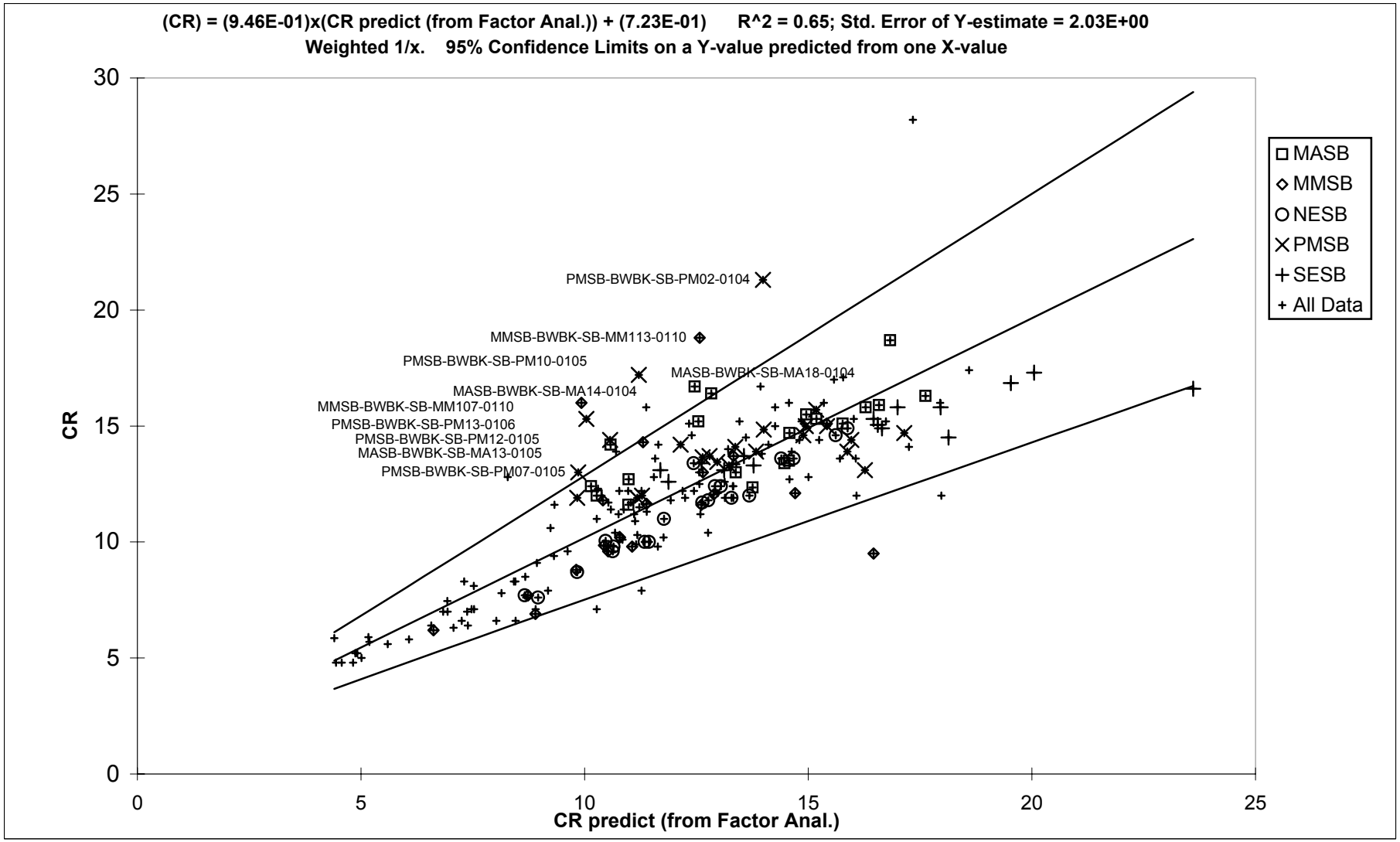
APPENDIX F, FIGURE F5-27
LEAD REGRESSED ON NICKEL IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



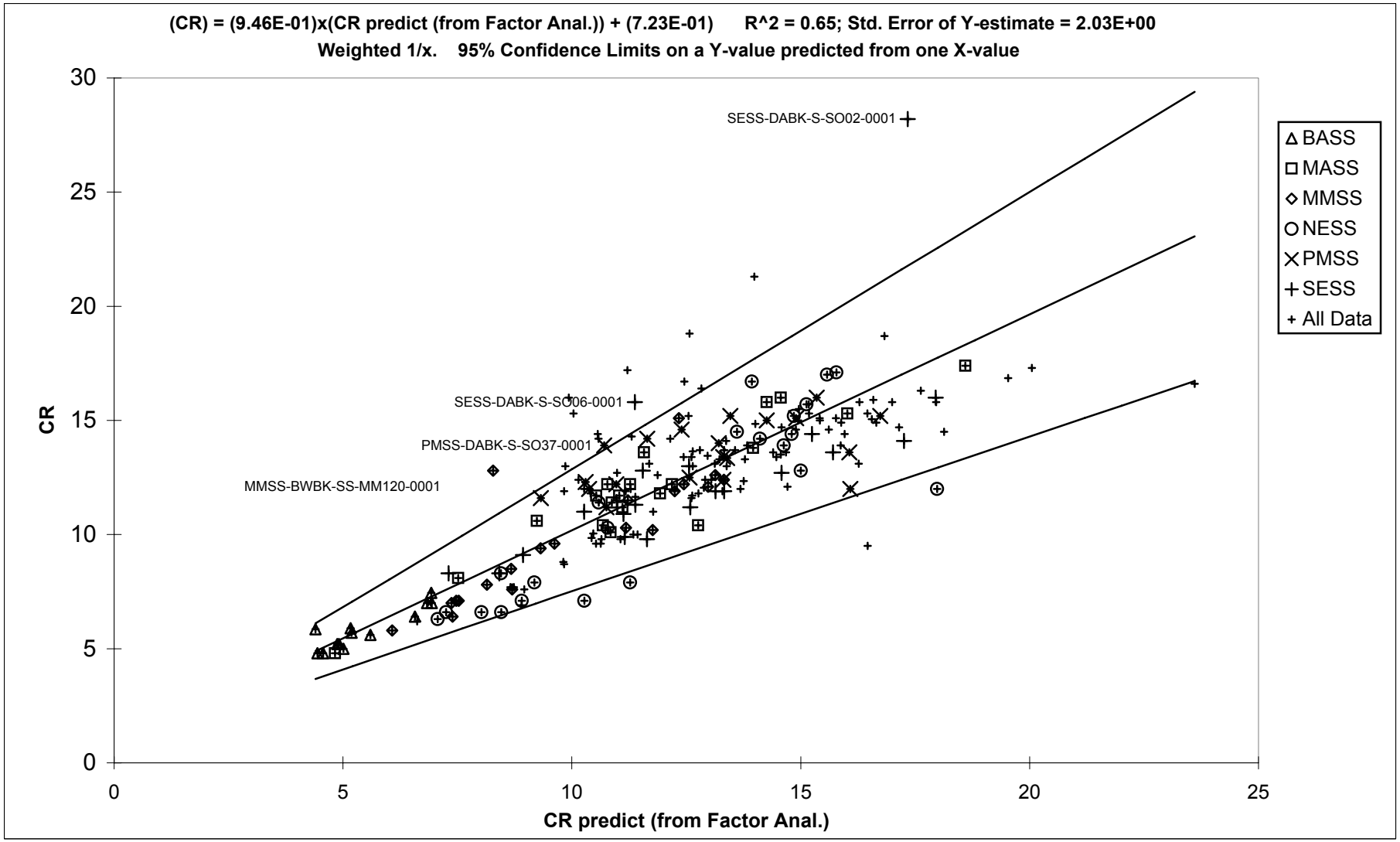
APPENDIX F, FIGURE F5-28
LEAD REGRESSED ON IRON IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



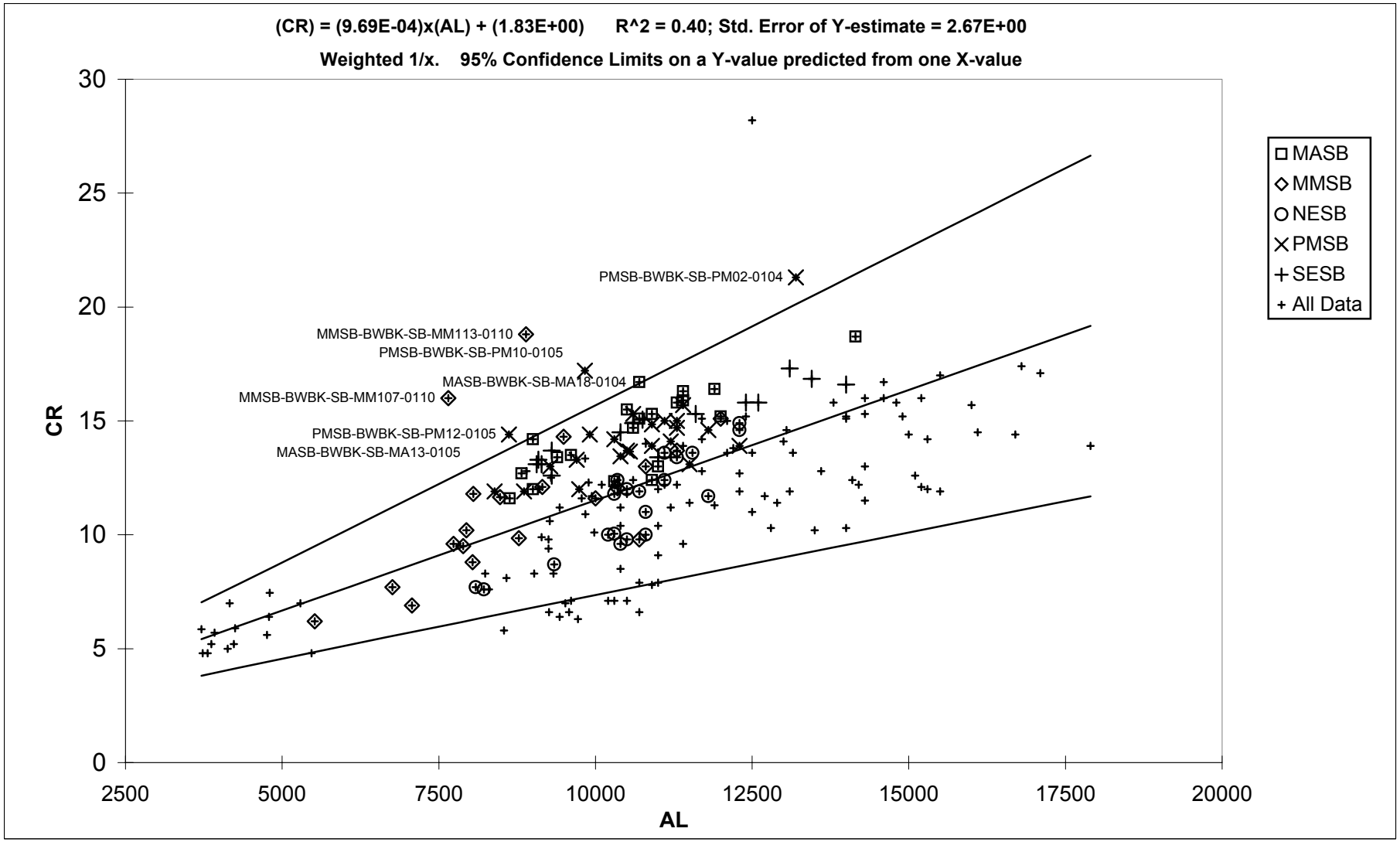
APPENDIX F, FIGURE F5-29
SUBSURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL PREDICTED CHROMIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



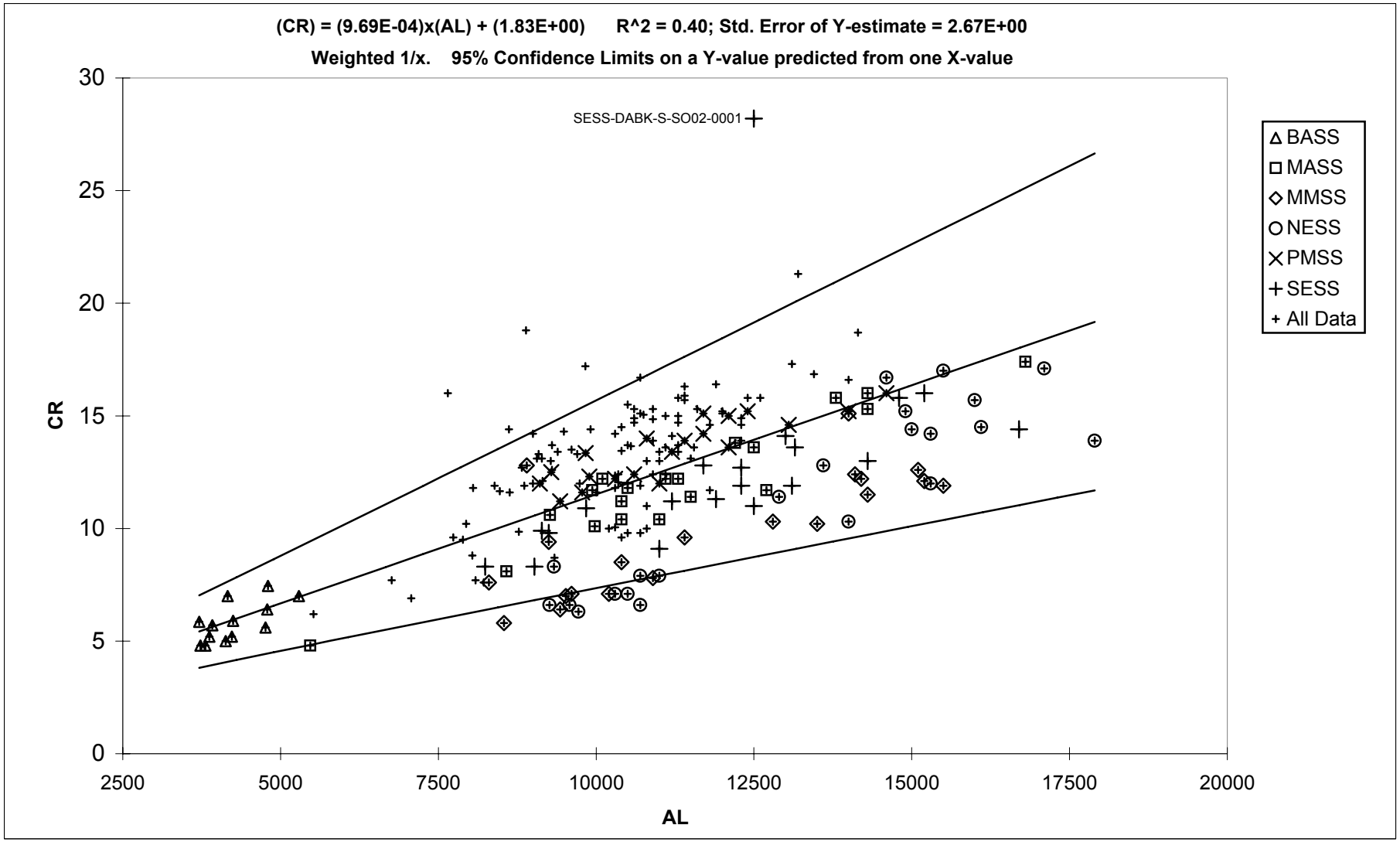
APPENDIX F, FIGURE F5-30
SURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL PREDICTED CHROMIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



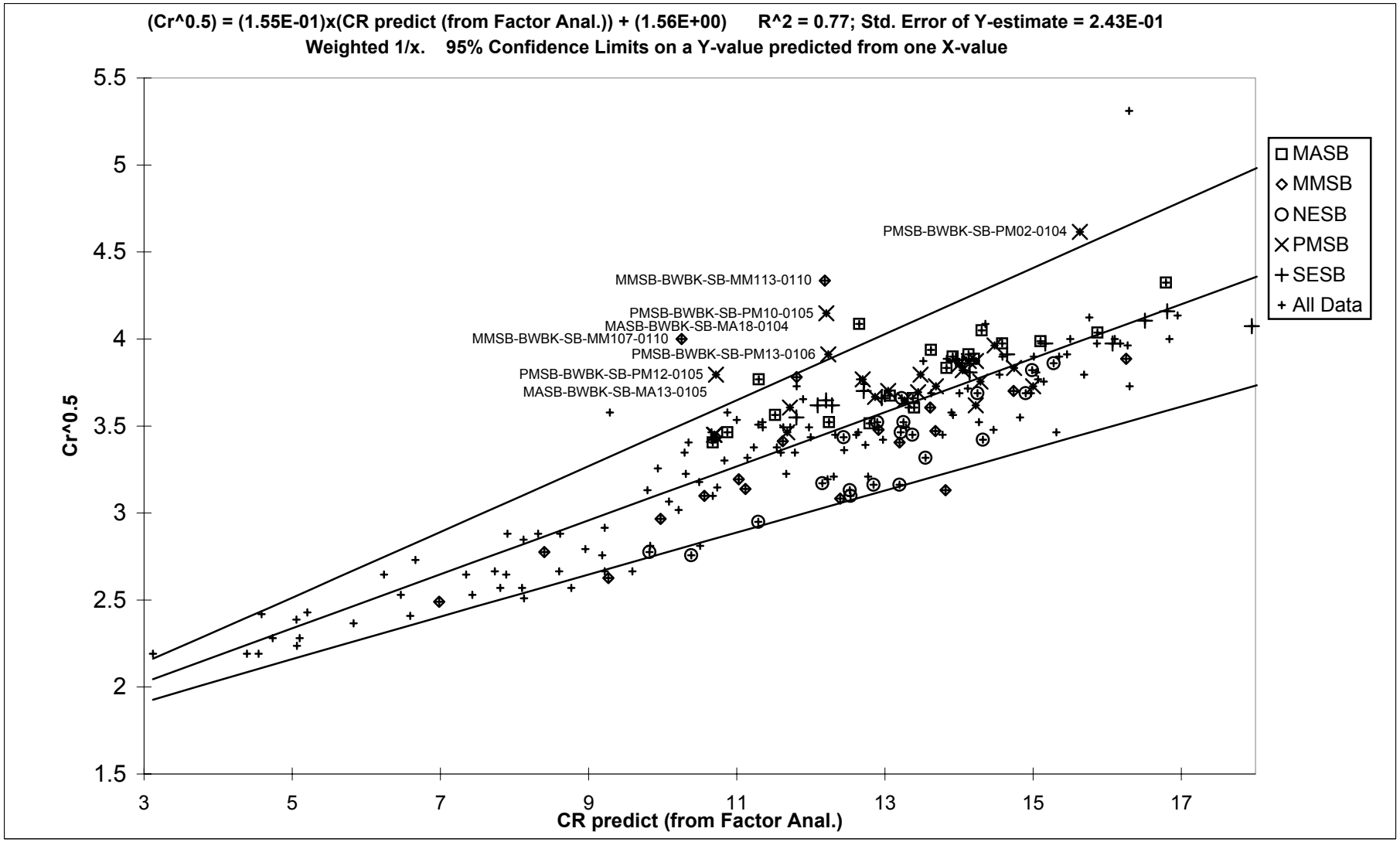
APPENDIX F, FIGURE F5-31
SUBSURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



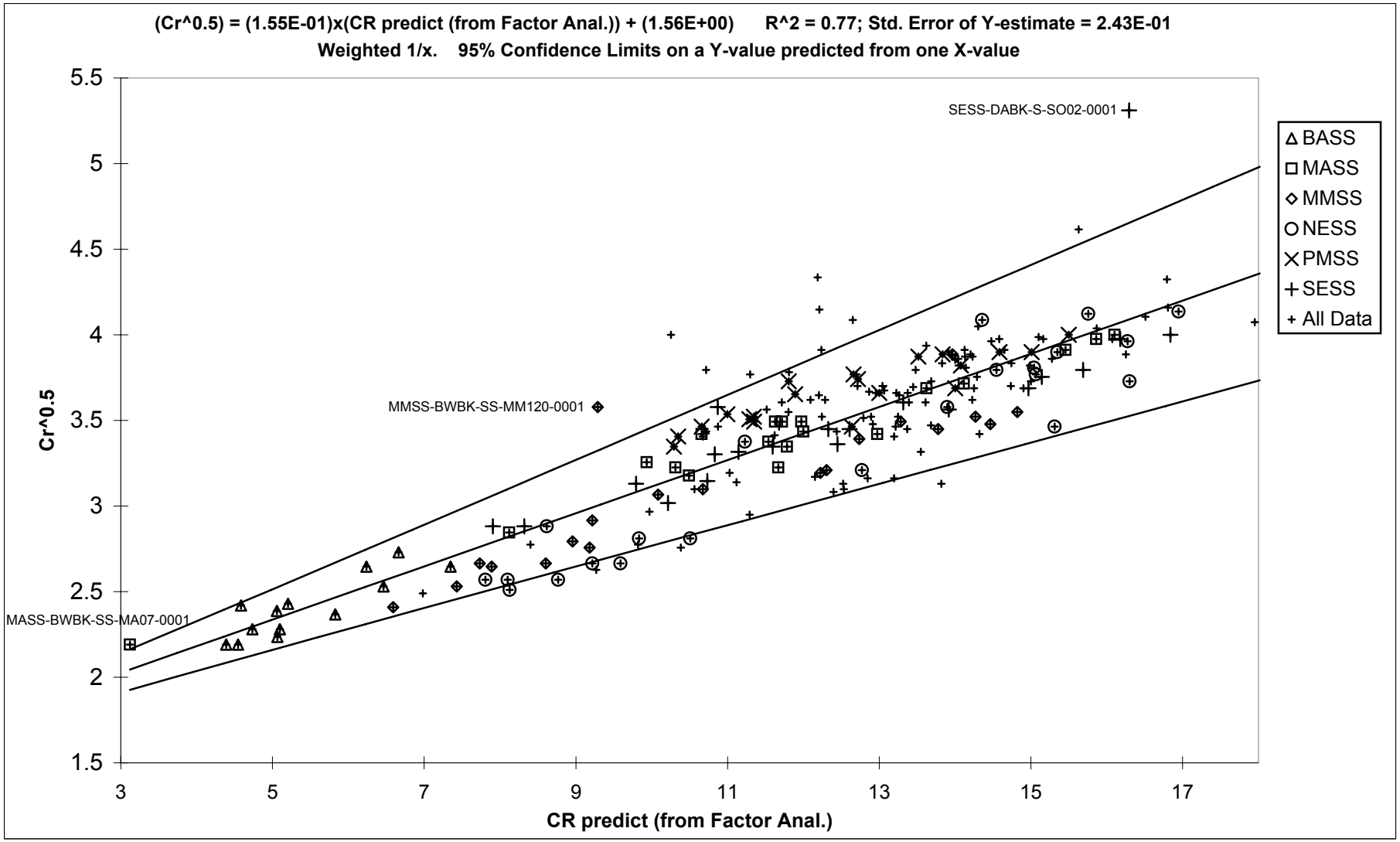
APPENDIX F, FIGURE F5-32
SURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



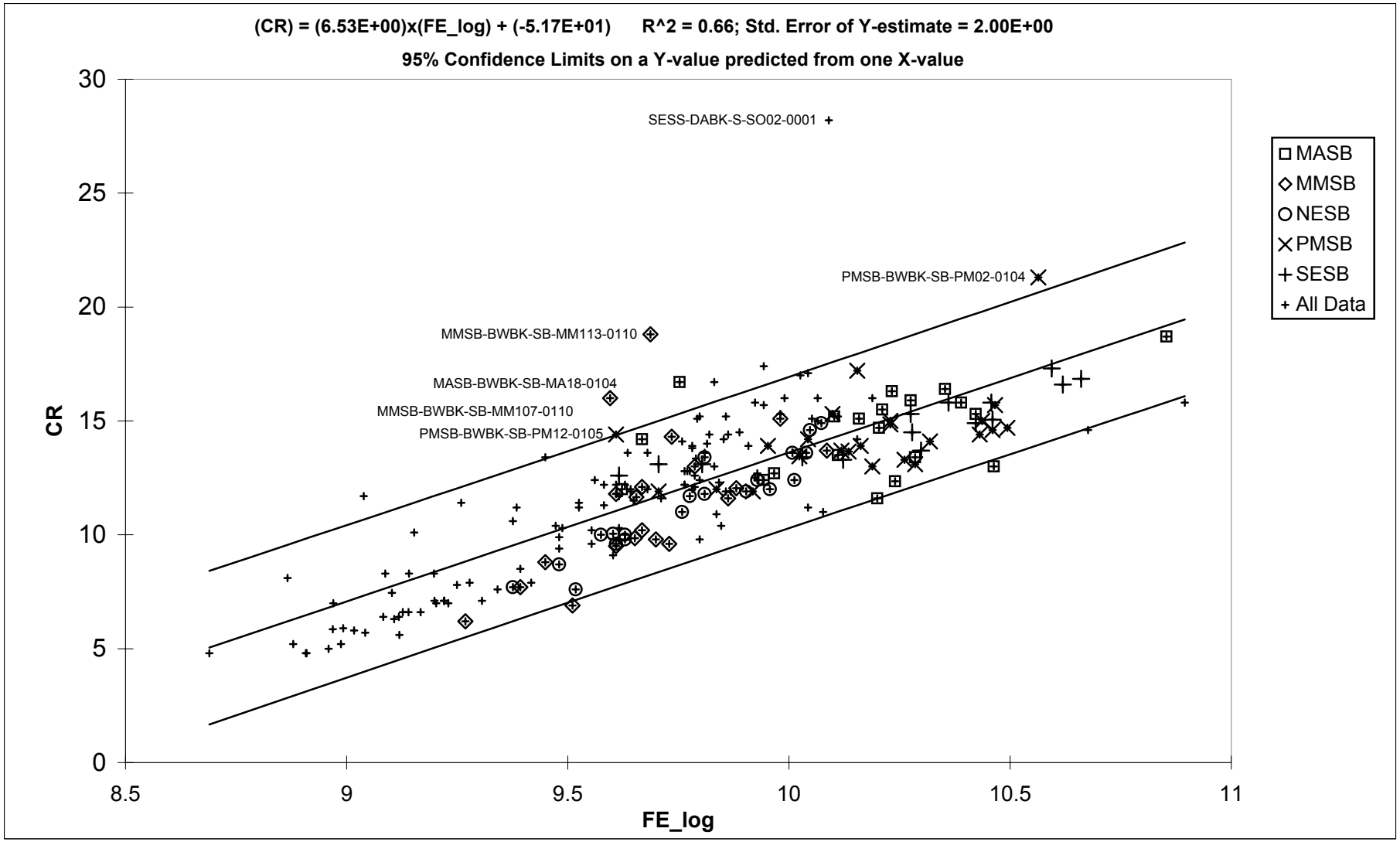
APPENDIX F, FIGURE F5-33
SUBSURFACE VIEW - CHROMIUM 1/2 POWER REGRESSED ON SOIL PREDICTED CHROMIUM FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



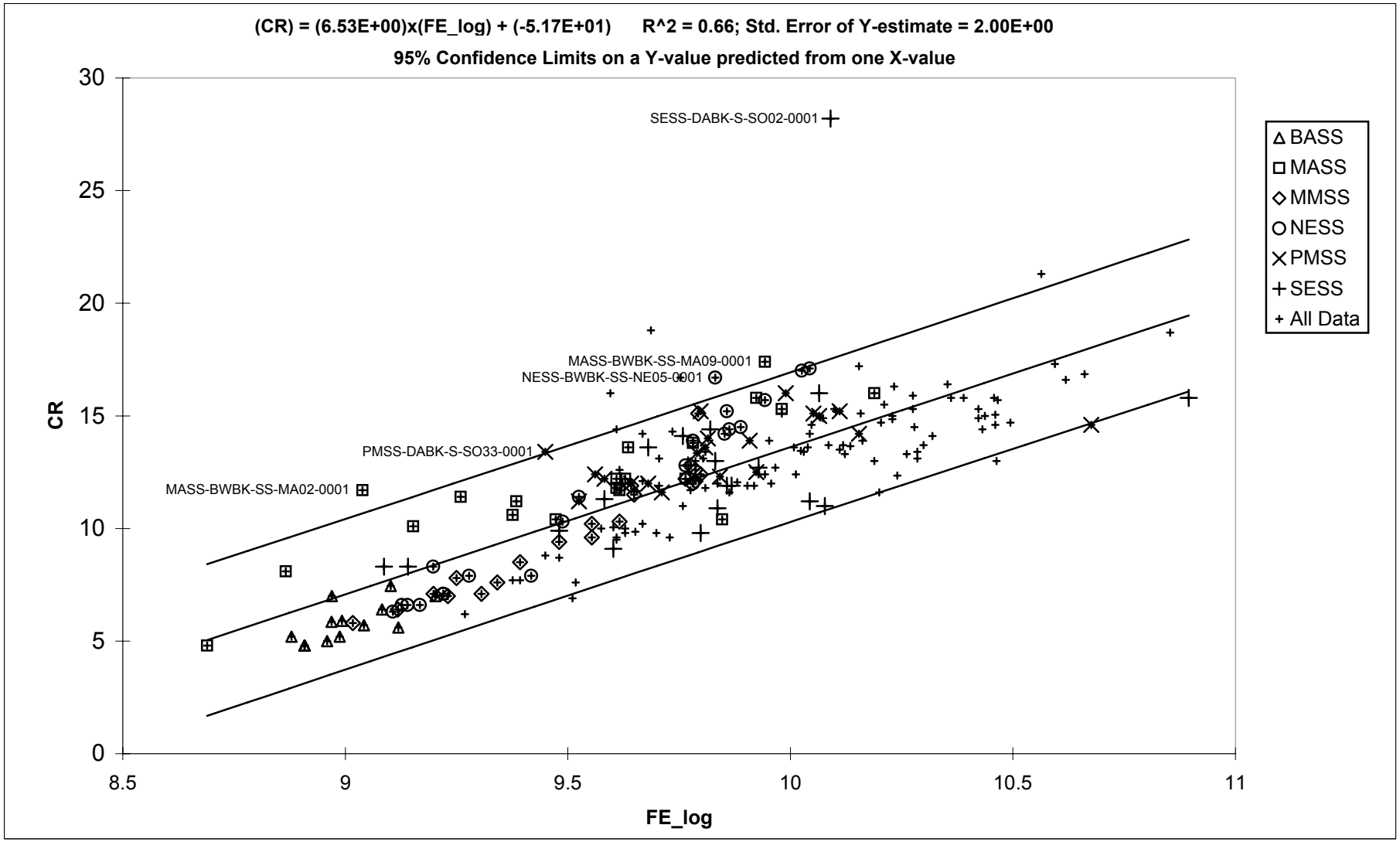
APPENDIX F, FIGURE F5-34
SURFACE VIEW - CHROMIUM 1/2 POWER REGRESSED ON SOIL PREDICTED CHROMIUM FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



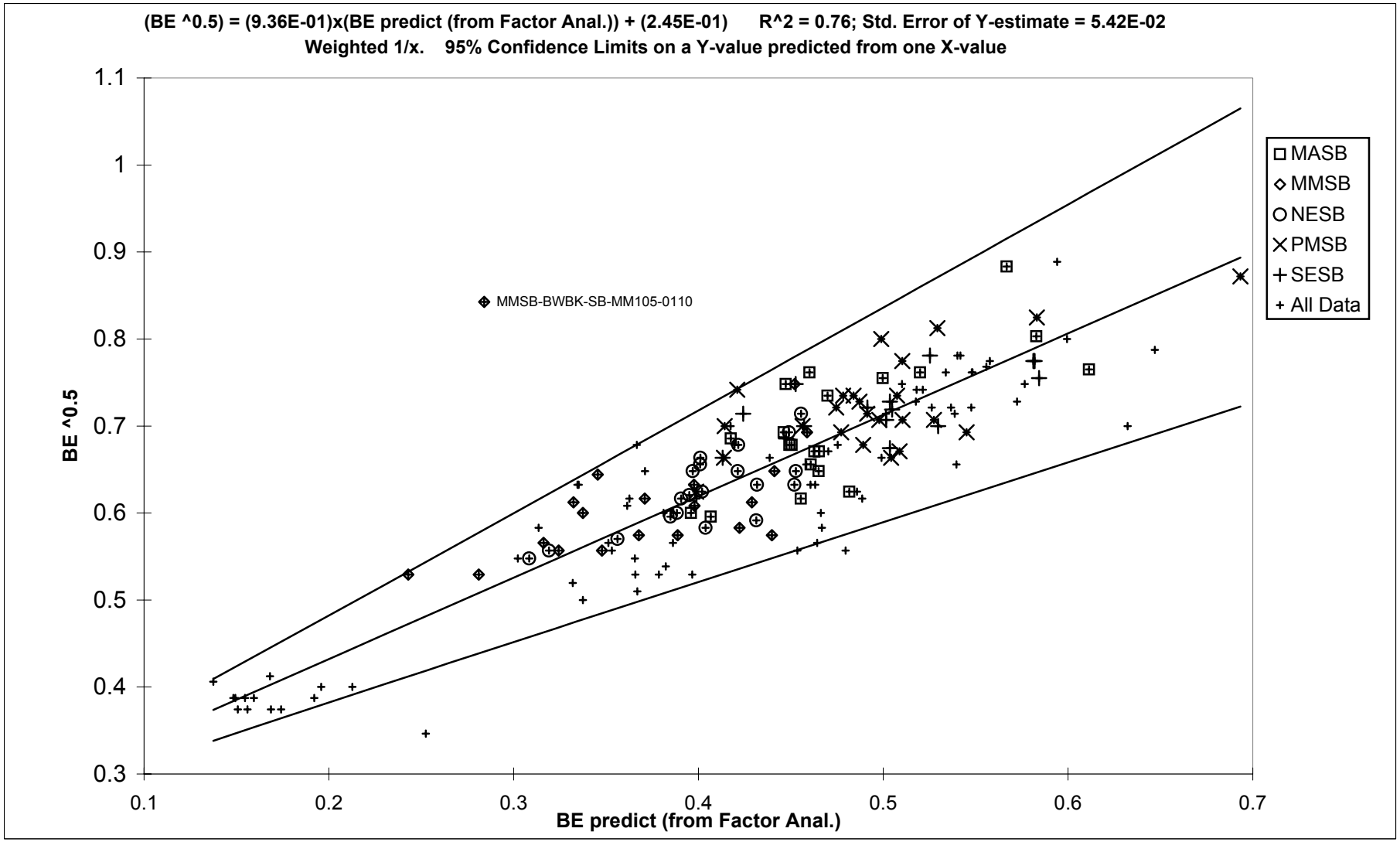
APPENDIX F, FIGURE F5-35
SUBSURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



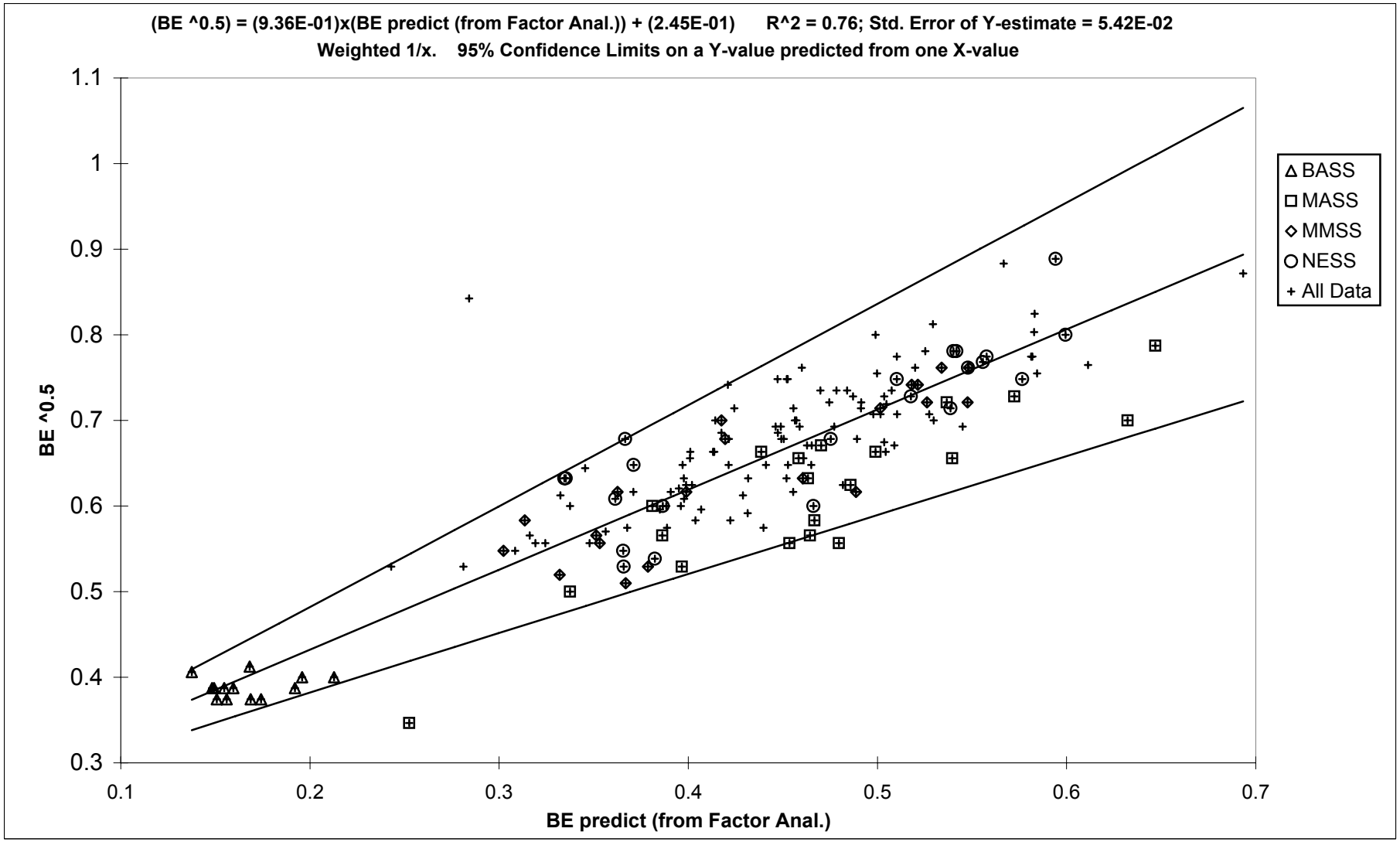
APPENDIX F, FIGURE F5-36
SURFACE SOIL VIEW - CHROMIUM REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



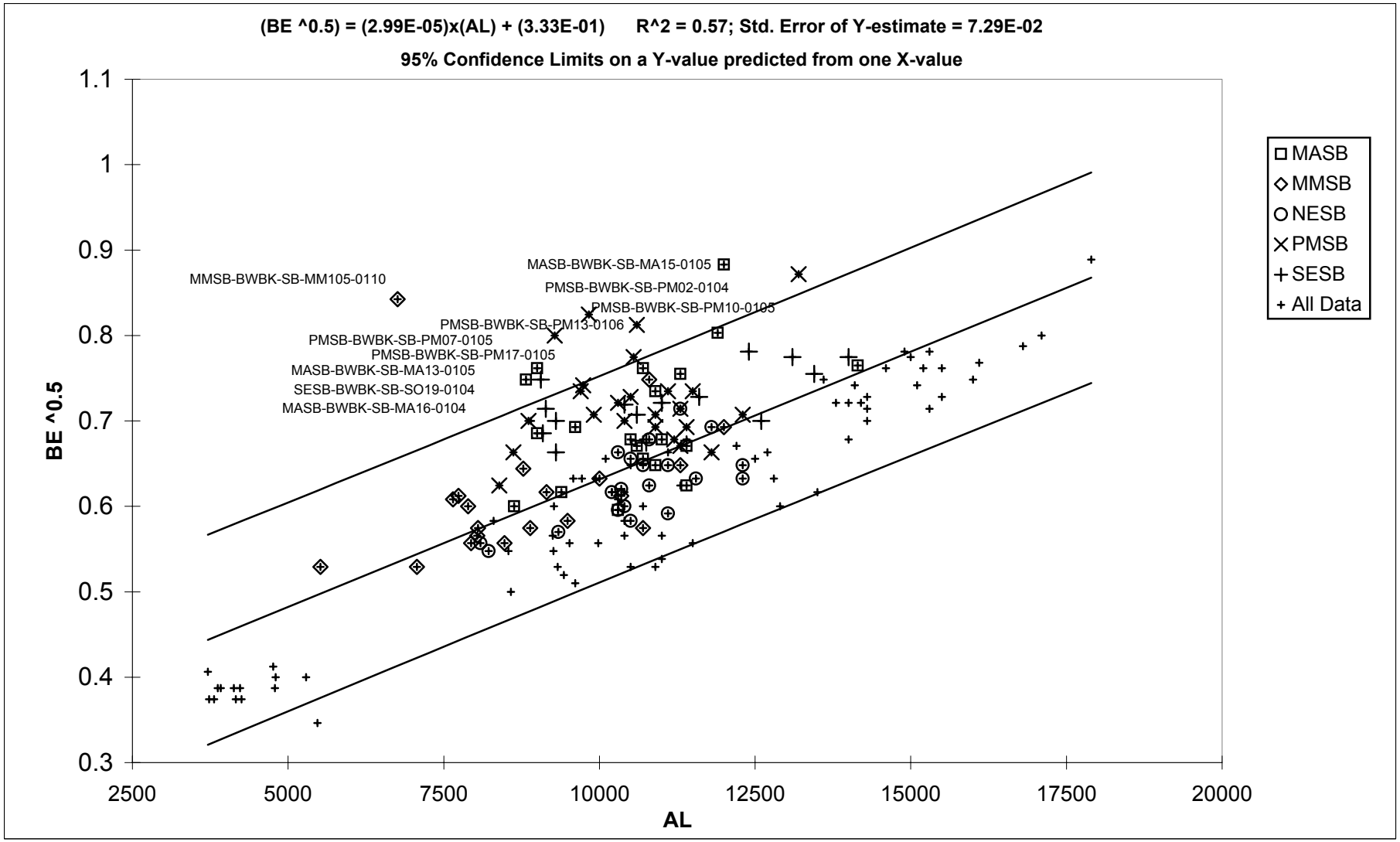
APPENDIX F, FIGURE F5-37
SUBSURFACE VIEW - BERYLLIUM 1/2 POWER REGRESSED ON PREDICTED BERYLLIUM FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



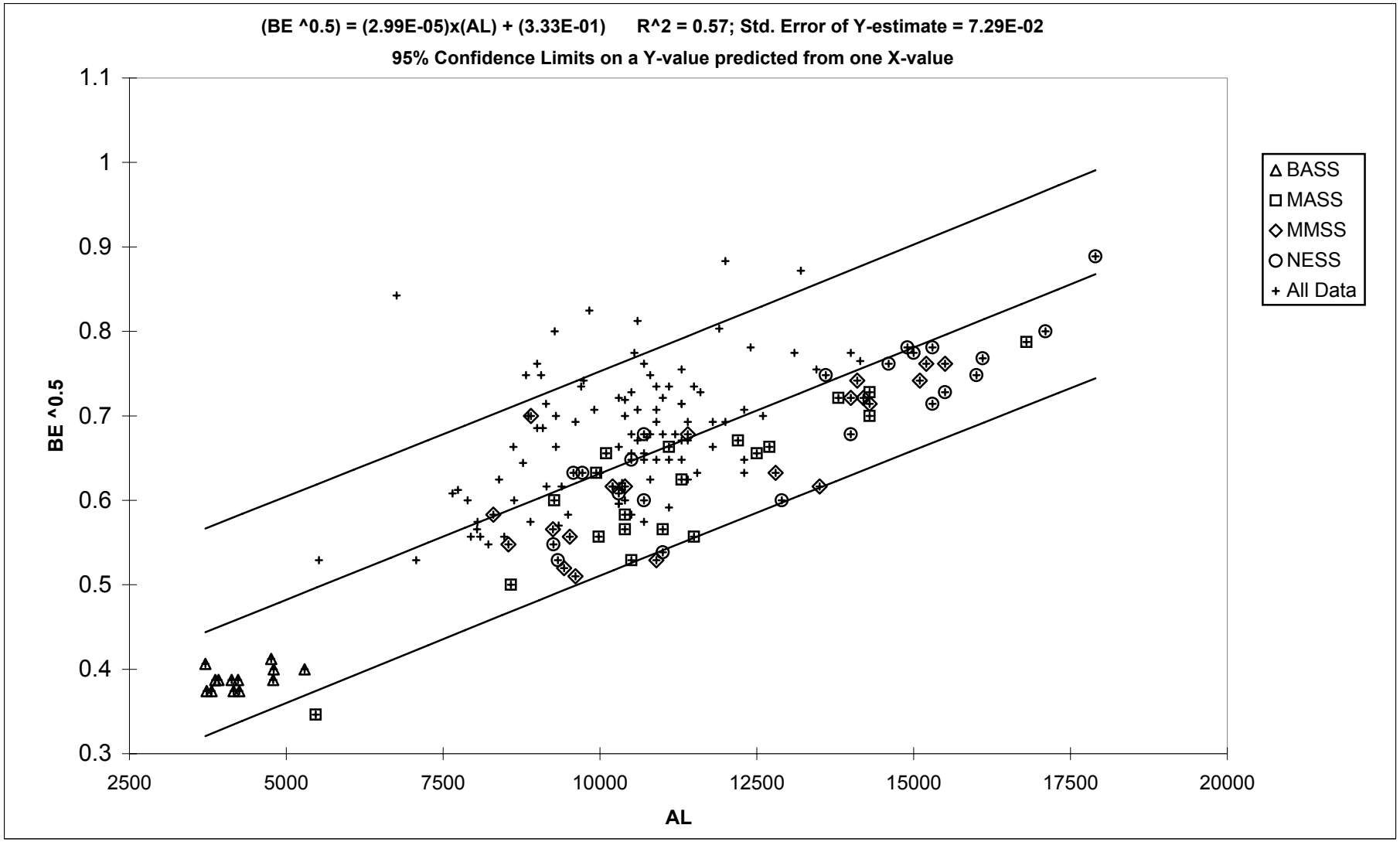
APPENDIX F, FIGURE F5-38
SURFACE VIEW - BERYLLIUM 1/2 POWER REGRESSED ON PREDICTED BERYLLIUM FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



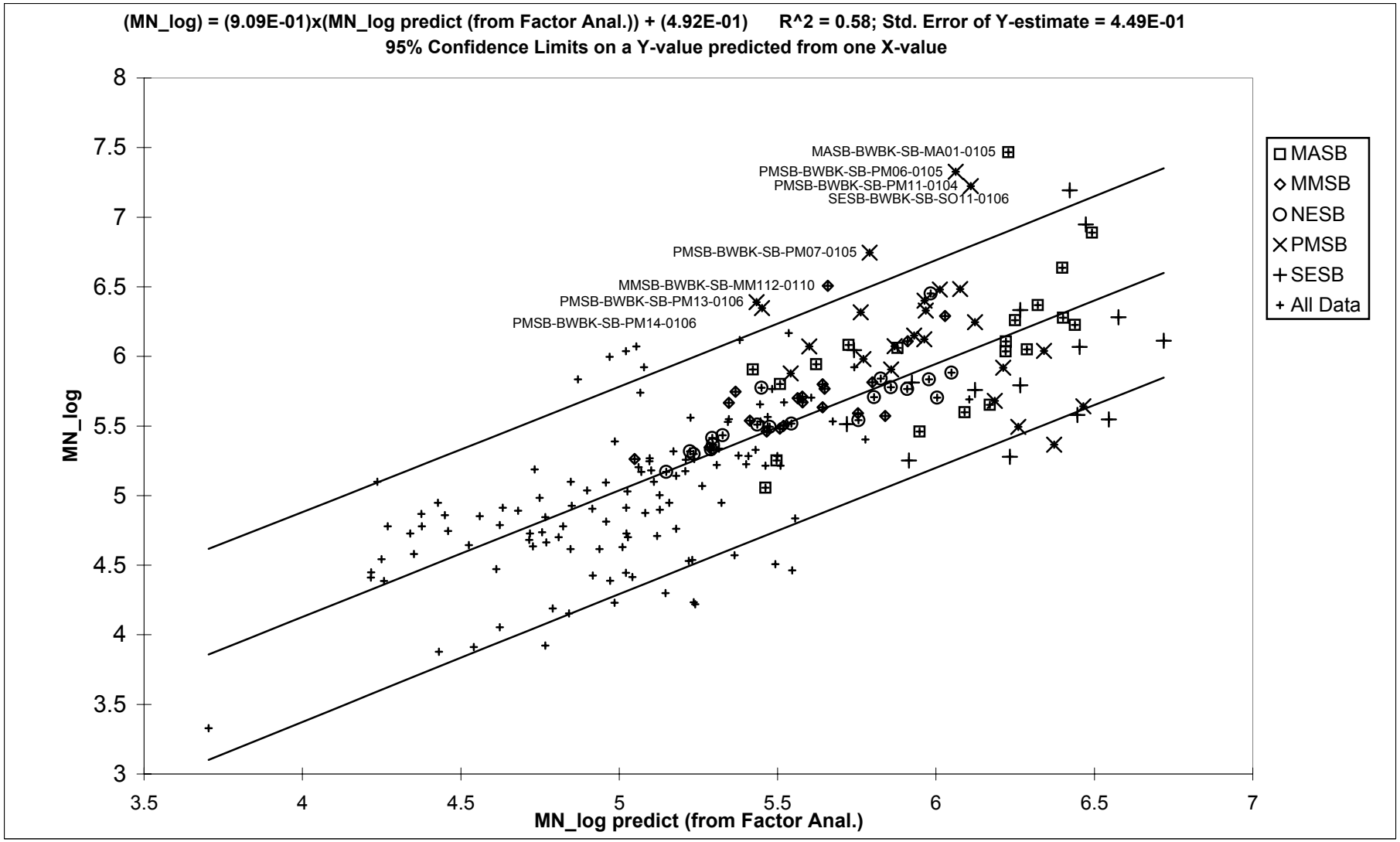
APPENDIX F, FIGURE F5-39
SUBSURFACE SOIL VIEW - BERYLLIUM 1/2 POWER REGRESSED ON ALUMINUM IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



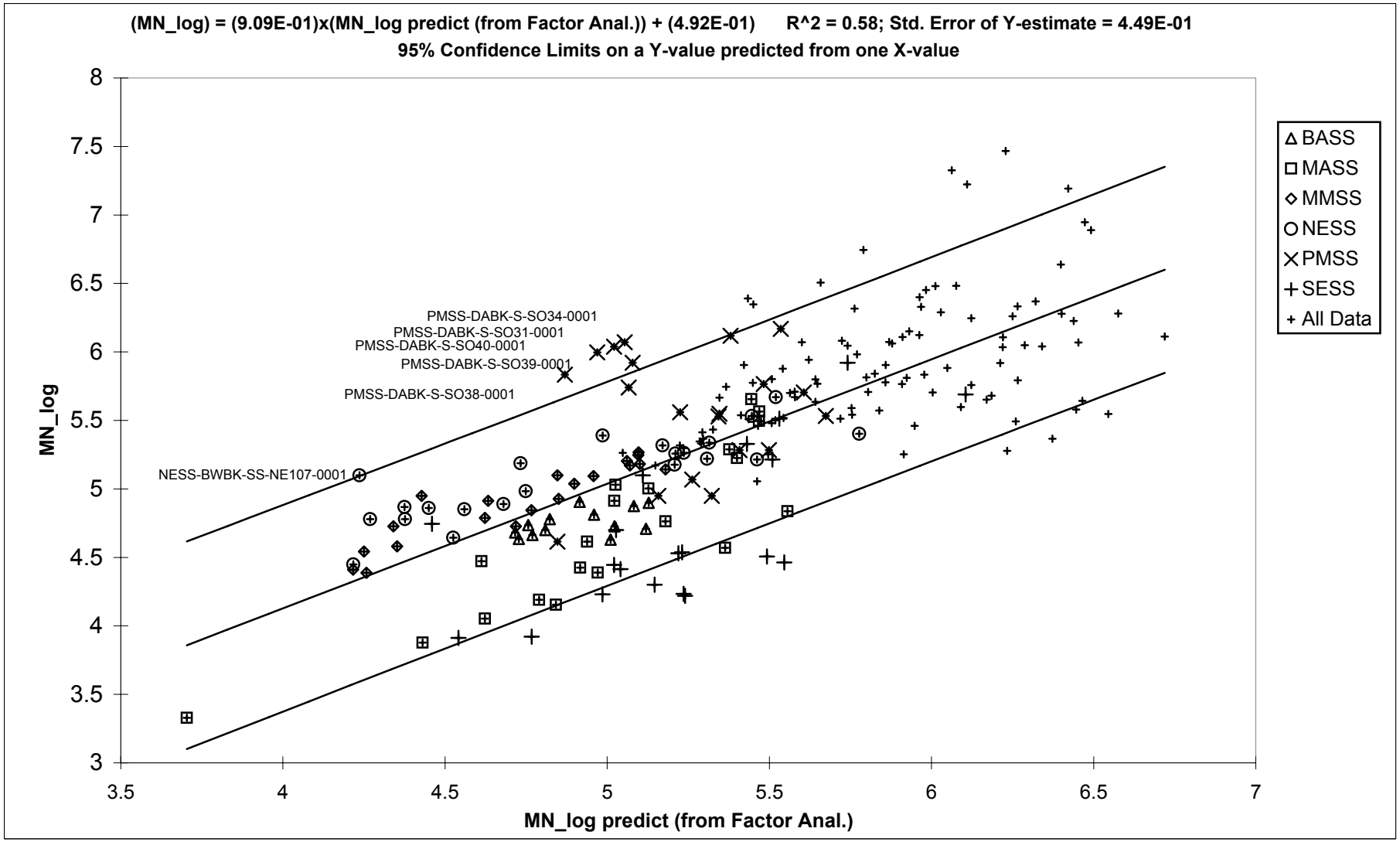
APPENDIX F, FIGURE F5-40
SURFACE SOIL VIEW - BERYLLIUM 1/2 POWER REGRESSED ON ALUMINUM IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



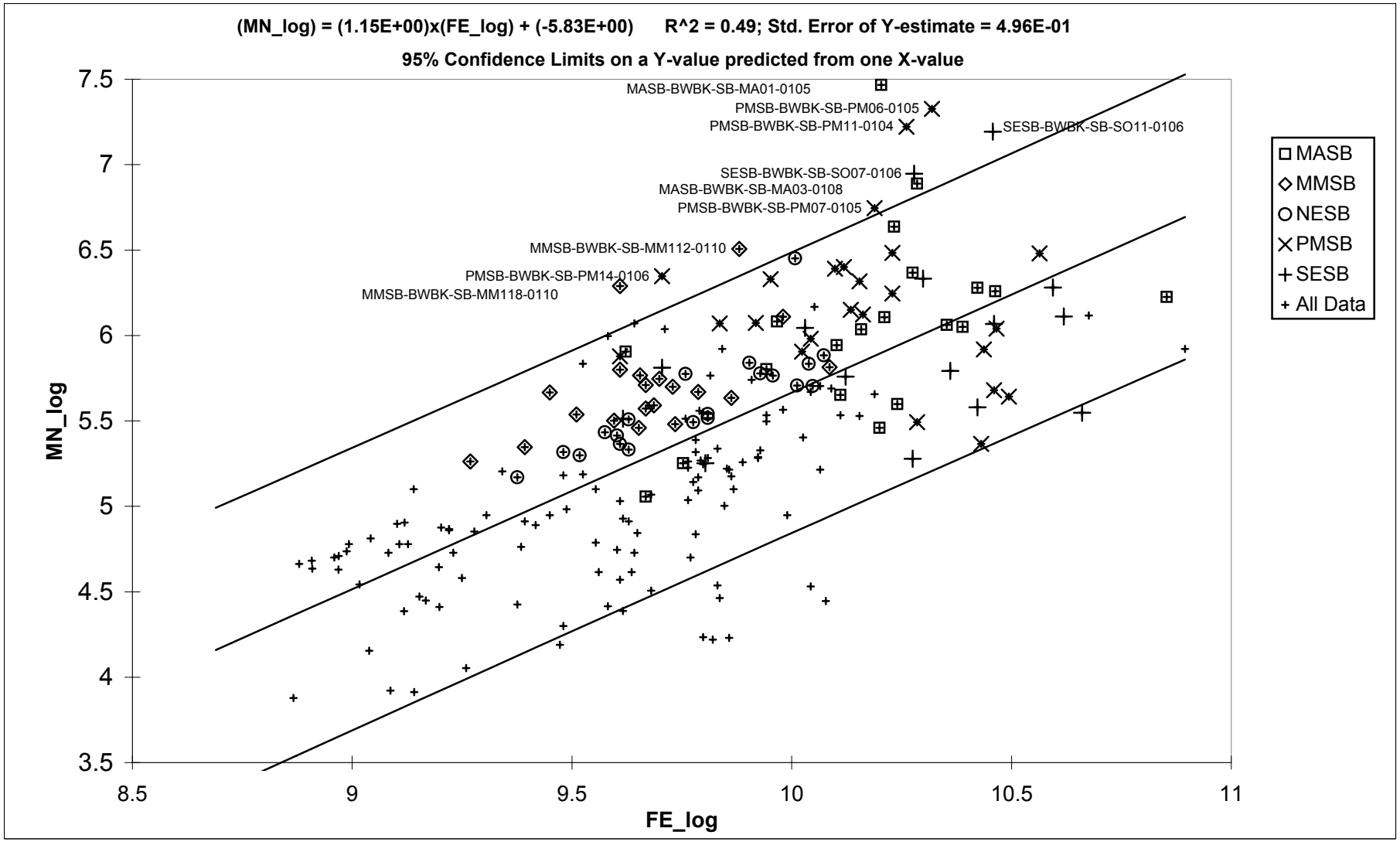
APPENDIX F, FIGURE F5-41
SUBSURFACE VIEW - LOG MANGANESE REGRESSED ON PREDICTED LOG MANGANESE FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



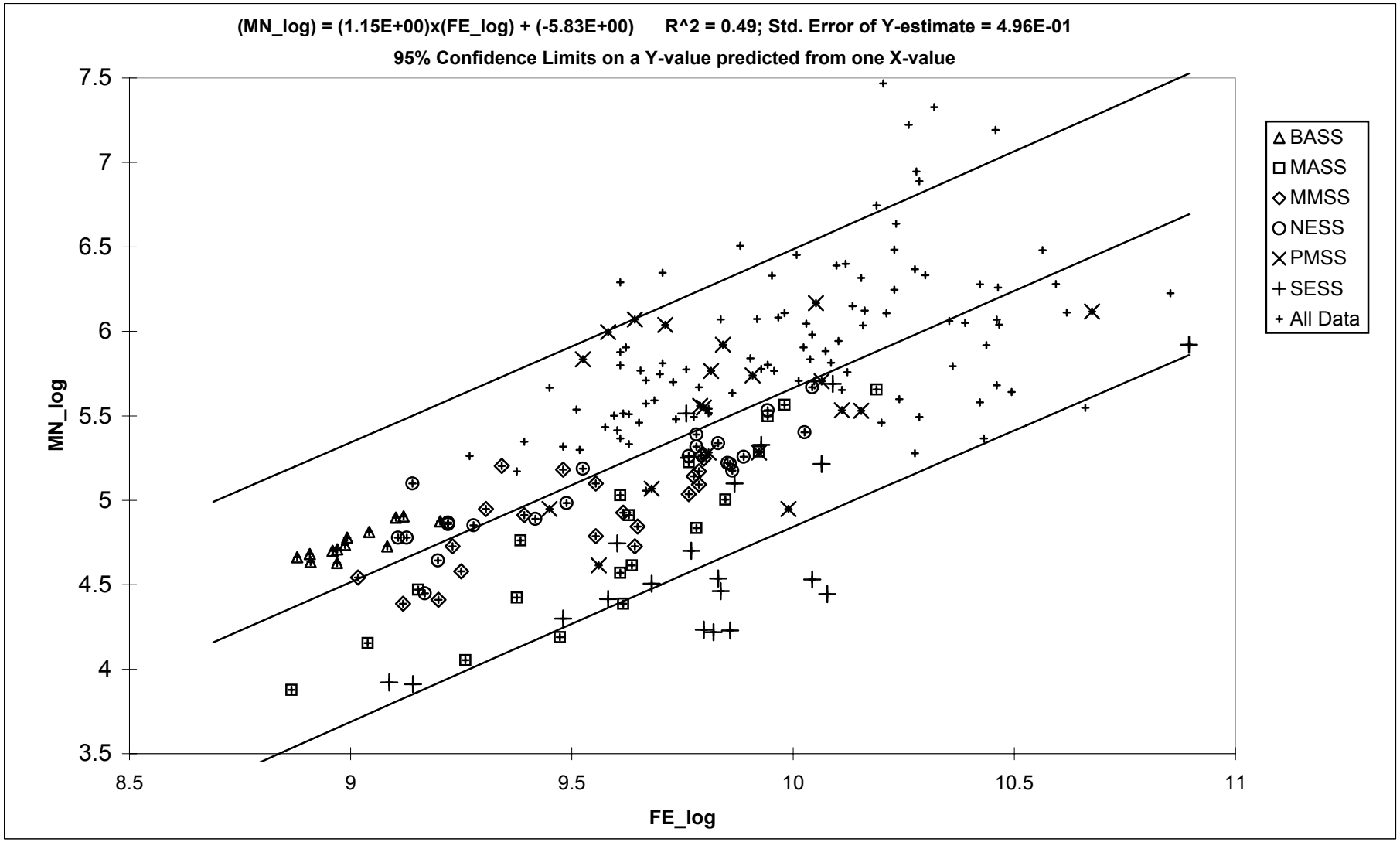
APPENDIX F, FIGURE F5-42
SURFACE VIEW - LOG MANGANESE REGRESSED ON SOIL PREDICTED LOG MANGANESE FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



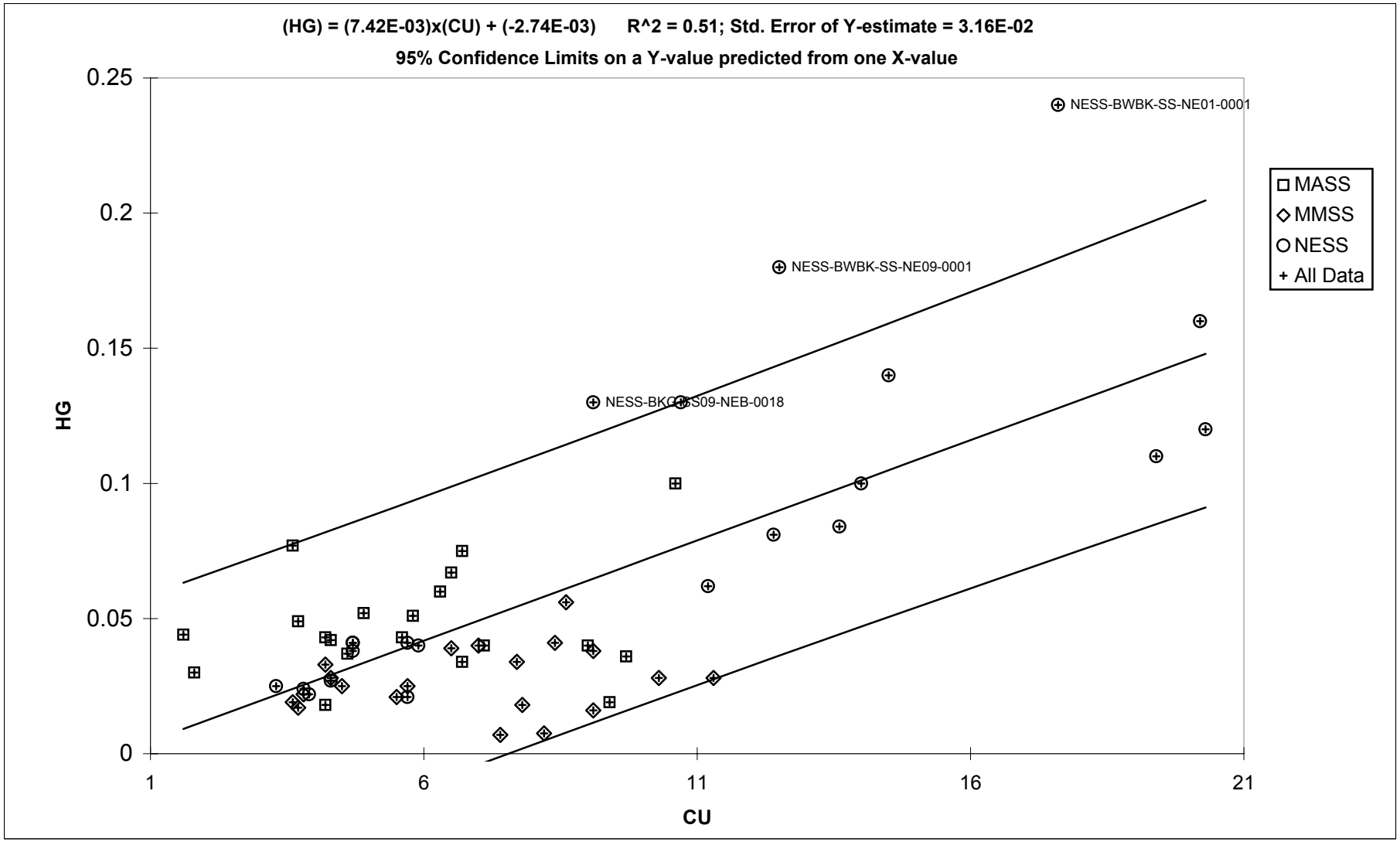
APPENDIX F, FIGURE F5-43
SUBSURFACE SOIL VIEW - LOG MANGANESE REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



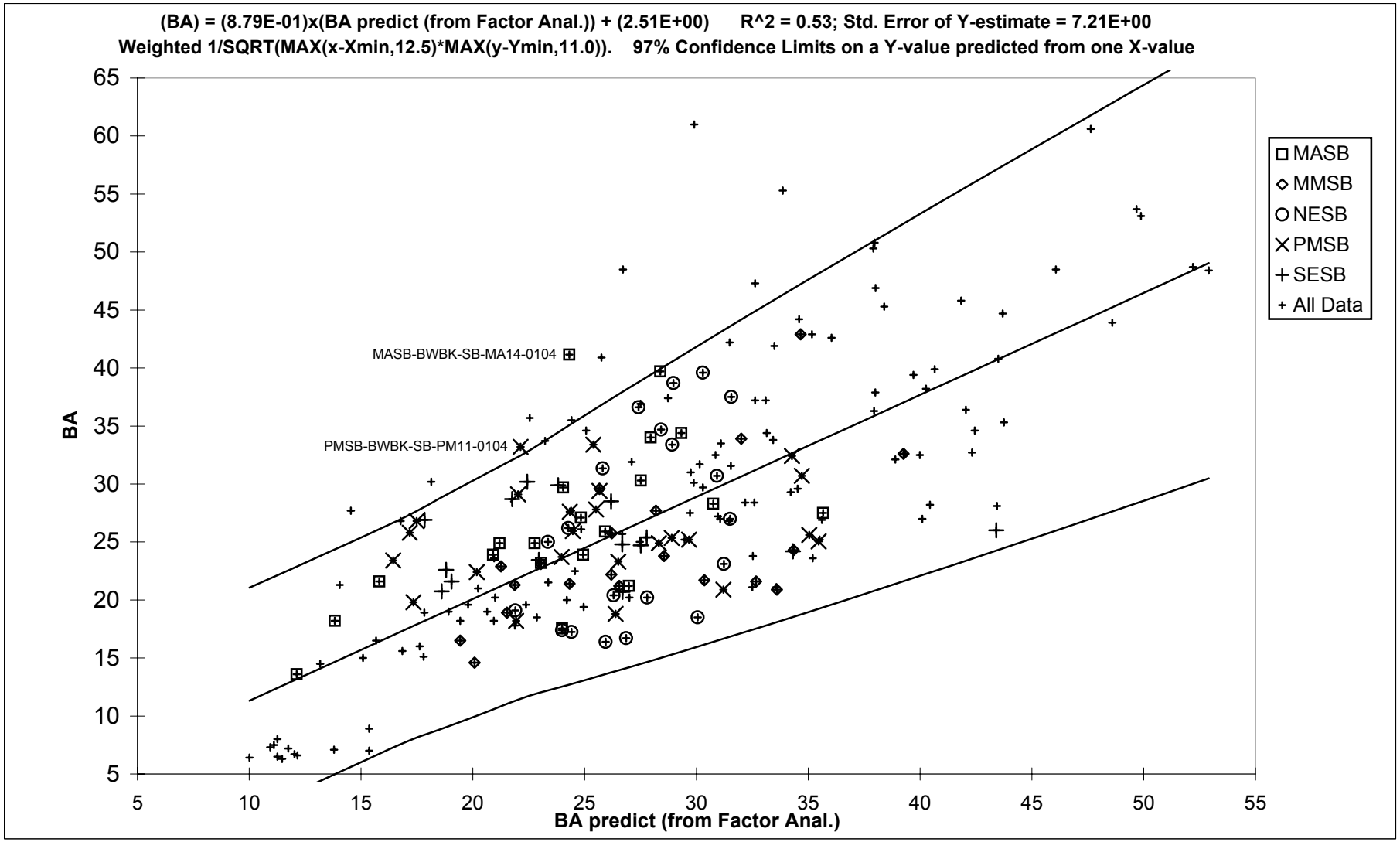
APPENDIX F, FIGURE F5-44
SURFACE SOIL VIEW - LOG MANGANESE REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



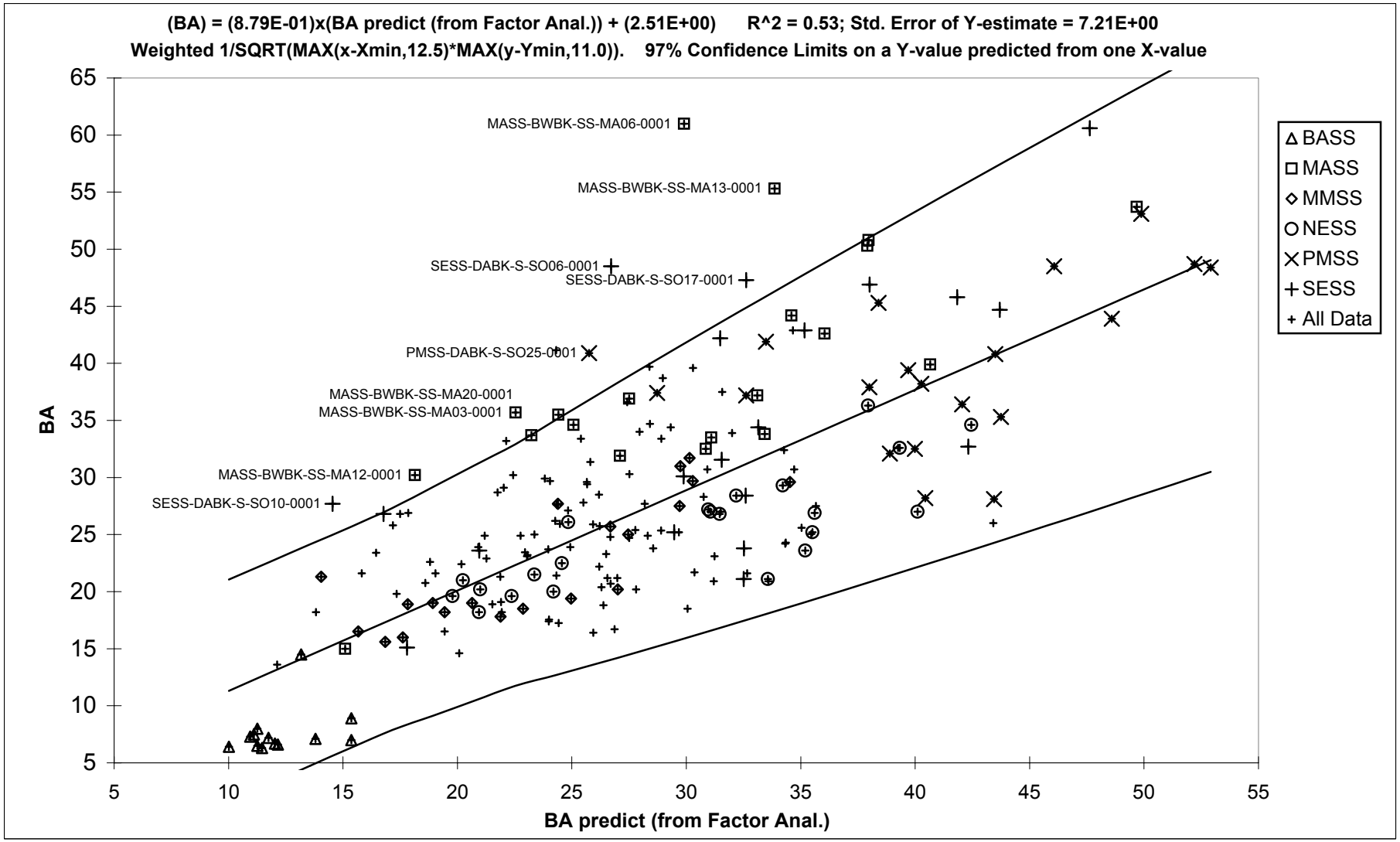
APPENDIX F, FIGURE F5-45
MERCURY REGRESSED ON MASS, MMSS, NESS SURFACE SOIL DATA FOR COPPER
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



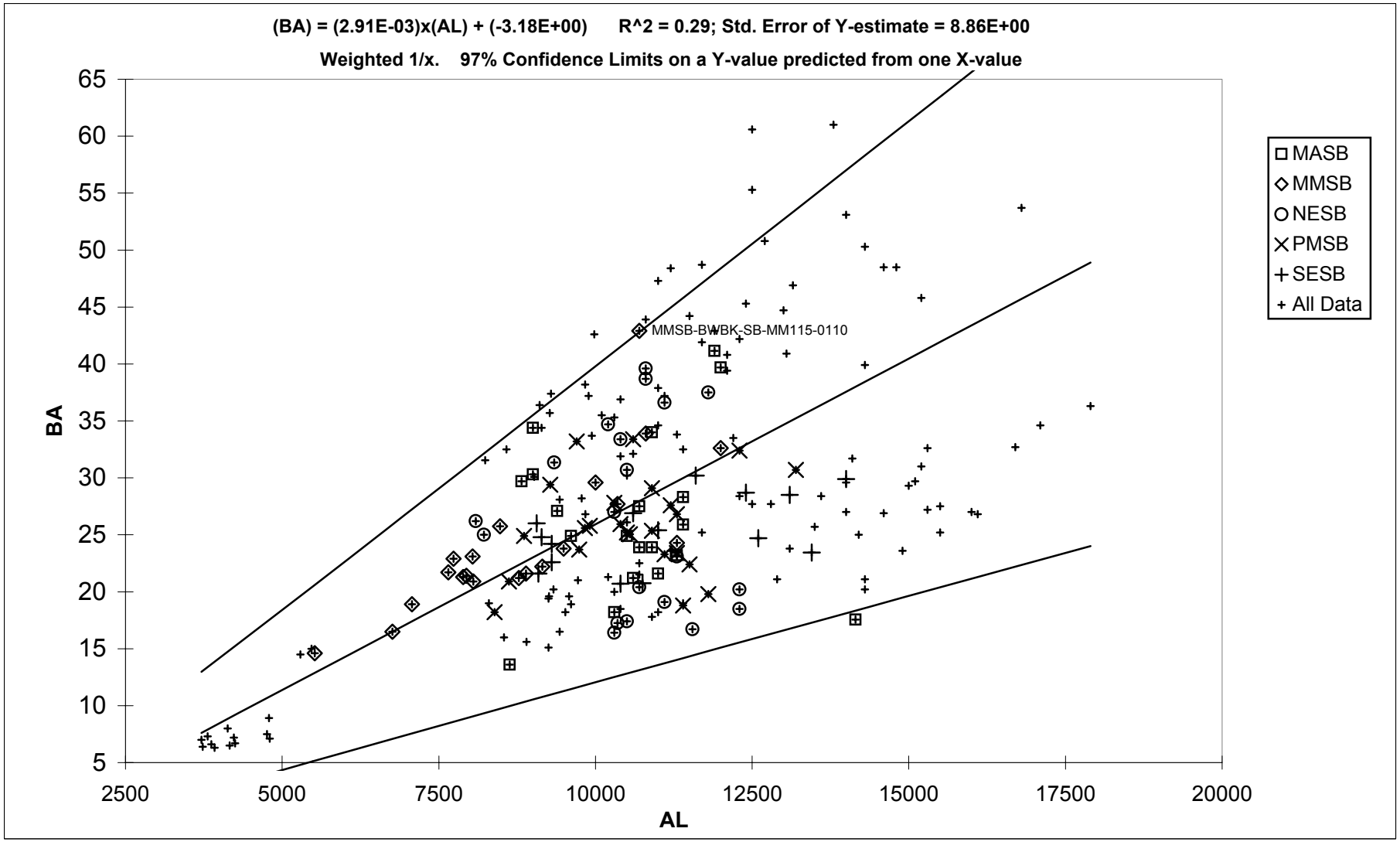
APPENDIX F, FIGURE F5-46
SUBSURFACE VIEW - BARIUM REGRESSED ON SOIL PREDICTED BARIUM FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



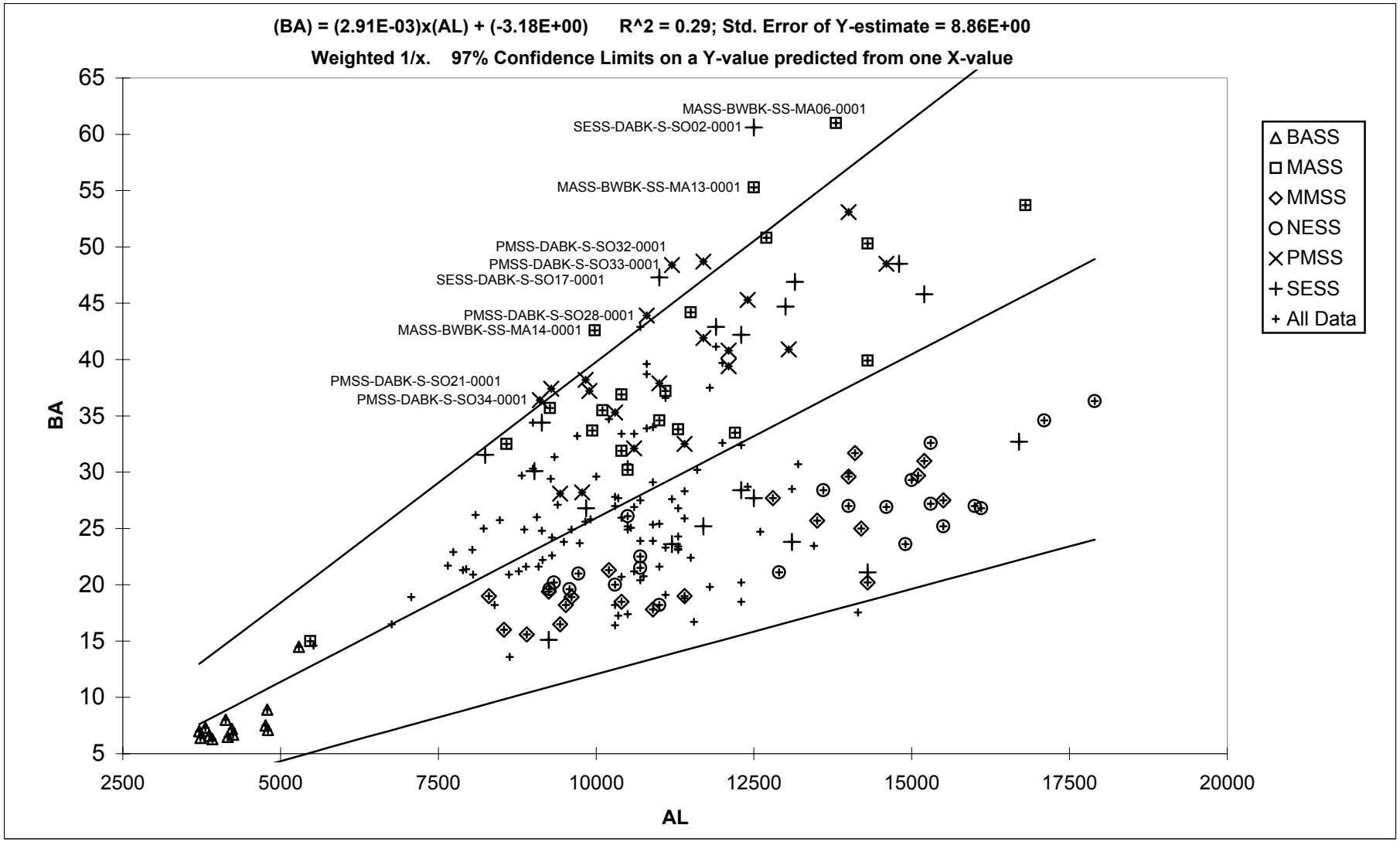
APPENDIX F, FIGURE F5-47
SURFACE VIEW - BARIUM REGRESSED ON SOIL PREDICTED BARIUM FROM 5 FACTOR ANALYSIS, MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



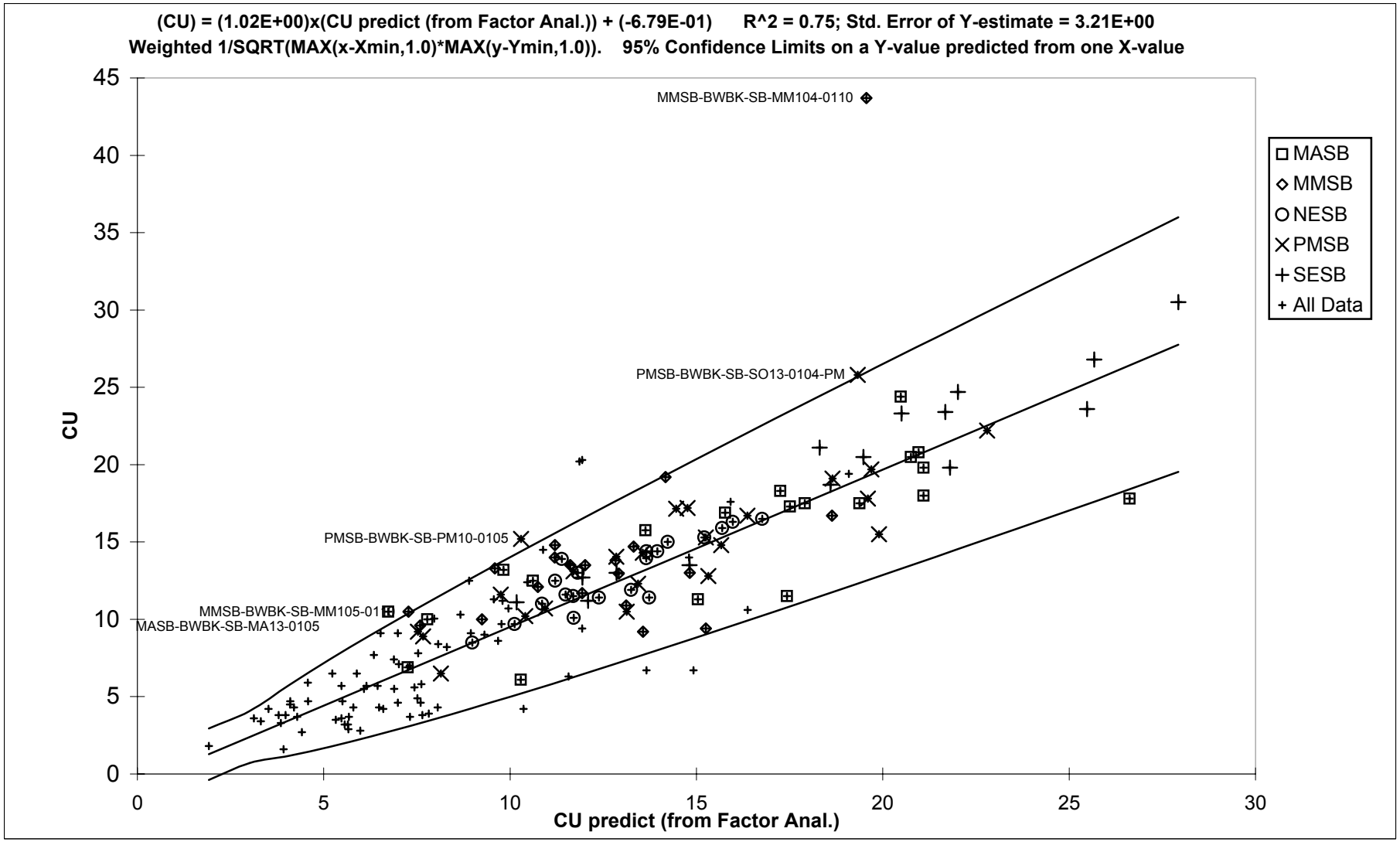
APPENDIX F, FIGURE F5-48
SUBSURFACE SOIL VIEW - BARIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



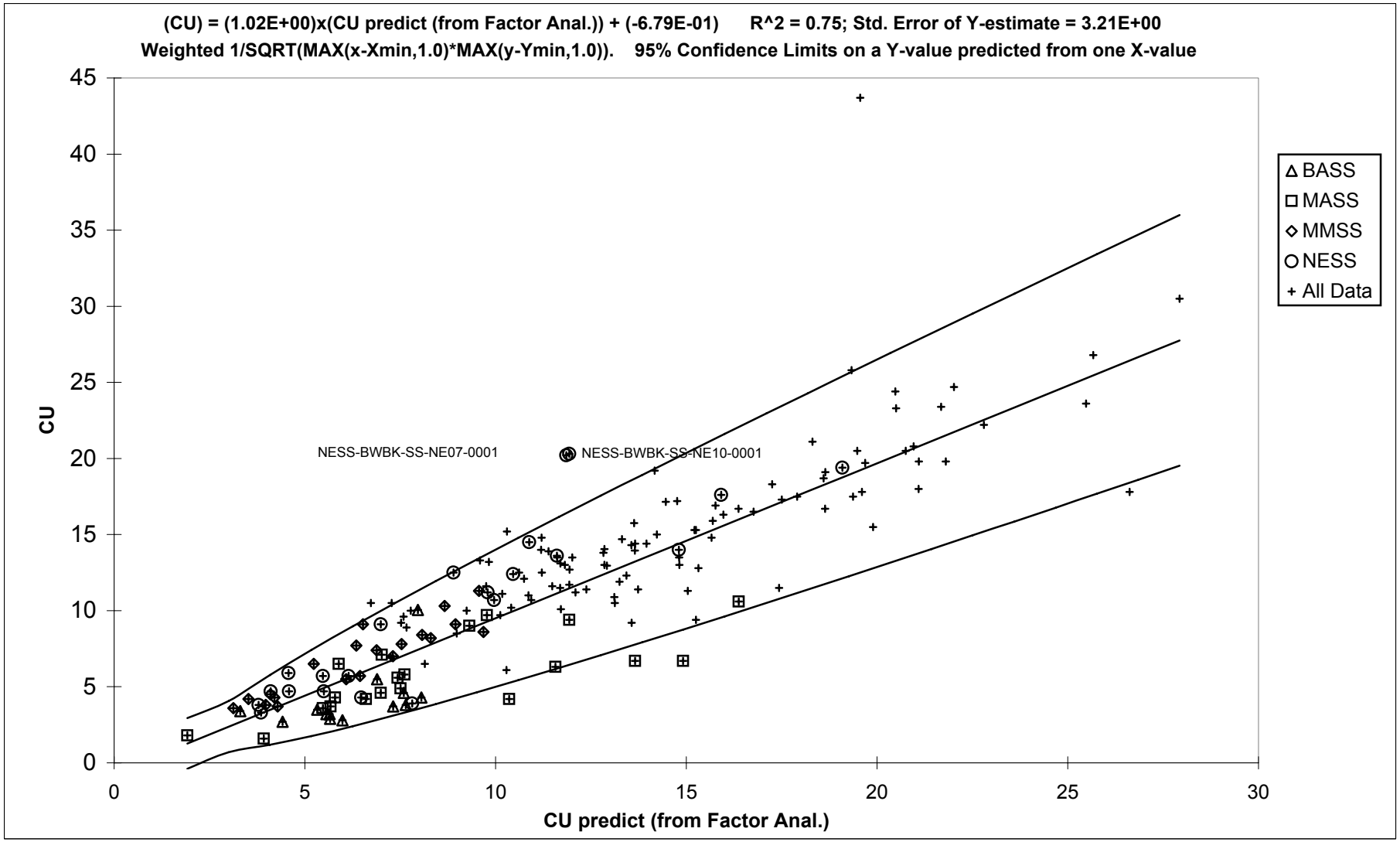
APPENDIX F, FIGURE F5-49
SURFACE SOIL VIEW - BARIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



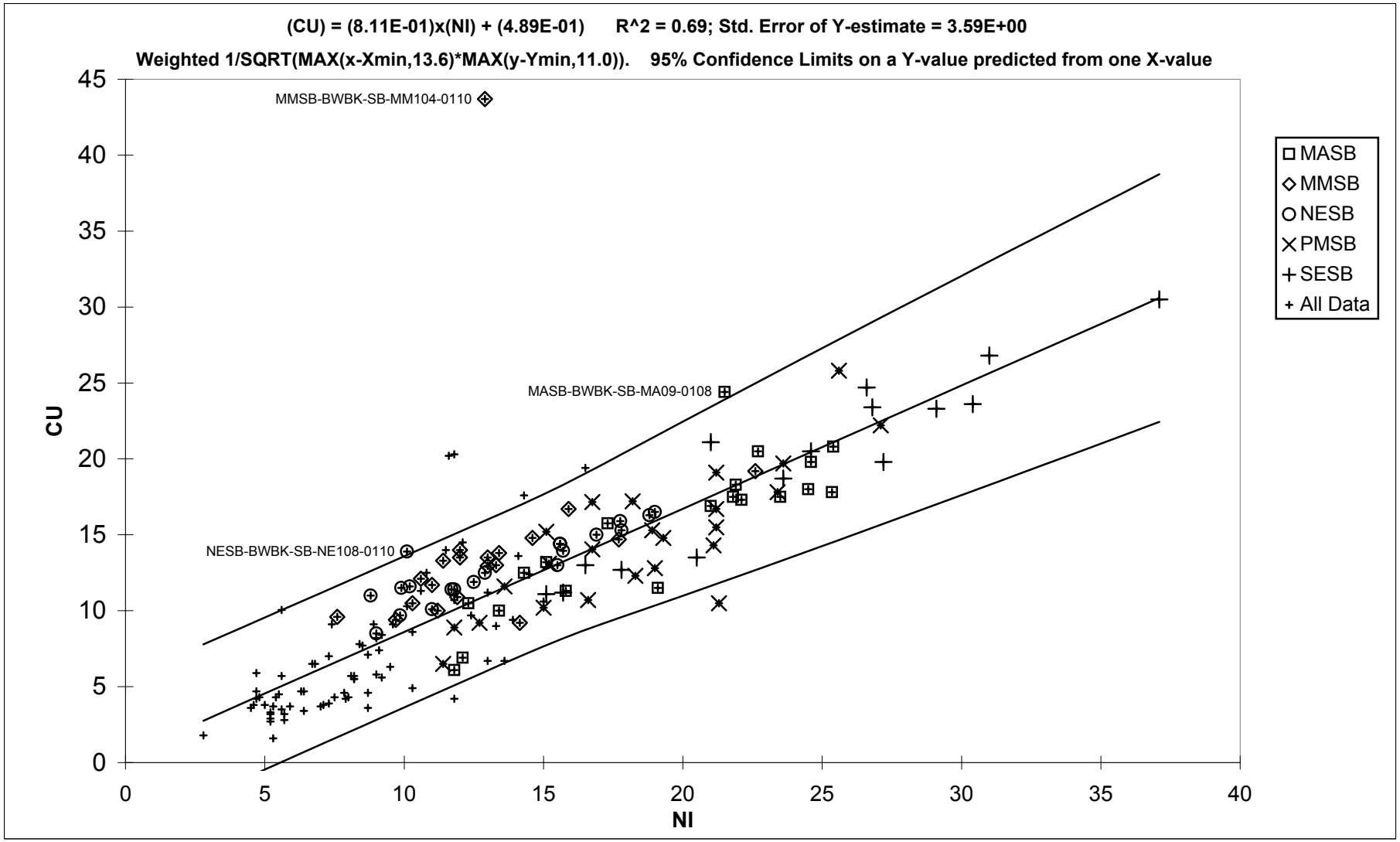
APPENDIX F, FIGURE F5-50
SUBSURFACE VIEW - COPPER REGRESSED ON PREDICTED COPPER FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



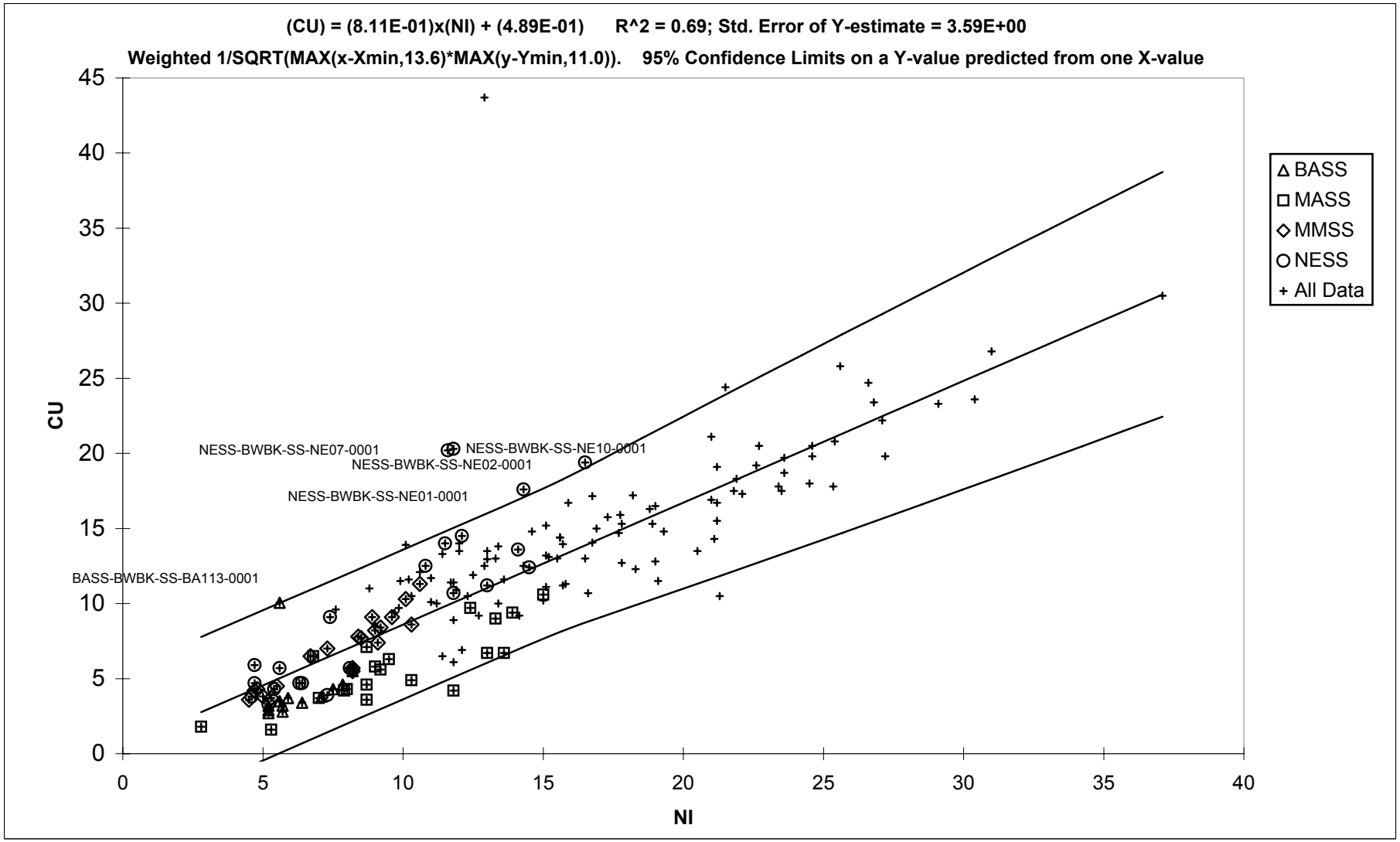
APPENDIX F, FIGURE F5-51
SURFACE VIEW - COPPER REGRESSED ON PREDICTED COPPER FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



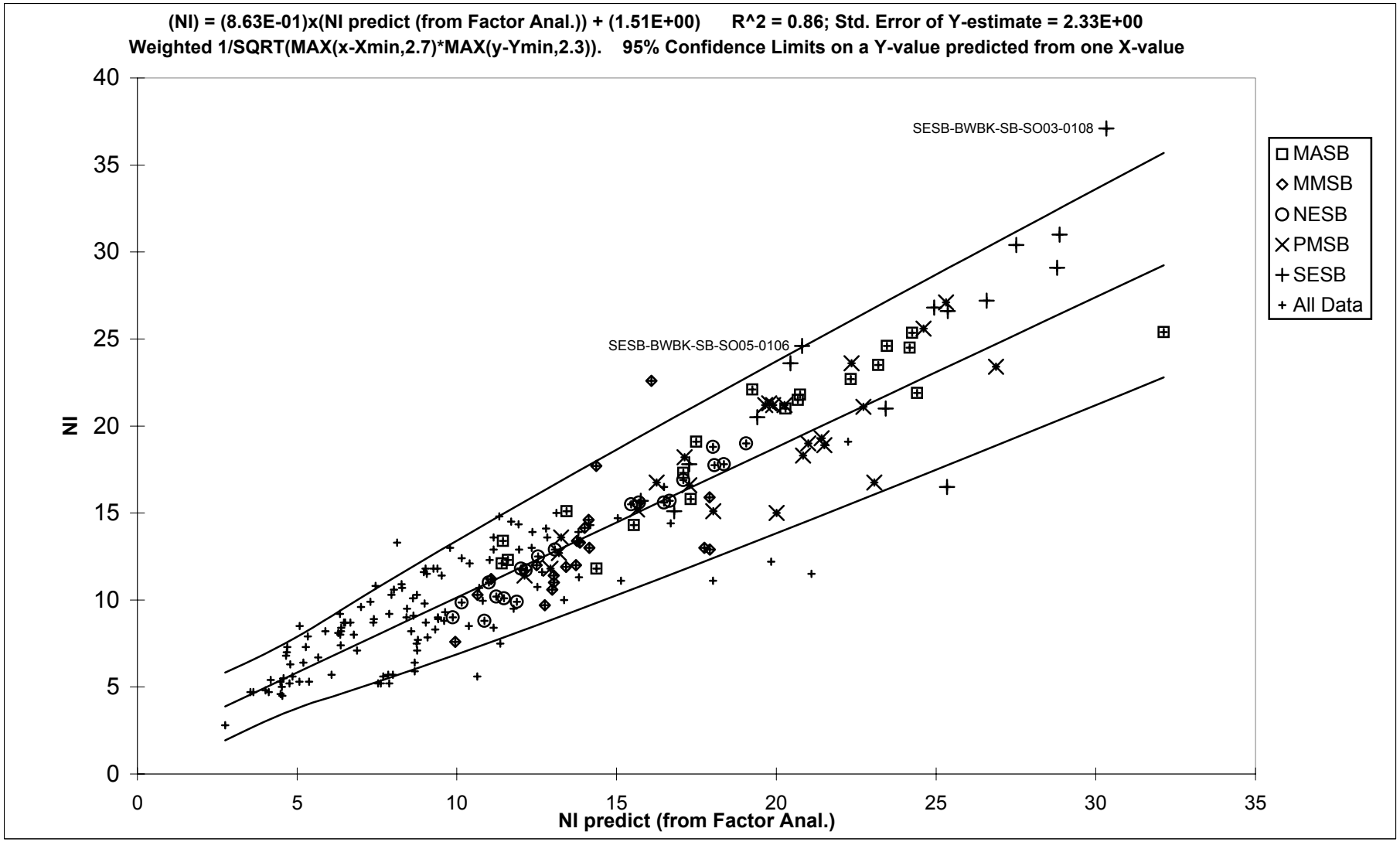
APPENDIX F, FIGURE F5-52
SUBSURFACE SOIL VIEW - COPPER REGRESSED ON NICKEL IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



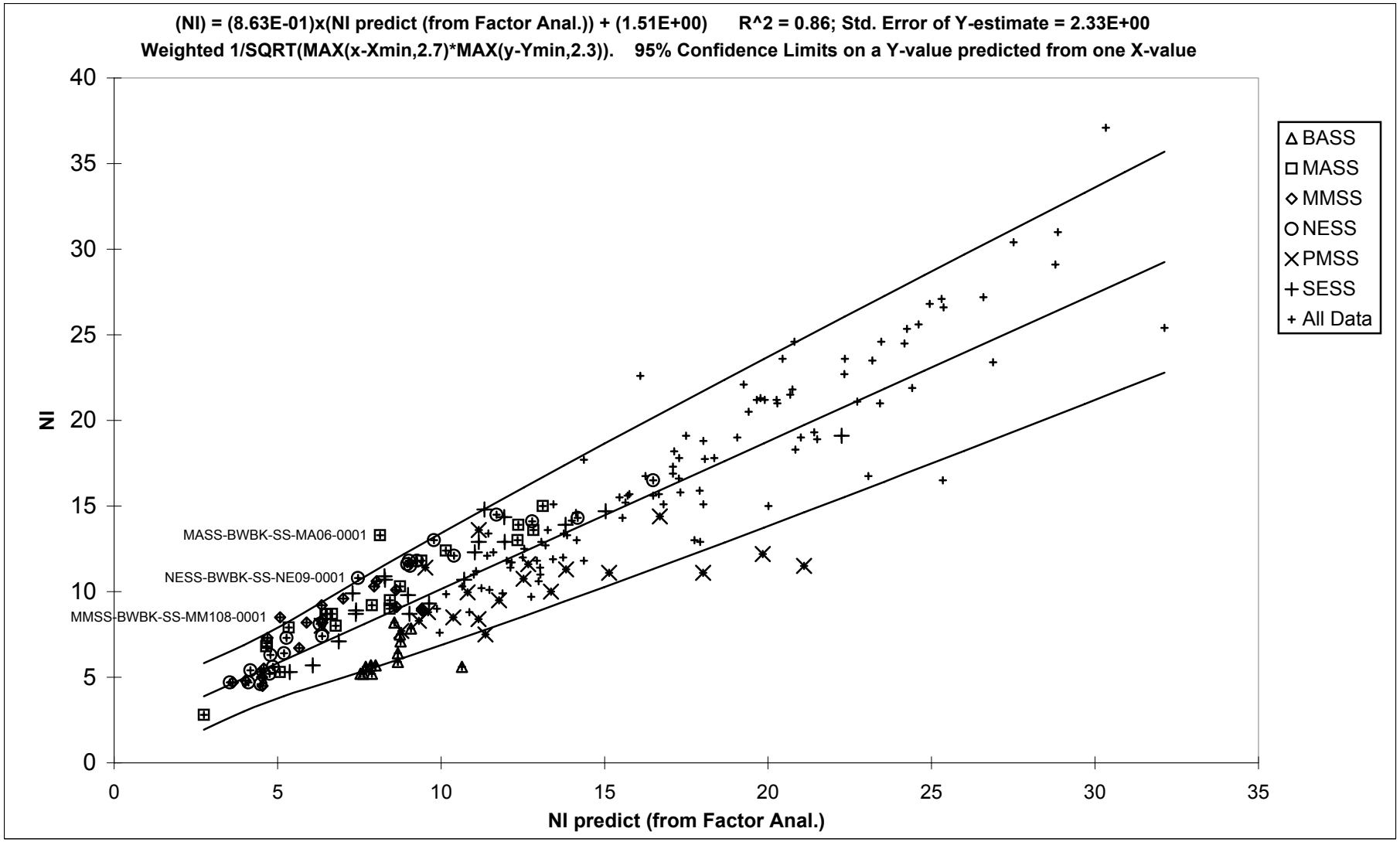
APPENDIX F, FIGURE F5-53
SURFACE SOIL VIEW - COPPER REGRESSED ON NICKEL IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



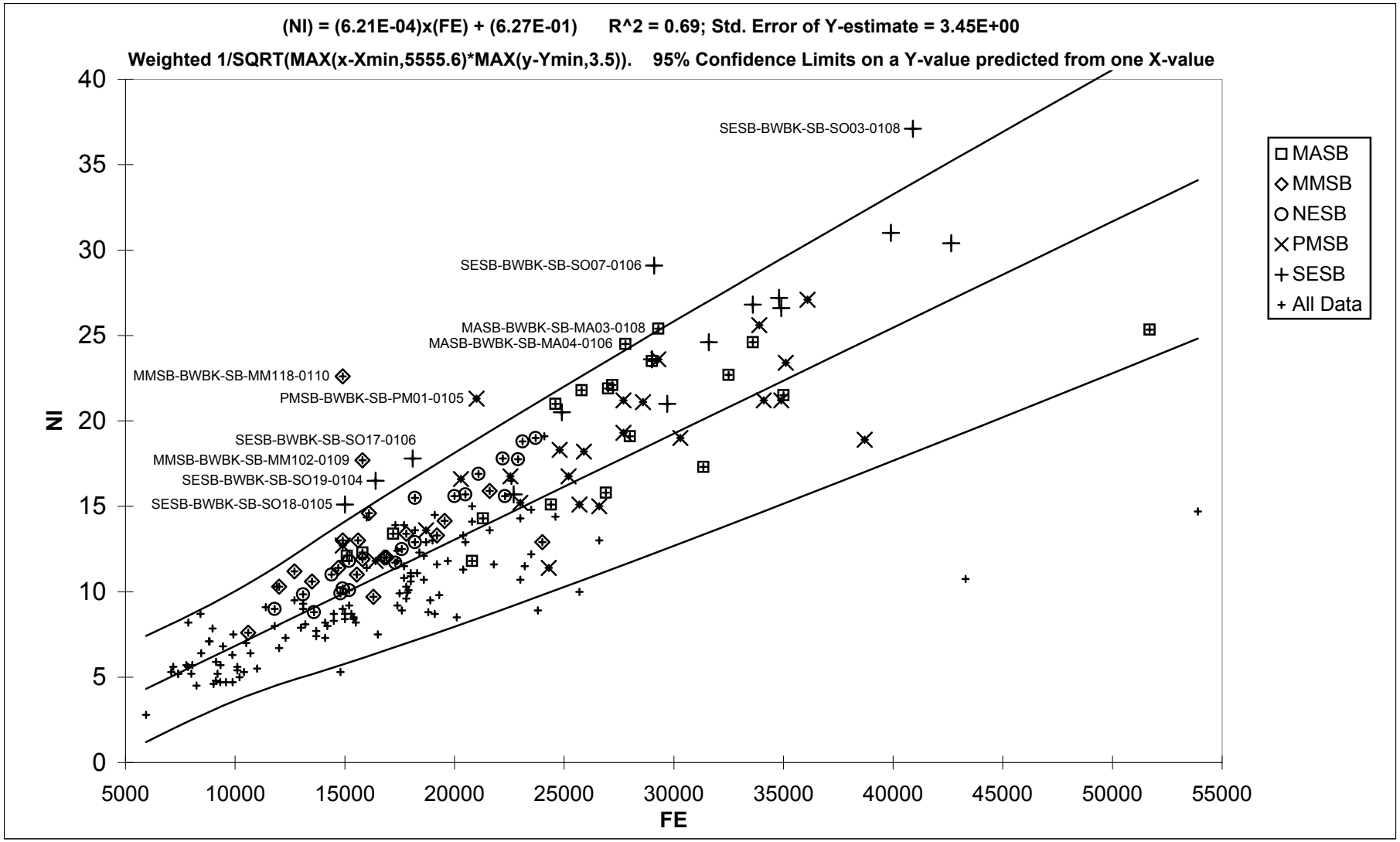
APPENDIX F, FIGURE F5-54
SUBSURFACE VIEW - NICKEL REGRESSED ON PREDICTED NICKEL FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



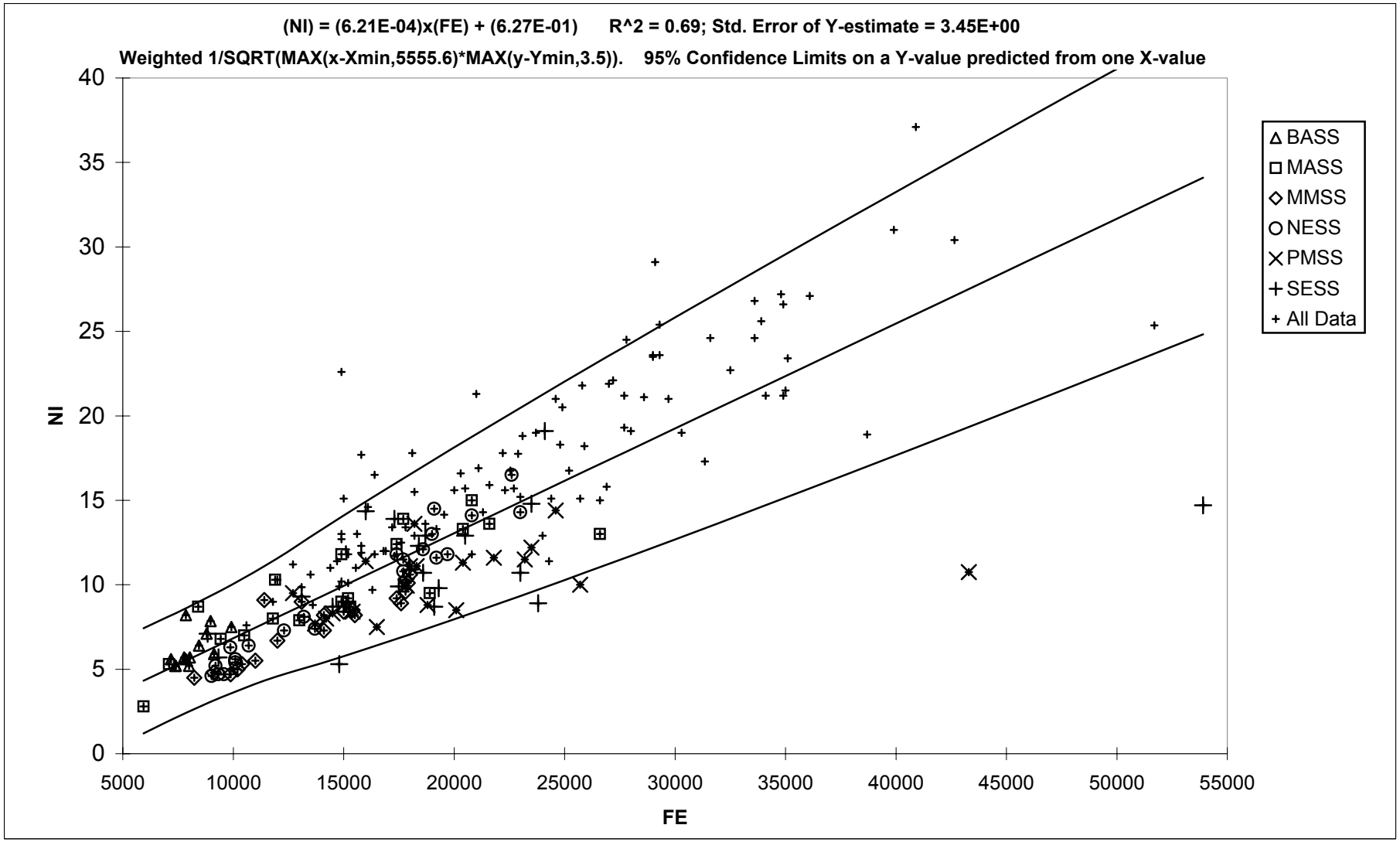
APPENDIX F, FIGURE F5-55
SURFACE VIEW - NICKEL REGRESSED ON PREDICTED NICKEL FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



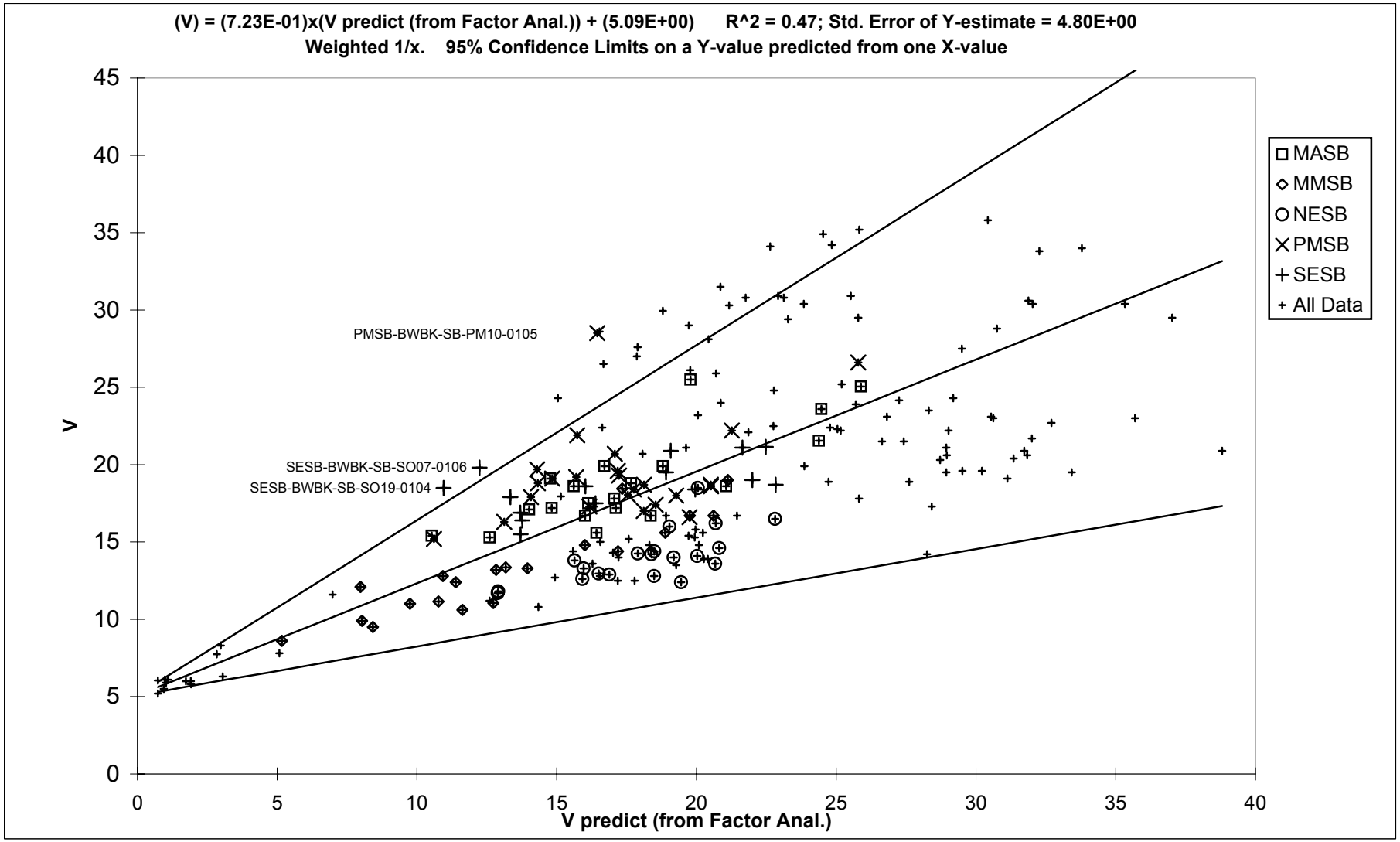
APPENDIX F, FIGURE F5-56
SUBSURFACE SOIL VIEW - NICKEL REGRESSED ON ALL SOIL DATA FOR IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



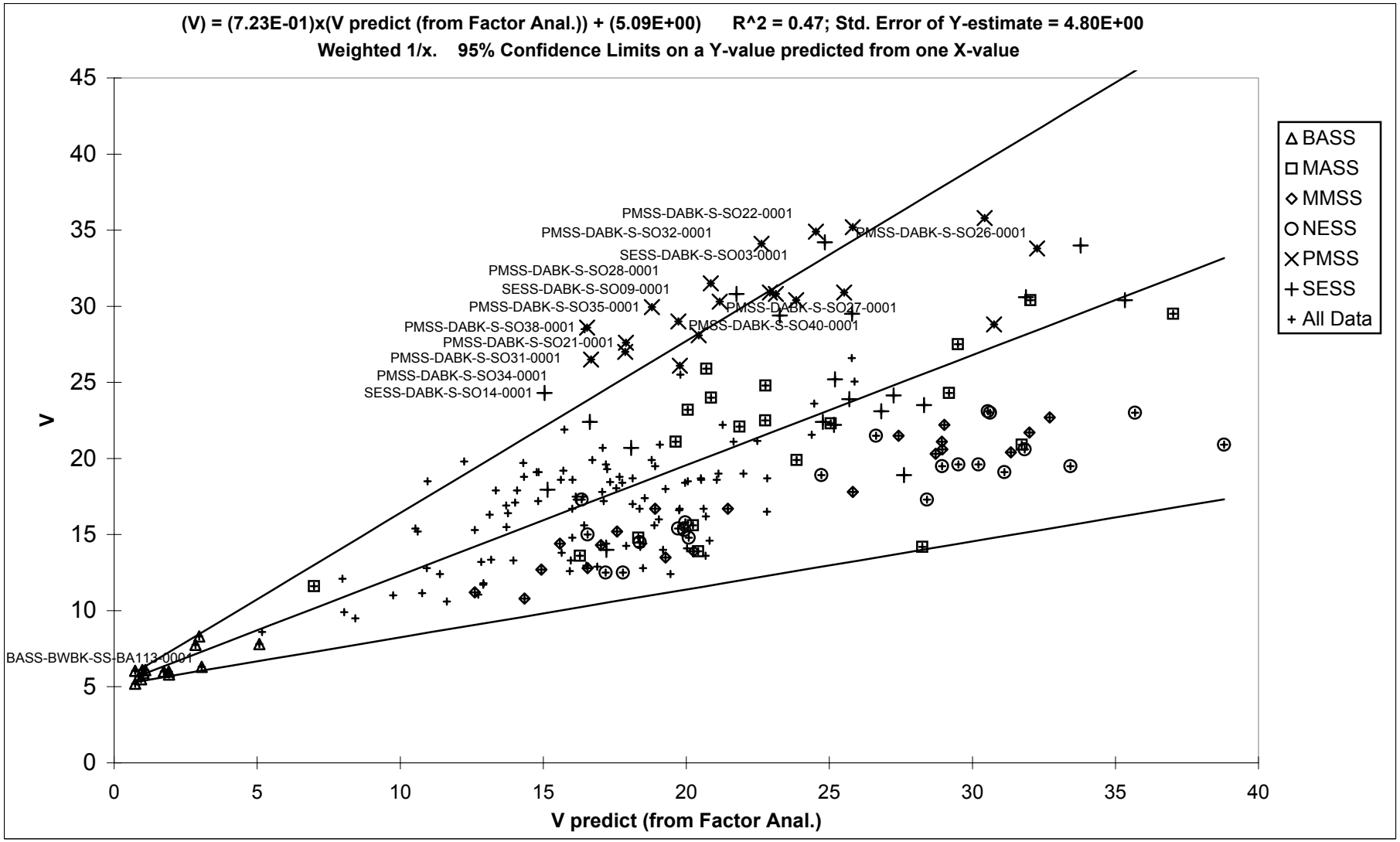
APPENDIX F, FIGURE F5-57
SURFACE SOIL VIEW - NICKEL REGRESSED ON ALL SOIL DATA FOR IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



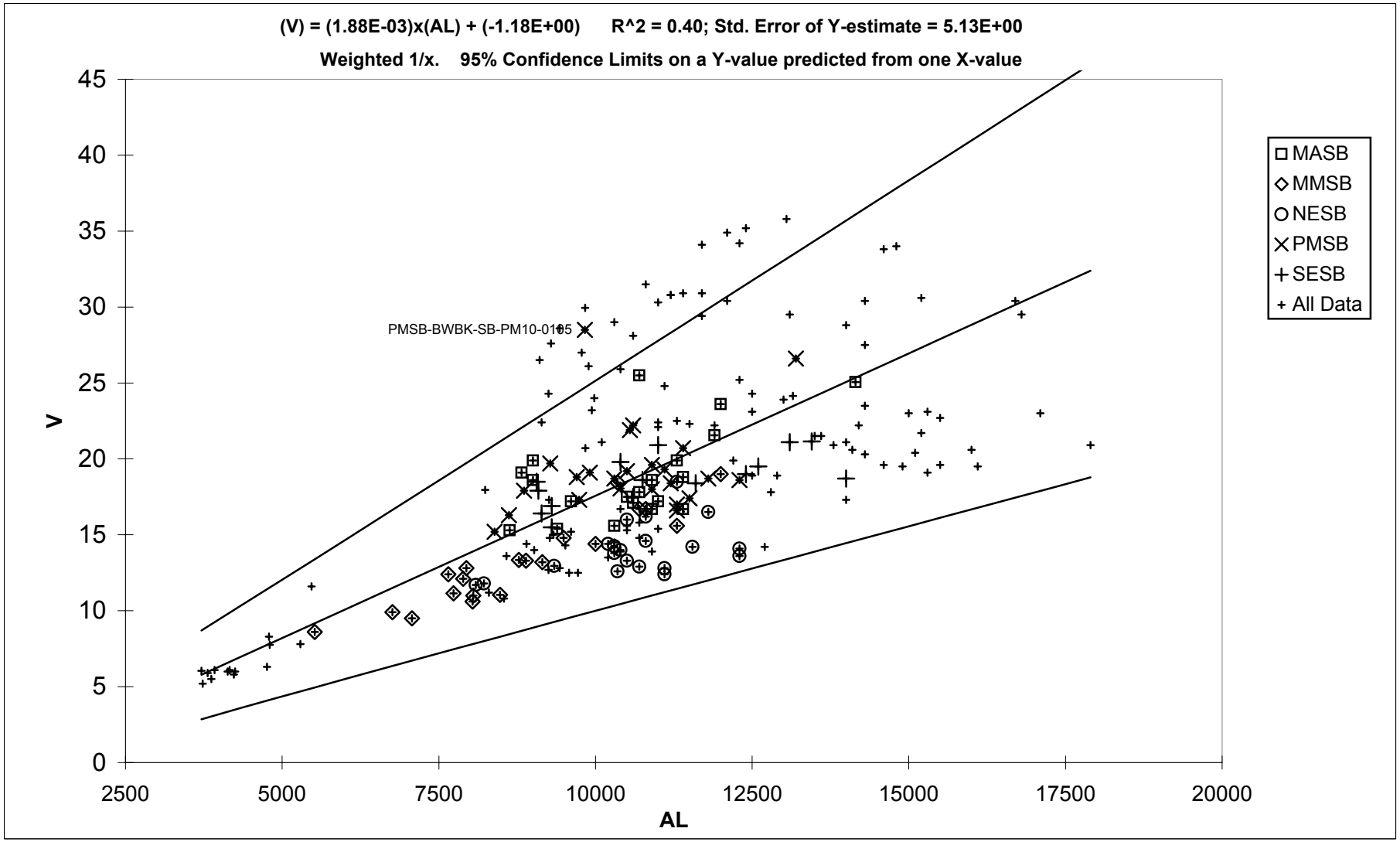
APPENDIX F, FIGURE F5-58
SUBSURFACE SOIL VIEW - VANADIUM REGRESSED ON ALL SOIL PREDICTED VANADIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



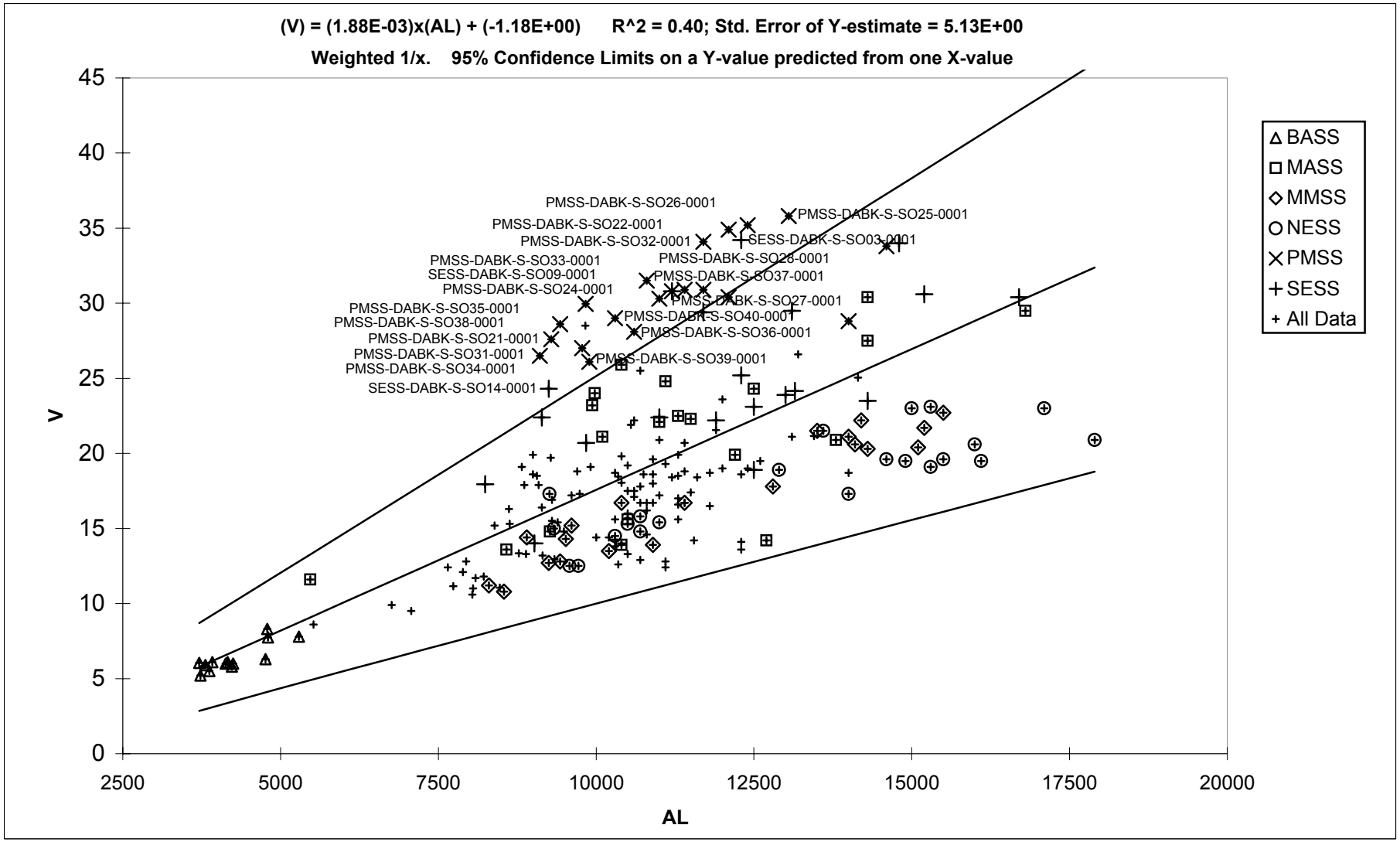
APPENDIX F, FIGURE F5-59
SURFACE SOIL VIEW - VANADIUM REGRESSED ON ALL SOIL PREDICTED VANADIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



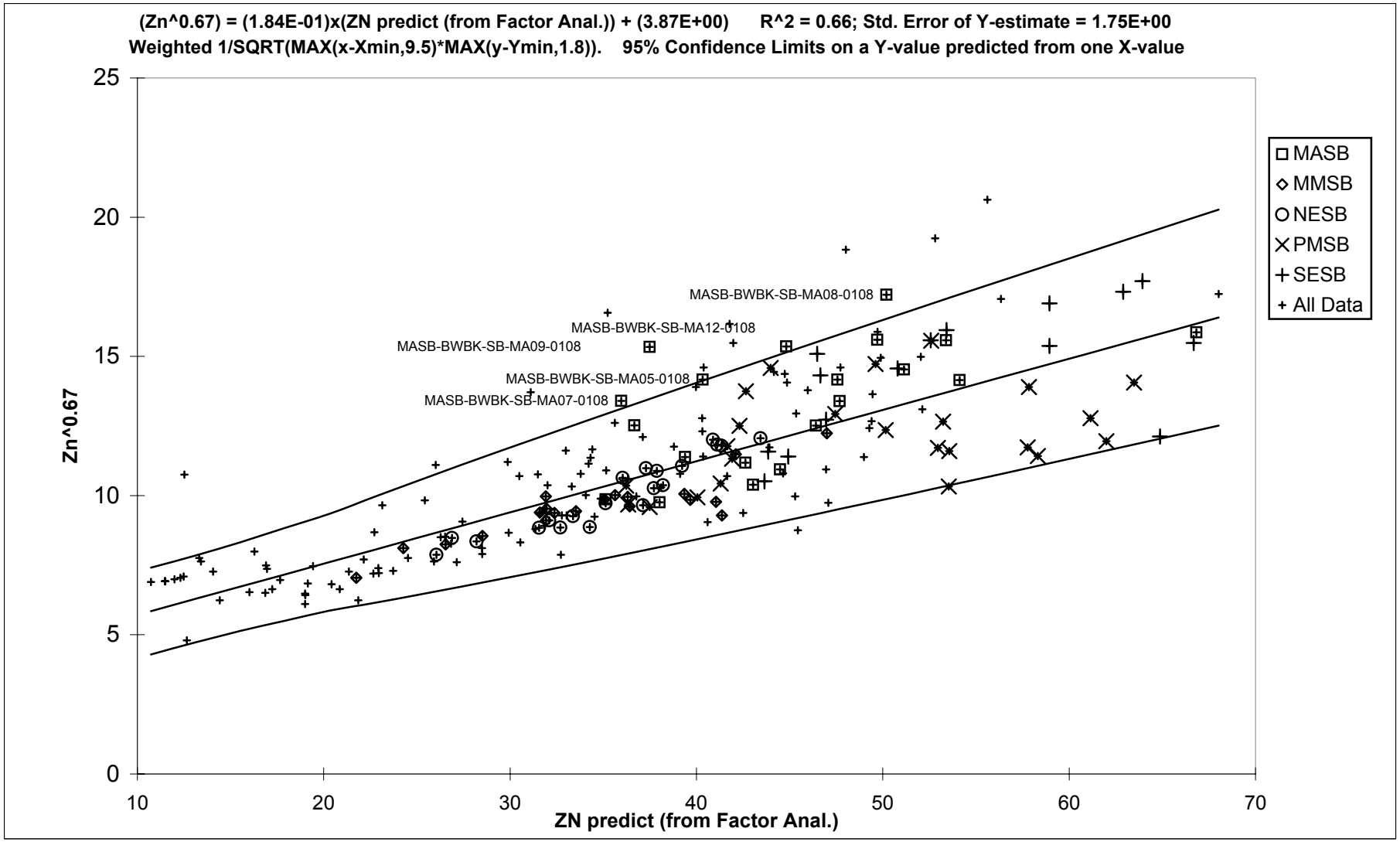
APPENDIX F, FIGURE F5-60
SUBSURFACE SOIL VIEW - VANADIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



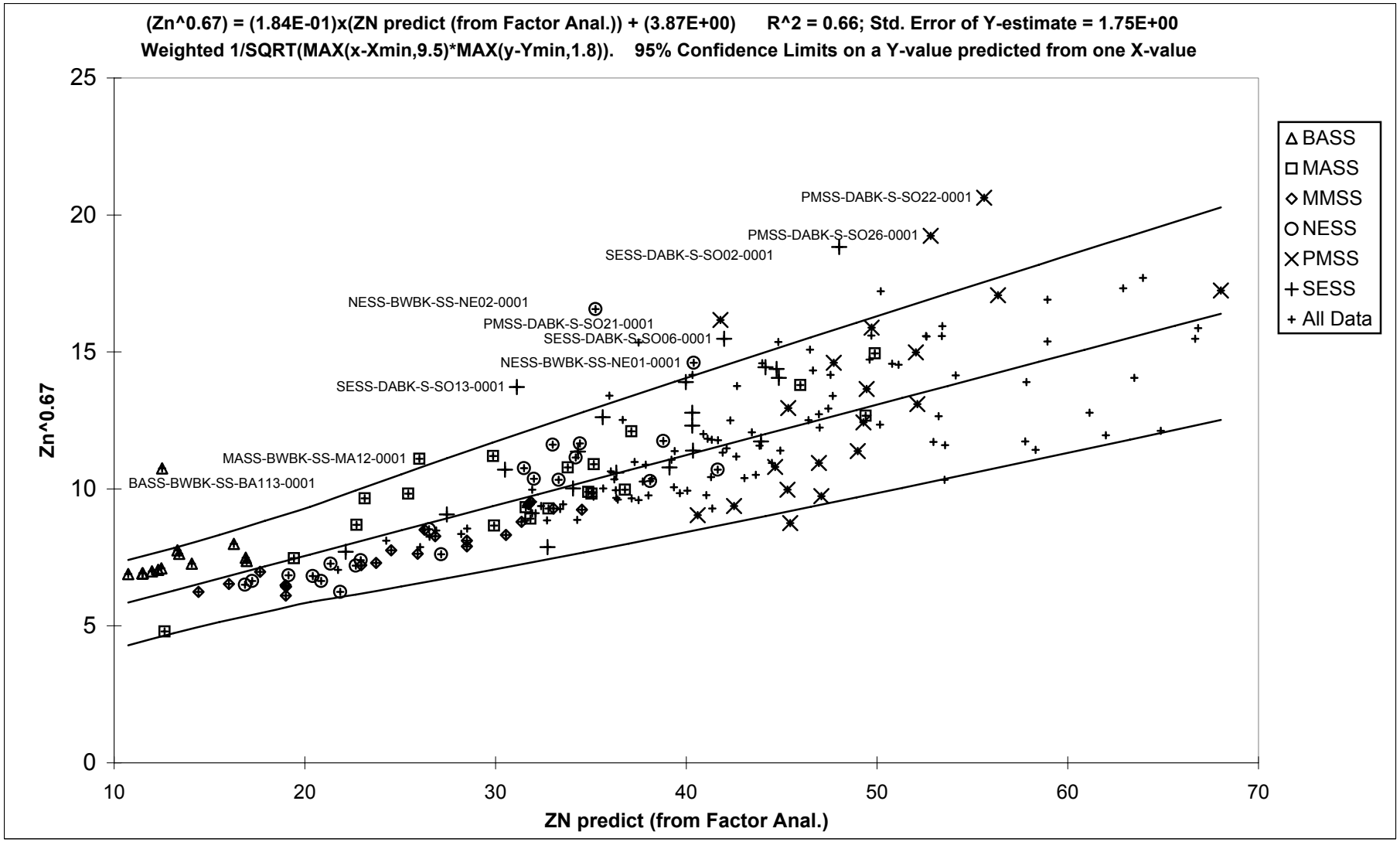
APPENDIX F, FIGURE F5-61
SURFACE SOIL VIEW - VANADIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



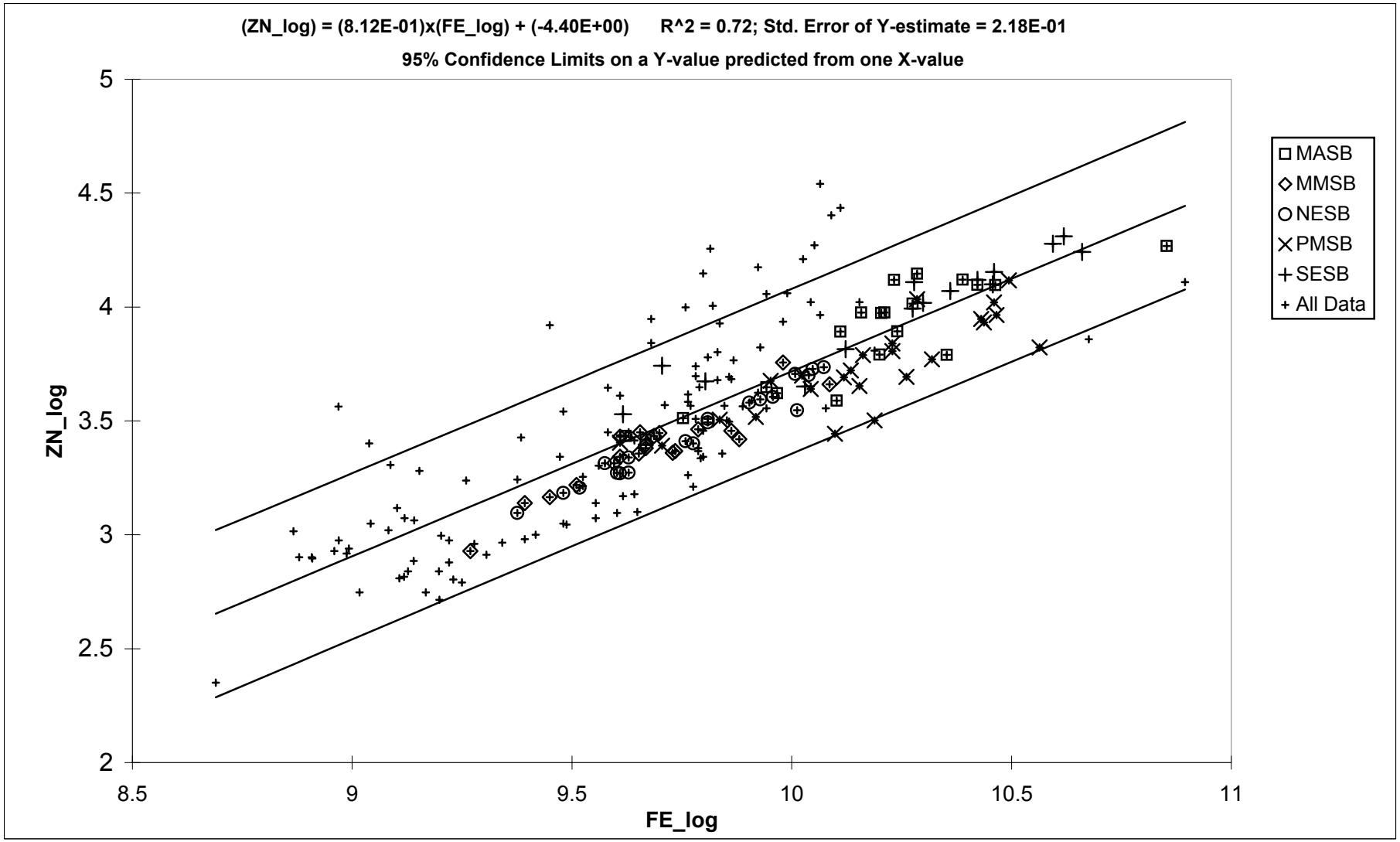
APPENDIX F, FIGURE F5-62
SUBSURFACE VIEW - ZINC 2/3 POWER REGRESSED ON PREDICTED ZINC FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



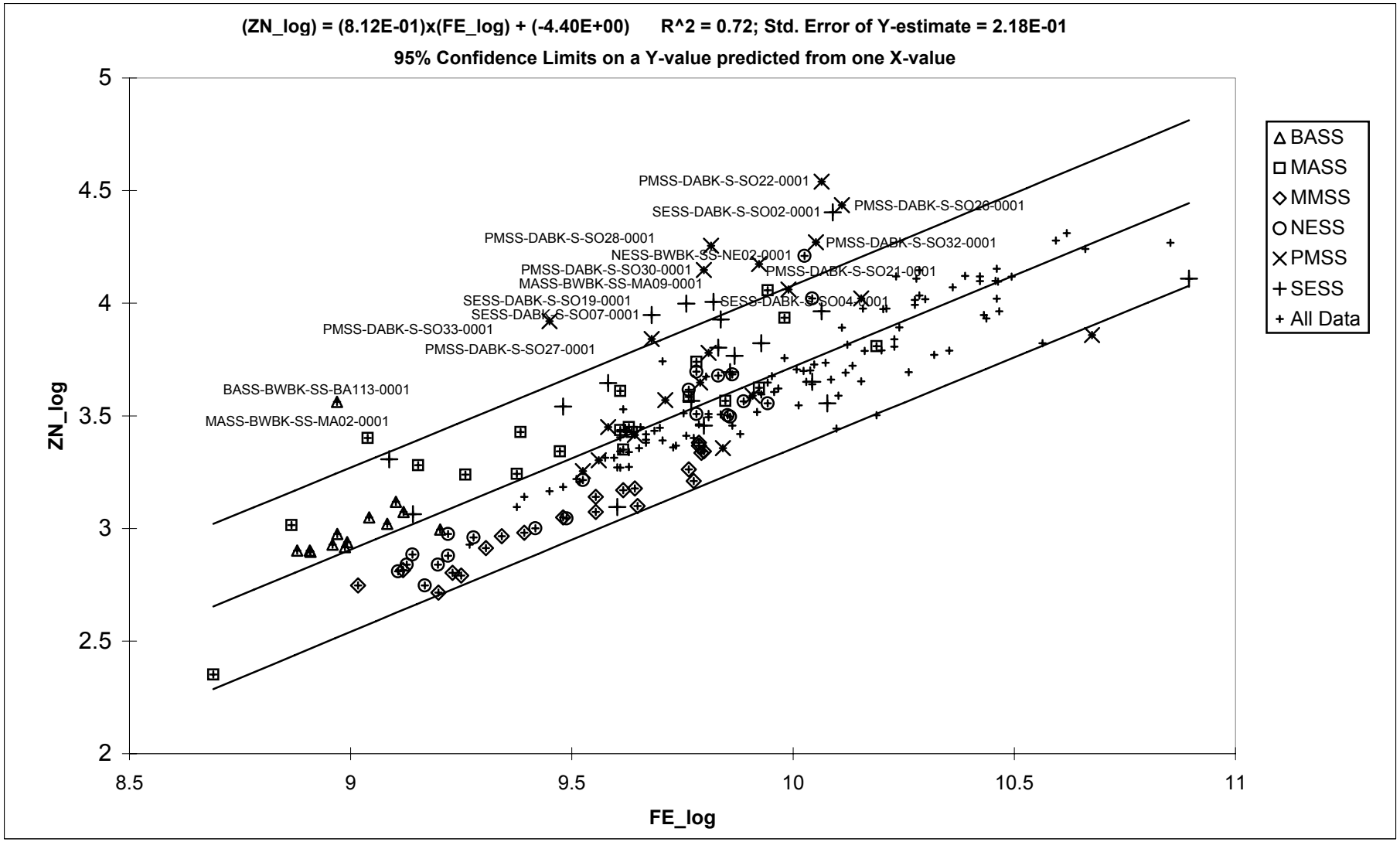
APPENDIX F, FIGURE F5-63
SURFACE VIEW - ZINC 2/3 POWER REGRESSED ON PREDICTED ZINC FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F5-64
SUBSURFACE SOIL VIEW - LOG ZINC REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



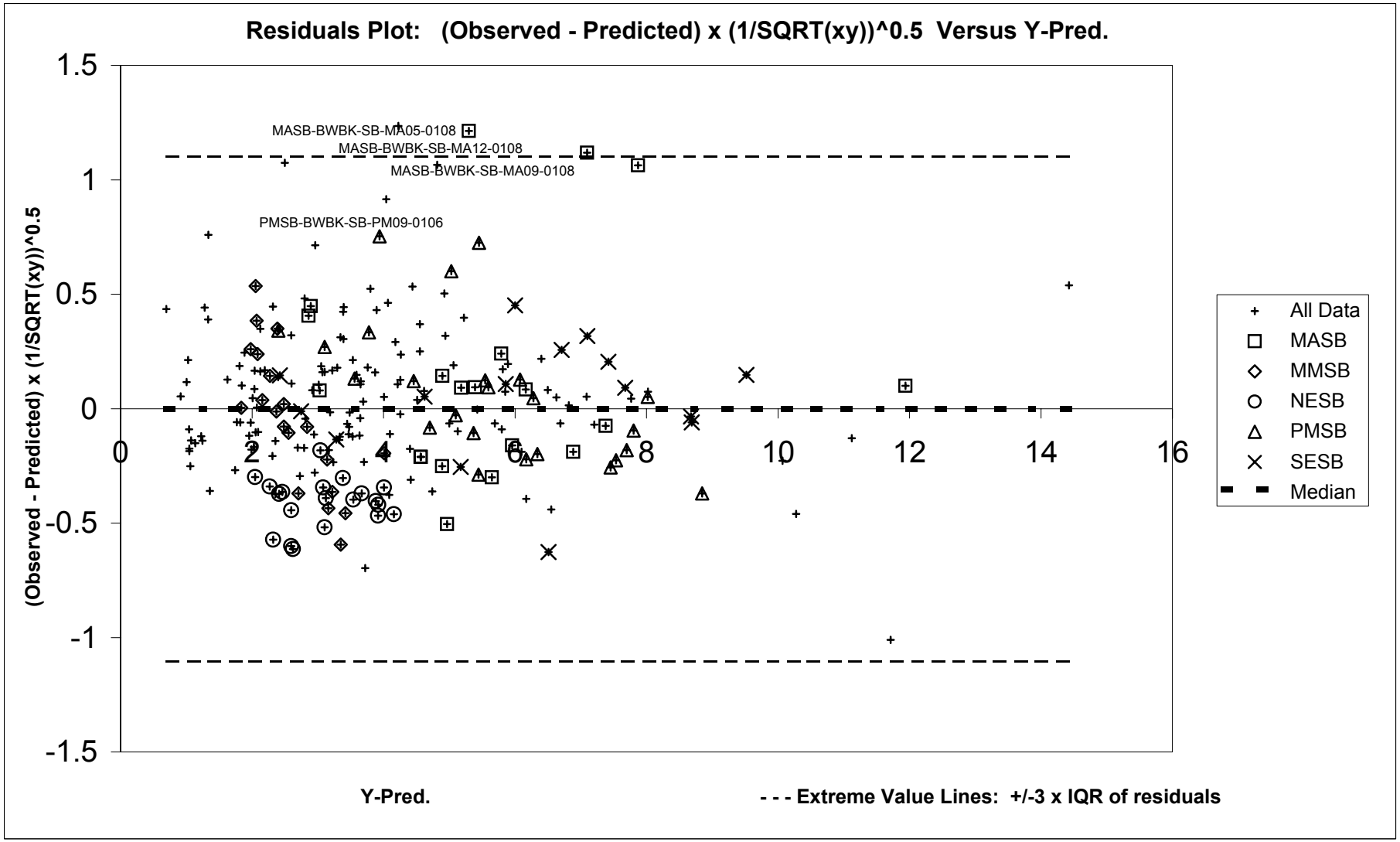
APPENDIX F, FIGURE F5-65
SURFACE SOIL VIEW - LOG ZINC REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



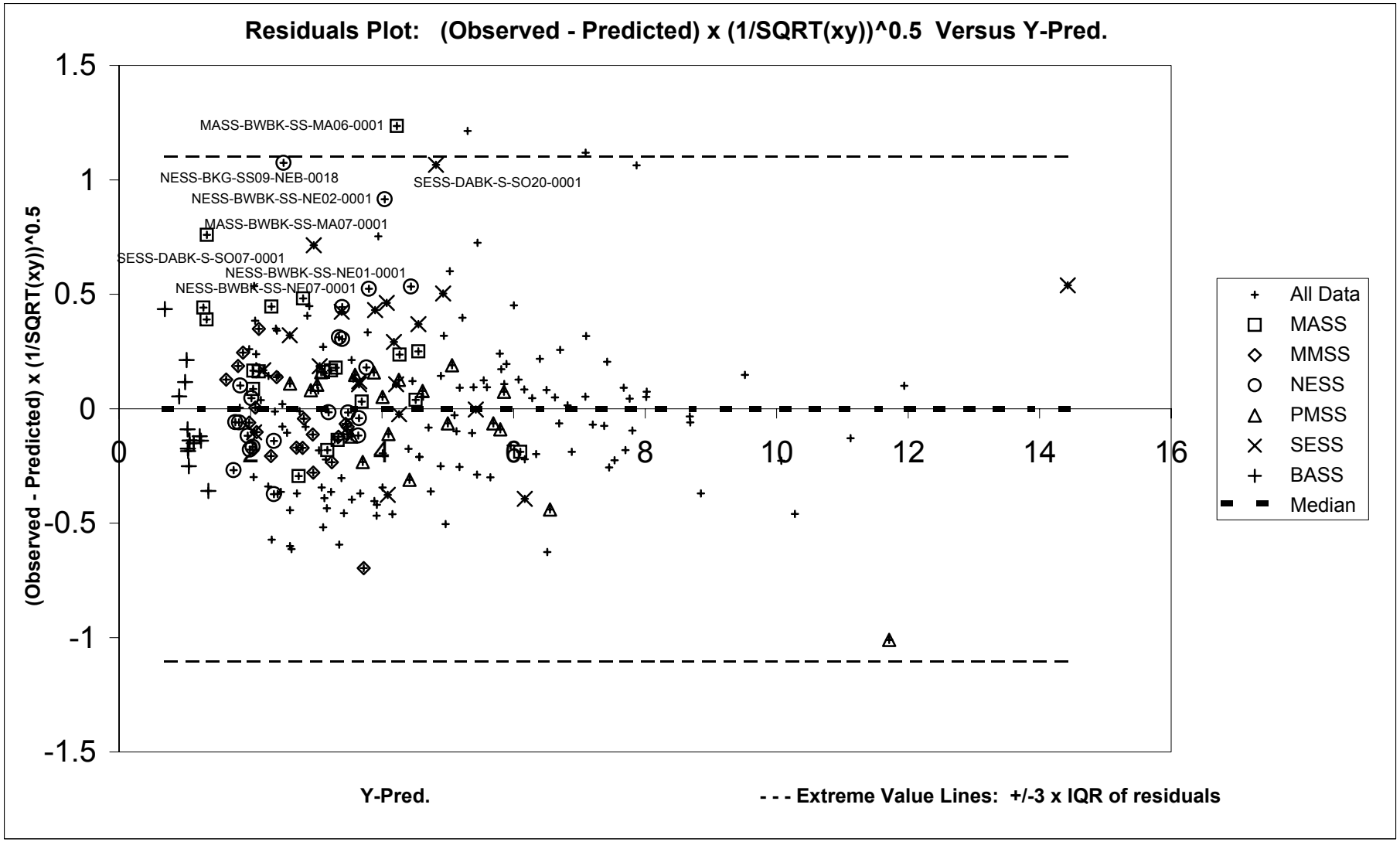
APPENDIX F, PART 6

GEOCHEMICAL REGRESSION RESIDUALS SCATTERPLOTS FOR SELECTED METALS

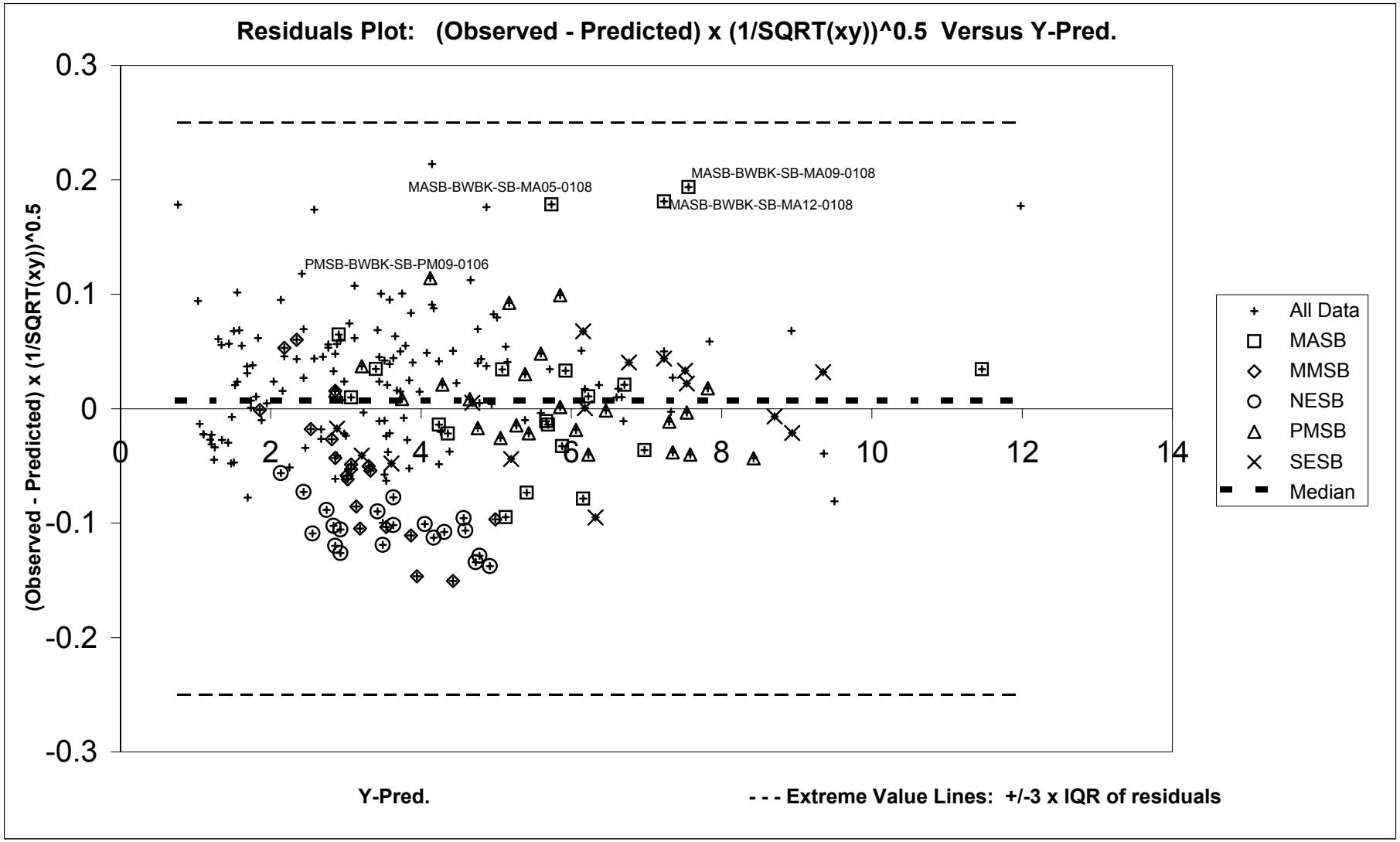
APPENDIX F, FIGURE F6-1
SUBSURFACE RESIDUALS - ARSENIC 2/3 POWER REGRESSED ON PREDICTED ARSENIC FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



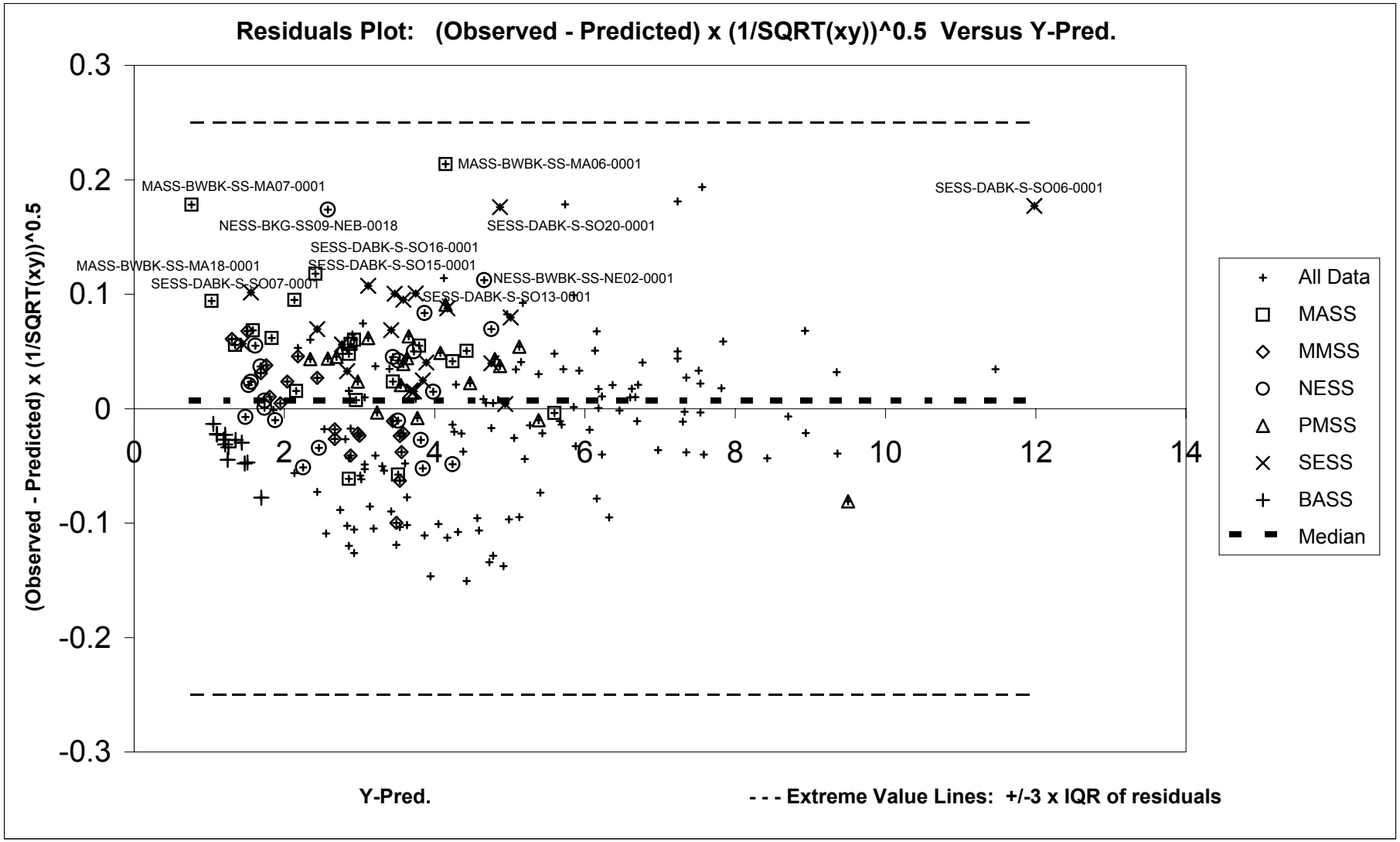
APPENDIX F, FIGURE F6-2
SURFACE RESIDUALS - ARSENIC 2/3 POWER REGRESSED ON PREDICTED ARSENIC FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



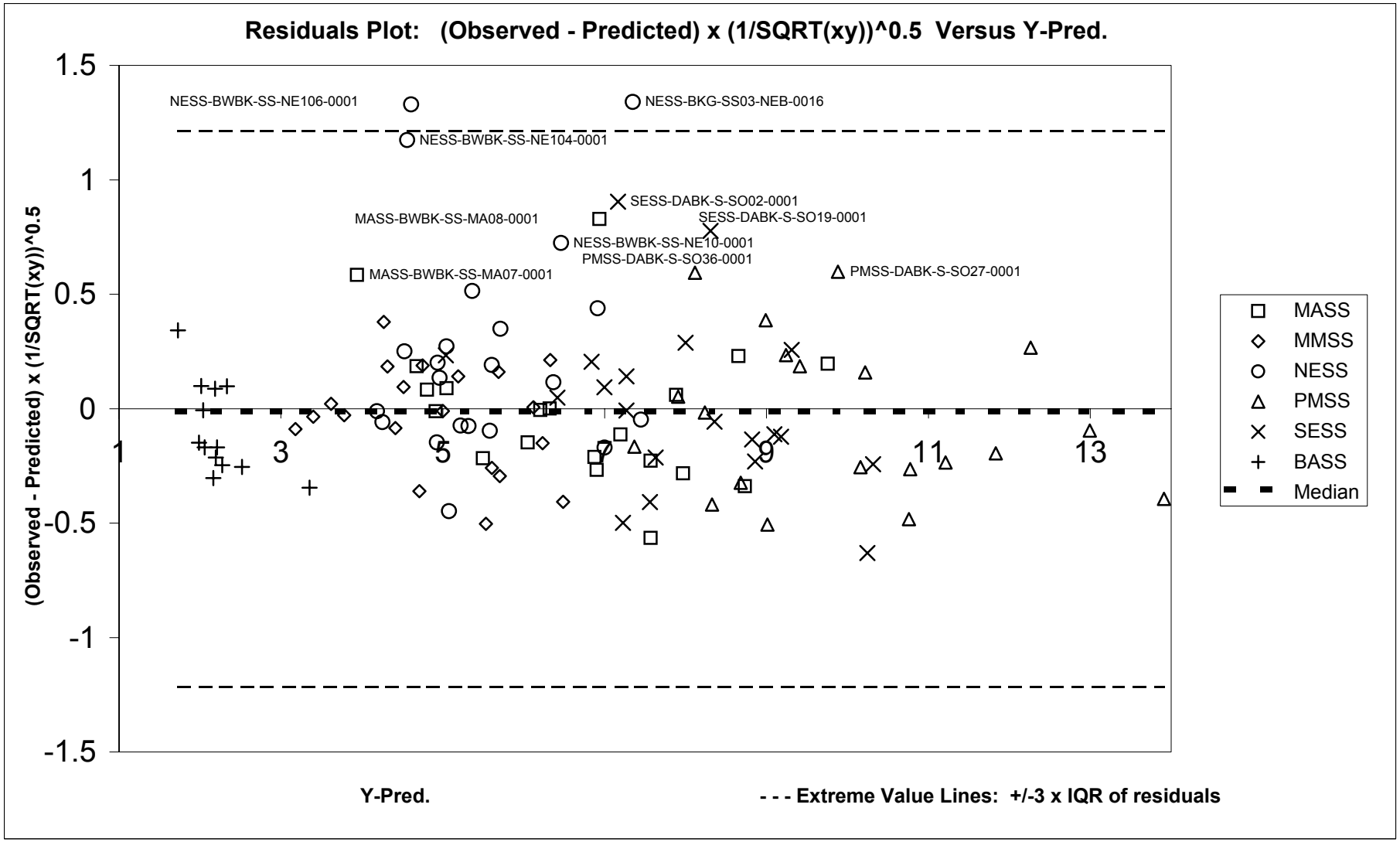
APPENDIX F, FIGURE F6-3
SUBSURFACE RESIDUALS - ARSENIC 2/3 POWER REGRESSED ON ALL DATA FOR IRON, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



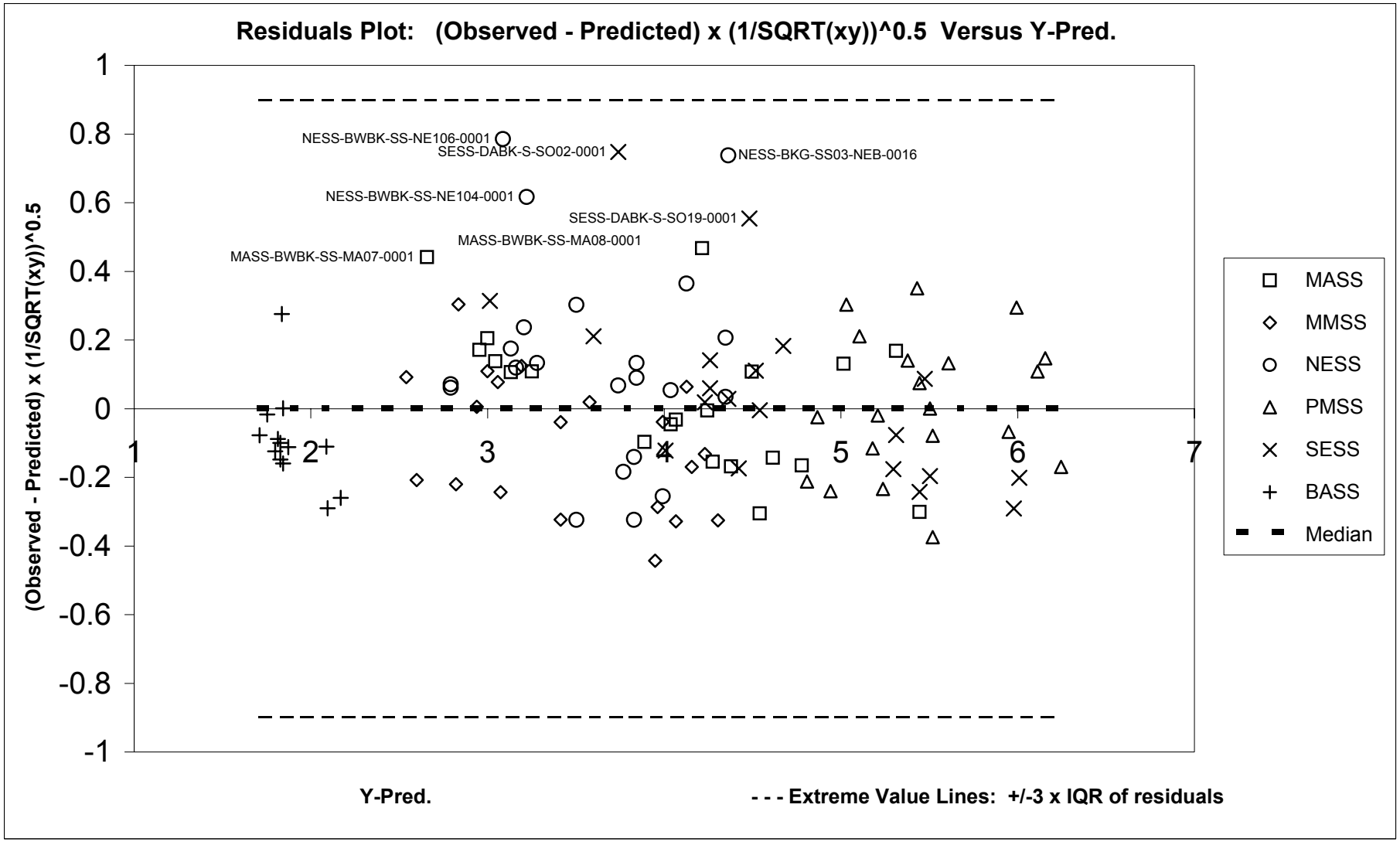
APPENDIX F, FIGURE F6-4
SURFACE RESIDUALS - ARSENIC 2/3 POWER REGRESSED ON ALL DATA FOR IRON, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



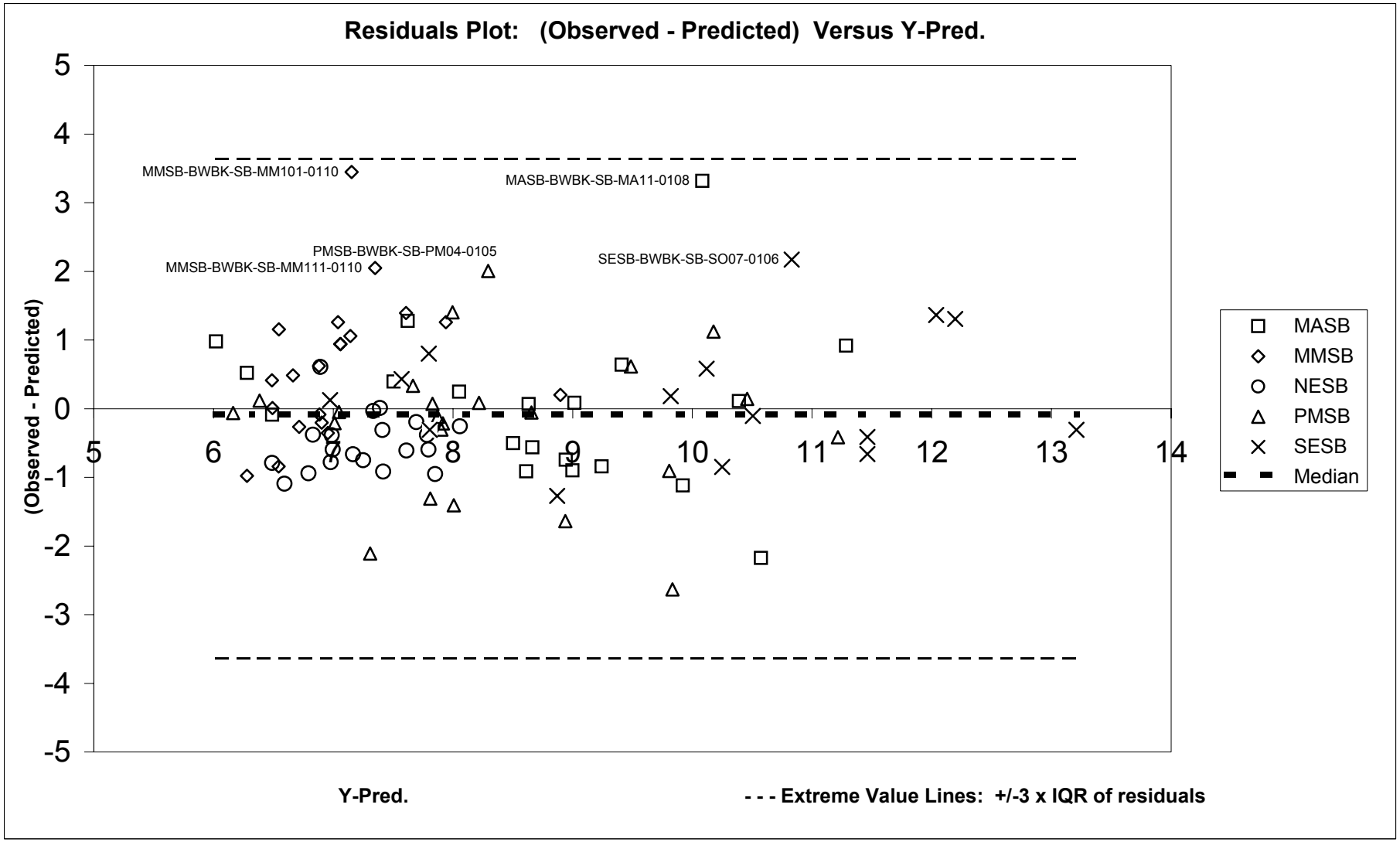
APPENDIX F, FIGURE F6-5
RESIDUALS - LEAD 2/3 POWER SURFACE SOIL REGRESSED ON PREDICTED LEAD FROM 6 FACTORS ANALYSIS OF ALL SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



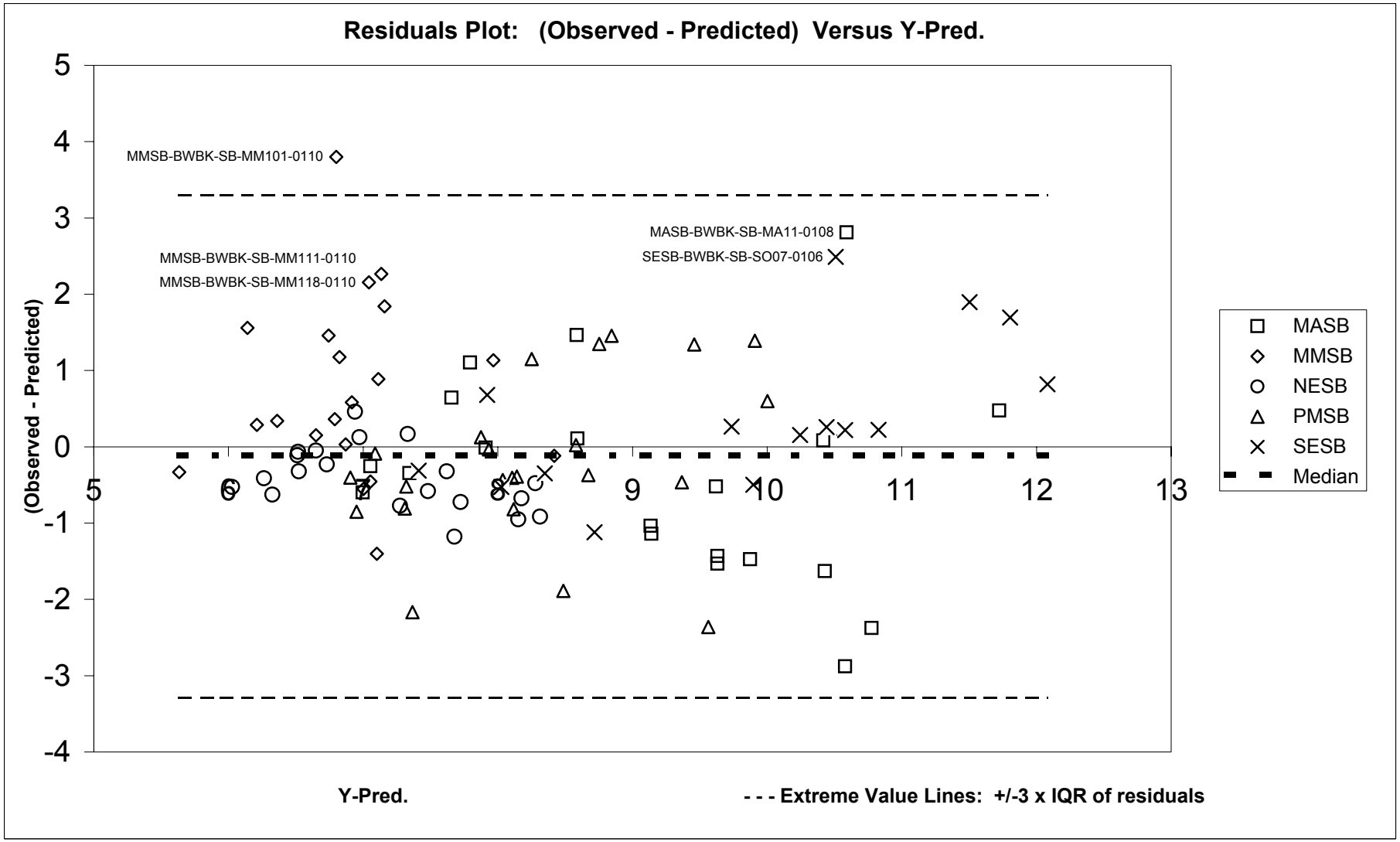
APPENDIX F, FIGURE F6-6
RESIDUALS - LEAD 1/2 POWER REGRESSED ON SURFACE SOIL DATA FOR VANADIUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



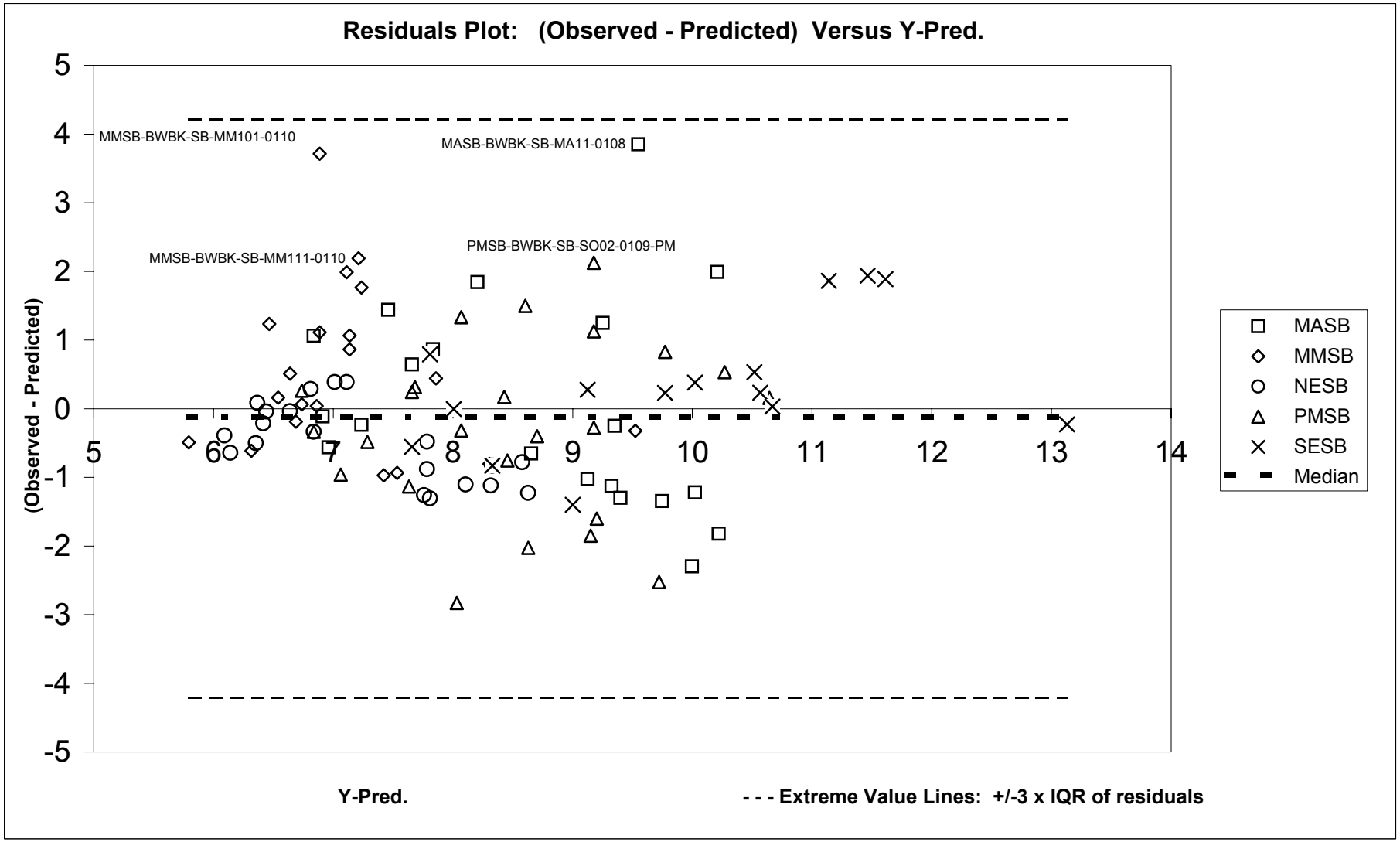
APPENDIX F, FIGURE F6-7
RESIDUALS - LEAD REGRESSED ON PREDICTED LEAD FROM 5 FACTORS ANALYSIS OF SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



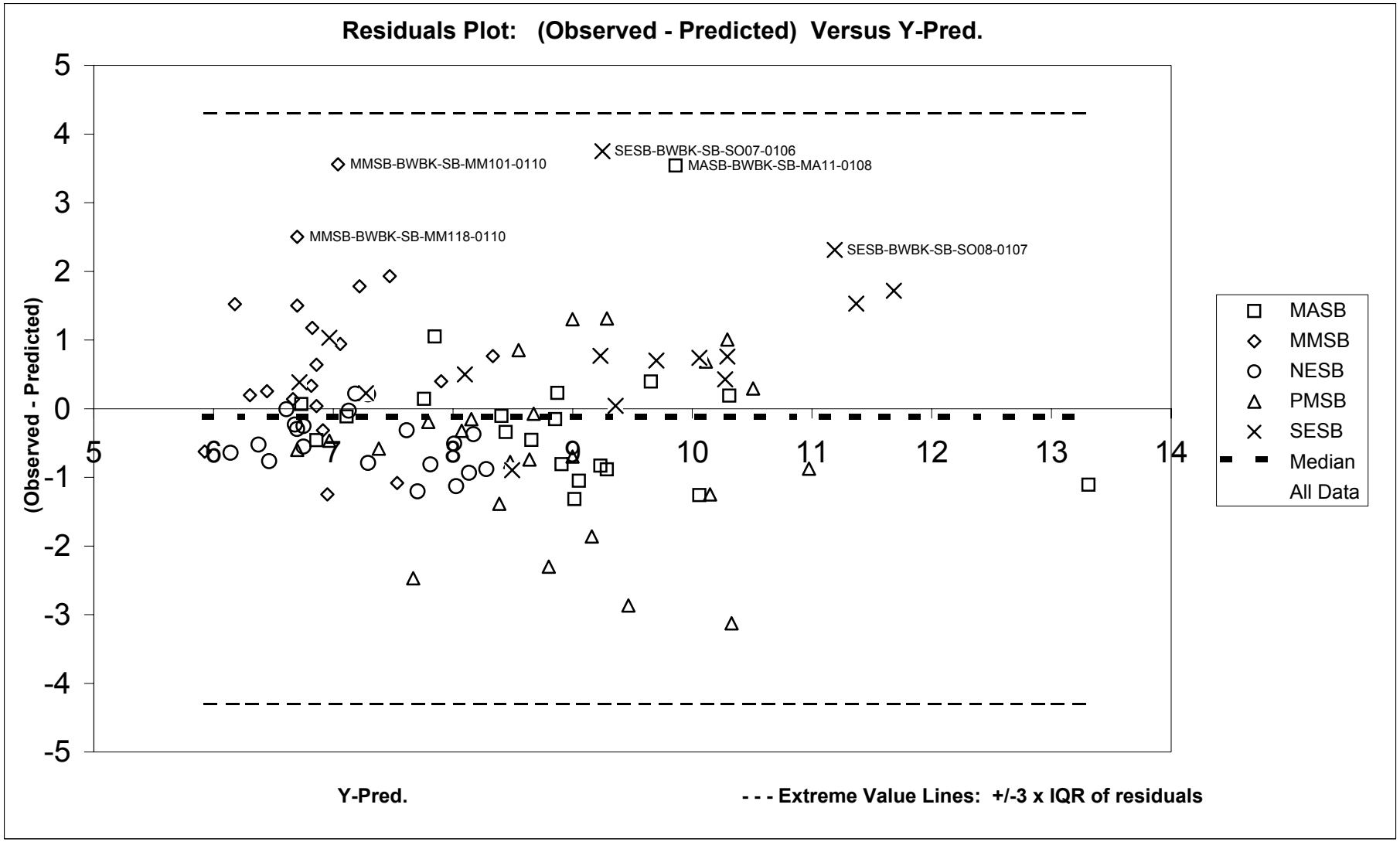
APPENDIX F, FIGURE F6-8
RESIDUALS - LEAD REGRESSED ON ZINC IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



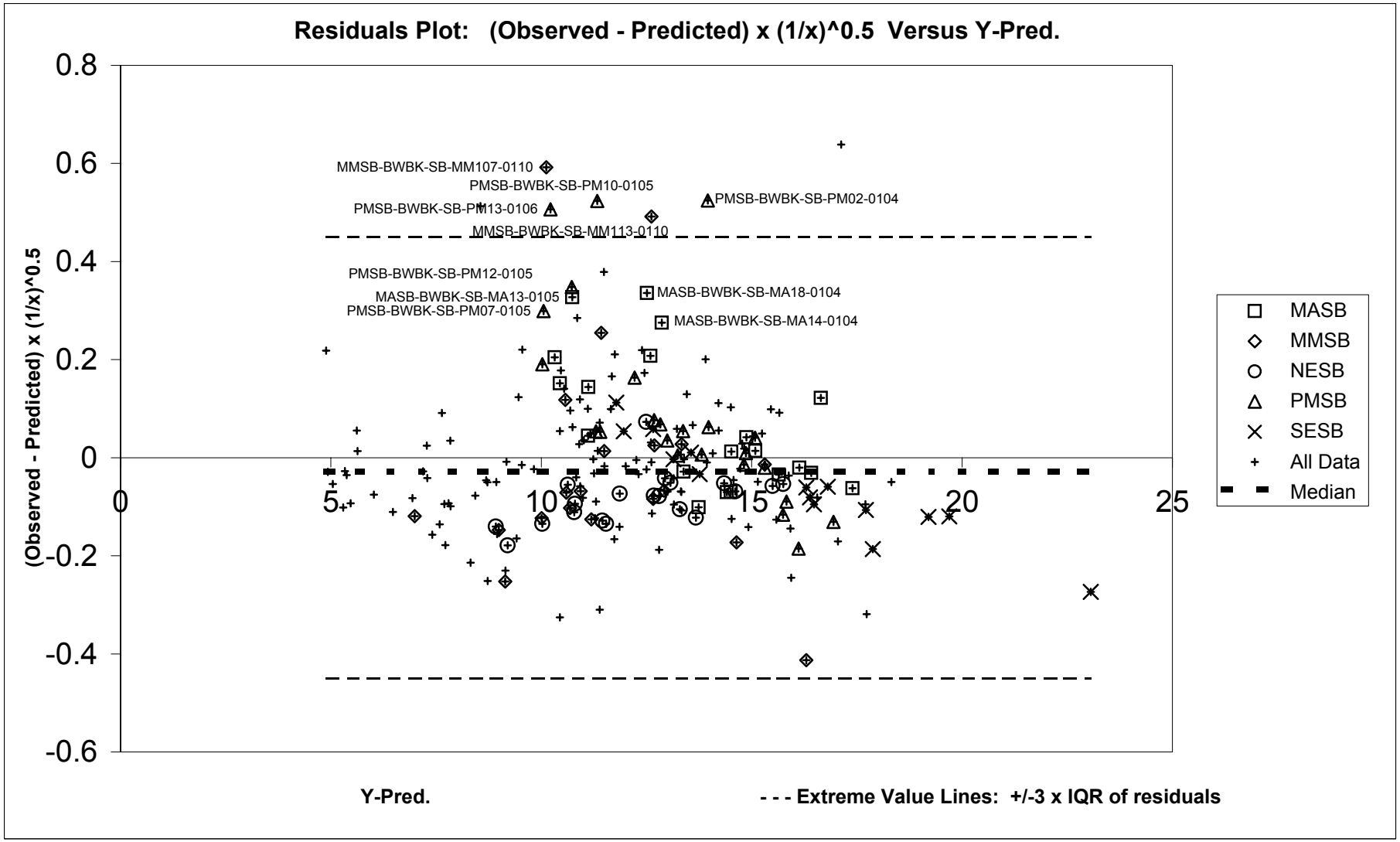
APPENDIX F, FIGURE F6-9
RESIDUALS - LEAD REGRESSED ON NICKEL IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



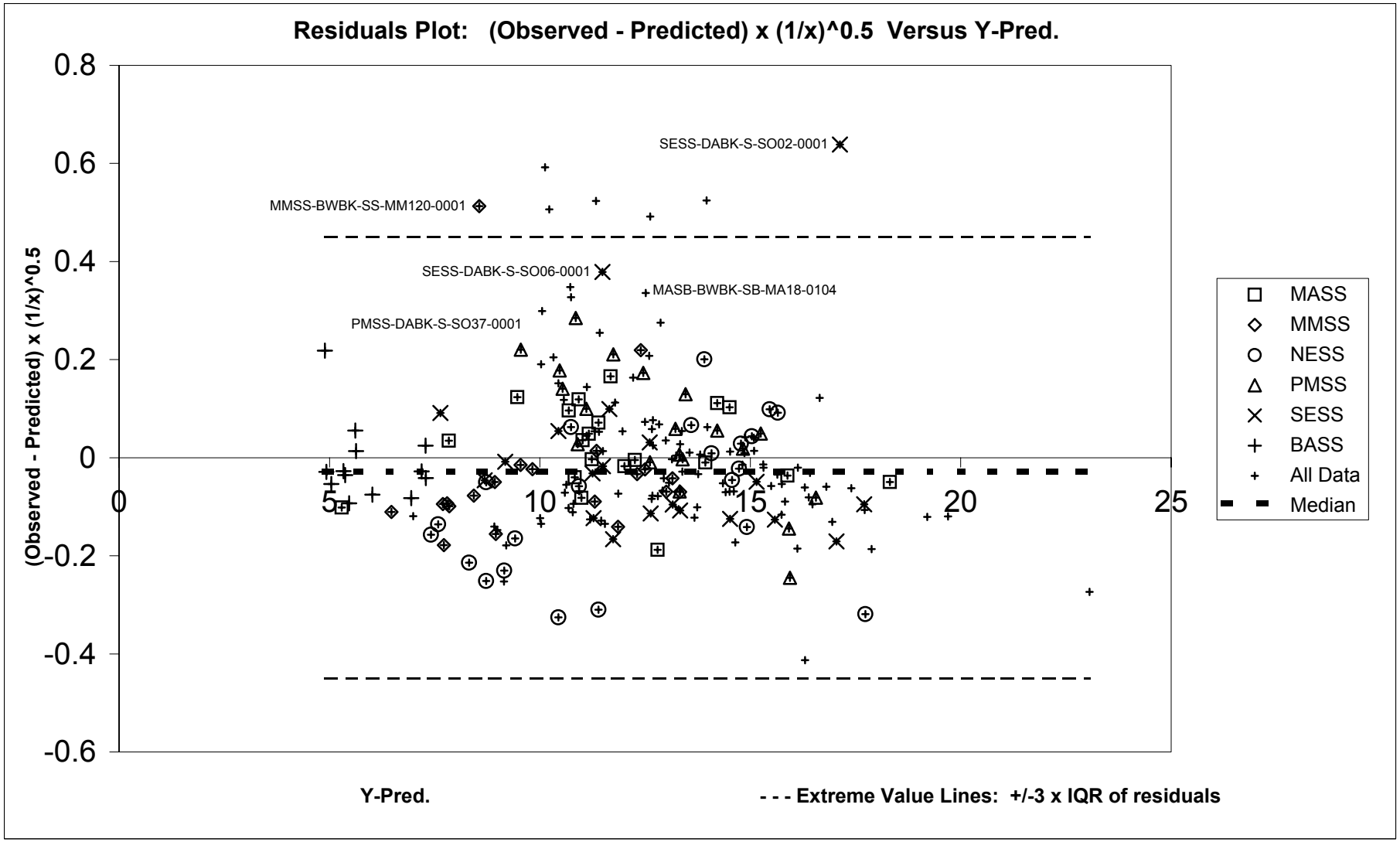
APPENDIX F, FIGURE F6-10
RESIDUALS - LEAD REGRESSED ON IRON IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



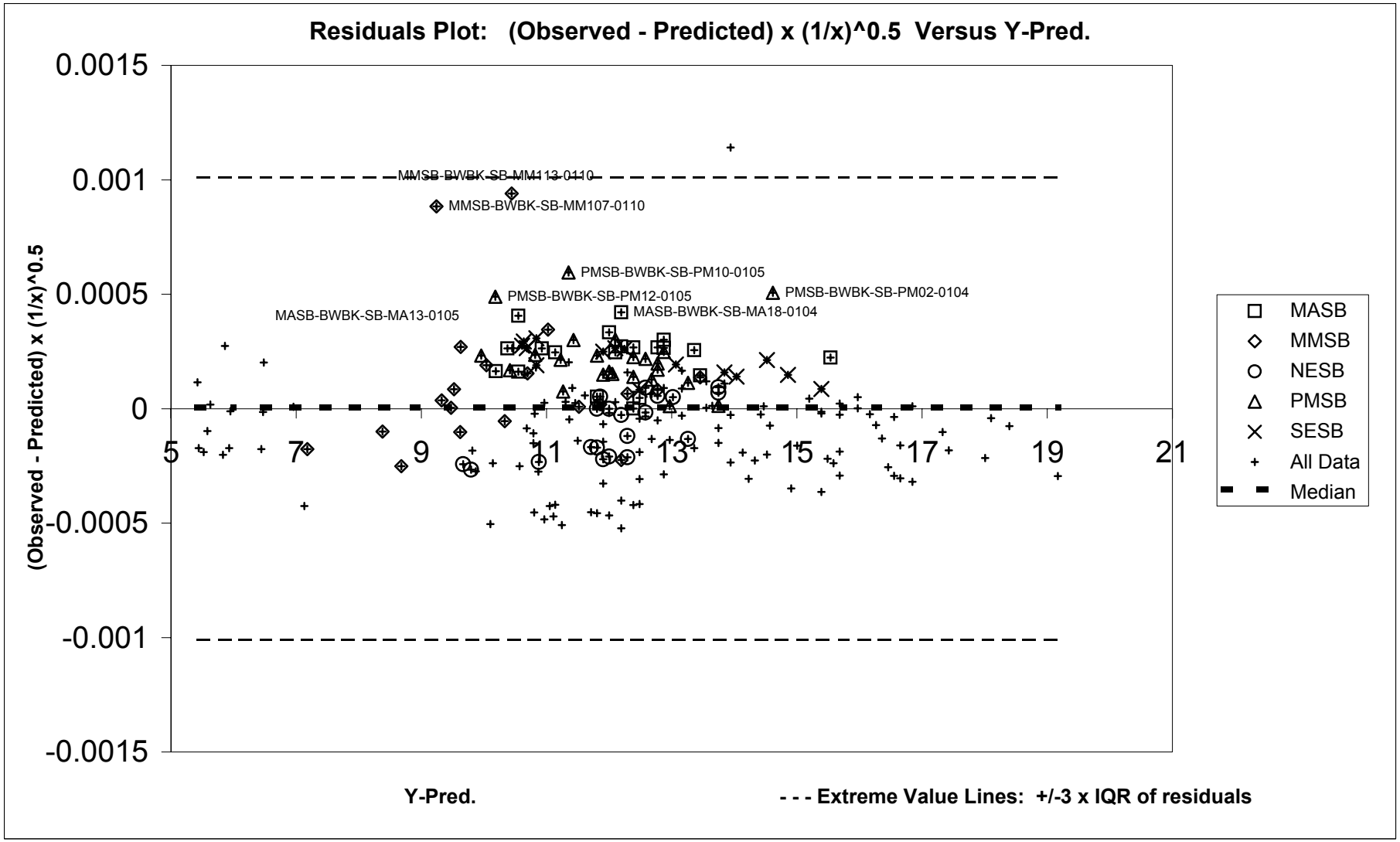
APPENDIX F, FIGURE F6-11
SUBSURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL PREDICTED CHROMIUM FROM 6 FACTOR ANALYSIS, INCLU. SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



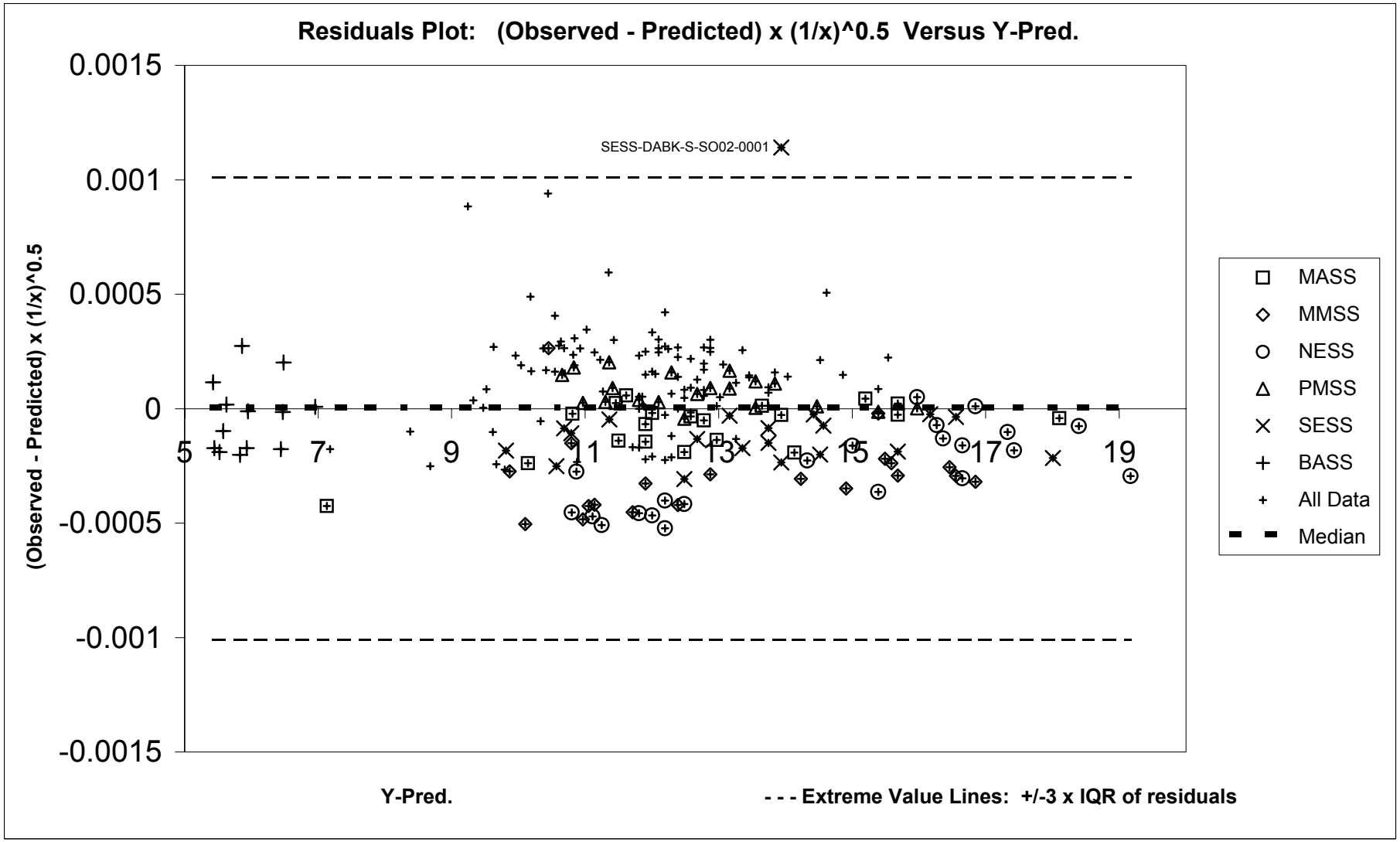
APPENDIX F, FIGURE F6-12
SURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL PREDICTED CHROMIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



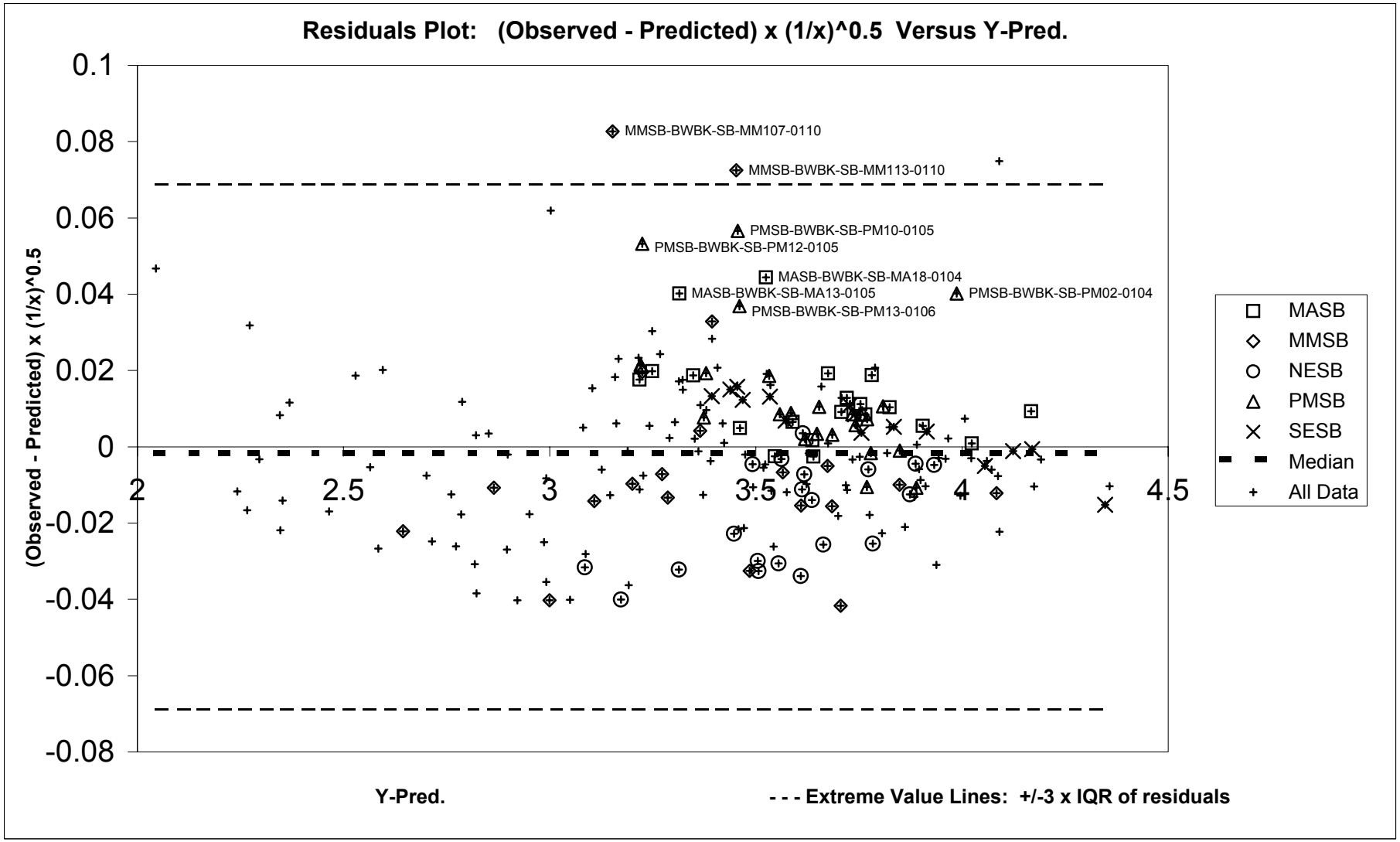
APPENDIX F, FIGURE F6-13
SUBSURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



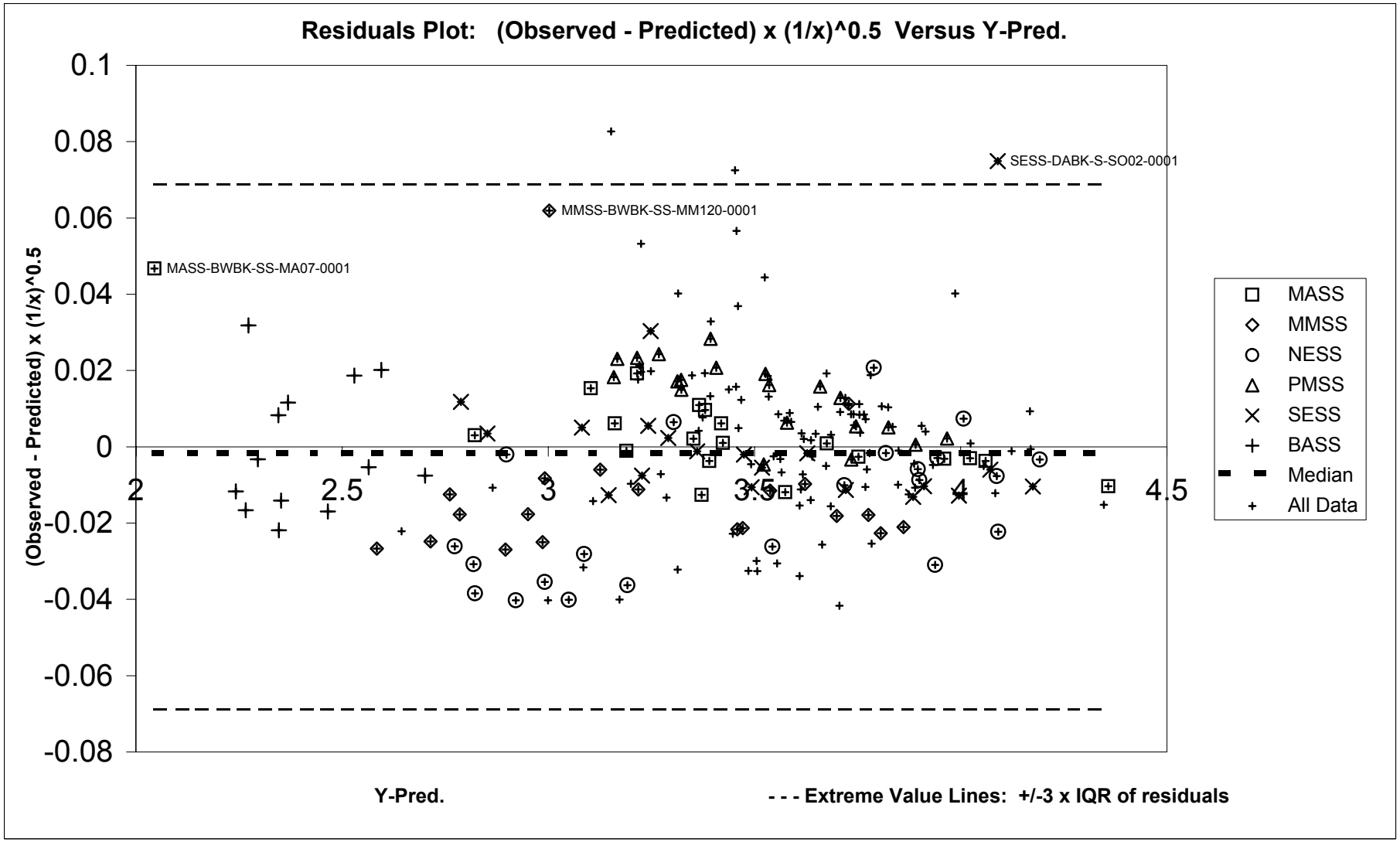
APPENDIX F, FIGURE F6-14
SURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



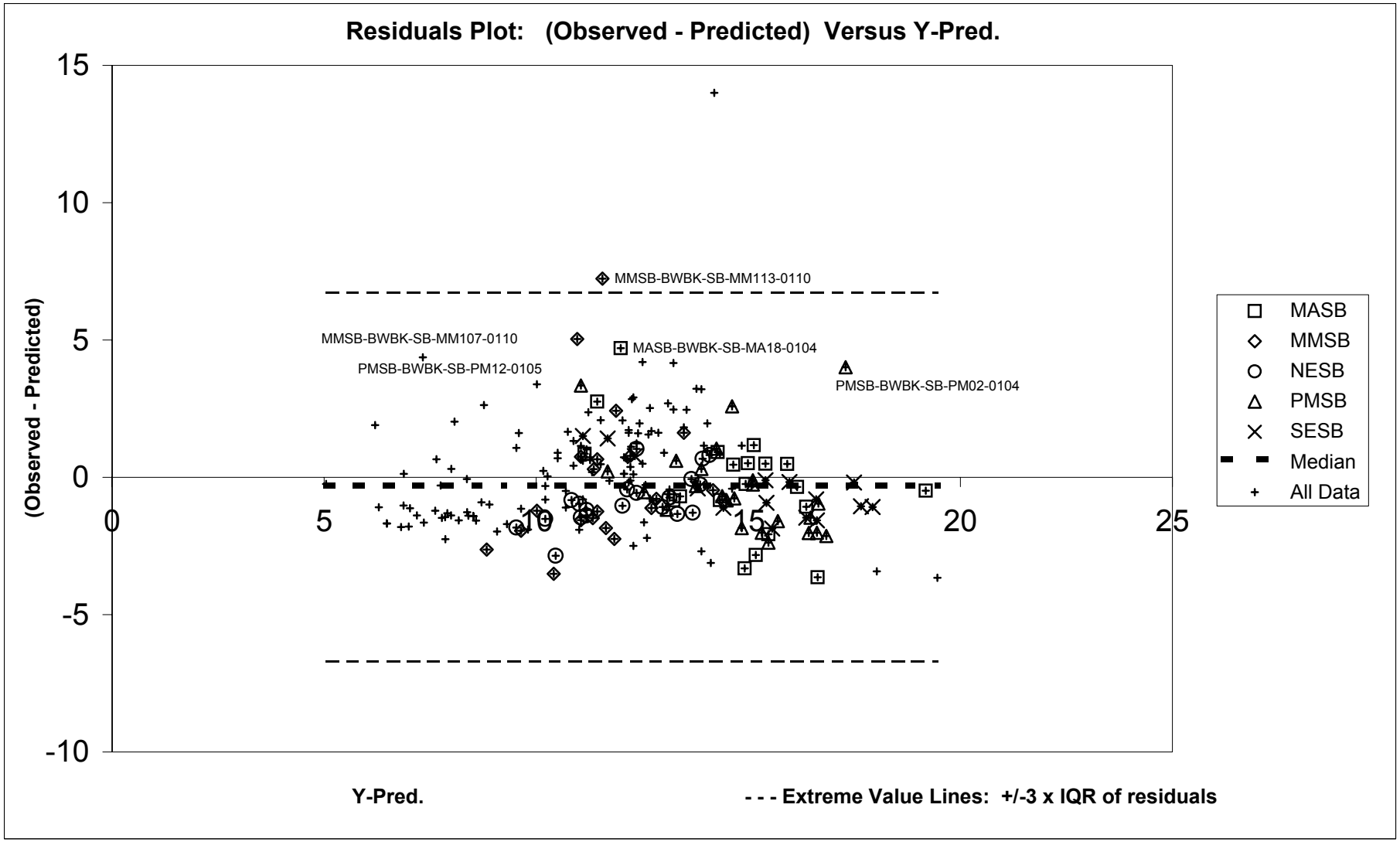
APPENDIX F, FIGURE F6-15
SUBSURFACE RESIDUALS - CHROMIUM 1/2 POWER REGRESSED ON PREDICTED CHROMIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



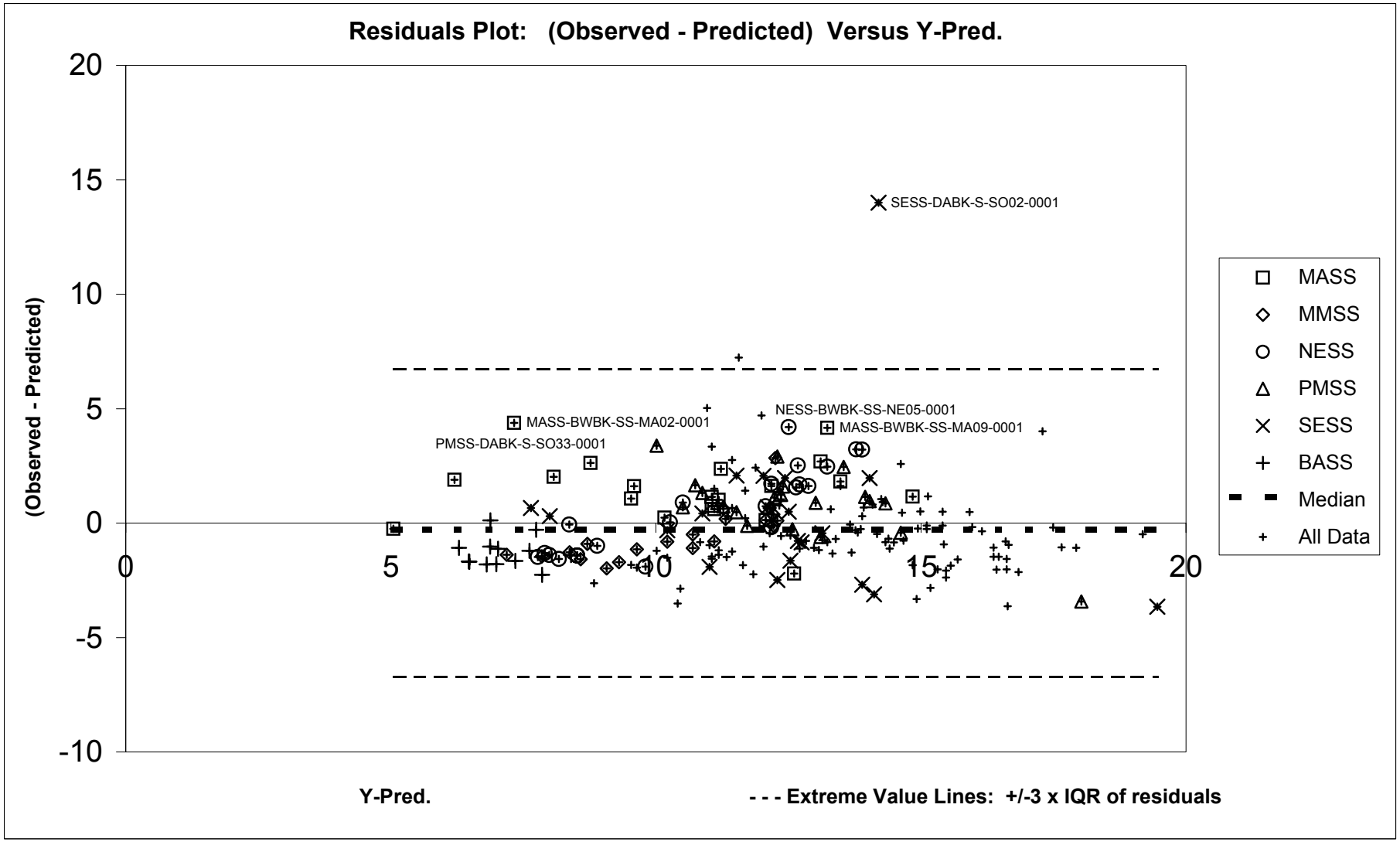
APPENDIX F, FIGURE F6-16
SURFACE RESIDUALS - CHROMIUM 1/2 POWER REGRESSED ON PREDICTED CHROMIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



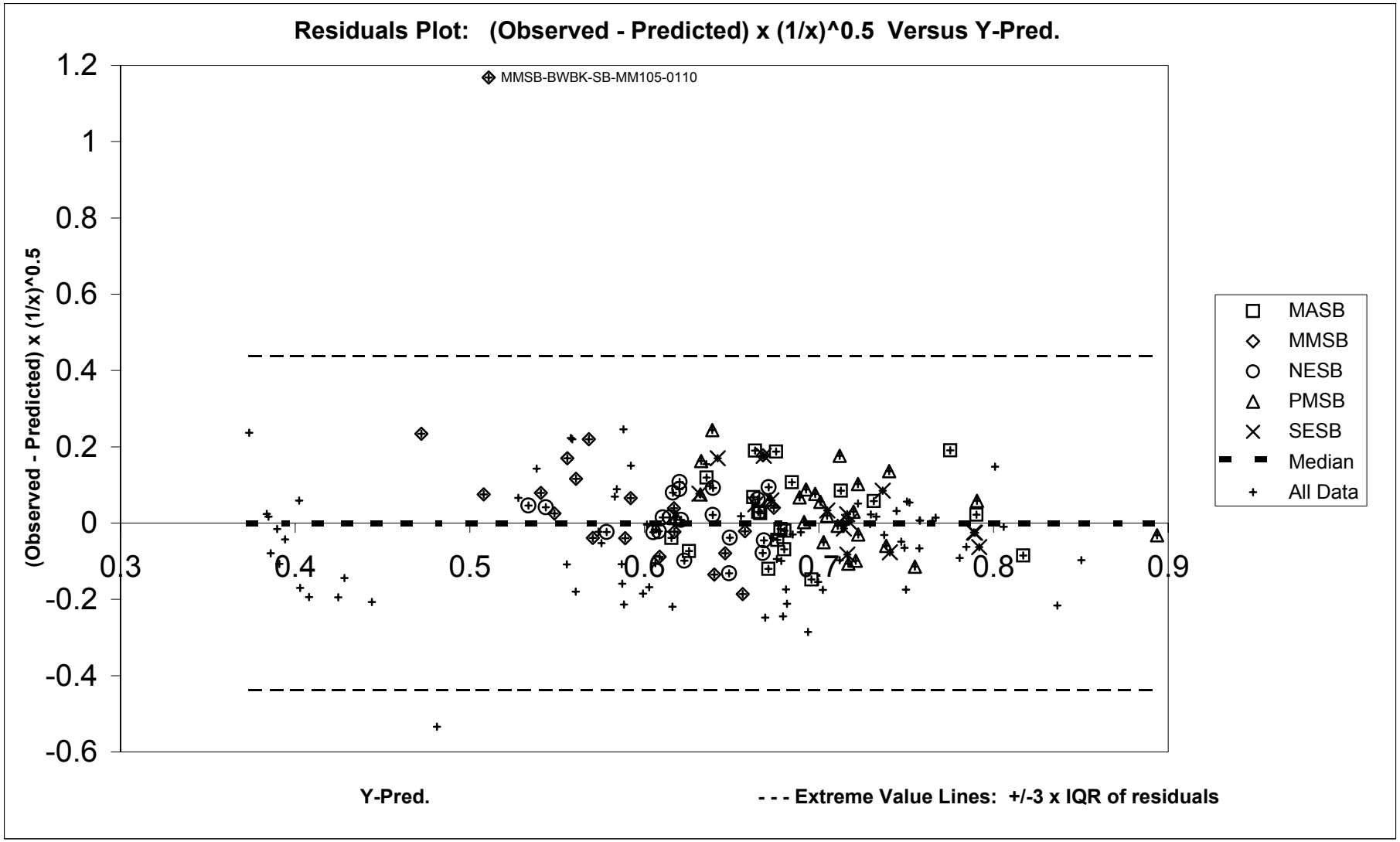
APPENDIX F, FIGURE F6-17
SUBSURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



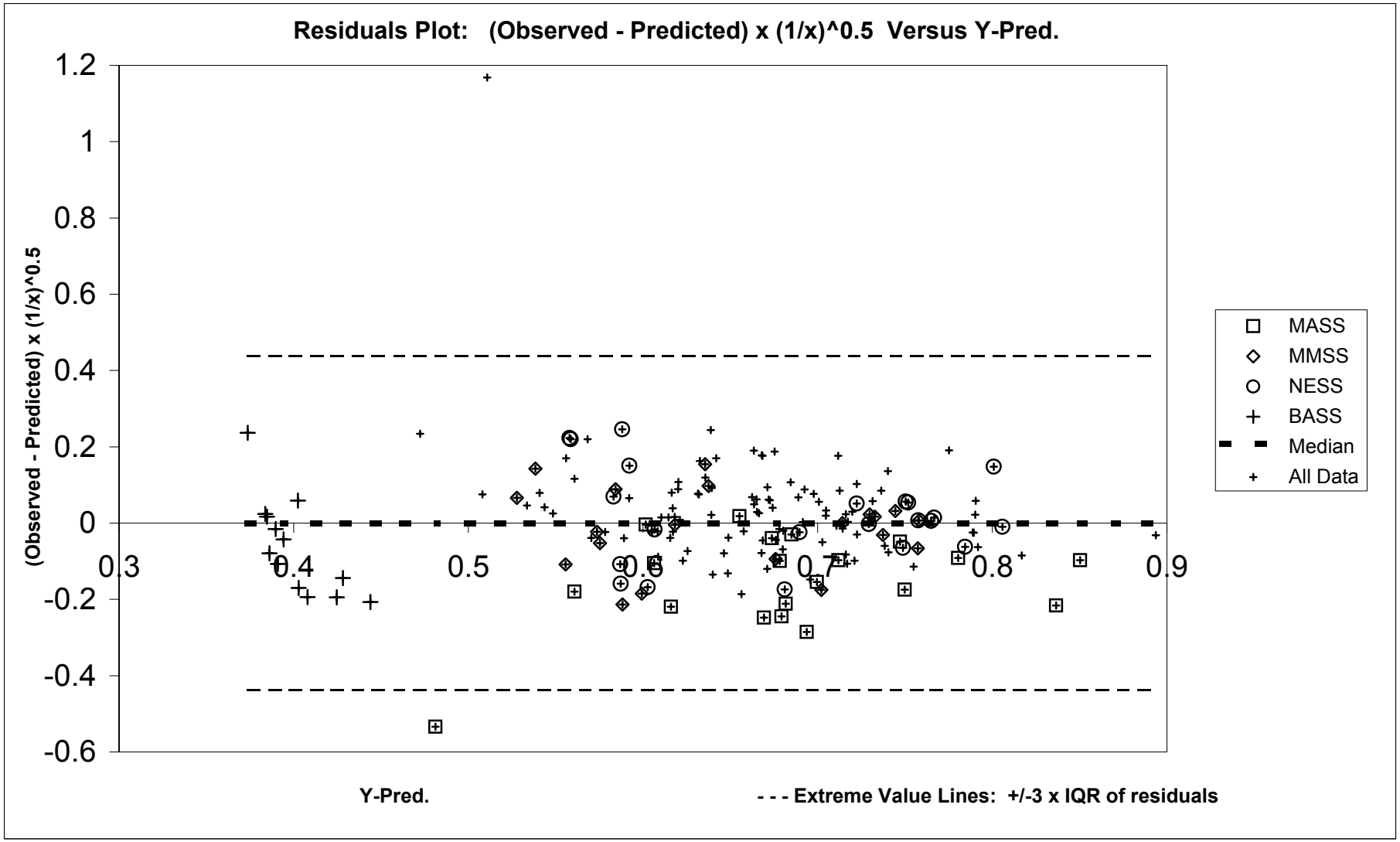
APPENDIX F, FIGURE F6-18
SURFACE RESIDUALS - CHROMIUM REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



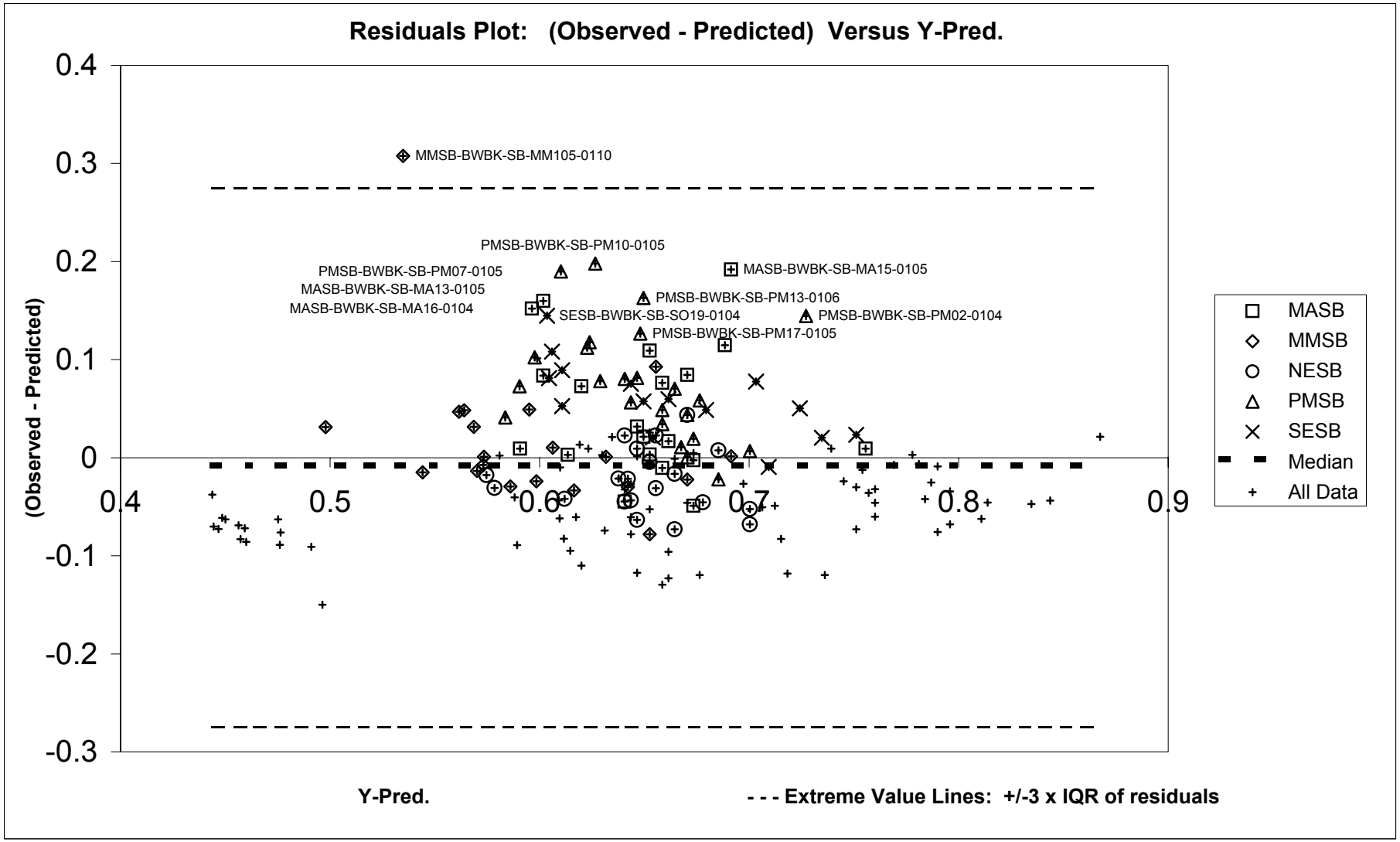
APPENDIX F, FIGURE F6-19
SUBSURFACE RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON PREDICTION FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



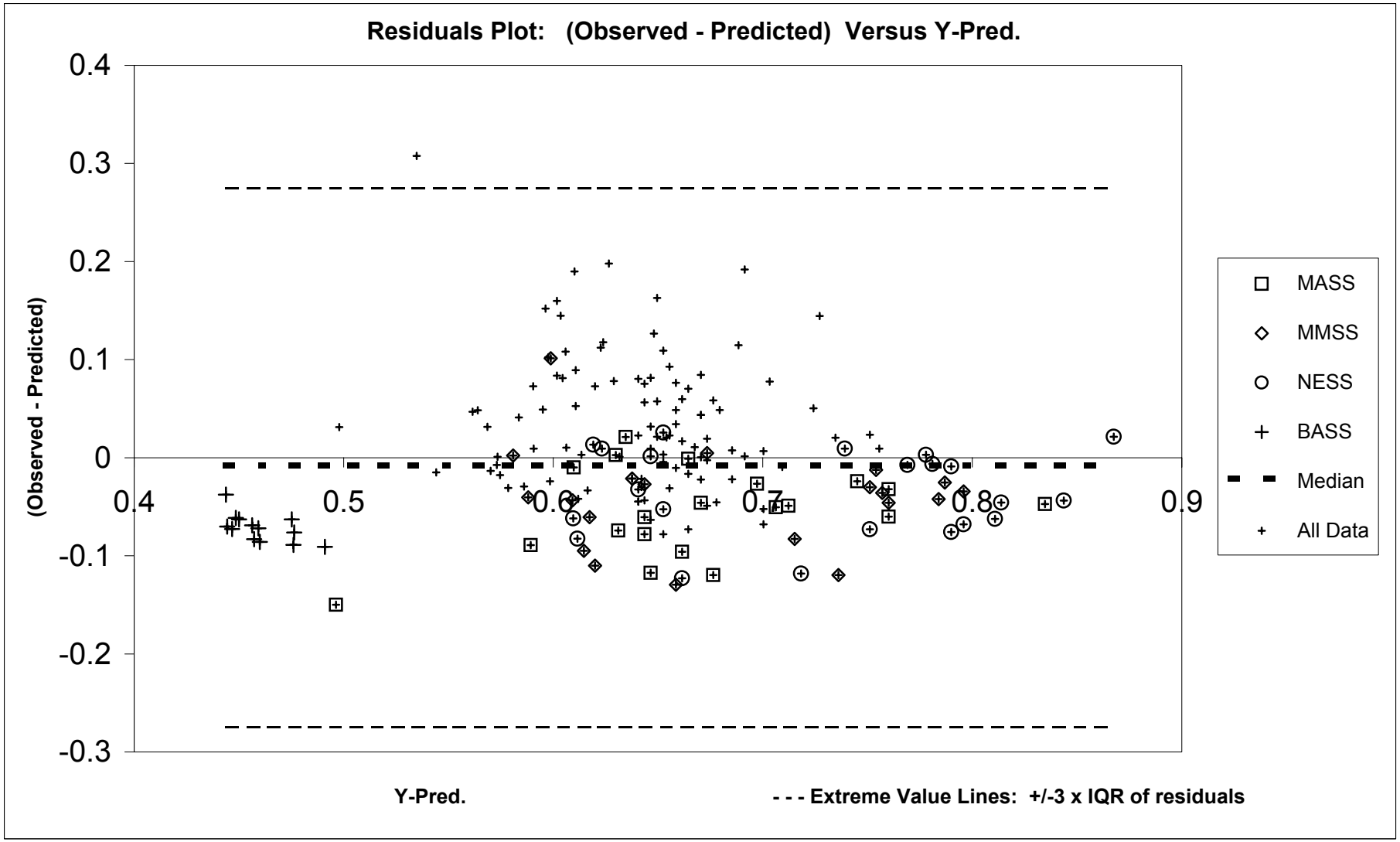
APPENDIX F, FIGURE F6-20
SURFACE RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON PREDICTED BERYLLIUM FROM 6 FACTOR ANAL. SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



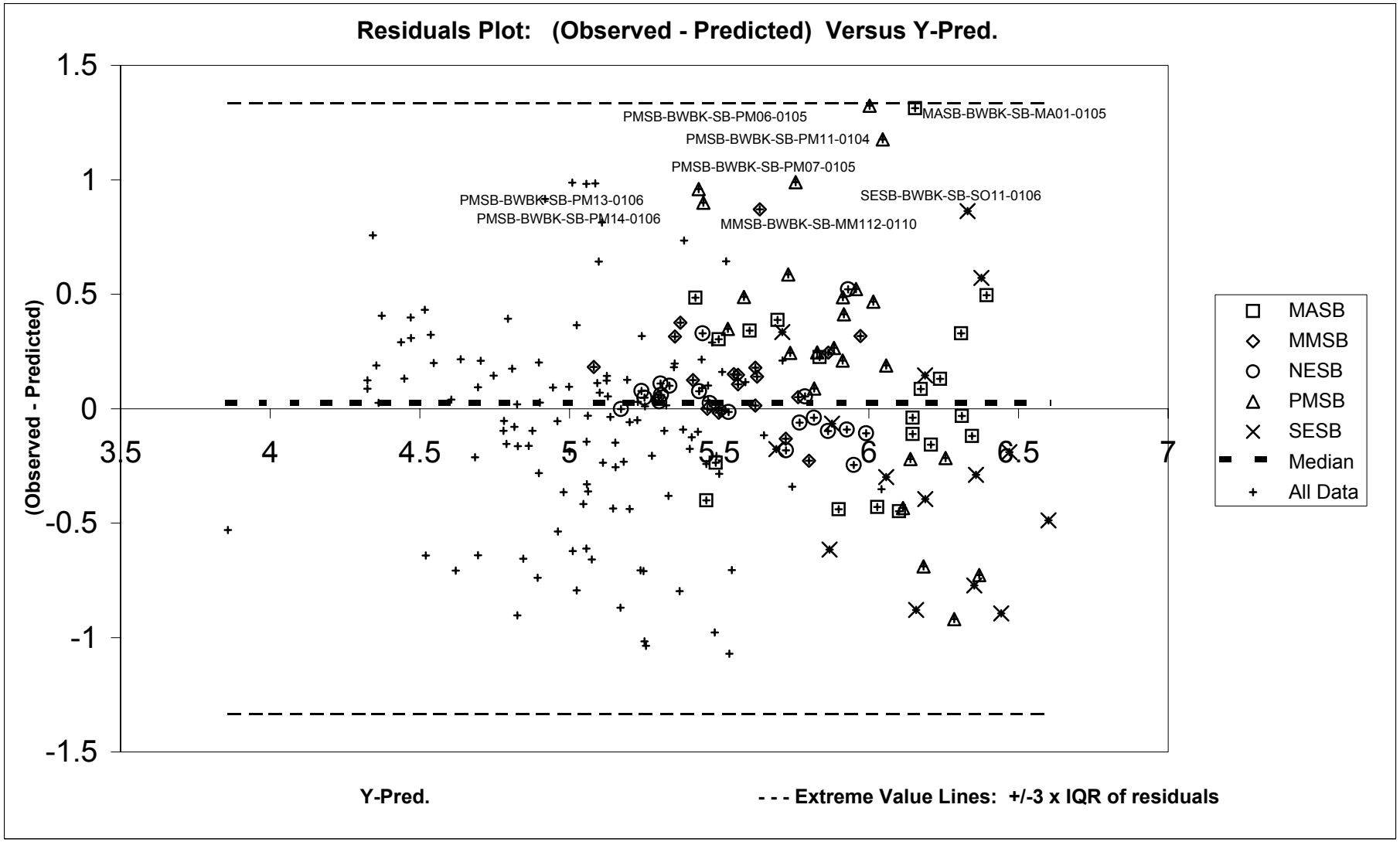
APPENDIX F, FIGURE F6-21
SUBSURFACE SOIL RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON ALUMINUM IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



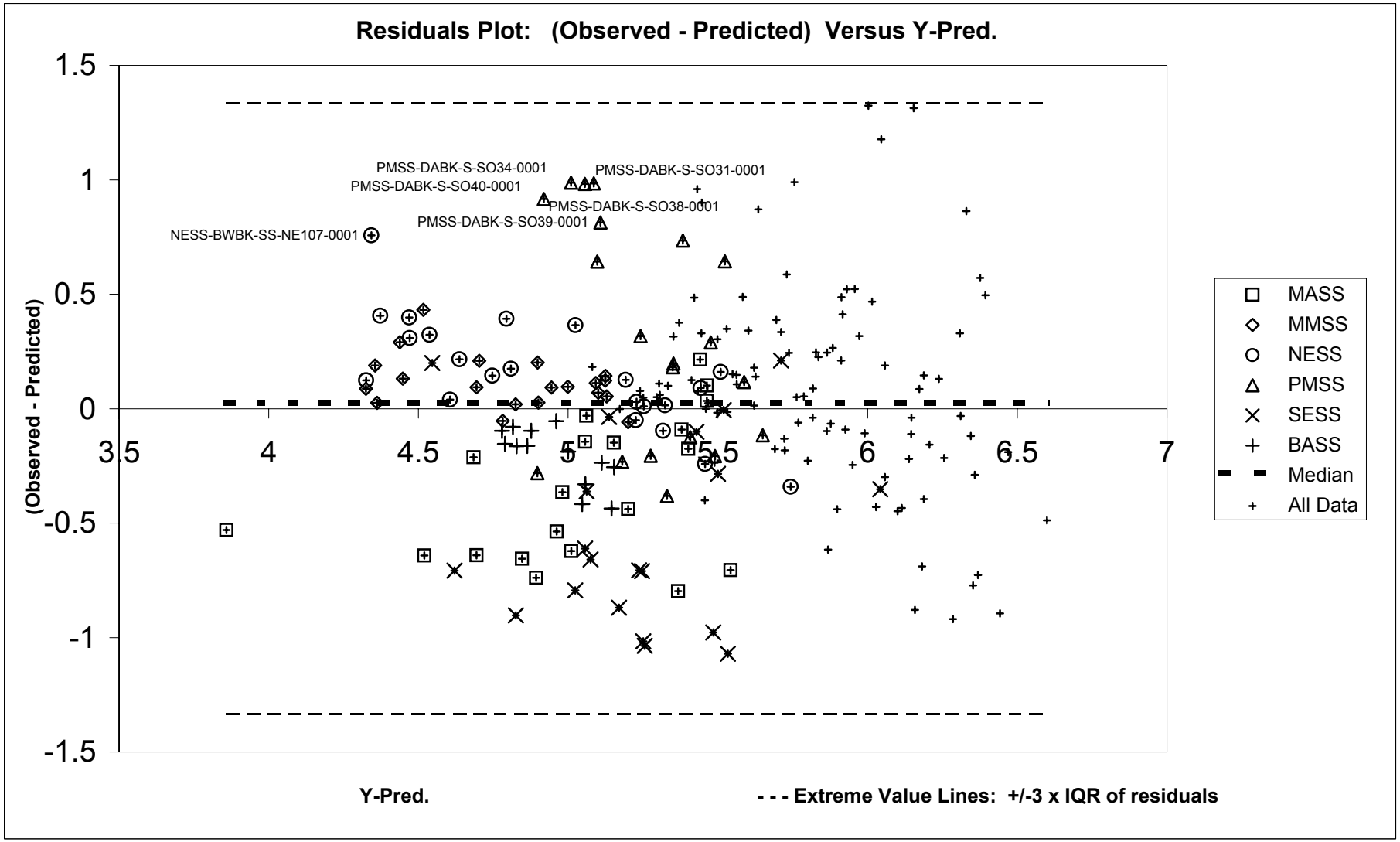
APPENDIX F, FIGURE F6-22
SURFACE RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON ALUMINUM IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



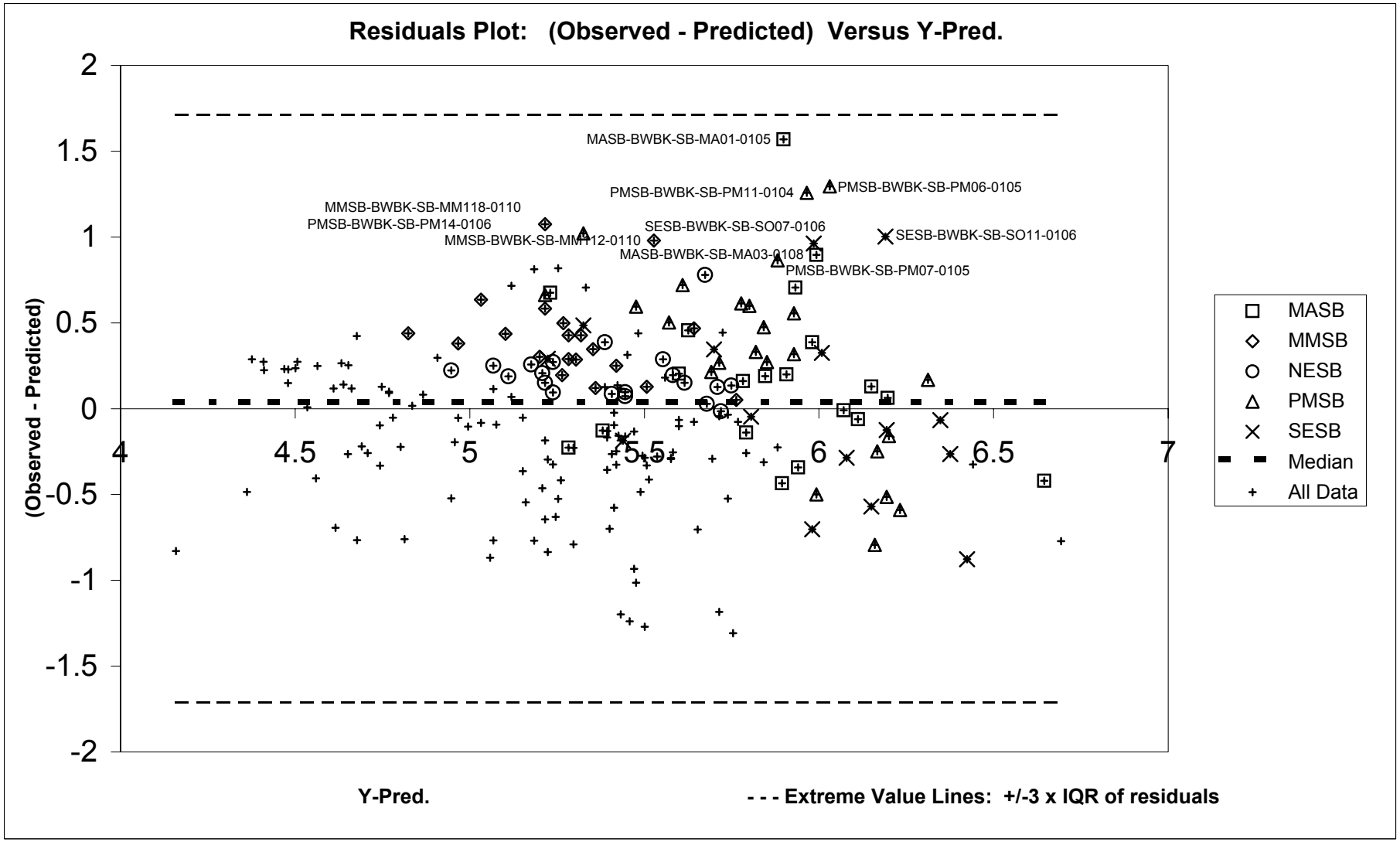
APPENDIX F, FIGURE F6-23
SUBSURFACE RESIDUALS - LOG MANGANESE REGRESSED ON PREDICTED LOG MANGANESE FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



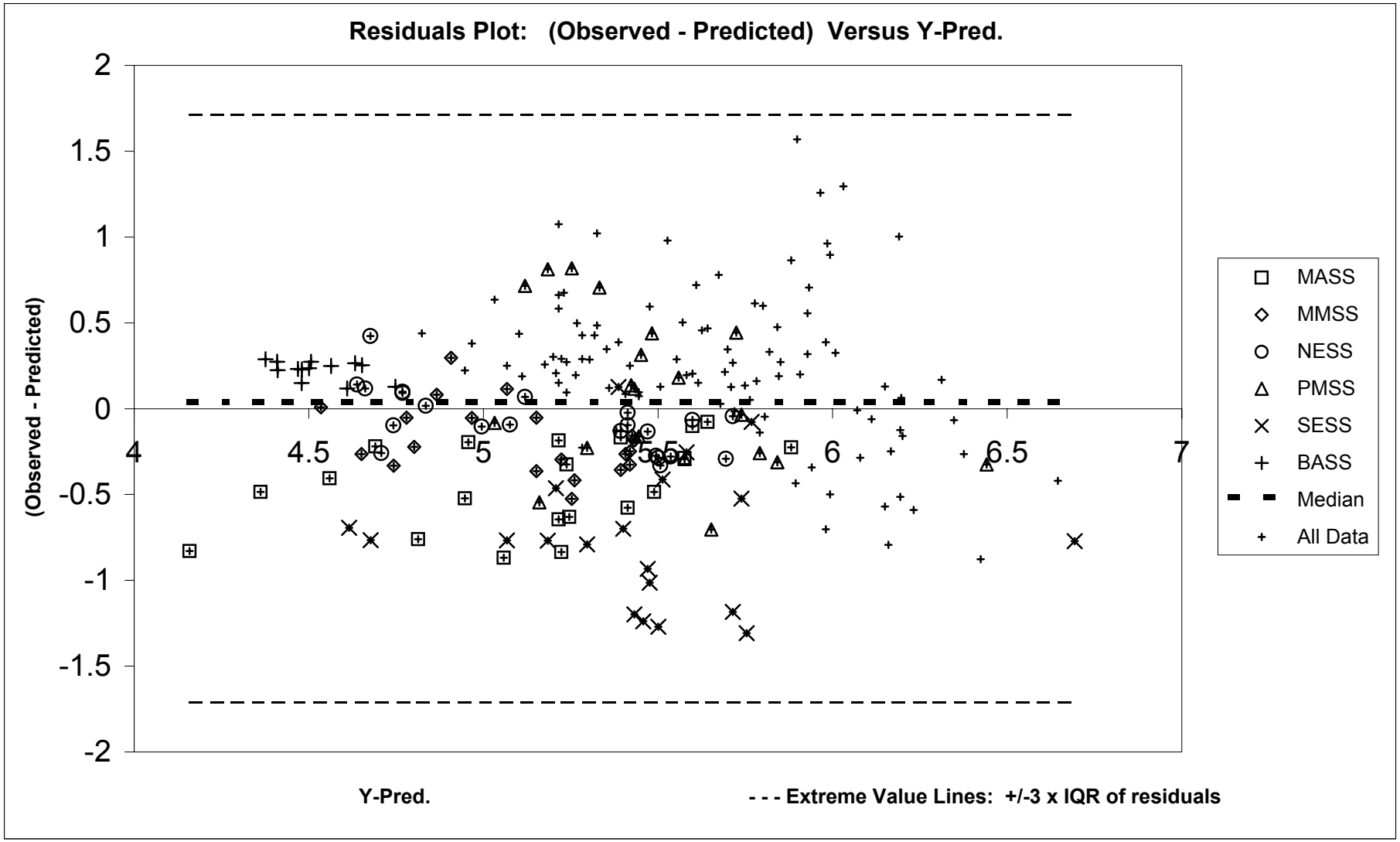
APPENDIX F, FIGURE F6-24
SURFACE RESIDUALS - LOG MANGANESE REGRESSED ON PREDICTED LOG MANGANESE FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



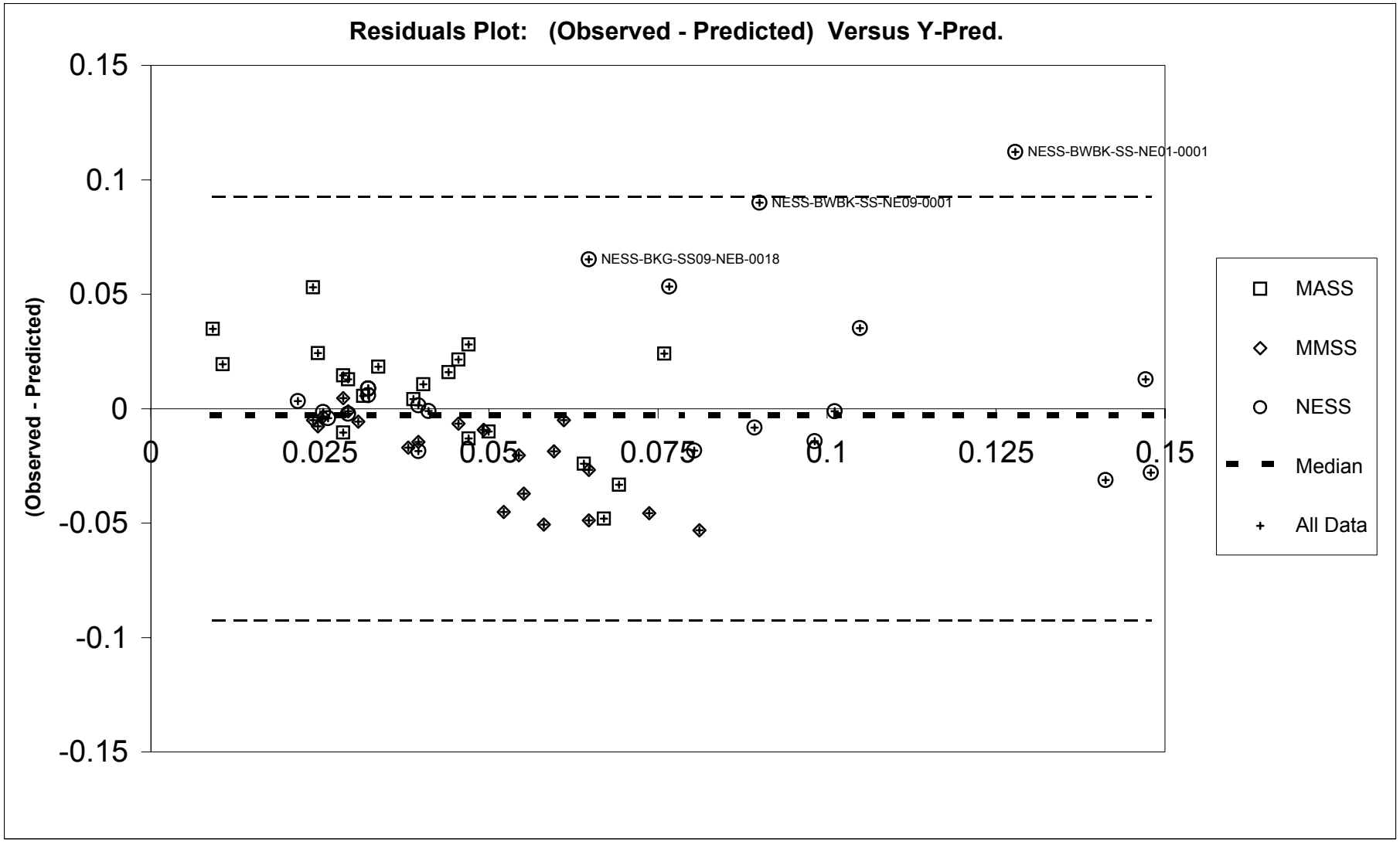
APPENDIX F, FIGURE F6-25
SUBSURFACE RESIDUALS - LOG MANGANESE REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



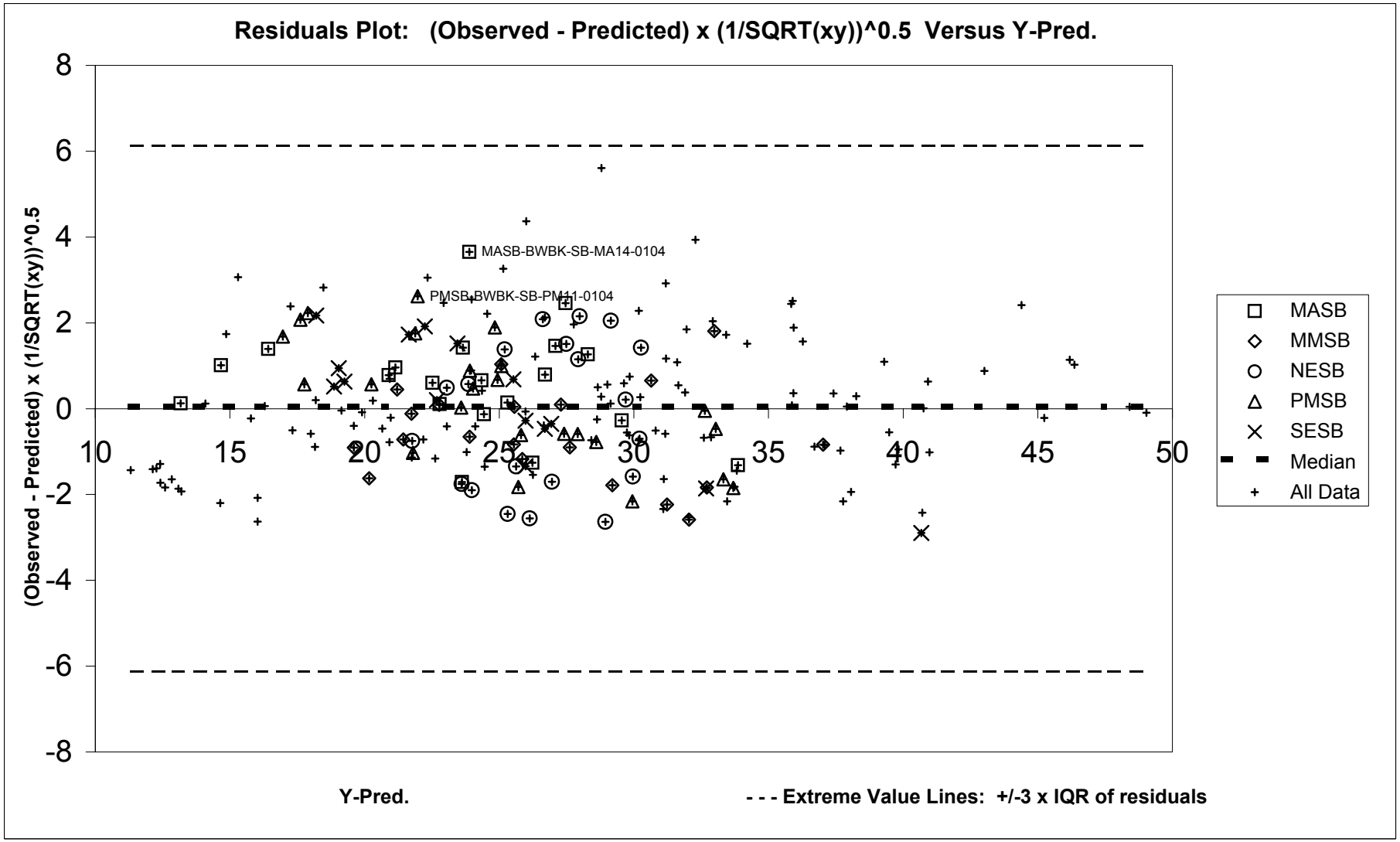
APPENDIX F, FIGURE F6-26
SURFACE RESIDUALS - LOG MANGANESE REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



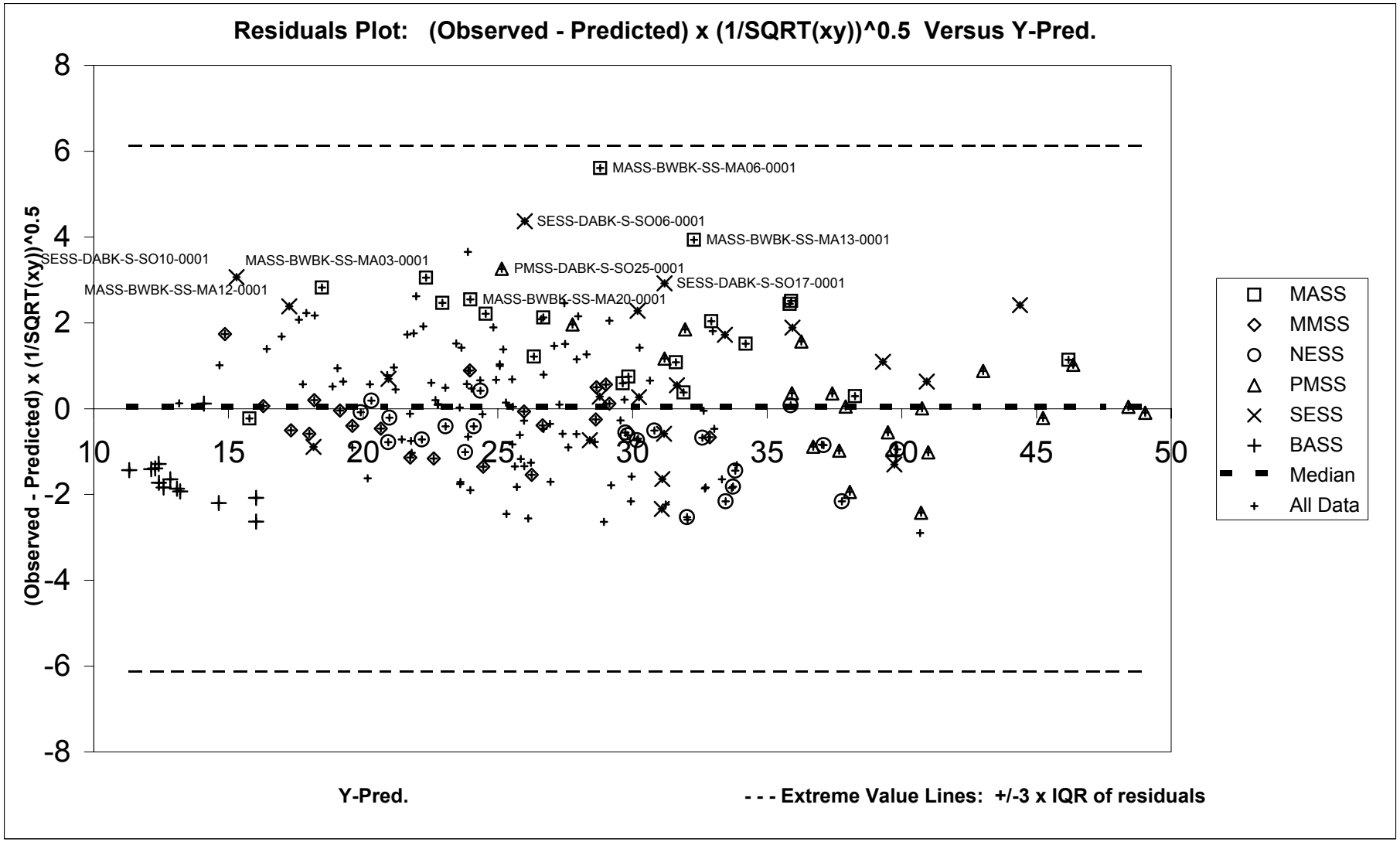
APPENDIX F, FIGURE F6-27
RESIDUALS - MERCURY REGRESSED ON MASS, MMSS, NESS SURFACE SOIL DATA FOR COPPER
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



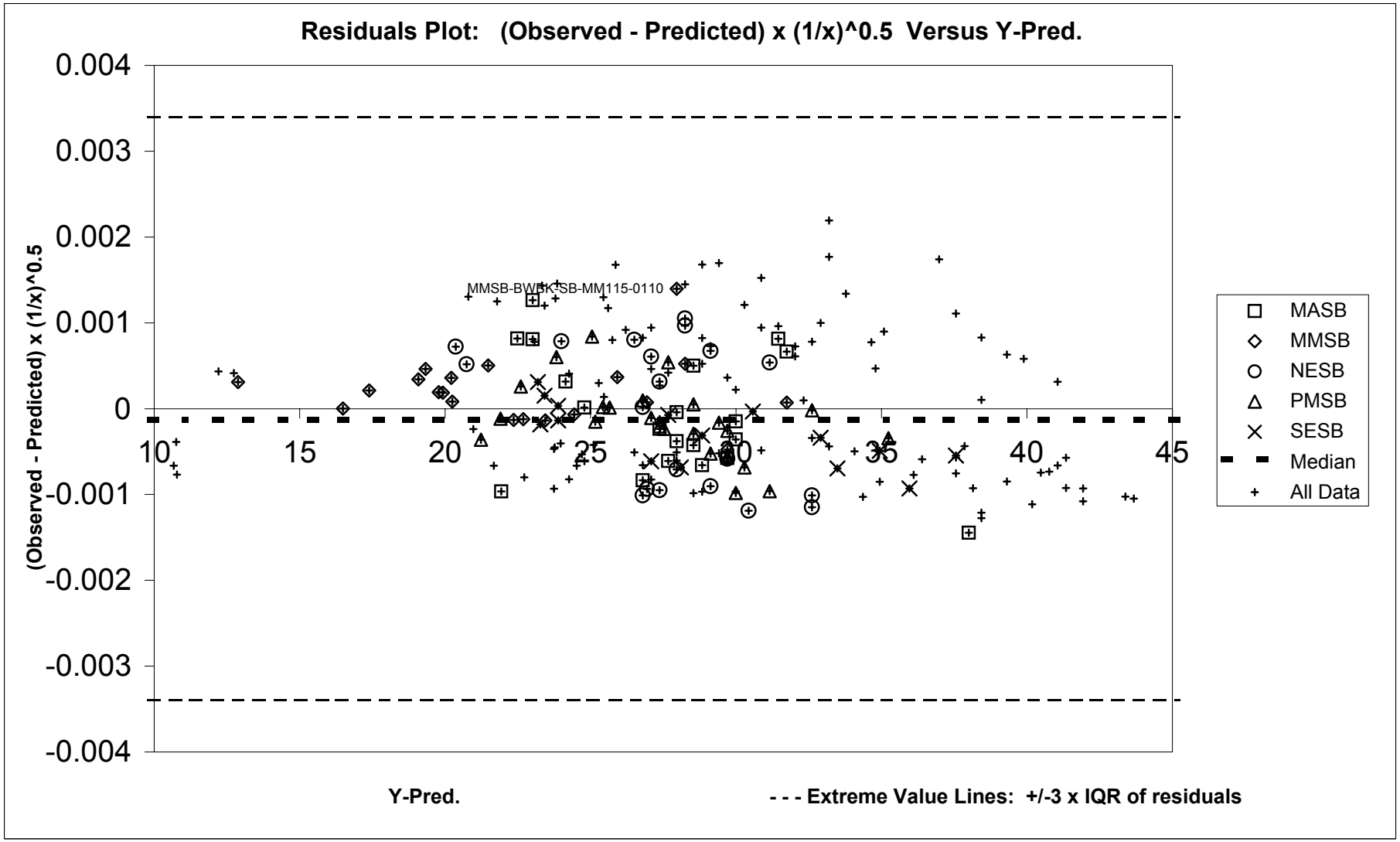
APPENDIX F, FIGURE F6-28
SUBSURFACE RESIDUALS - BARIUM REGRESSED ON PREDICTED BARIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



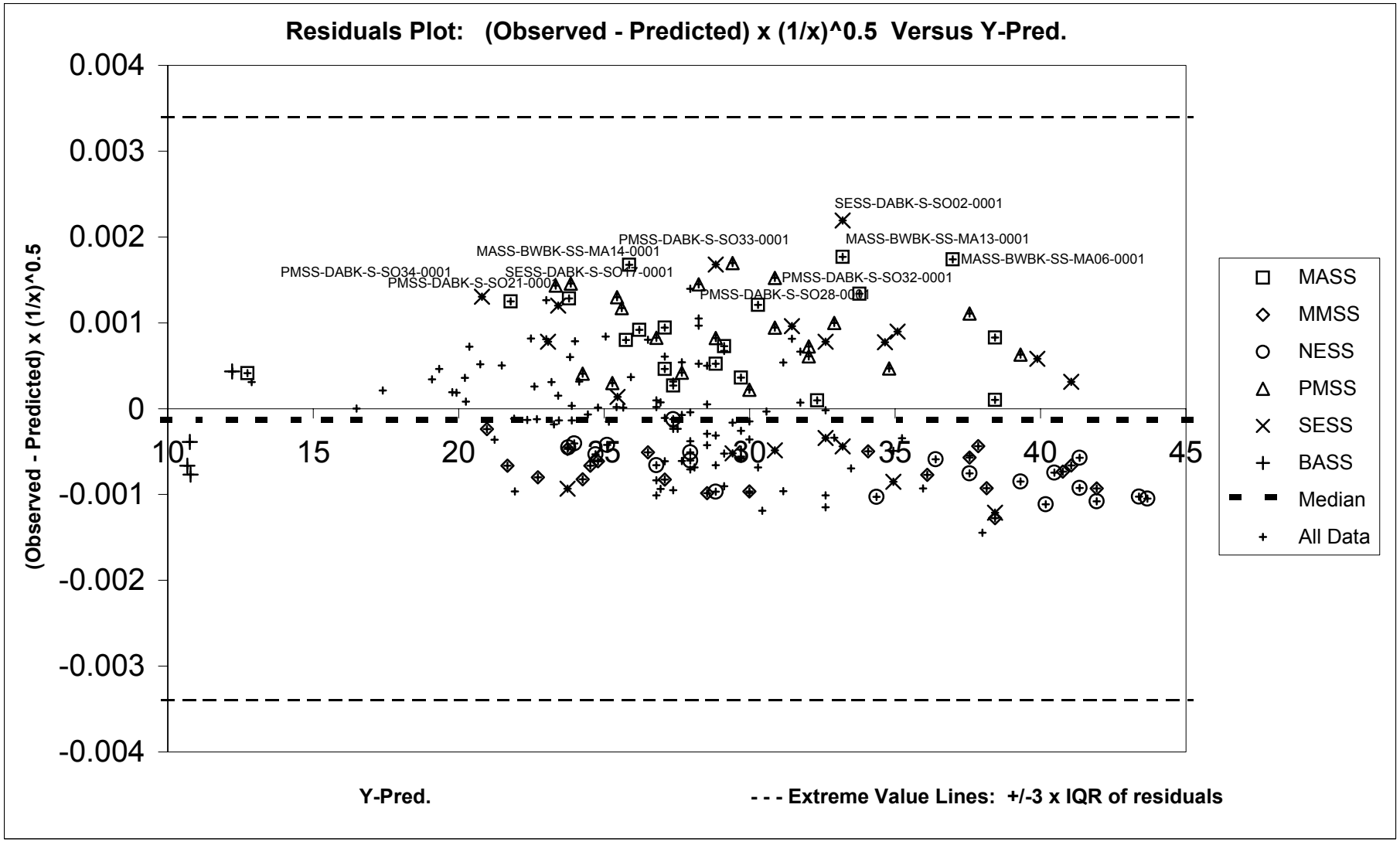
APPENDIX F, FIGURE F6-29
SURFACE RESIDUALS - BARIUM REGRESSED ON PREDICTED BARIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



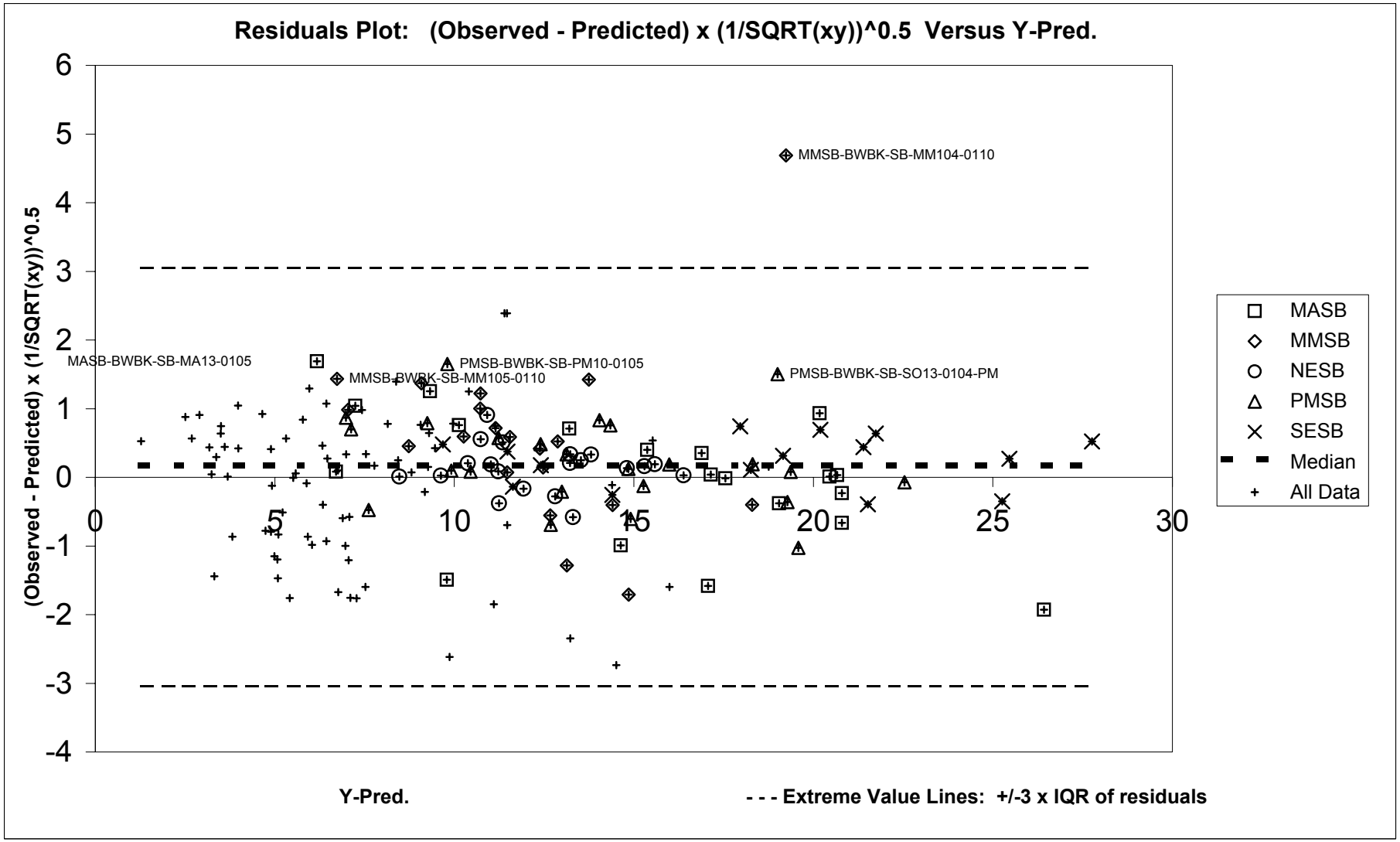
APPENDIX F, FIGURE F6-30
SUBSURFACE RESIDUALS - BARIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



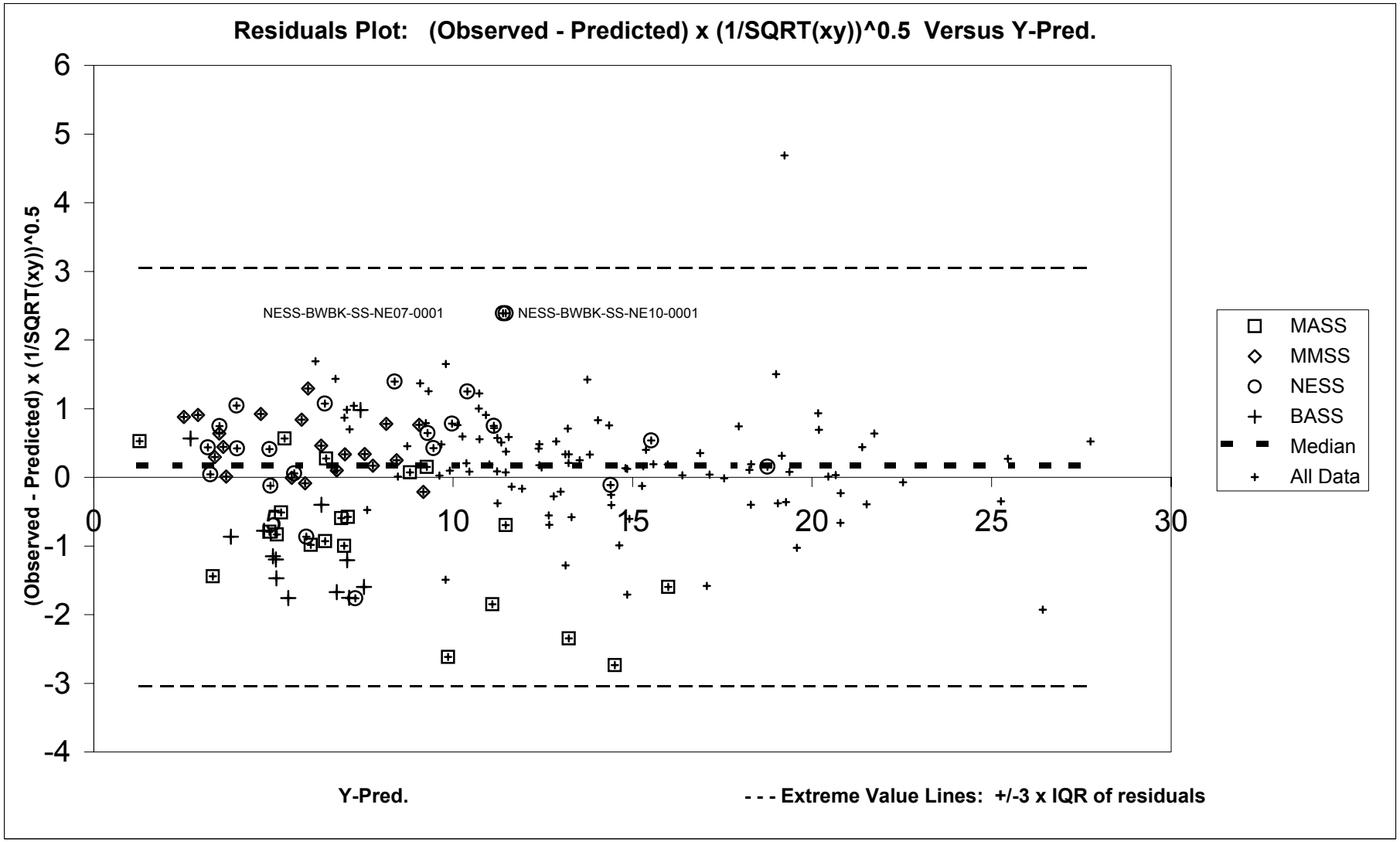
APPENDIX F, FIGURE F6-31
SURFACE RESIDUALS - BARIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



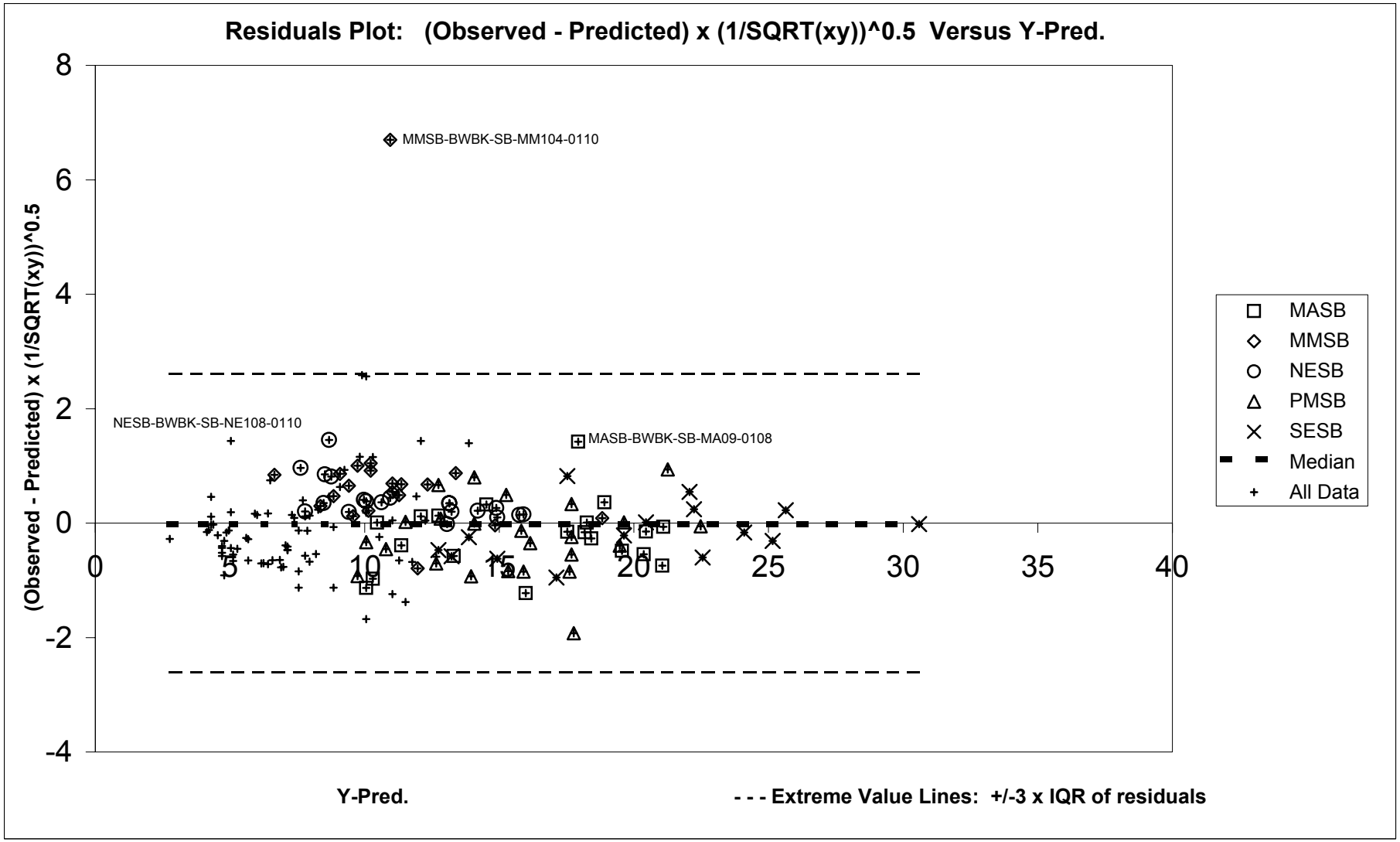
APPENDIX F, FIGURE F6-32
SUBSURFACE RESIDUALS - COPPER REGRESSED ON PREDICTED COPPER FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



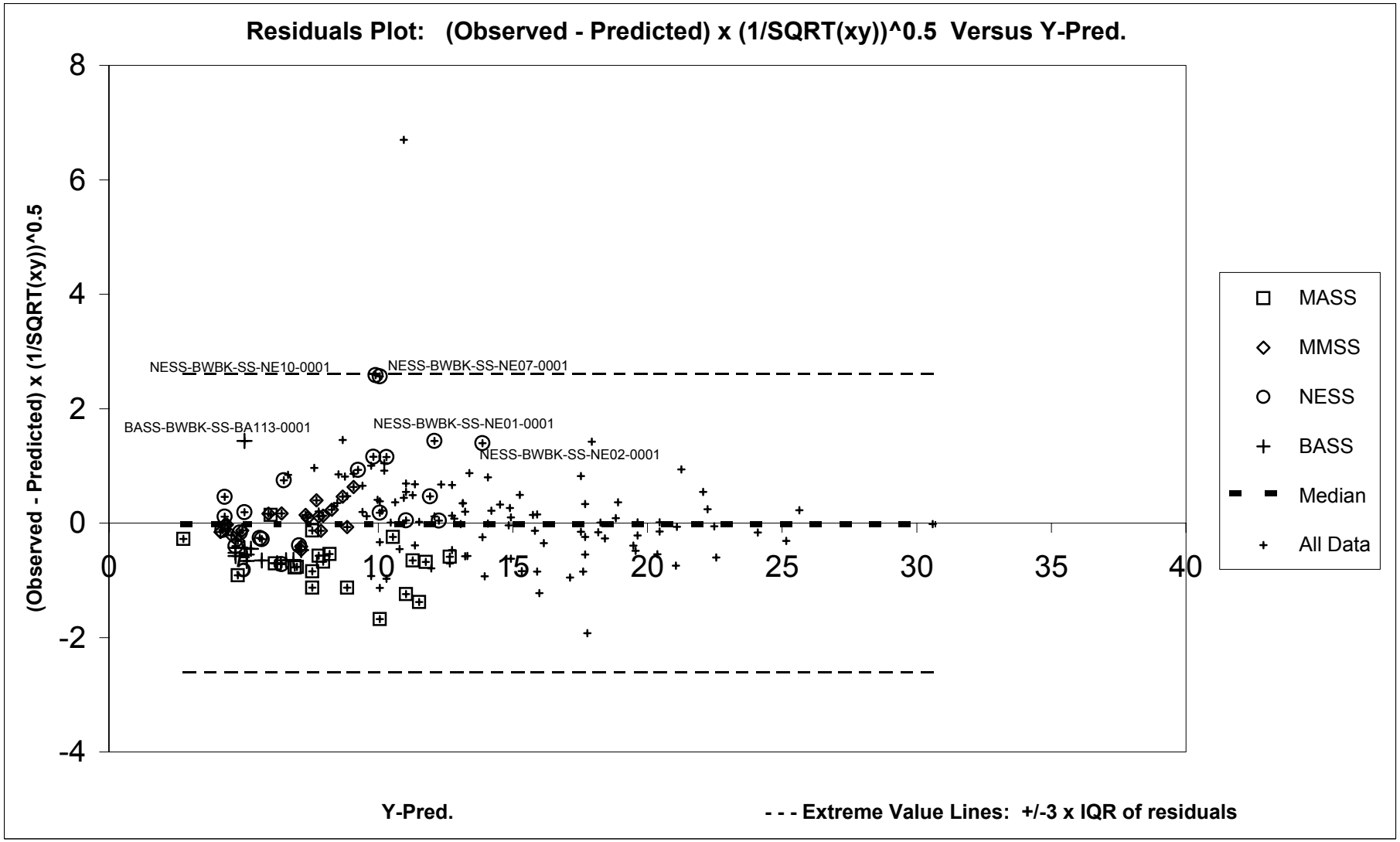
APPENDIX F, FIGURE F6-33
SURFACE RESIDUALS - COPPER REGRESSED ON PREDICTED COPPER FROM 6 FACTOR ANAL. SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



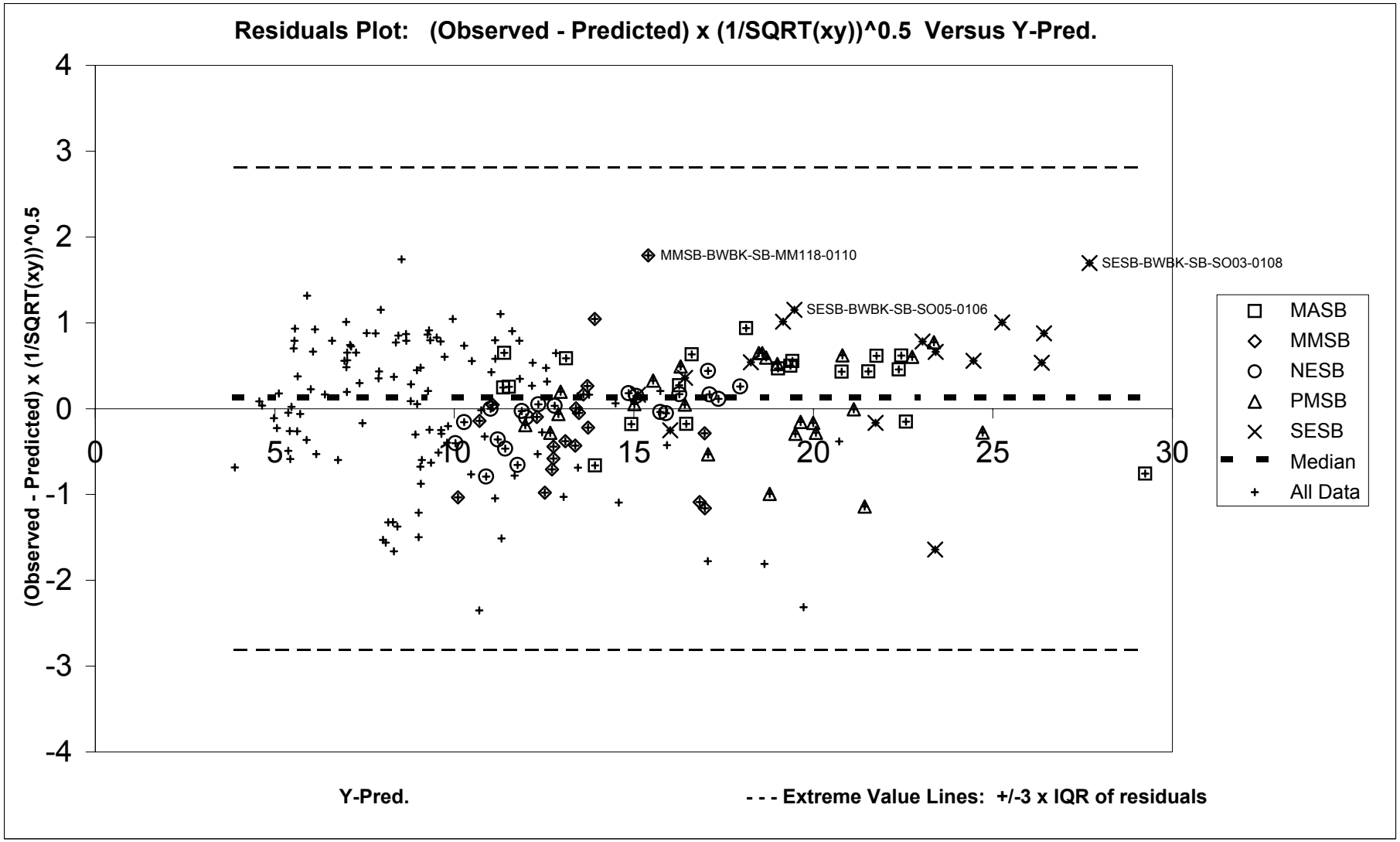
APPENDIX F, FIGURE F6-34
SUBSURFACE SOIL RESIDUALS - COPPER REGRESSED ON NICKEL IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



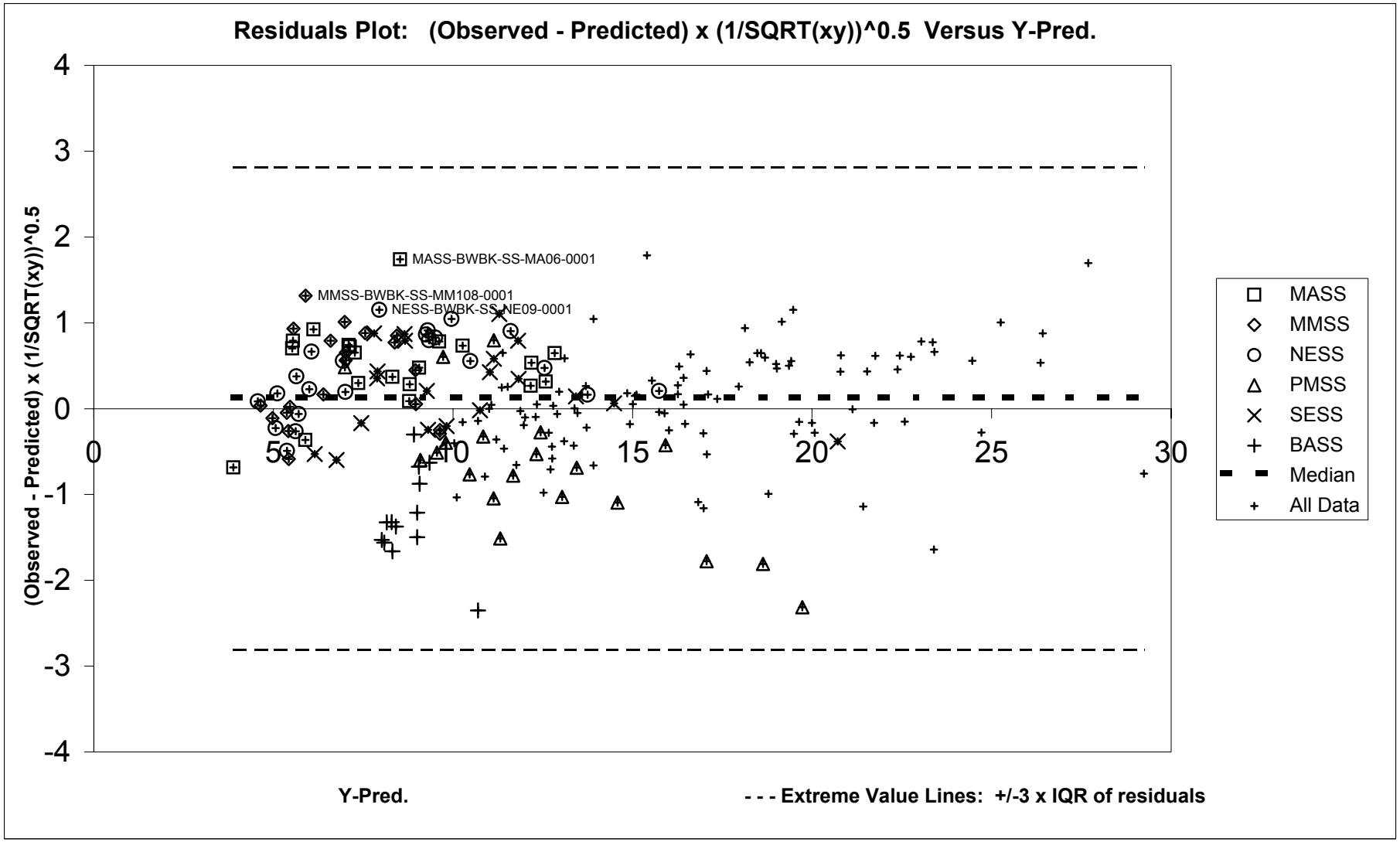
APPENDIX F, FIGURE F6-35
SURFACE RESIDUALS - COPPER REGRESSED ON NICKEL IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



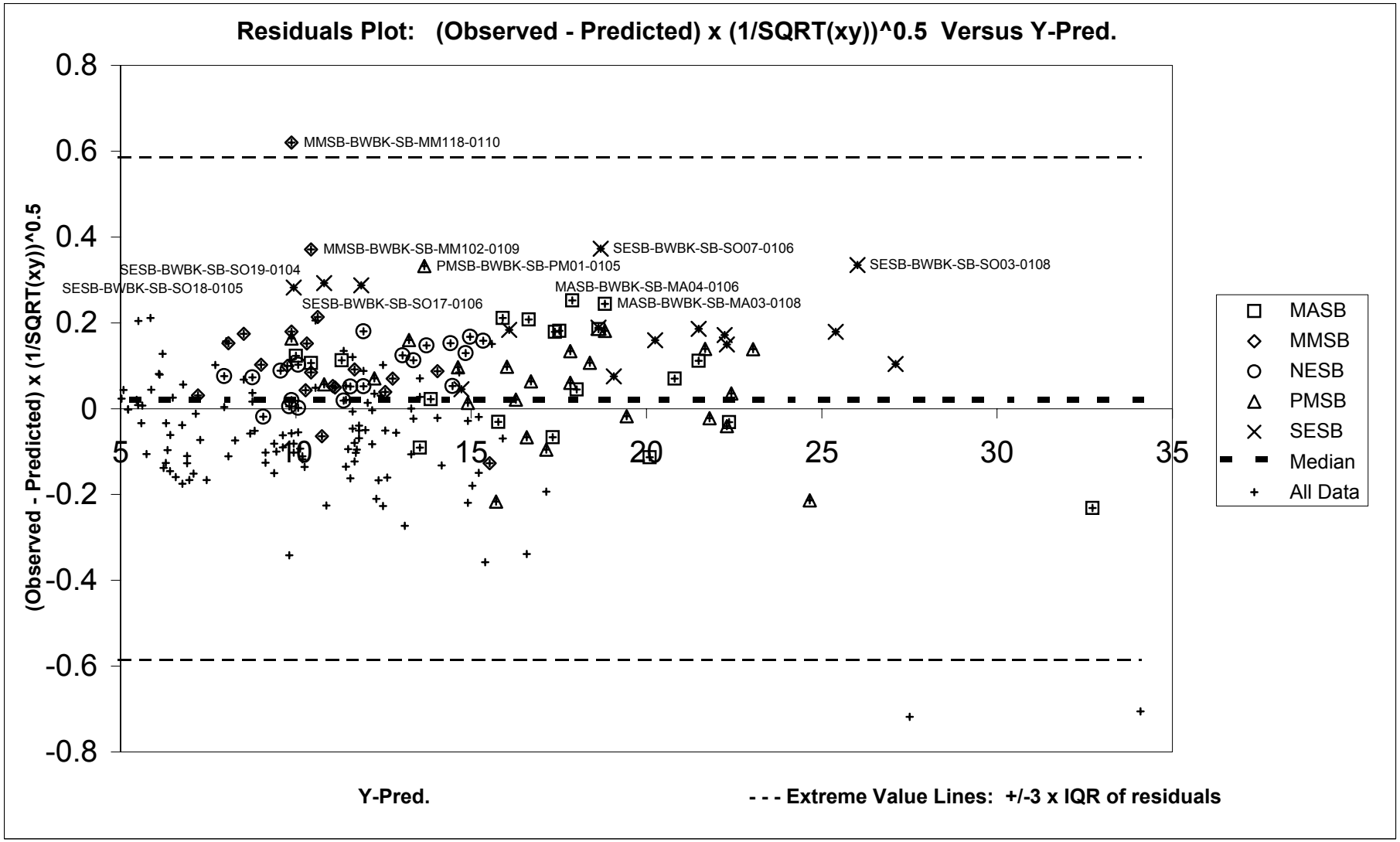
APPENDIX F, FIGURE F6-36
SUBSURFACE RESIDUALS - NICKEL REGRESSED ON PREDICTED NICKEL FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



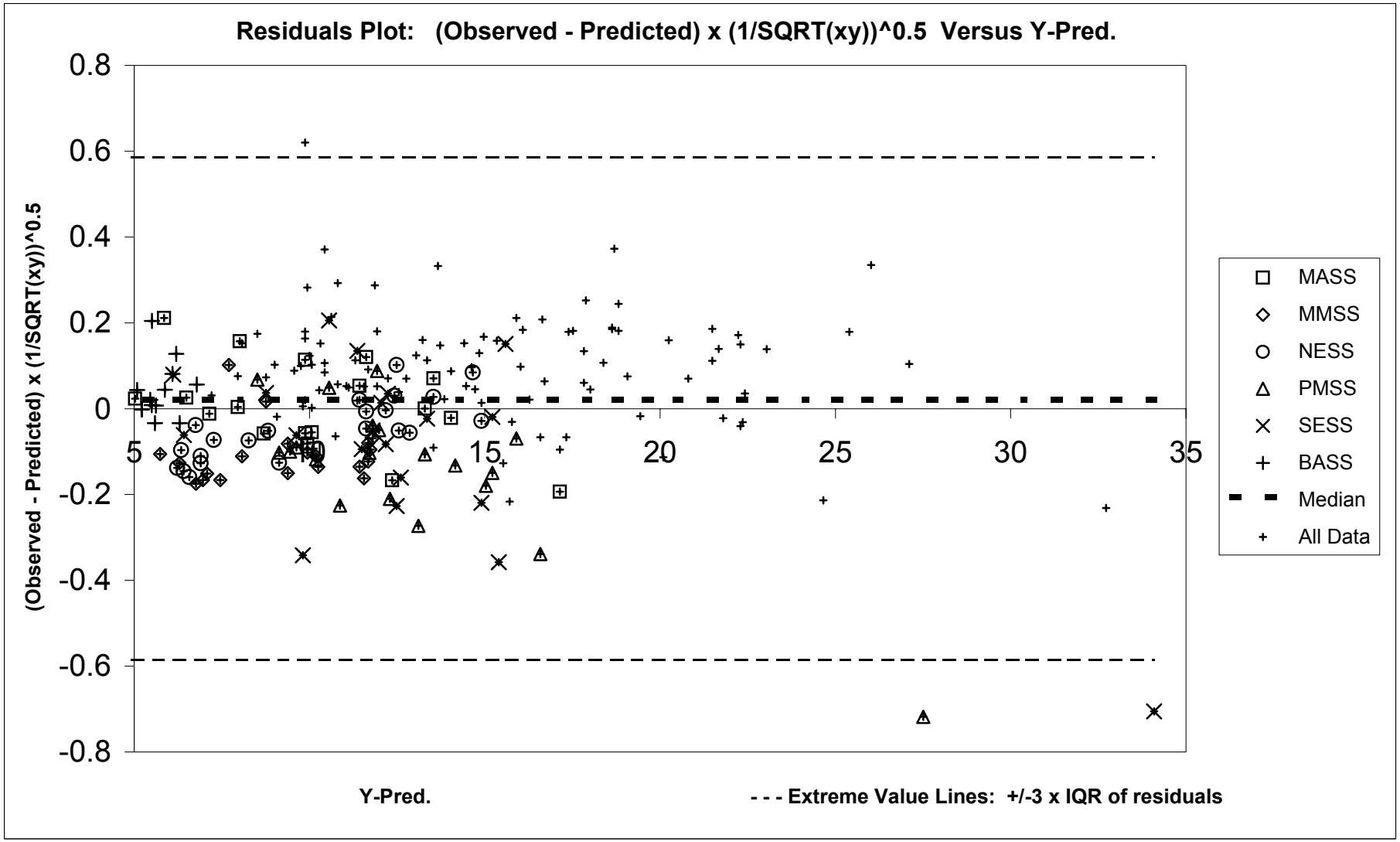
APPENDIX F, FIGURE F6-37
SURFACE RESIDUALS - NICKEL REGRESSED ON PREDICTED NICKEL FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



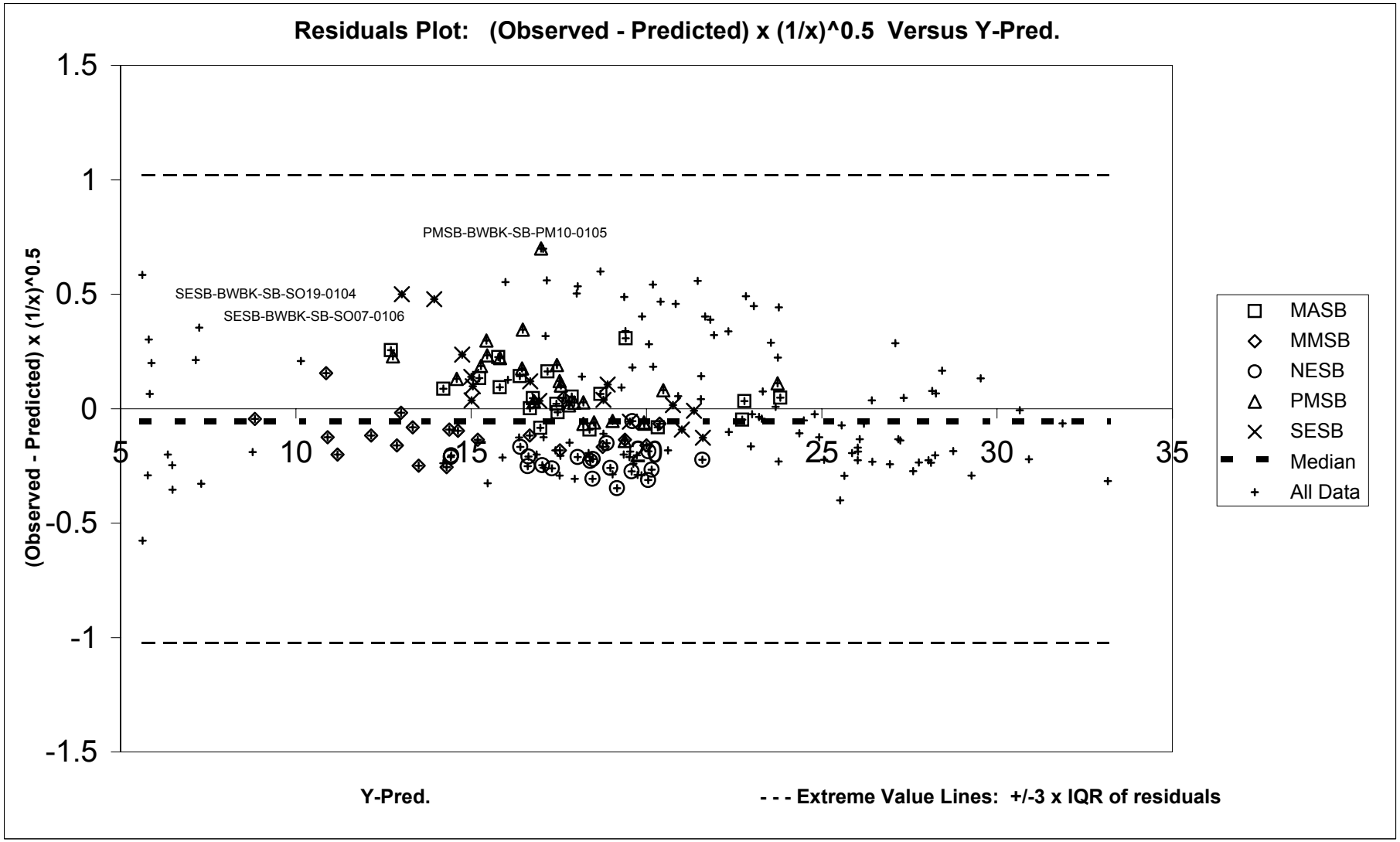
APPENDIX F, FIGURE F6-38
SUBSURFACE RESIDUALS - NICKEL REGRESSED ON ALL SOIL DATA FOR IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



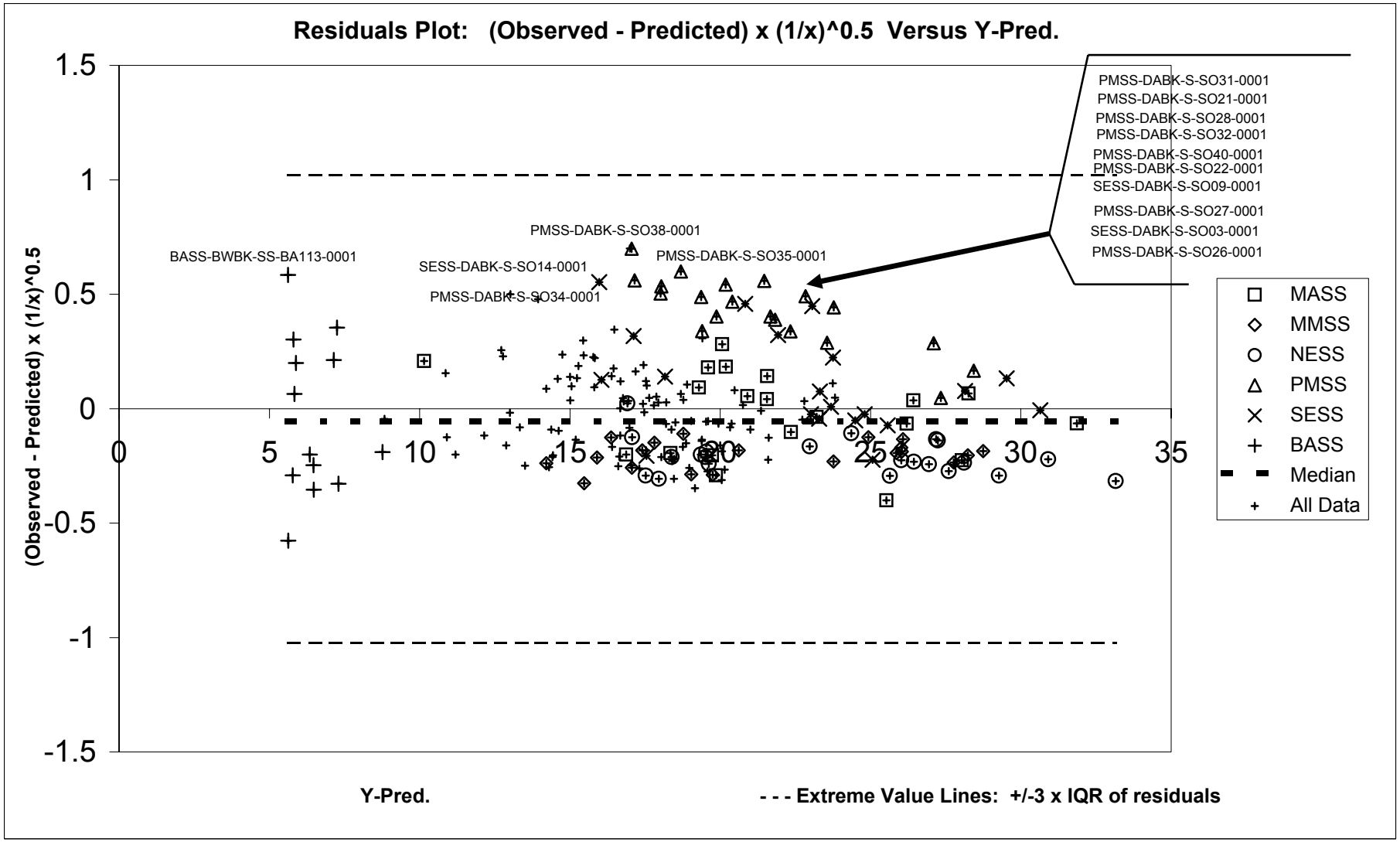
APPENDIX F, FIGURE F6-39
SURFACE RESIDUALS - NICKEL REGRESSED ON ALL SOIL DATA FOR IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



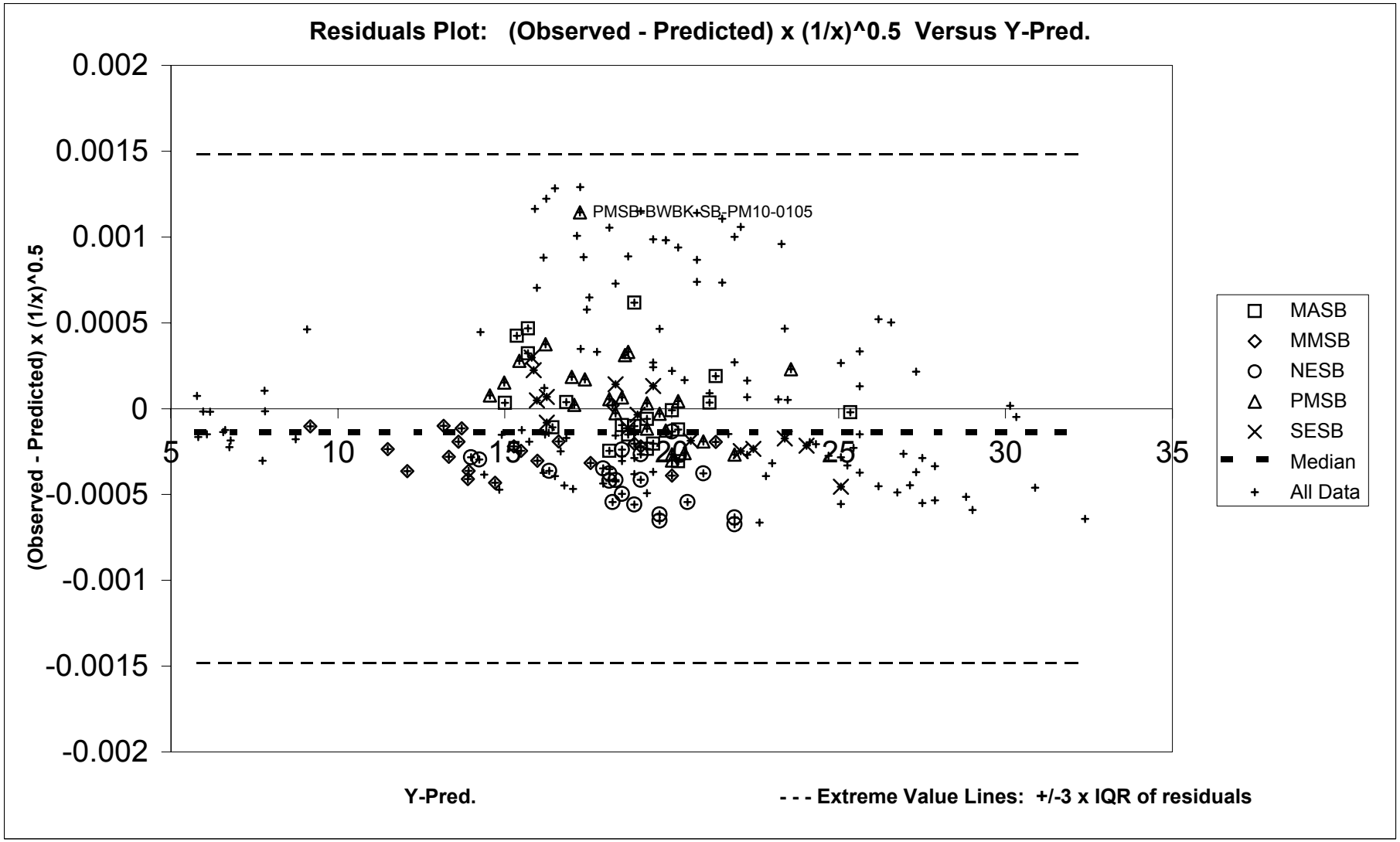
APPENDIX F, FIGURE F6-40
SUBSURFACE RESIDUALS - VANADIUM REGRESSED ON ALL SOIL PREDICTED VANADIUM FROM 6 FACTOR ANALYSIS, INCLU. SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



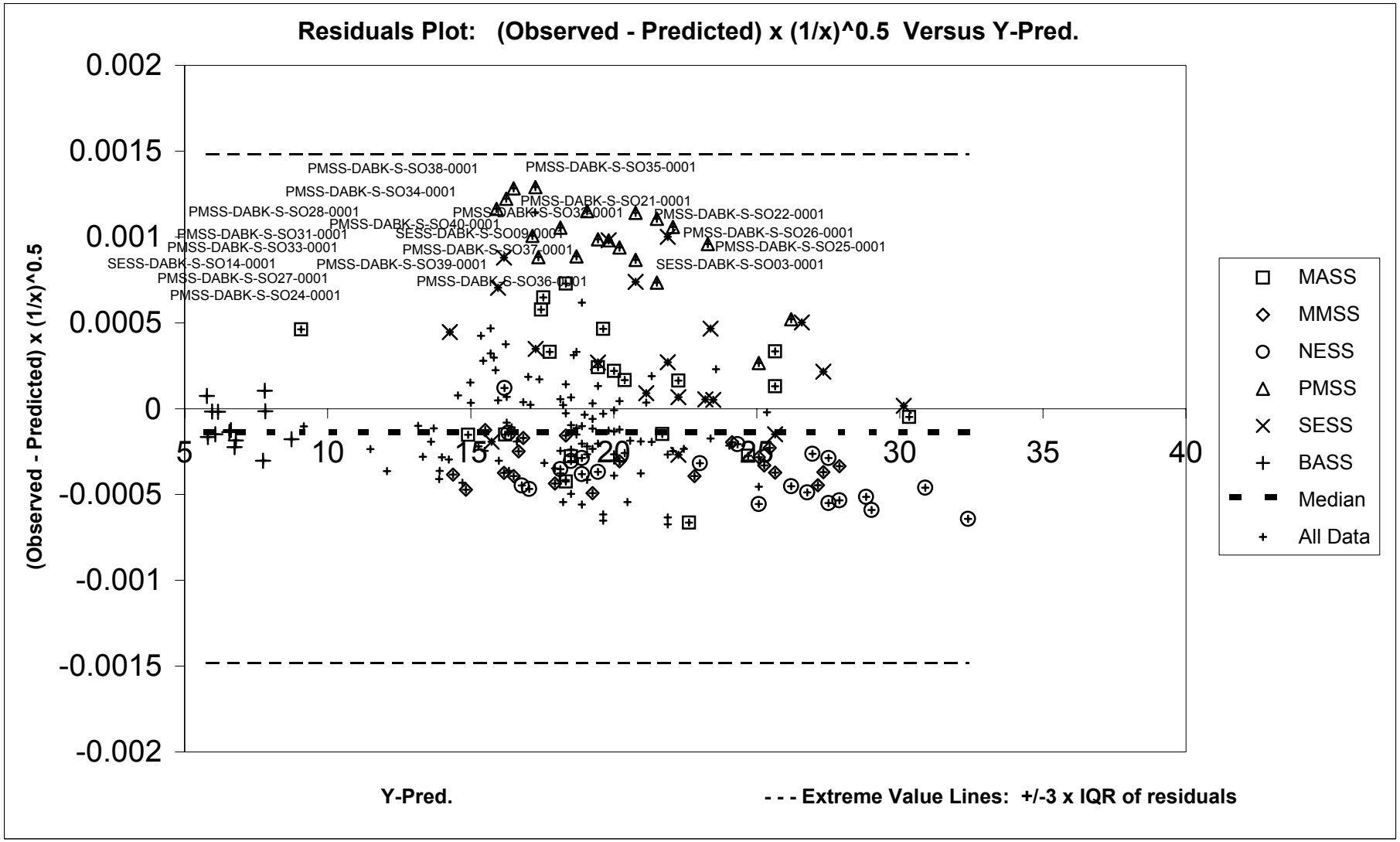
APPENDIX F, FIGURE F6-41
SURFACE RESIDUALS - VANADIUM REGRESSED ON ALL SOIL PREDICTED VANADIUM FROM 6 FACTORS ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



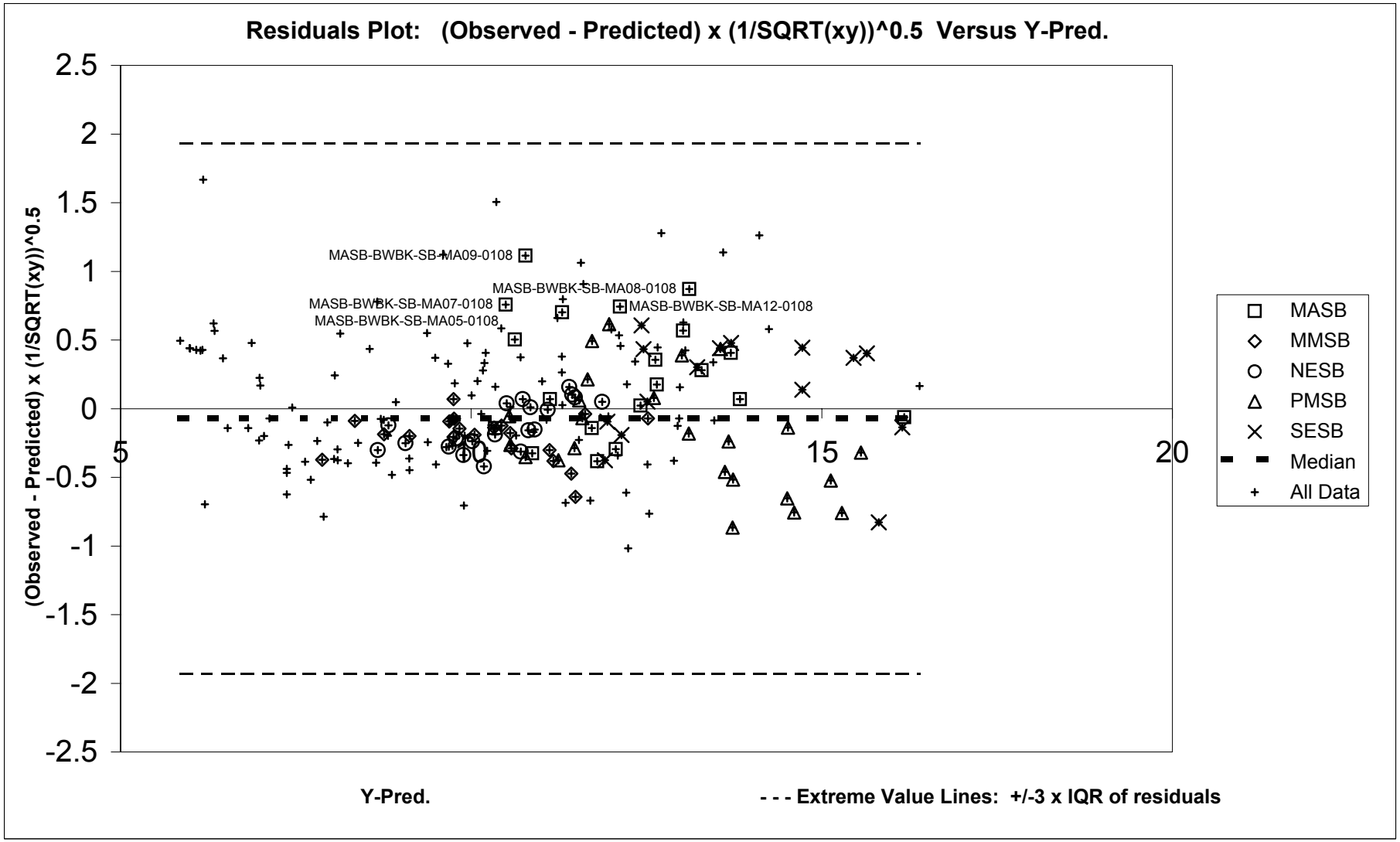
APPENDIX F, FIGURE F6-42
SUBSURFACE RESIDUALS - VANADIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



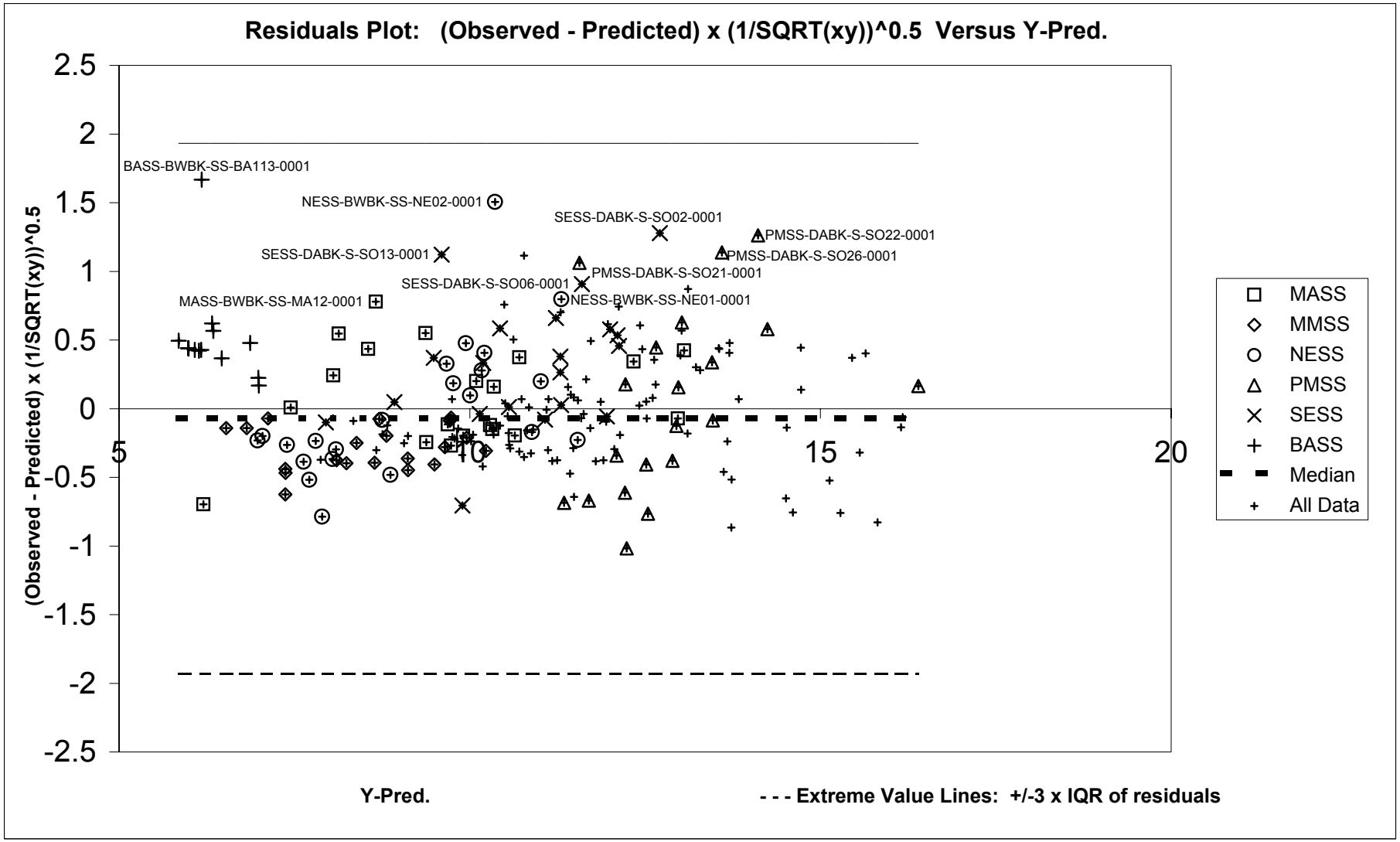
APPENDIX F, FIGURE F6-43
SURFACE RESIDUALS - VANADIUM REGRESSED ON ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



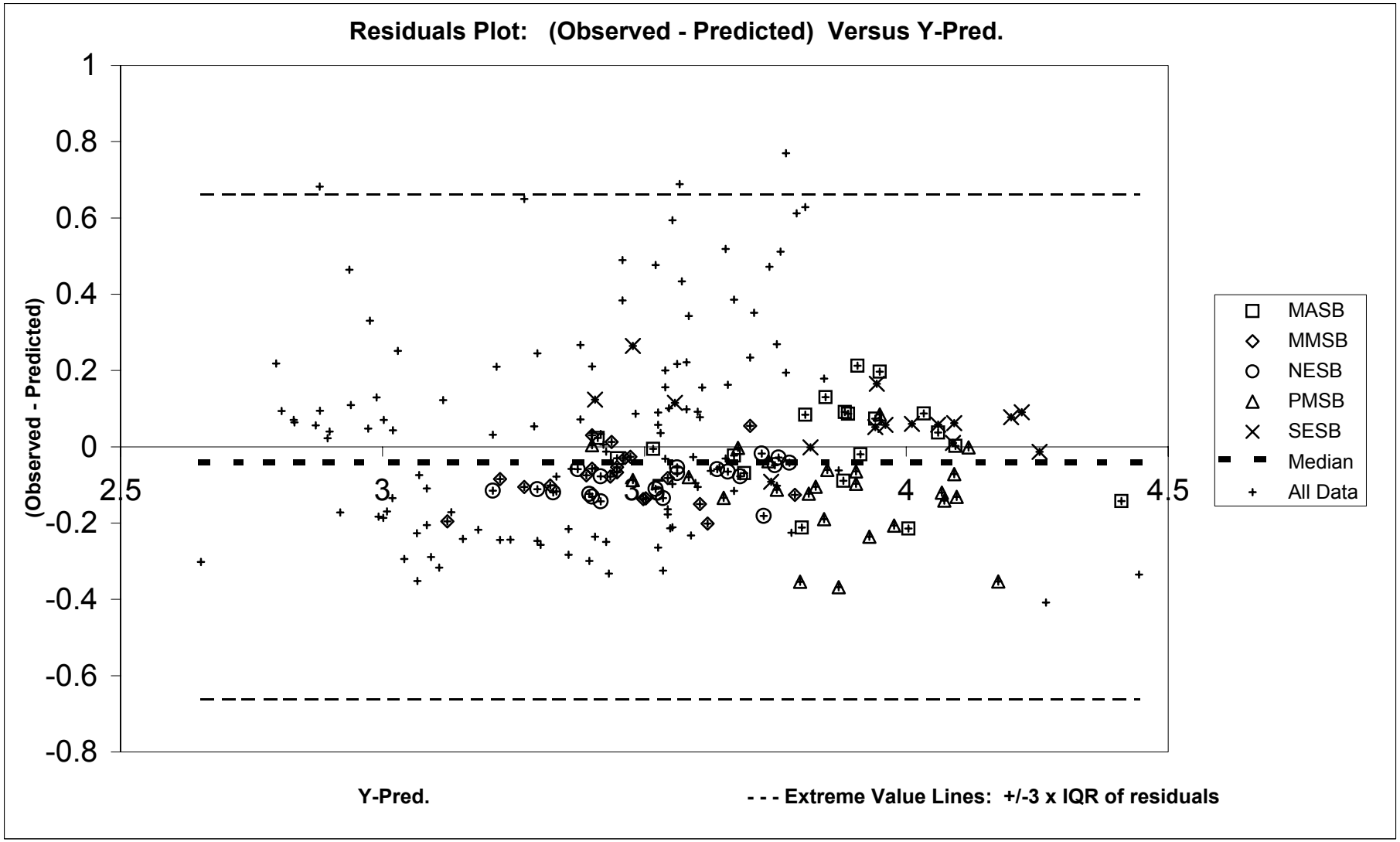
APPENDIX F, FIGURE F6-44
SUBSURFACE RESIDUALS - ZINC 2/3 POWER REGRESSED ON PREDICTED ZINC FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



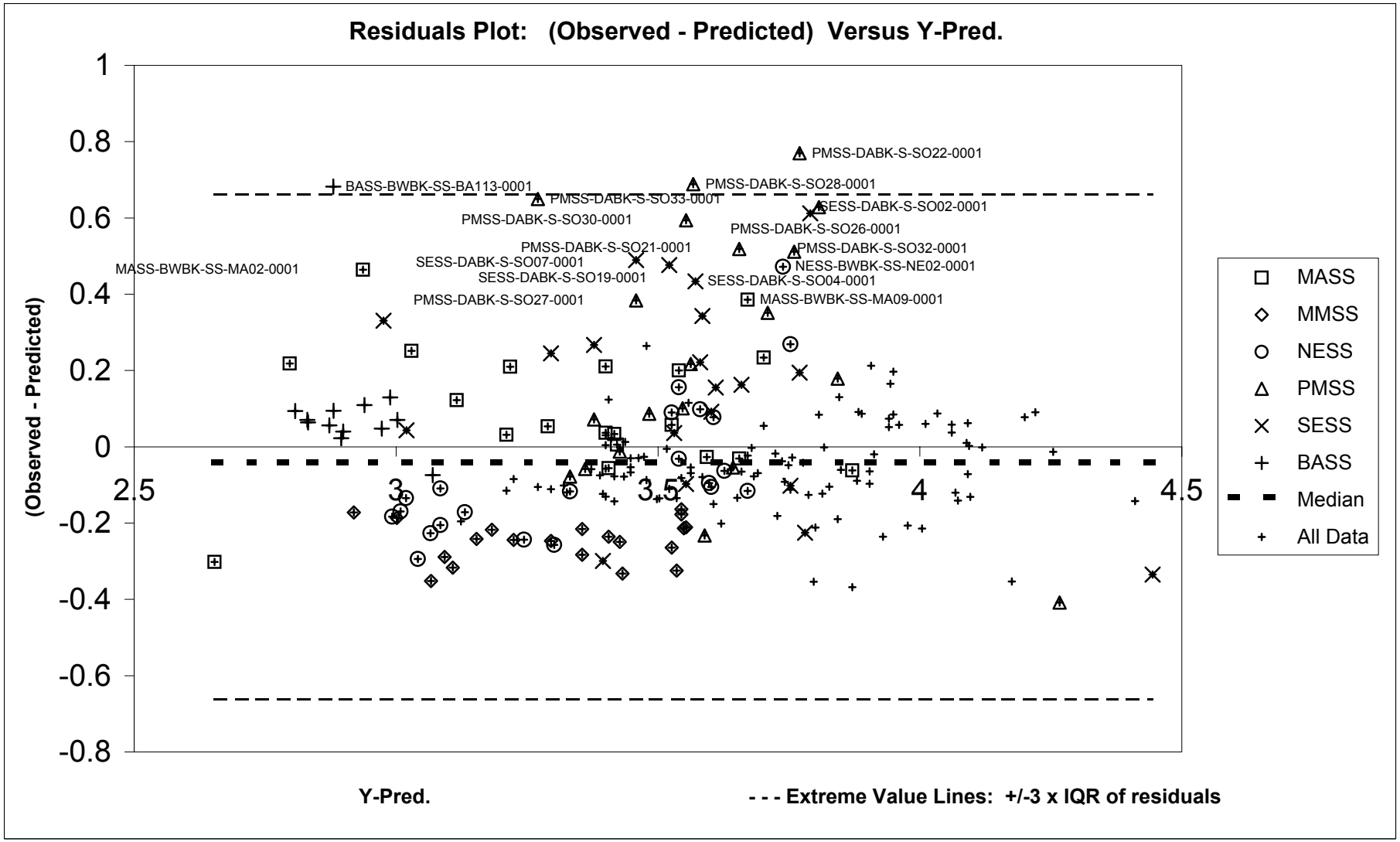
APPENDIX F, FIGURE F6-45
SURFACE RESIDUALS - ZINC 2/3 POWER REGRESSED ON PREDICTED ZINC FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F6-46
SUBSURFACE RESIDUALS - LOG ZINC REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



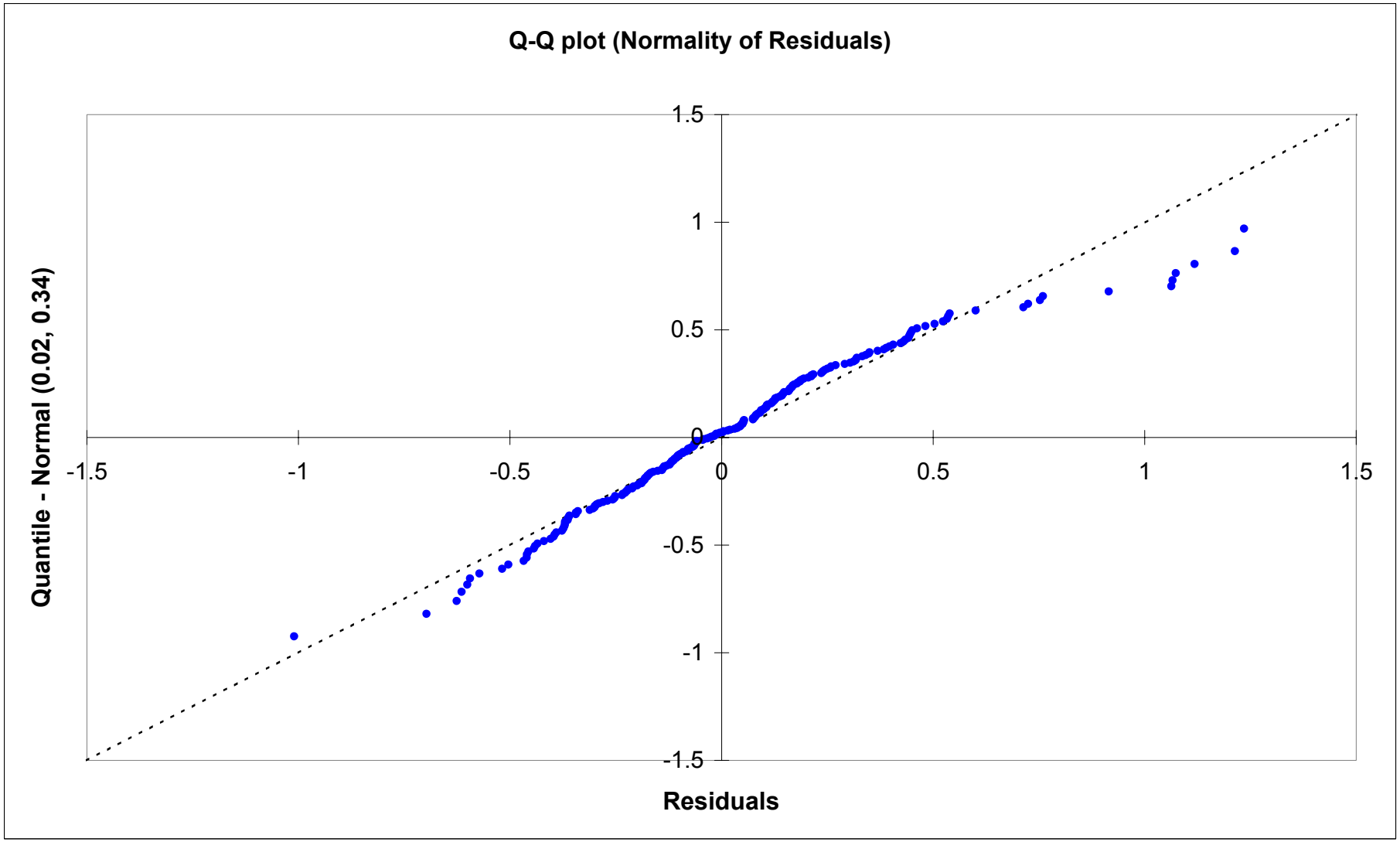
APPENDIX F, FIGURE F6-47
SURFACE RESIDUALS - LOG ZINC REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



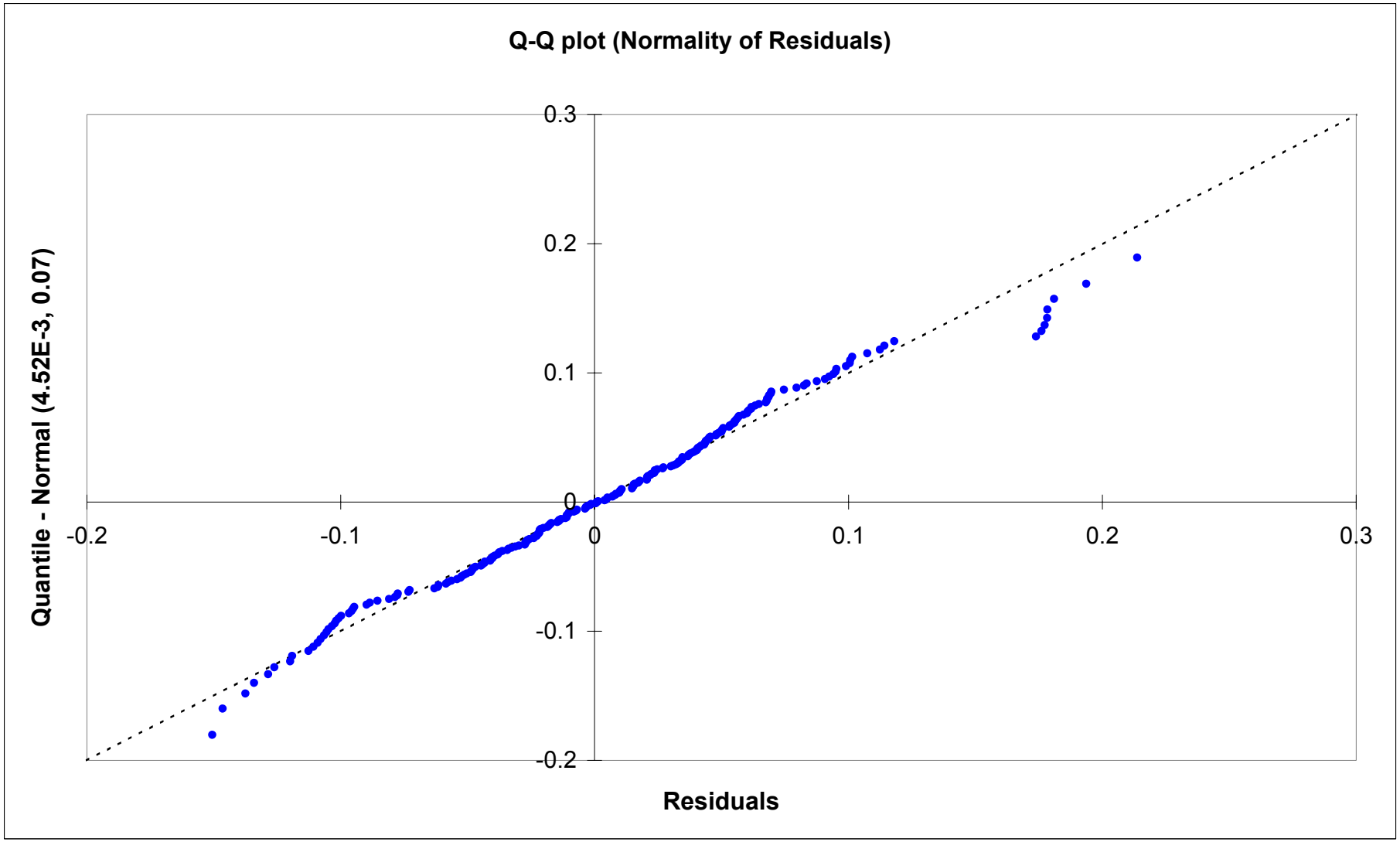
APPENDIX F, PART 7

GEOCHEMICAL REGRESSION RESIDUALS Q-Q PLOTS FOR SELECTED METALS

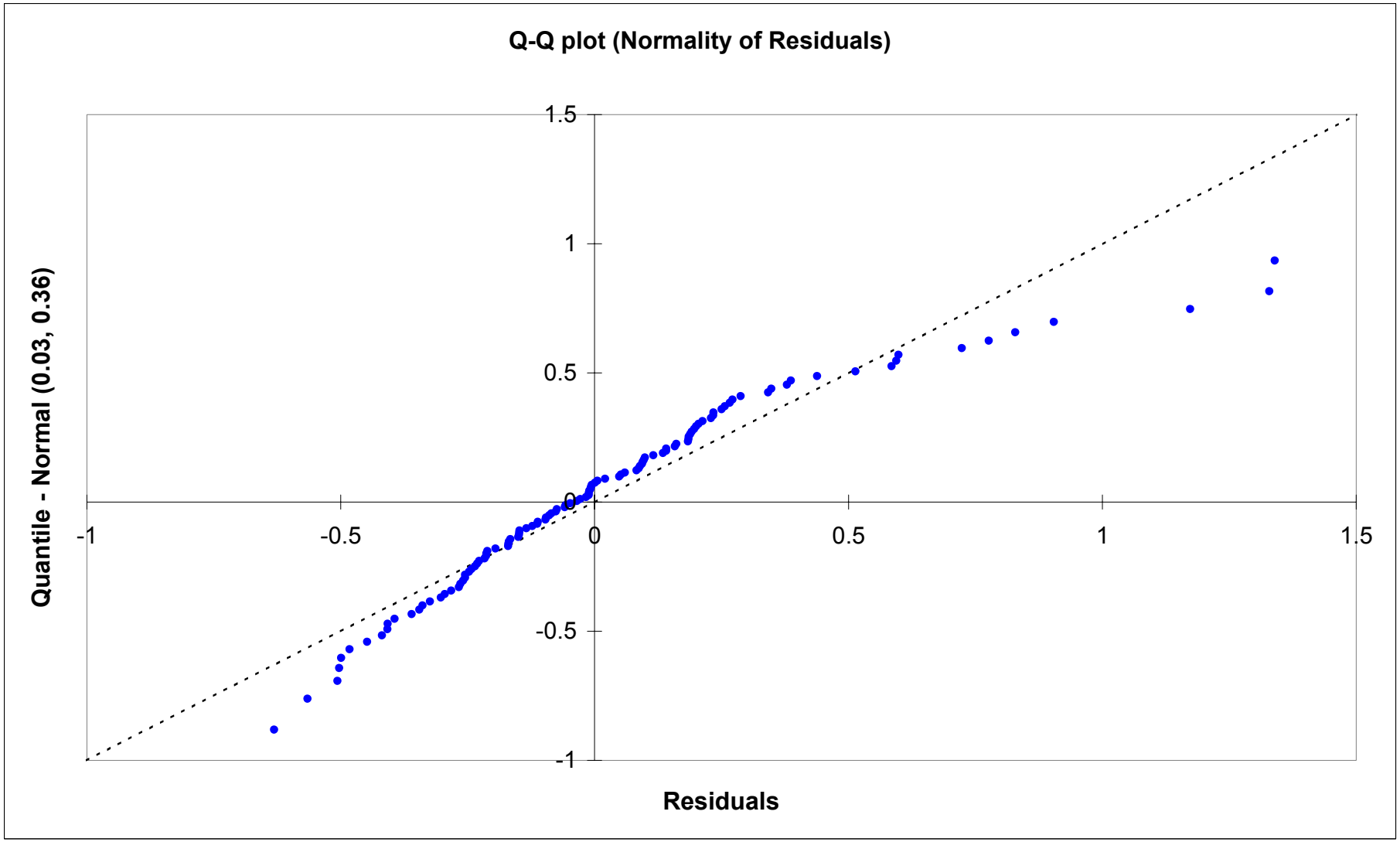
APPENDIX F, FIGURE F7-1
NORMALITY OF RESIDUALS - ARSENIC 2/3 POWER VERSUS PREDICTED ARSENIC FROM 6 FACTORS ANALYSIS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



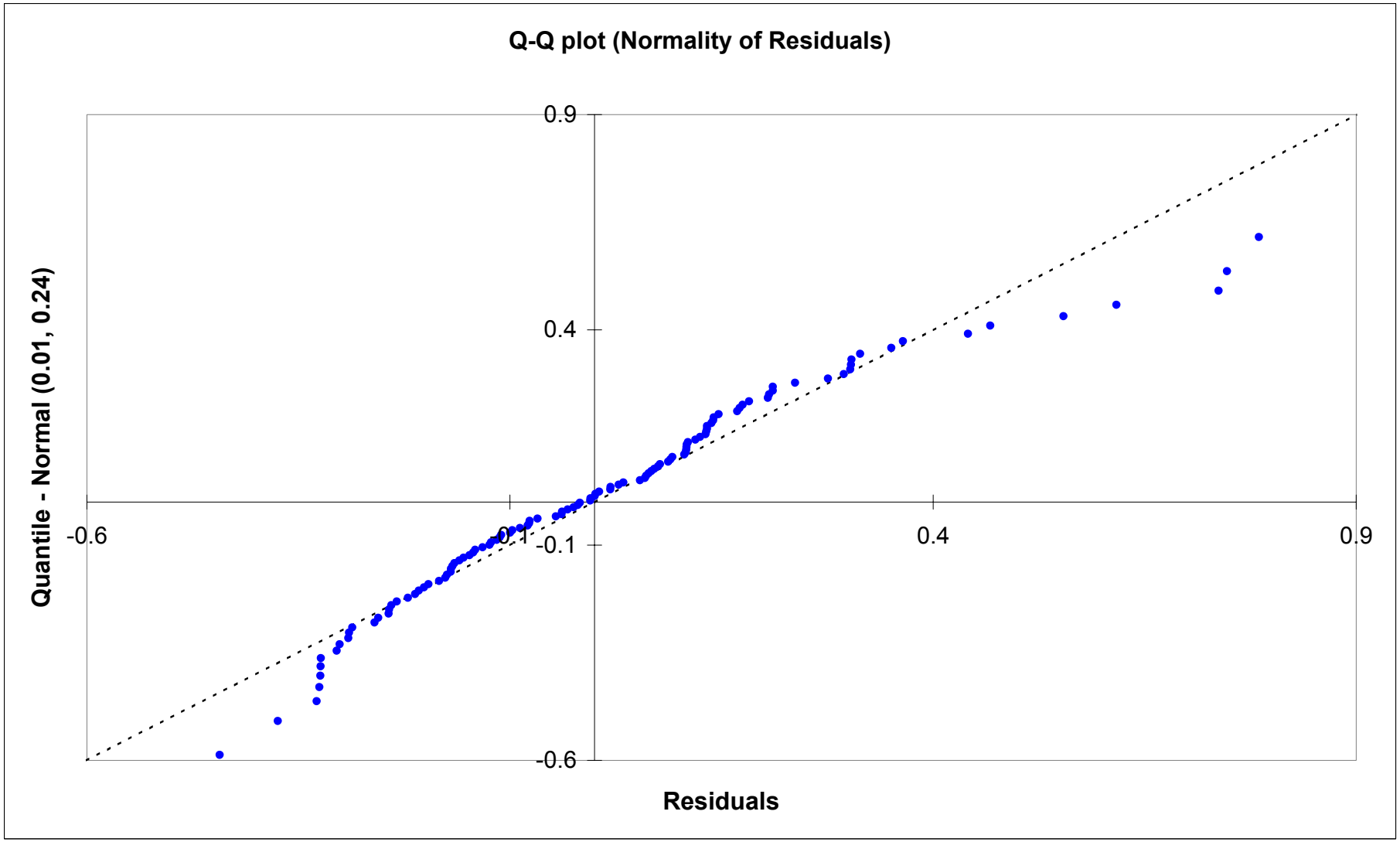
APPENDIX F, FIGURE F7-2
NORMALITY OF RESIDUALS - ARSENIC 2/3 POWER VERSUS IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F7-3
NORMALITY OF RESIDUALS - LEAD 2/3 POWER IN SURFACE SOIL VERSUS PREDICTED LEAD FROM 6 FACTORS ANALYSIS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F7-4
NORMALITY OF RESIDUALS - LEAD 1/2 POWER IN SURFACE SOIL VERSUS VANADIUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



Lead_Surface_Soil_Regressions_6_FA_All_Soil_Predictions.xls

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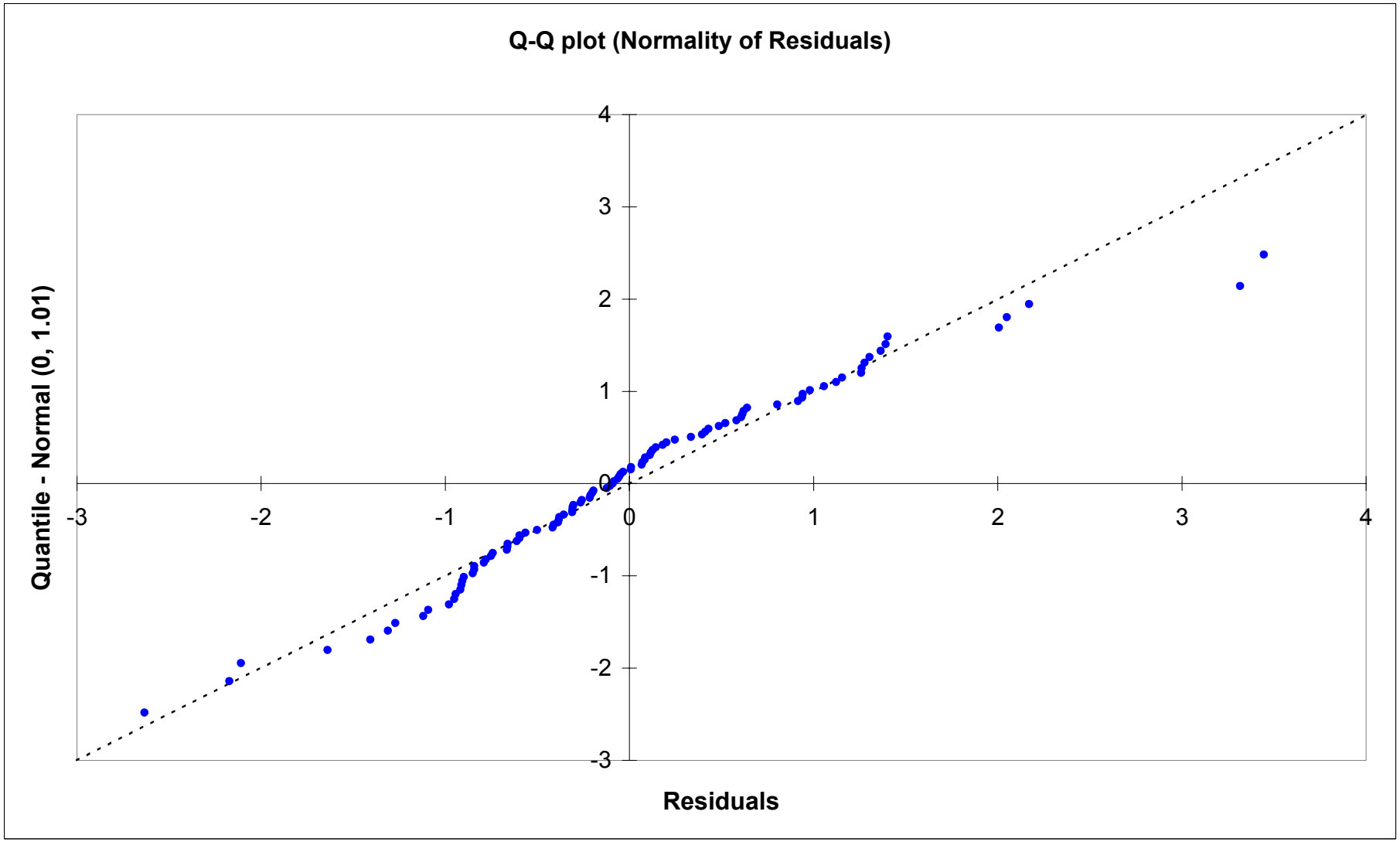
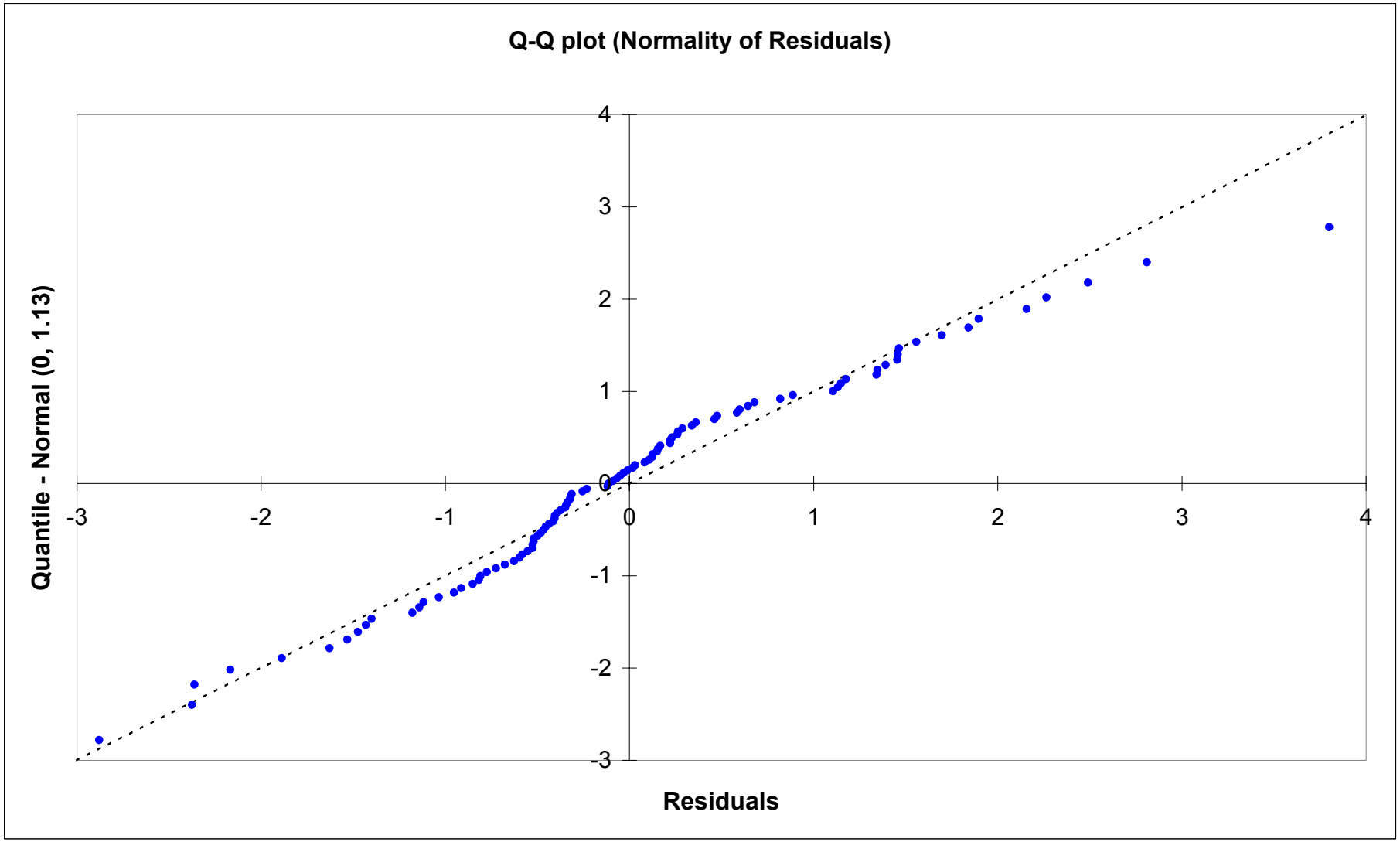
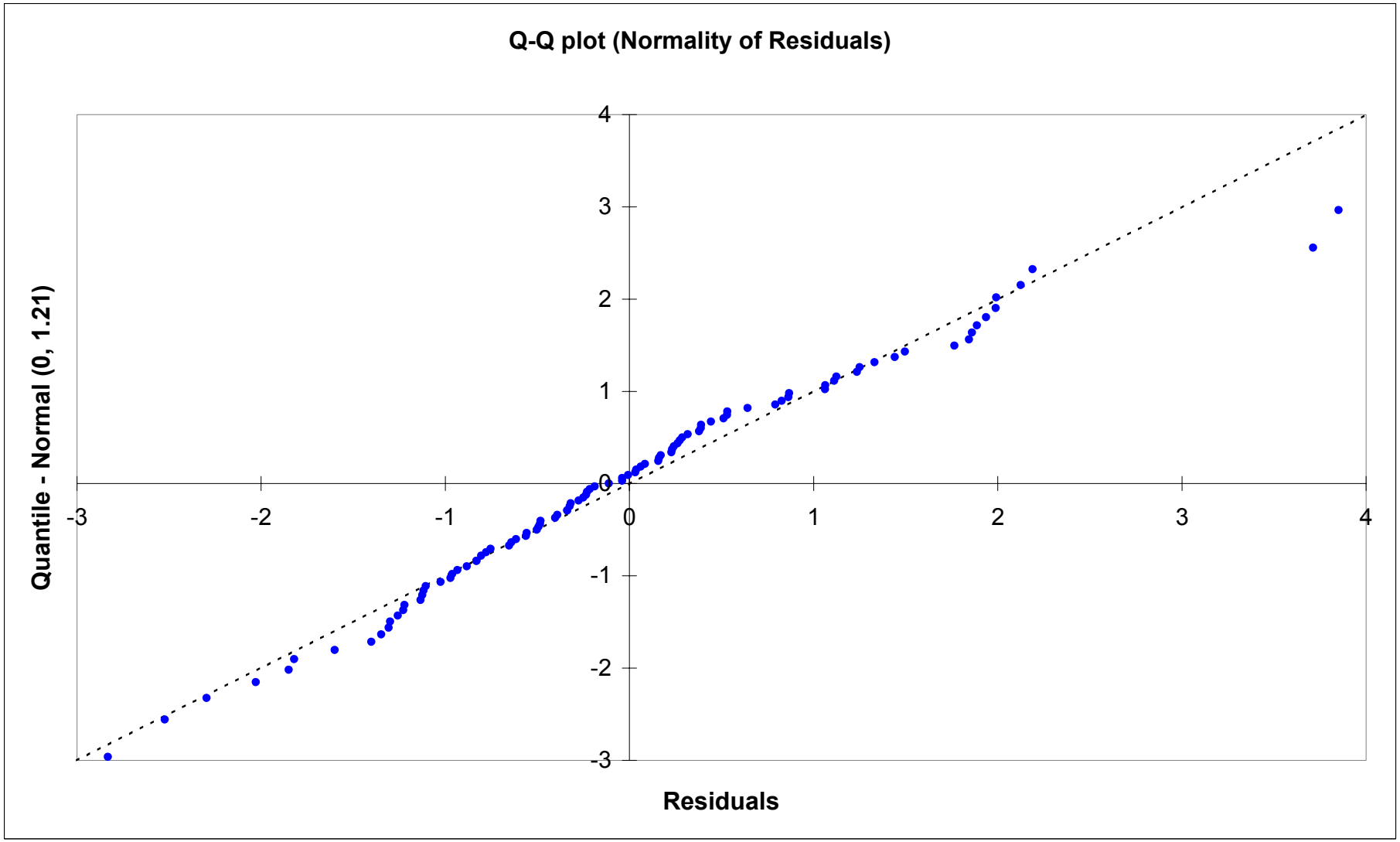
APPENDIX F, FIGURE F7-5
NORMALITY OF RESIDUALS - LEAD VERSUS PREDICTED LEAD FROM 5 FACTORS ANALYSIS OF SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



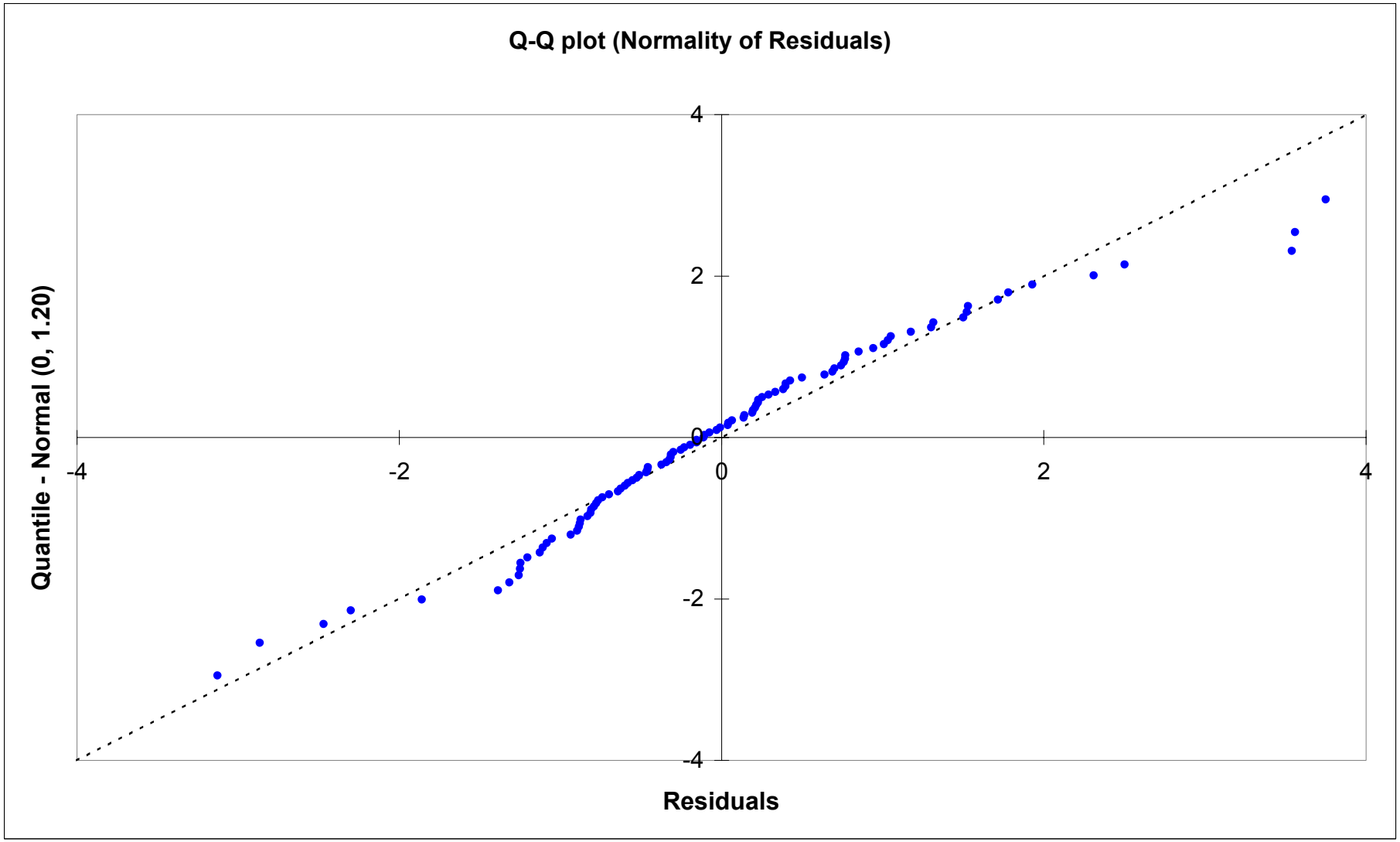
APPENDIX F, FIGURE F7-6
NORMALITY OF RESIDUALS - LEAD IN SUBSURFACE SOIL VERSUS ZINC
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



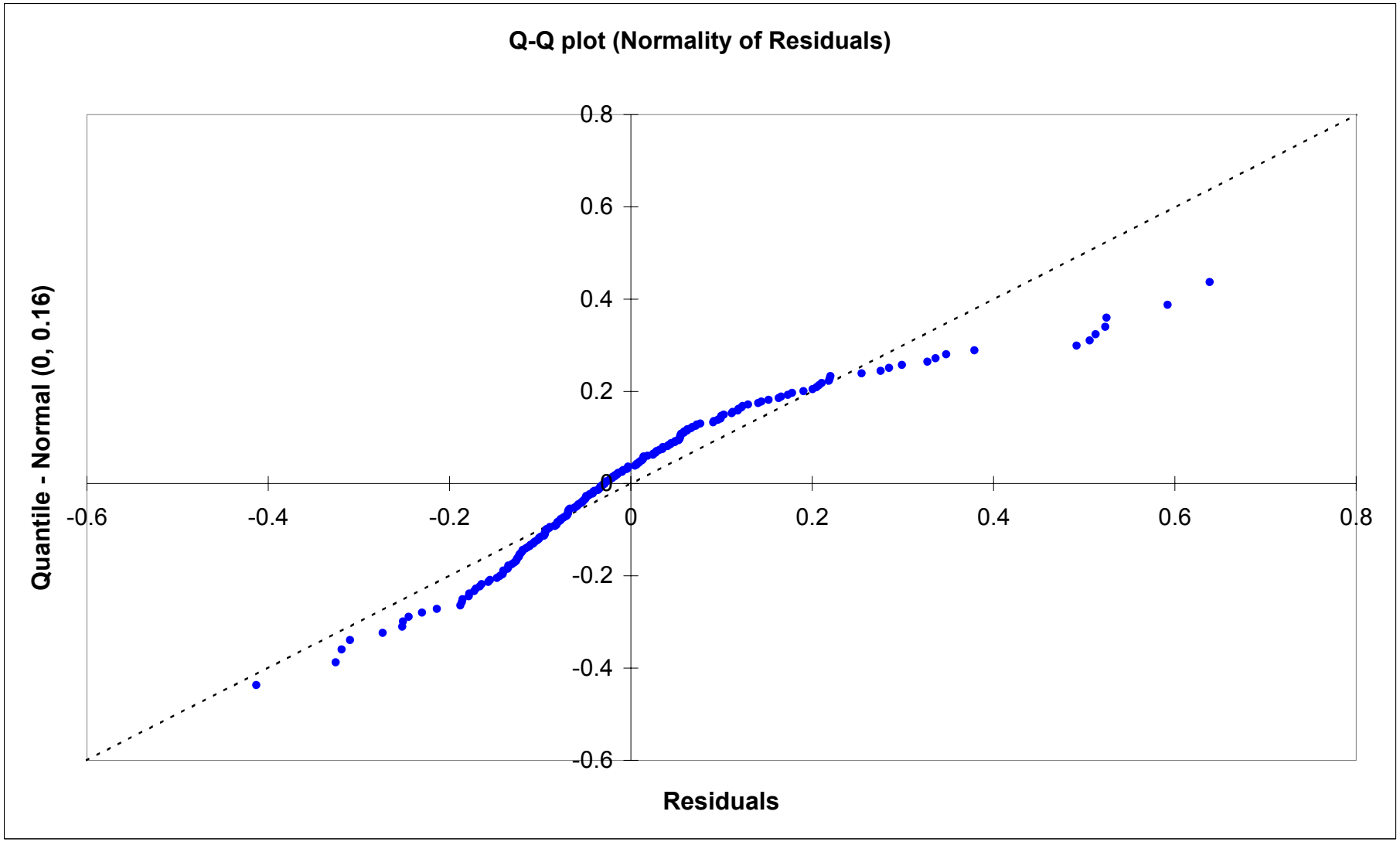
APPENDIX F, FIGURE F7-7
NORMALITY OF RESIDUALS - LEAD IN SUBSURFACE SOIL VERSUS NICKEL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



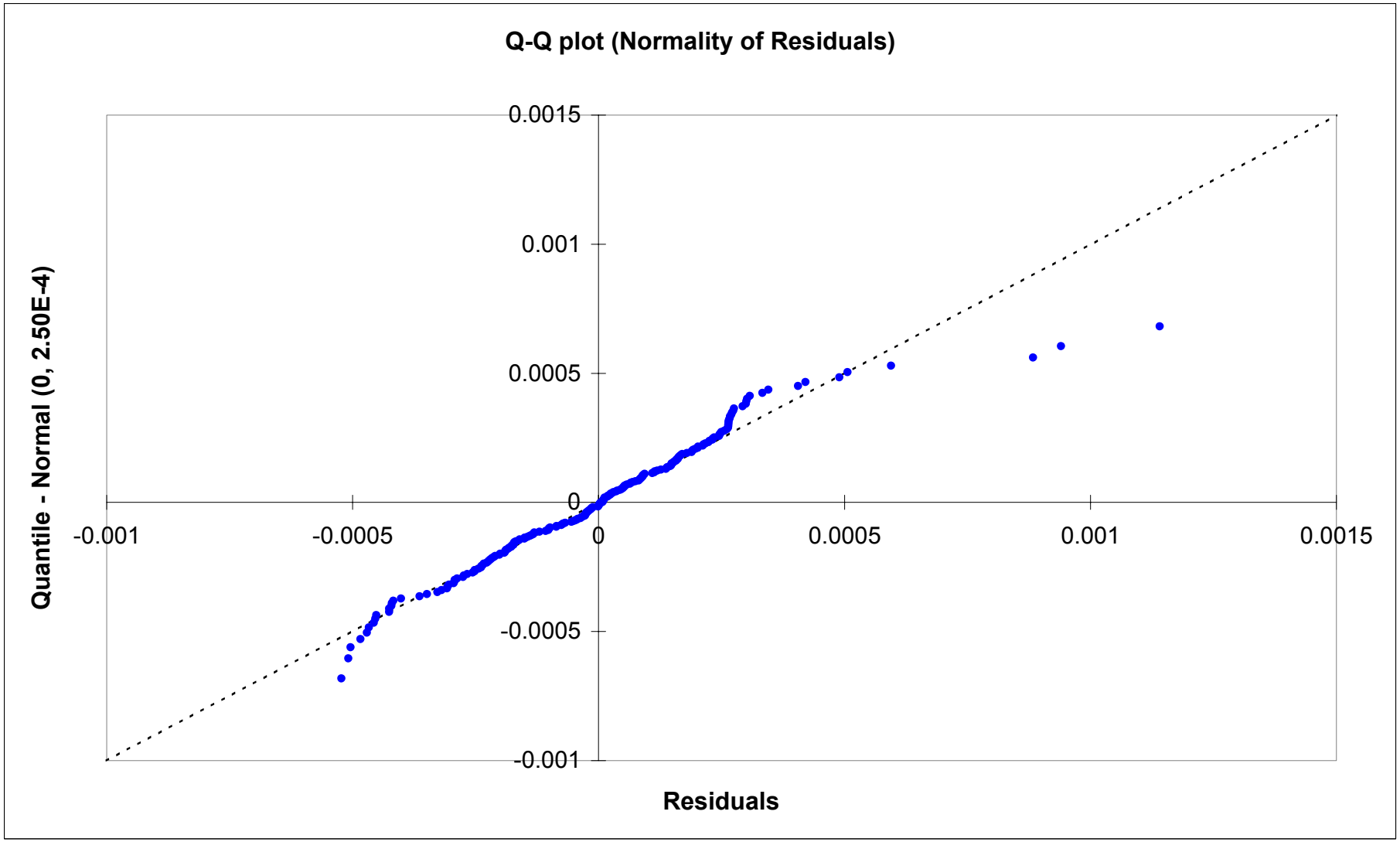
APPENDIX F, FIGURE F7-8
NORMALITY OF RESIDUALS - LEAD IN SUBSURFACE SOIL VERSUS IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



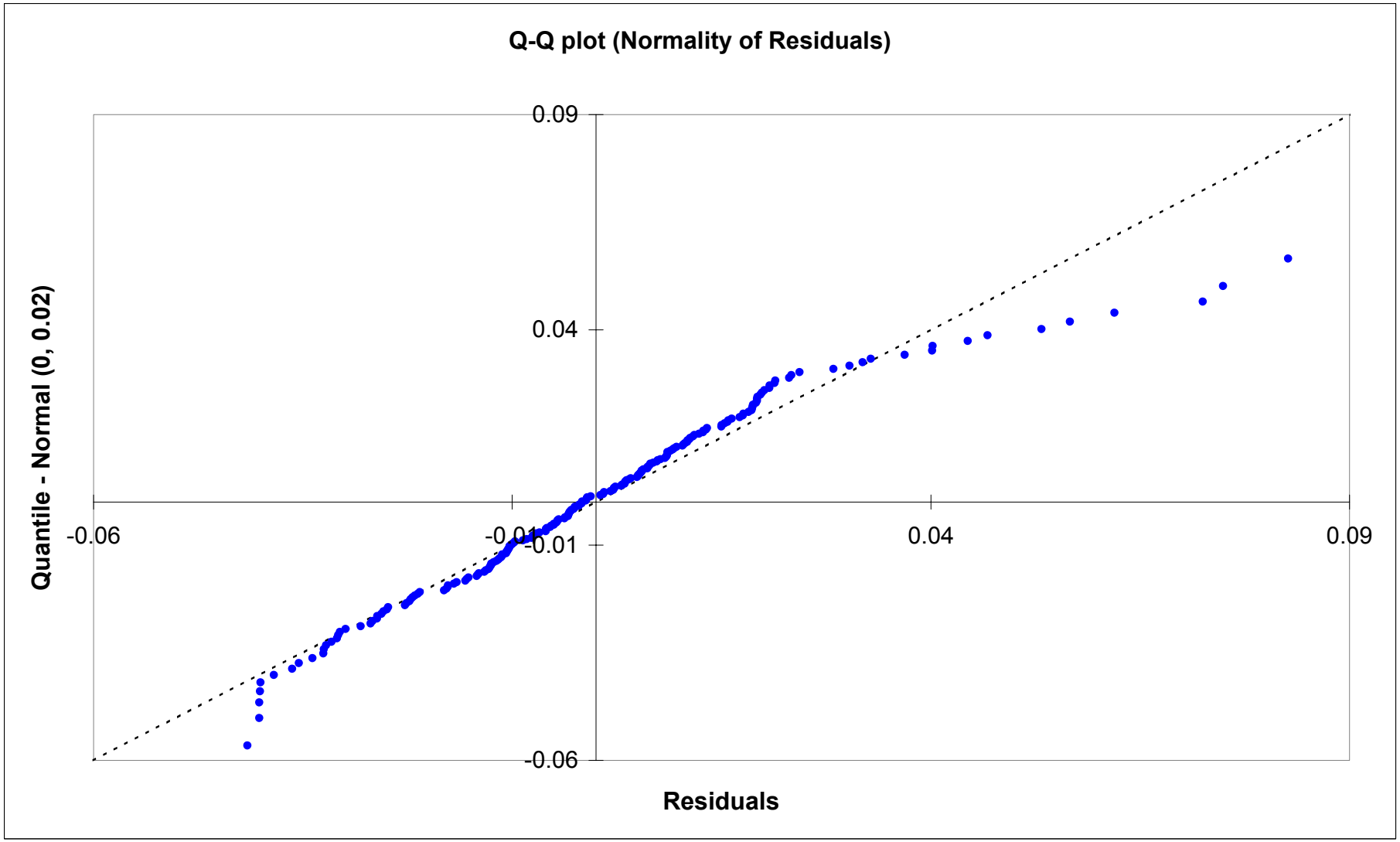
APPENDIX F, FIGURE F7-9
NORMALITY OF RESIDUALS - CHROMIUM VERSUS PREDICTED CHROMIUM FROM 6 FACTORS ANALYSIS, INCLU. SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F7-10
NORMALITY OF RESIDUALS - CHROMIUM VERSUS ALUMINUM IN SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

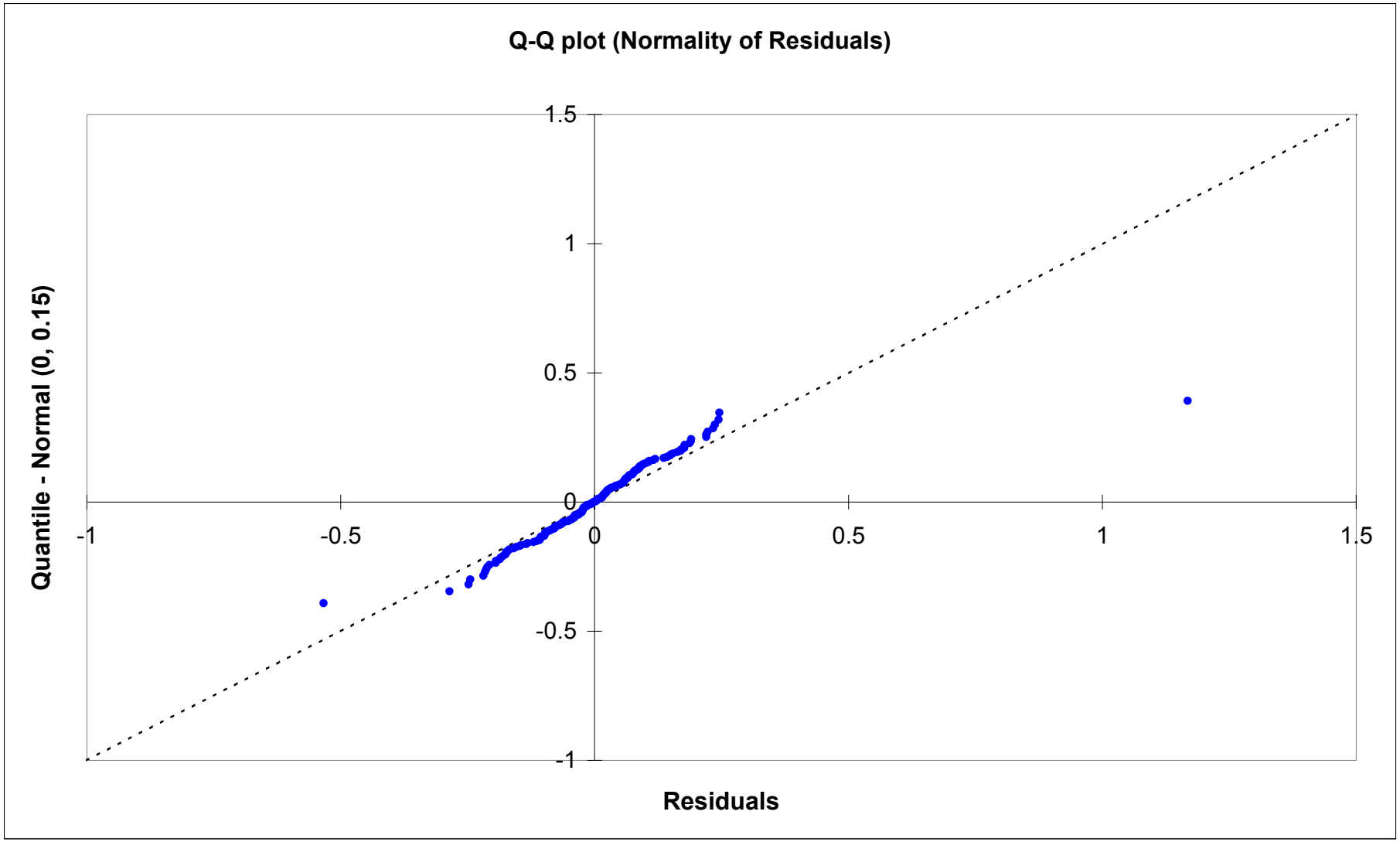


APPENDIX F, FIGURE F7-11
NORMALITY OF RESIDUALS - CHROMIUM 1/2 POWER REGRESSED ON PREDICTED CHROMIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

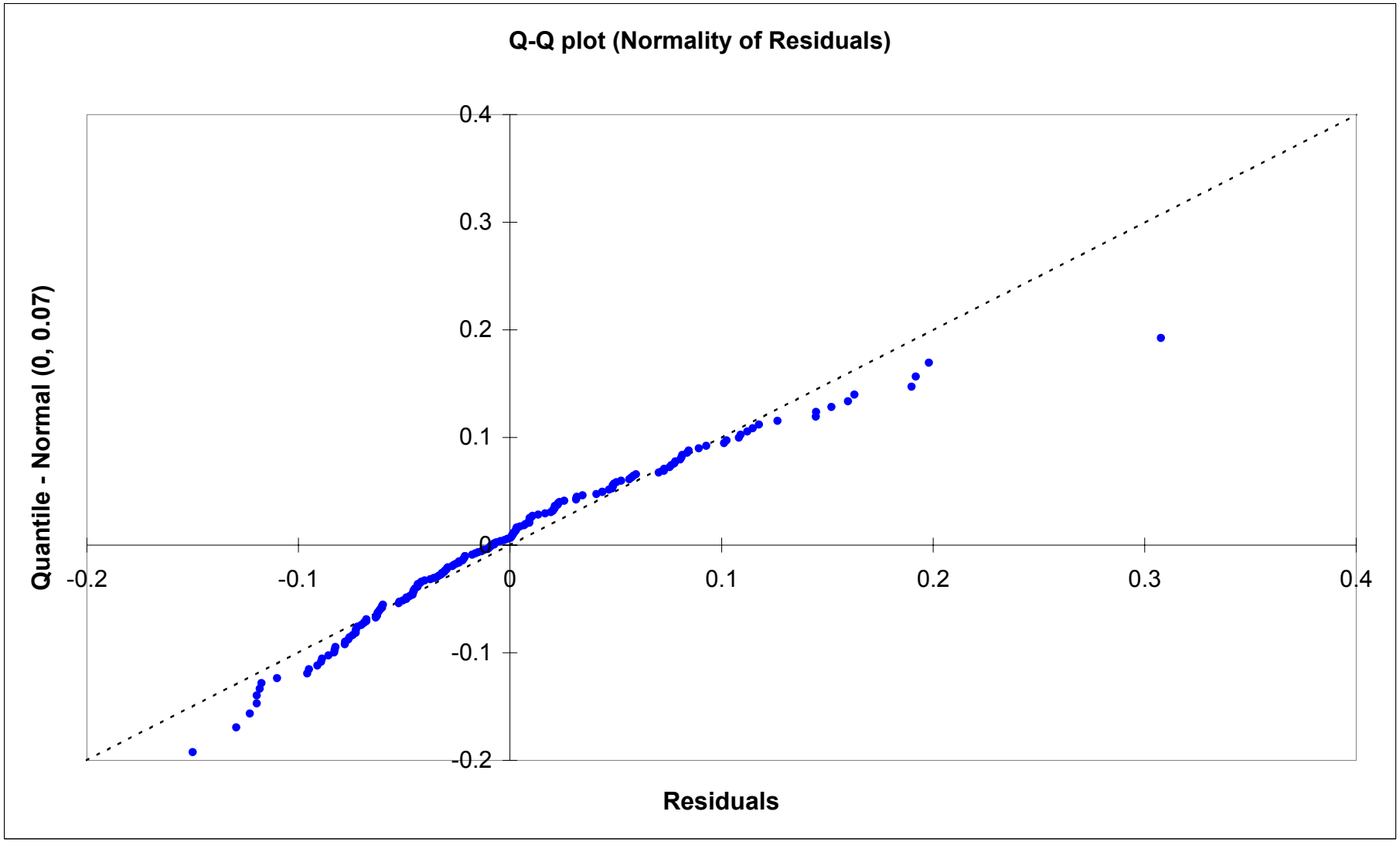


APPENDIX F, FIGURE F7-12
NORMALITY OF RESIDUALS - CHROMIUM VERSUS ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

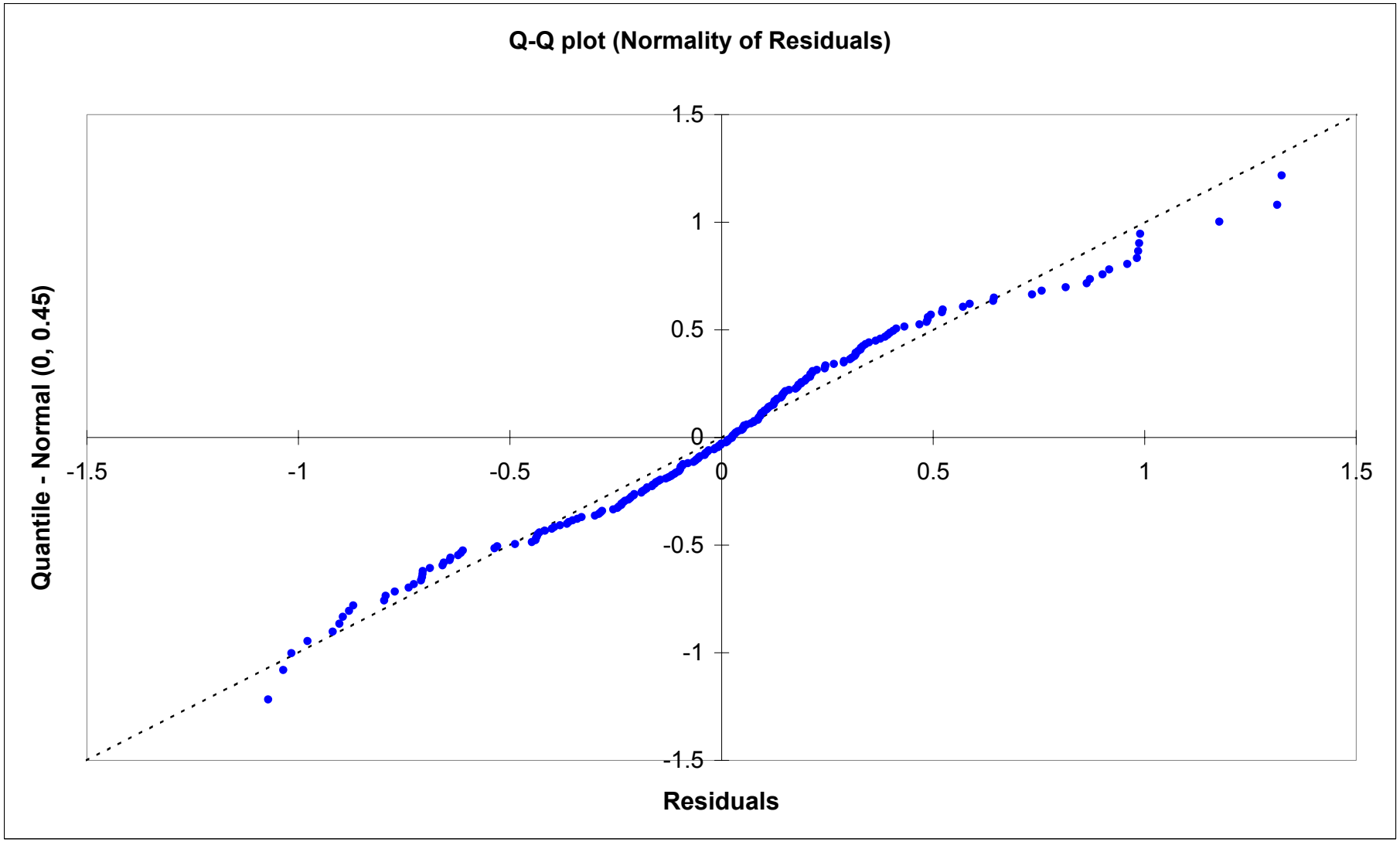
APPENDIX F, FIGURE F7-13
NORMALITY OF RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON PREDICTION FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



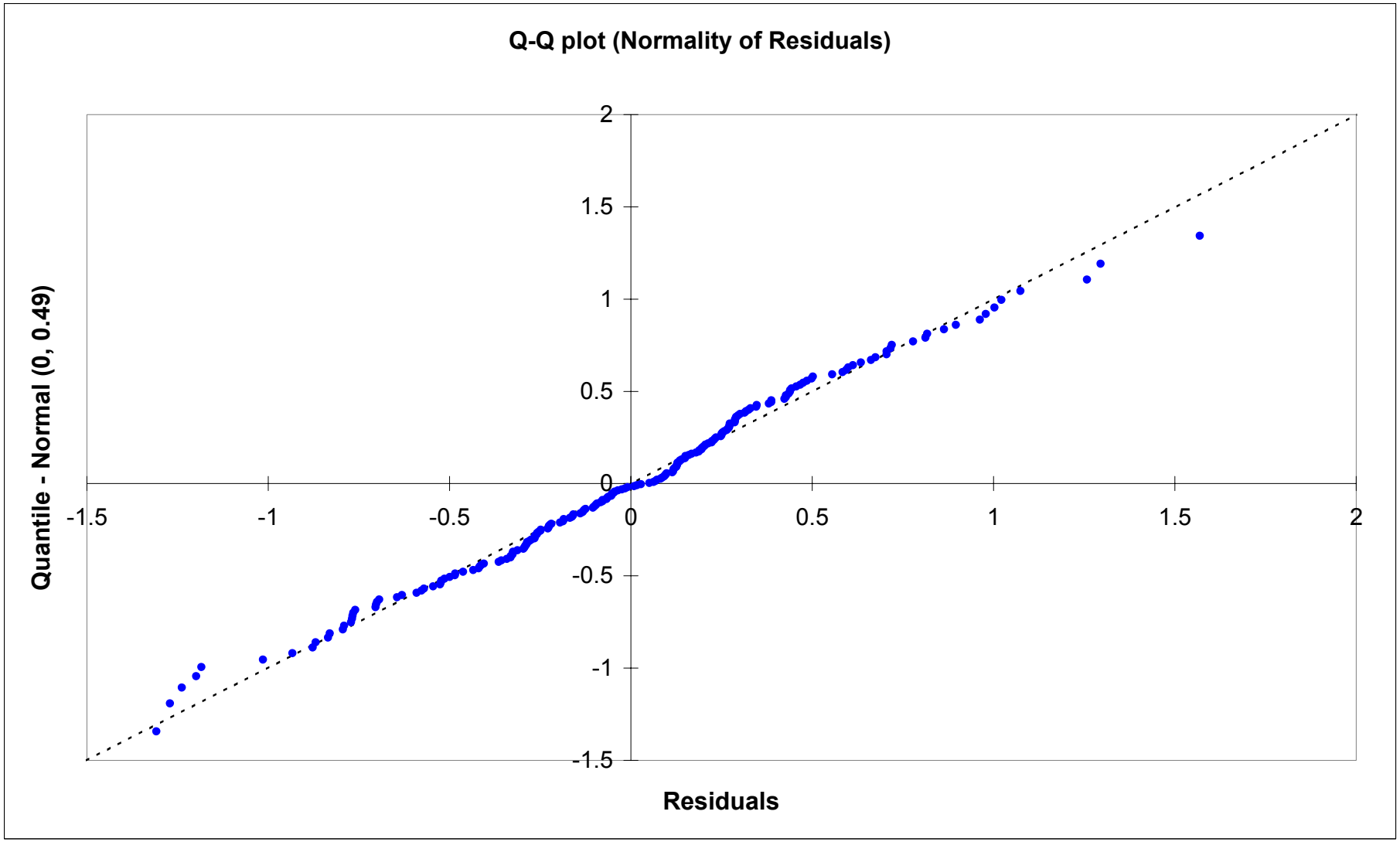
APPENDIX F, FIGURE F7-14
NORMALITY OF RESIDUALS - BERYLLIUM 1/2 POWER REGRESSED ON ALUMINUM IN SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



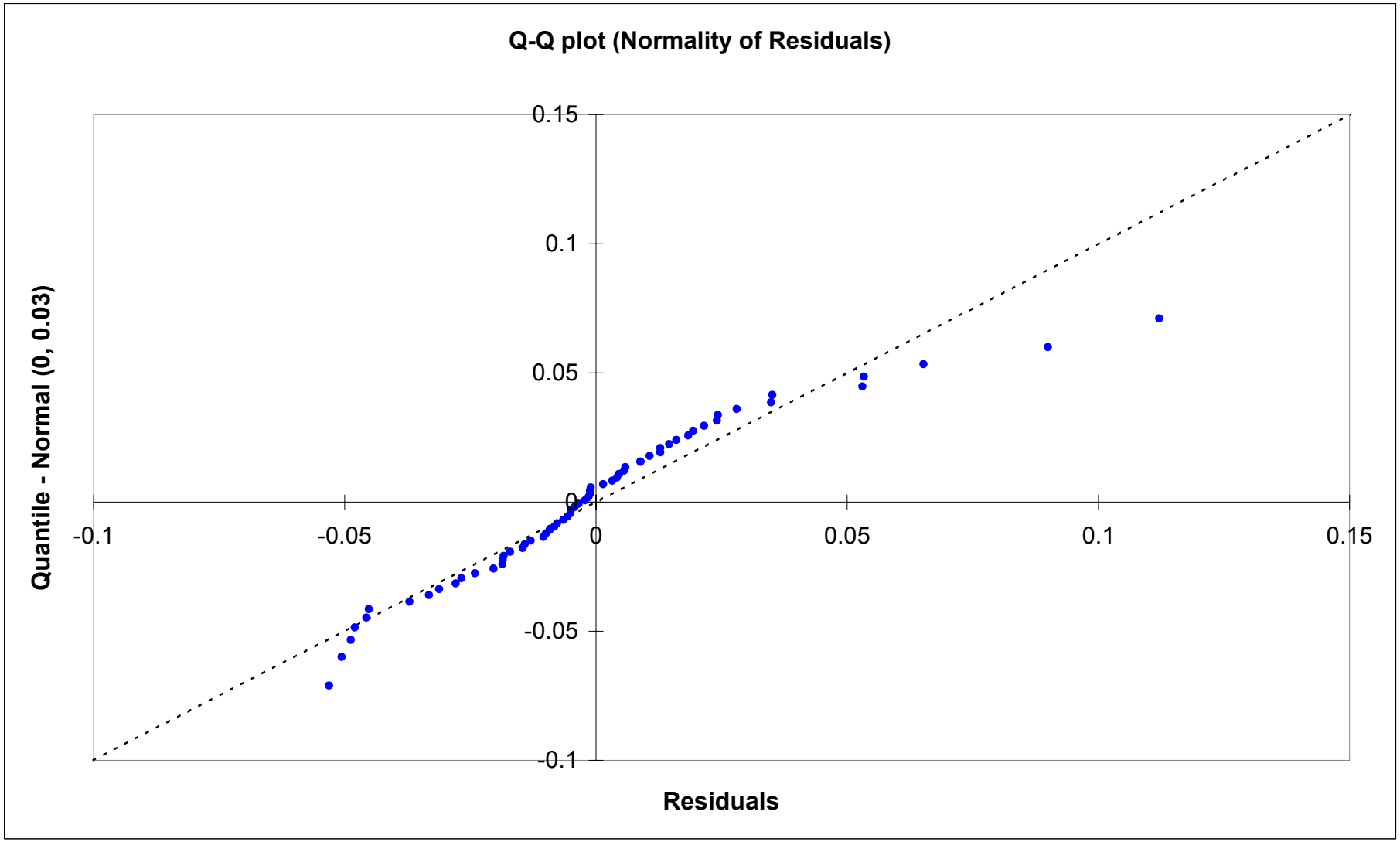
APPENDIX F, FIGURE F7-15
NORMALITY OF RESIDUALS - LOG MANGANESE REGRESSED ON PREDICTED LOG MANGANESE FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



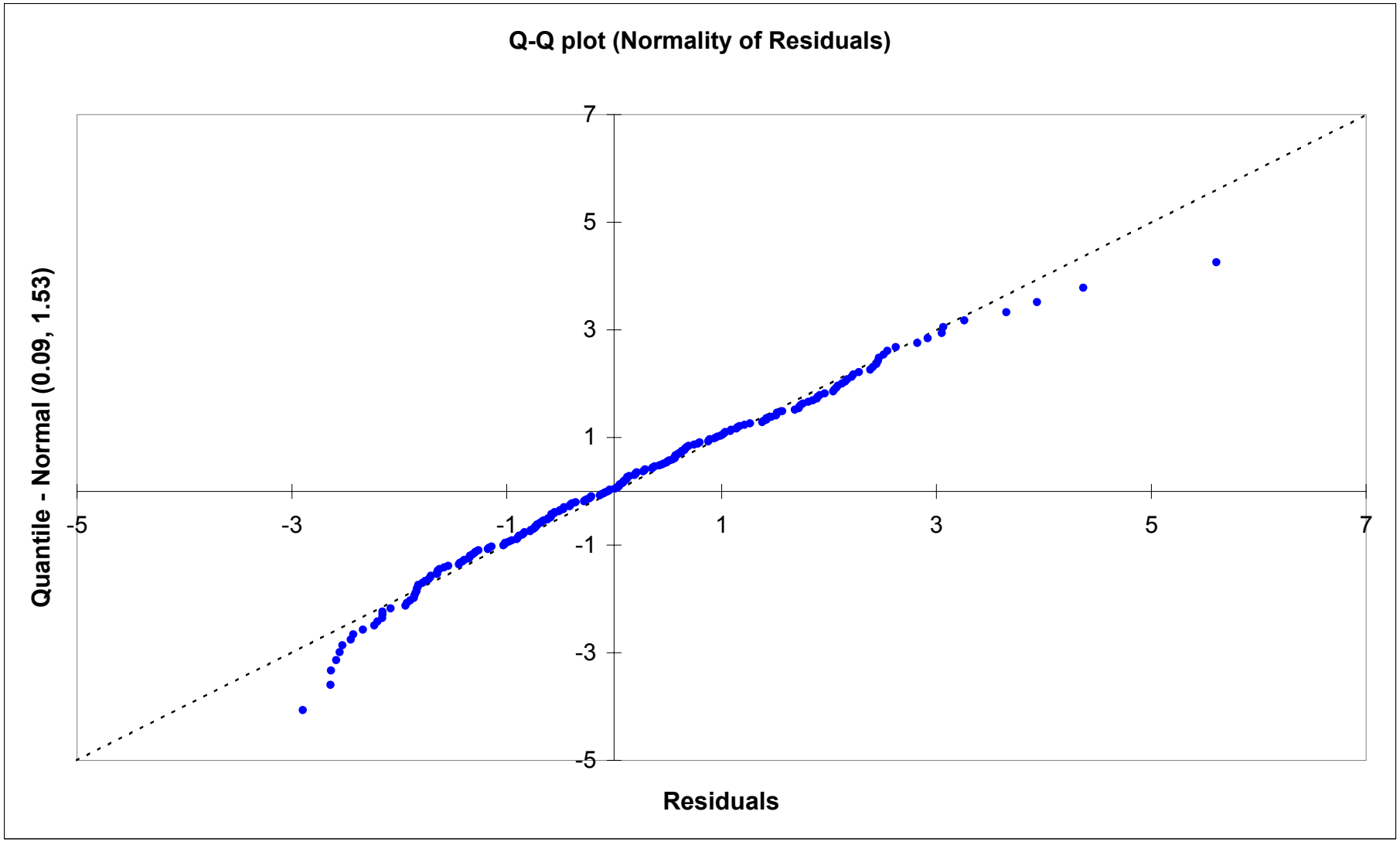
APPENDIX F, FIGURE F7-16
NORMALITY OF RESIDUALS - LOG MANGANESE REGRESSED ON ALL SOIL DATA FOR LOG IRON
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



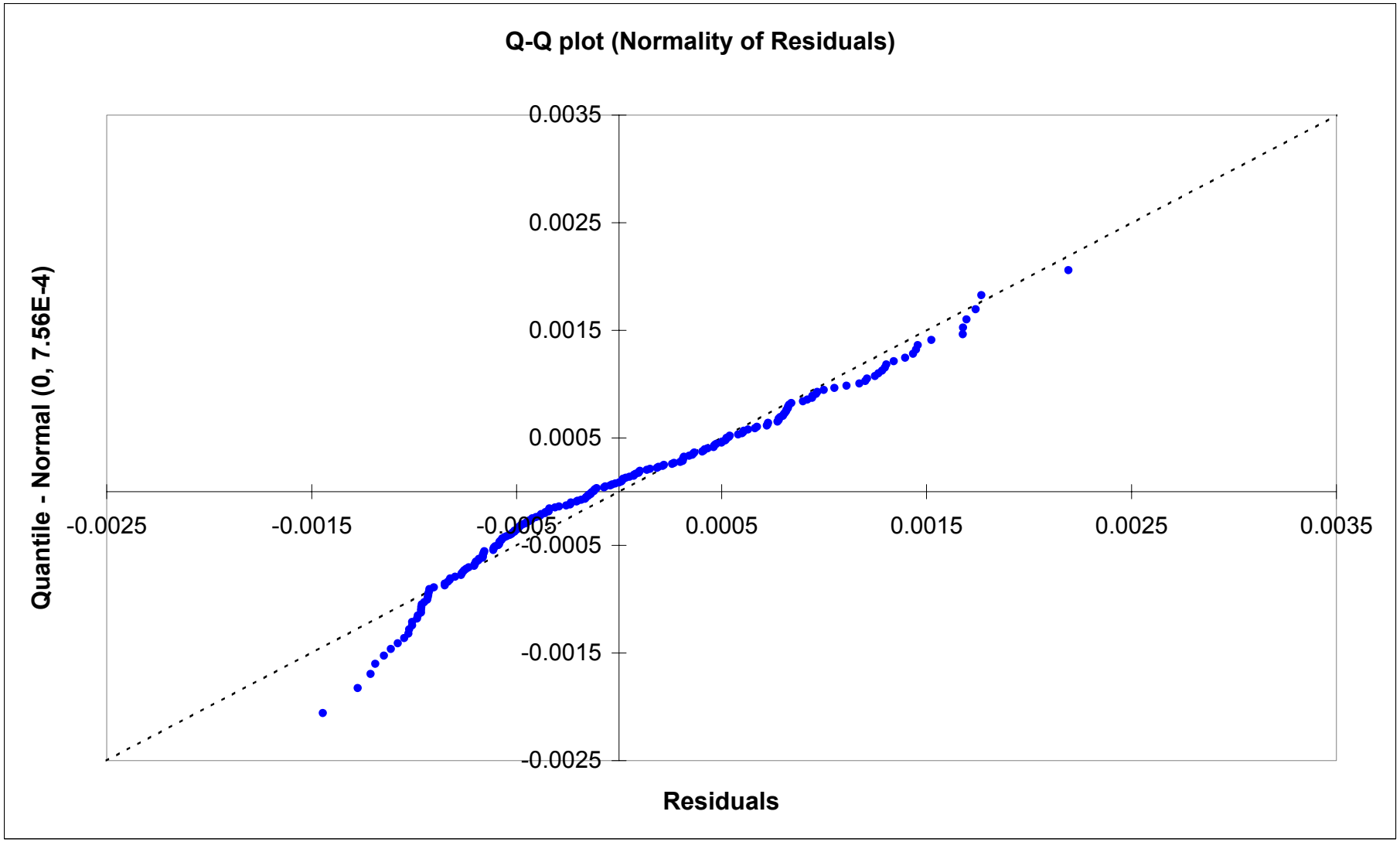
APPENDIX F, FIGURE F7-17
NORMALITY OF RESIDUALS - MERCURY IN MASS, MMSS, NESS SURFACE SOIL VERSUS COPPER
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



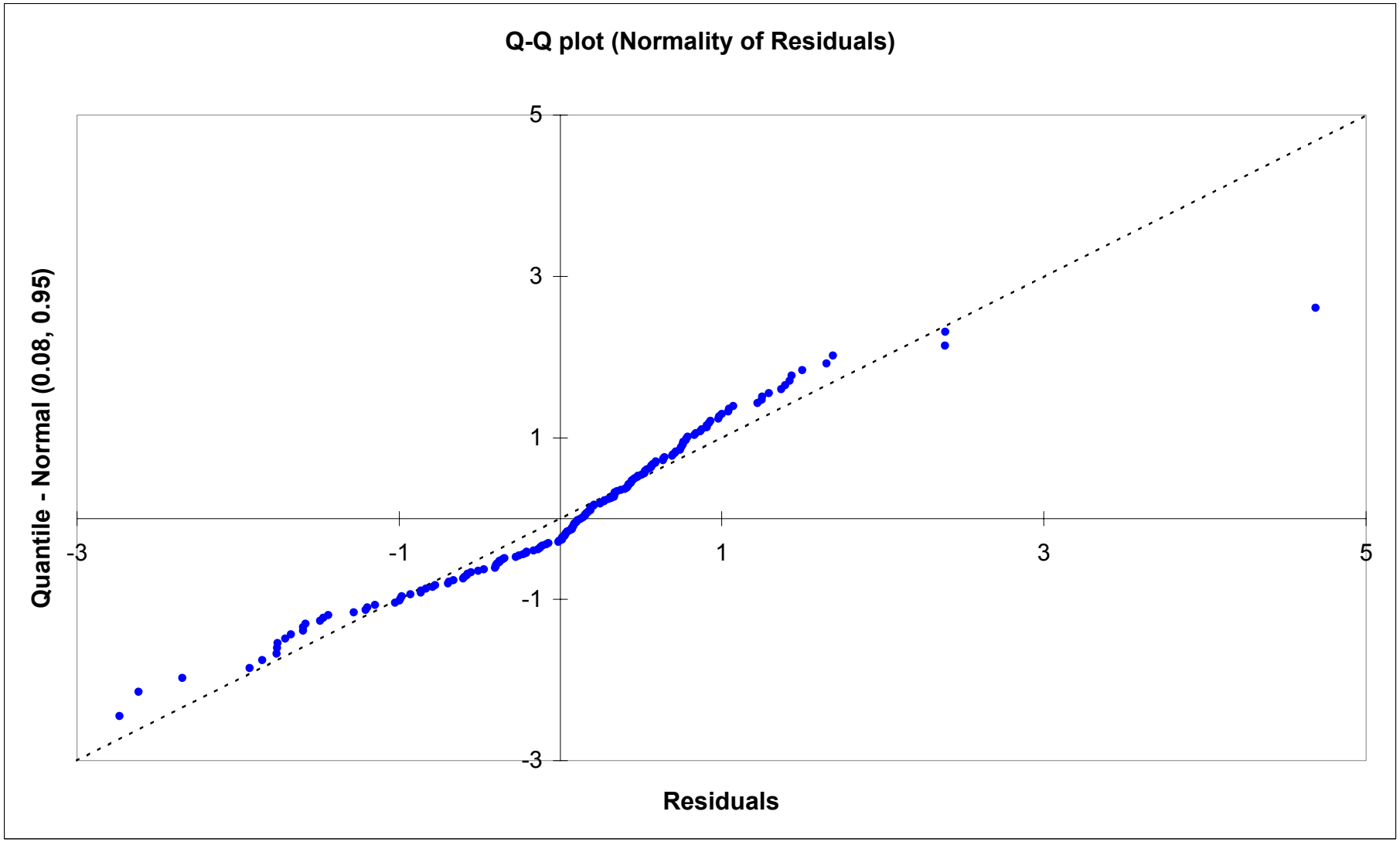
APPENDIX F, FIGURE F7-18
NORMALITY OF RESIDUALS - BARIUM REGRESSED ON PREDICTED BARIUM FROM 5 FACTOR ANAL., MIXED LOG DATA
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



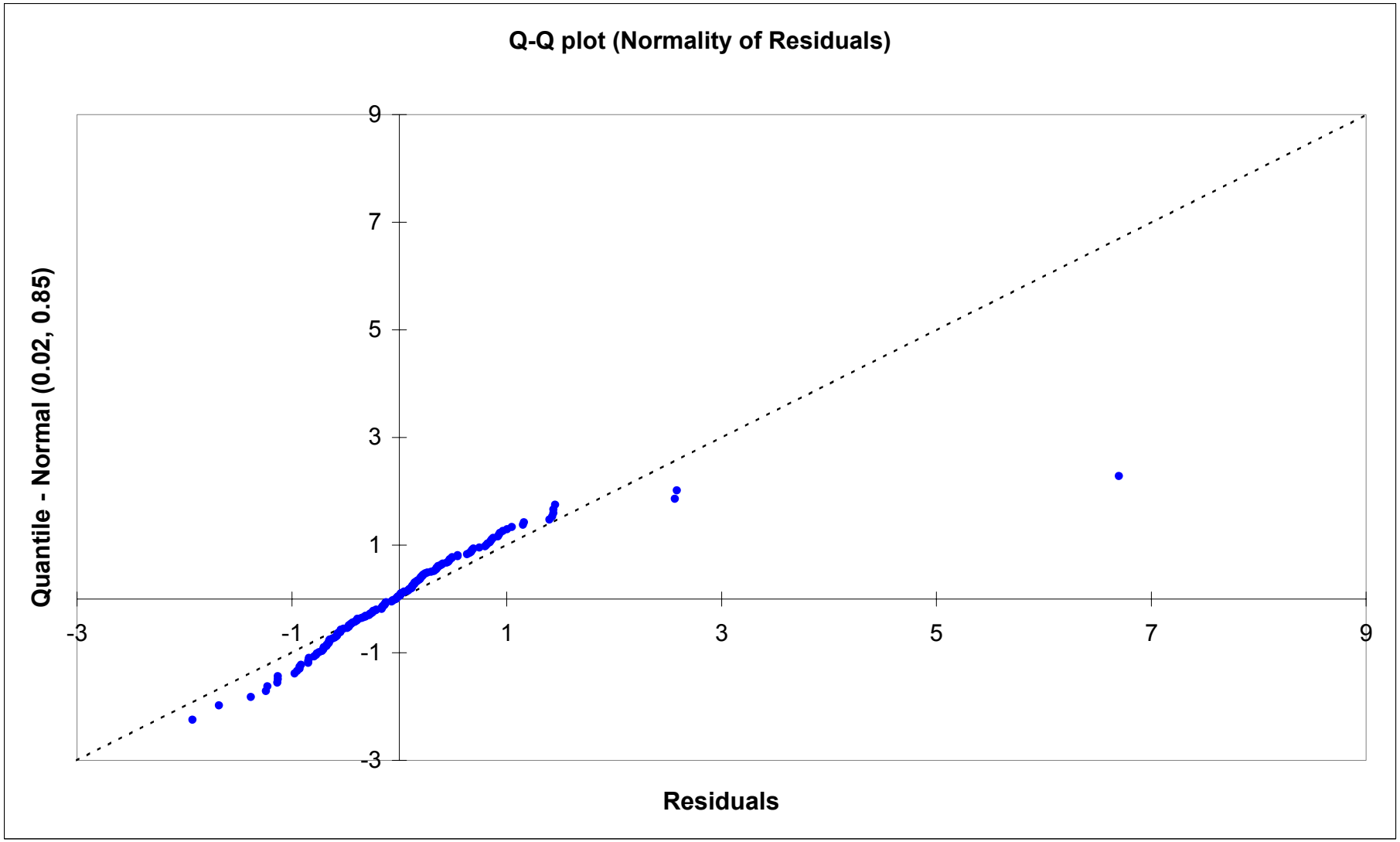
APPENDIX F, FIGURE F7-19
NORMALITY OF RESIDUALS - BARIUM VERSUS ALL SOIL DATA FOR ALUMINUM
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



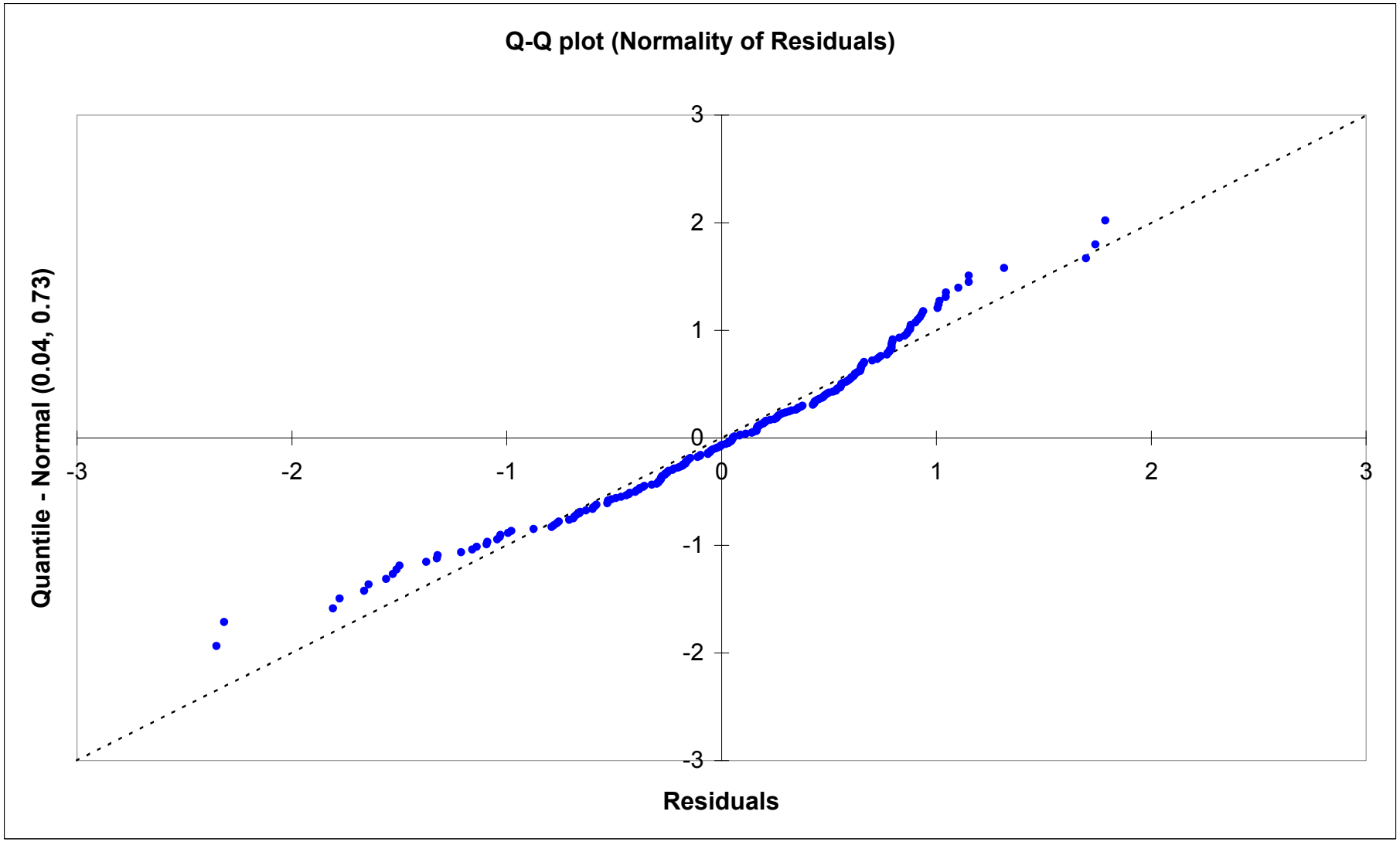
APPENDIX F, FIGURE F7-20
NORMALITY OF RESIDUALS - COPPER REGRESSED ON PREDICTED COPPER FROM 6 FACTOR ANALYSIS SOIL, OMIT PMSS/SESS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



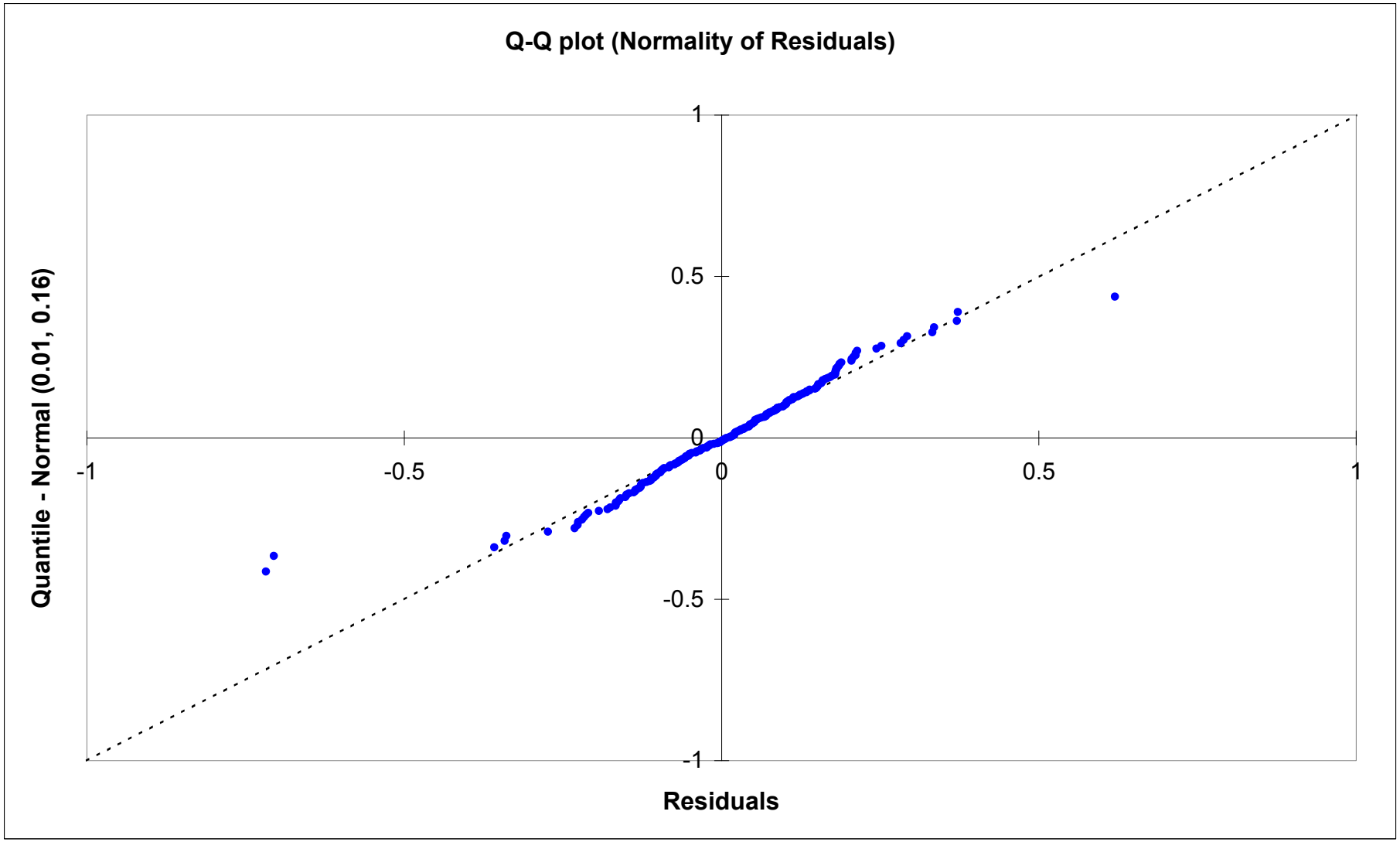
APPENDIX F, FIGURE F7-21
NORMALITY OF RESIDUALS - COPPER VERSUS ALL SOIL DATA FOR NICKEL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



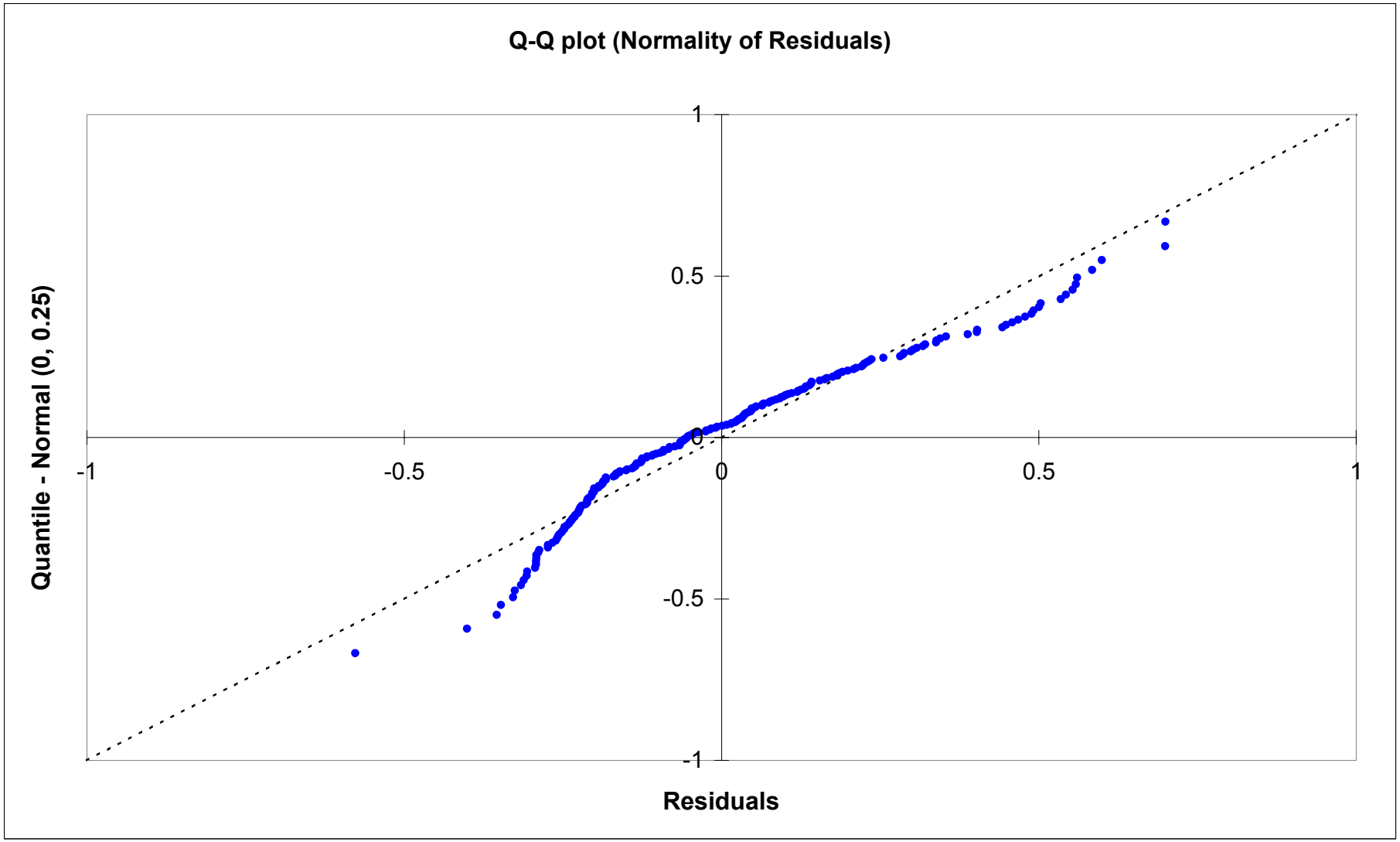
APPENDIX F, FIGURE F7-22
NORMALITY OF RESIDUALS - NICKEL REGRESSED ON PREDICTED NICKEL FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



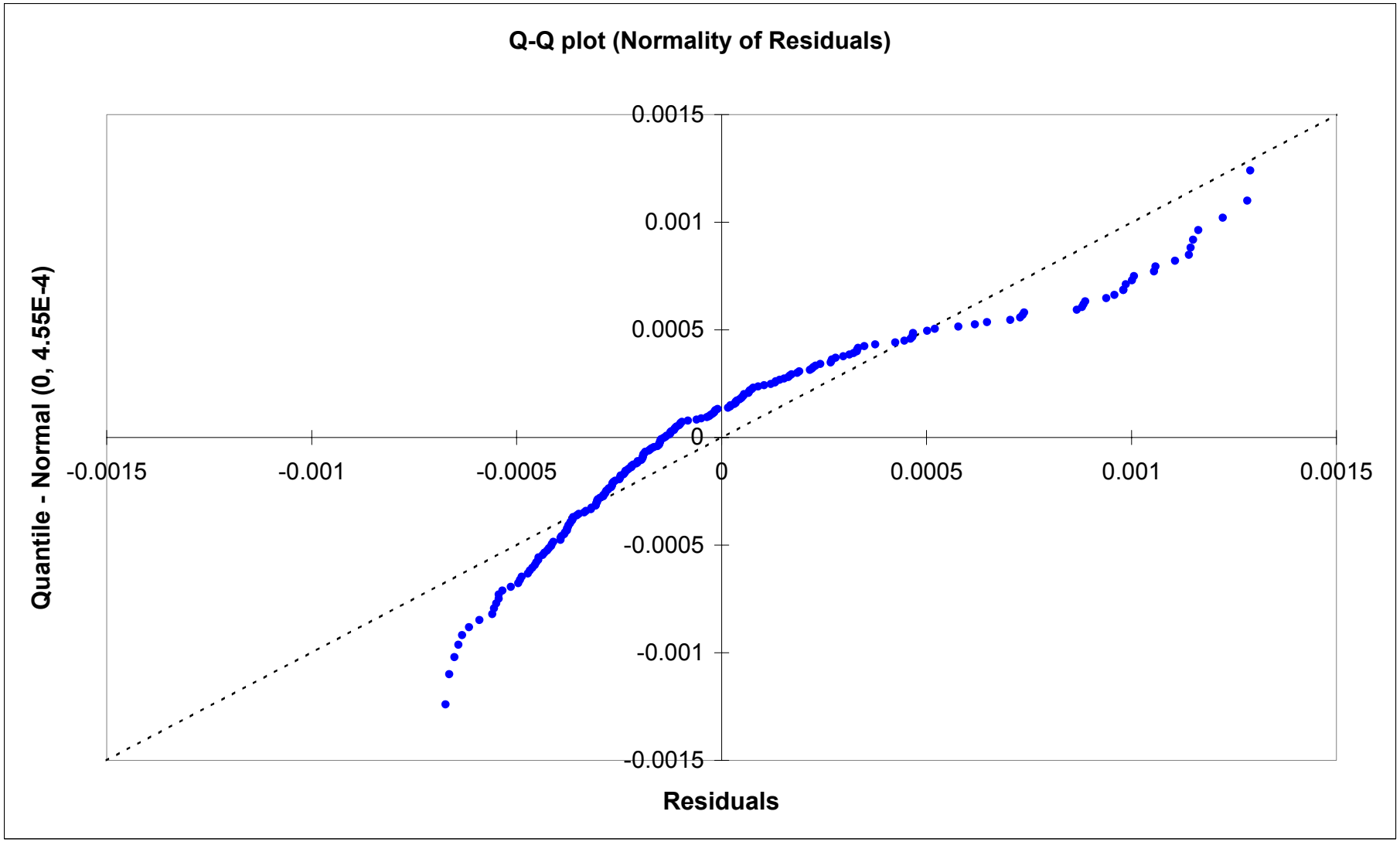
APPENDIX F, FIGURE F7-23
NORMALITY OF RESIDUALS - NICKEL REGRESSED ON IRON IN SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



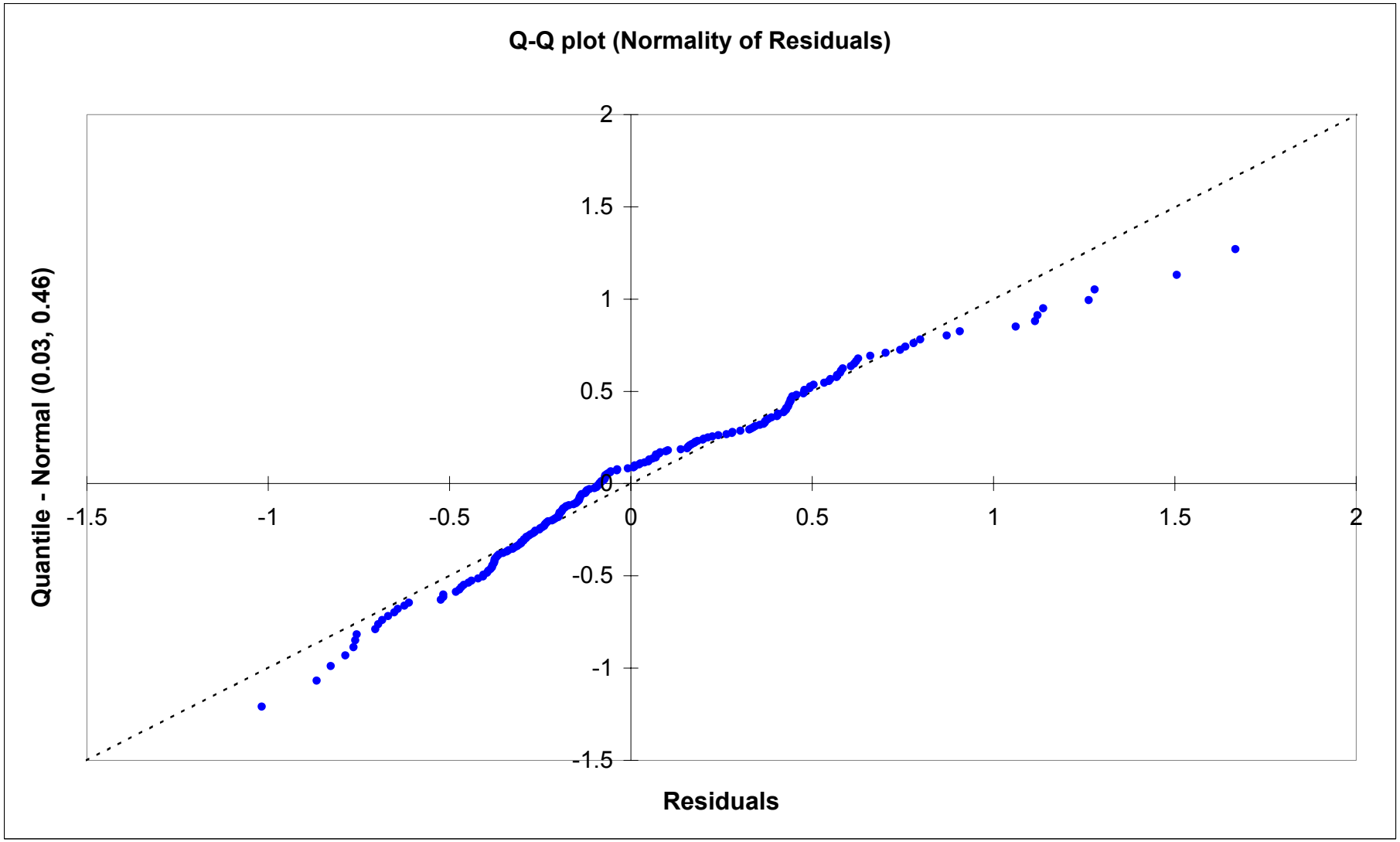
APPENDIX F, FIGURE F7-24
NORMALITY OF RESIDUALS - VANADIUM REGRESSED ON PREDICTED SOIL VANADIUM FROM 6 FACTOR ANALYSIS, INCLUDING SE-SED
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



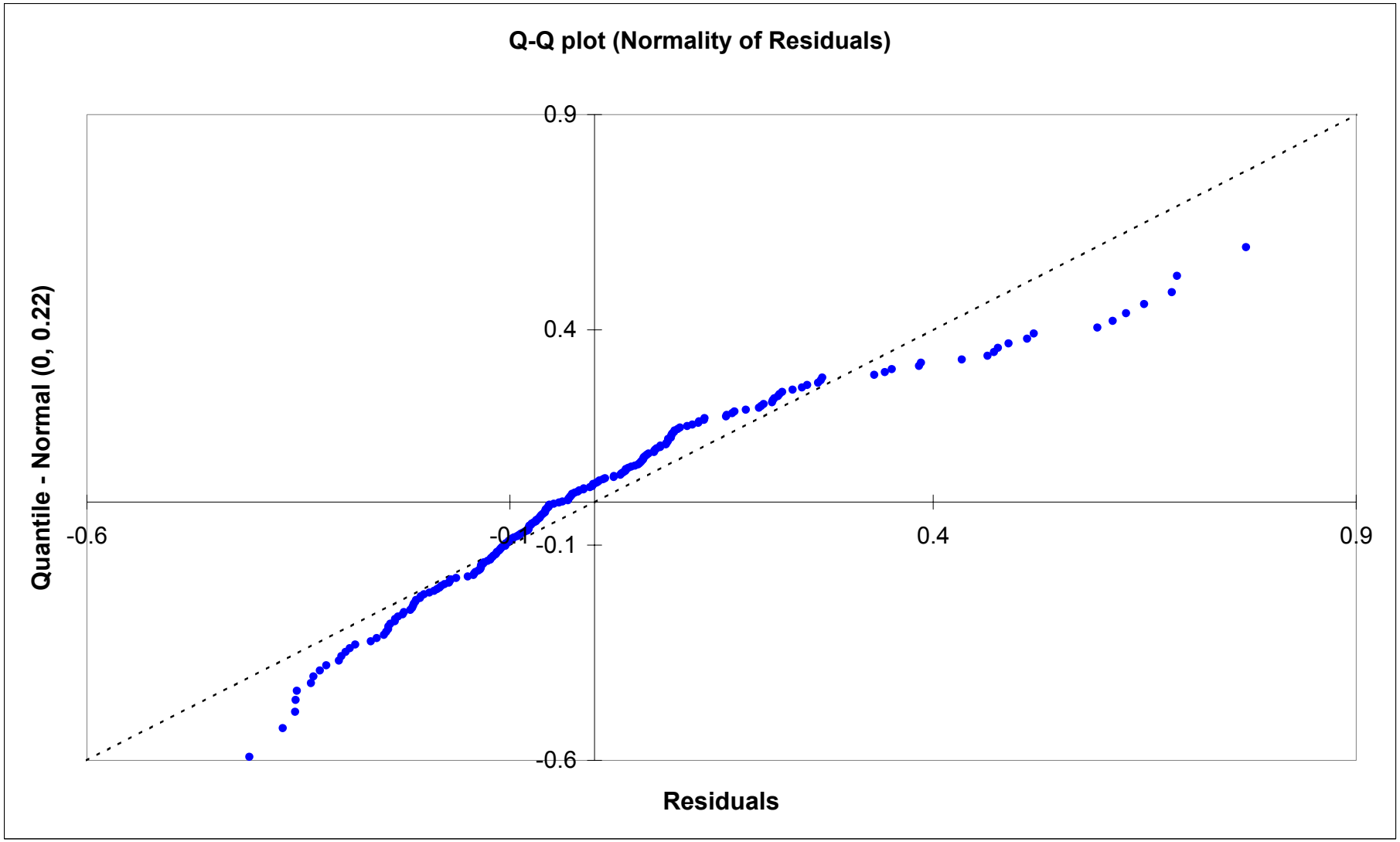
APPENDIX F, FIGURE F7-25
NORMALITY OF RESIDUALS - VANADIUM REGRESSED ON ALUMINUM IN SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F7-26
NORMALITY OF RESIDUALS - ZINC 2/3 POWER REGRESSED ON PREDICTED ZINC FROM 6 FACTOR ANALYSIS OF SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, FIGURE F7-27
NORMALITY OF RESIDUALS - LOG ZINC REGRESSED ON LOG IRON IN SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND



APPENDIX F, PART 8

GEOCHEMICAL REGRESSION CALCULATION SUPPORT DATA FOR SELECTED METALS

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: AS ^0.67			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals				
	X variable name used on graph: AS predict (from Factor Anal.)			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median		
	N	234.000000		-1.85	0.70	0.34	1.06	-1.10	1.10	0.00		No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	2.783250E+01		0.08	1.27	0.73	1.81	-1.10	1.10	0.00		of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.651448		2.01	1.84	1.04	2.64	-1.10	1.10	0.00		for Each Soil Type:
degrees freedom	SUM(XY*w^2)	1.494898E+03		3.94	2.41	1.42	3.40	-1.10	1.10	0.00		---- V ----
2	SUM(X^2*w^2)	3.718358E+03		5.87	2.98	1.83	4.14	-1.10	1.10	0.00		BASS
	SUM(X*w^2)	3.155778E+02		7.80	3.56	2.27	4.85	-1.10	1.10	0.00		0
	SUM(Y*w^2)	1.867875E+02		9.73	4.13	2.71	5.55	-1.10	1.10	0.00		MASS
	SUM(w^2)	7.489584E+01		11.66	4.70	3.16	6.24	-1.10	1.10	0.00		2
	SUM(Y)	988.722909		13.59	5.27	3.63	6.92	-1.10	1.10	0.00		MMSS
	SUM(X)	2.267485E+03		15.52	5.85	4.10	7.60	-1.10	1.10	0.00		0
	Denominator	1.789002E+05		17.46	6.42	4.57	8.26	-1.10	1.10	0.00		NESS
	Slope	2.963420E-01		19.39	6.99	5.05	8.93	-1.10	1.10	0.00		4
	Intercept	1.245310E+00		21.32	7.56	5.53	9.59	-1.10	1.10	0.00		PMSS
	Minimum X value	-1.853517E+00		23.25	8.13	6.02	10.25	-1.10	1.10	0.00		0
	Maximum X value	4.448763E+01		25.18	8.71	6.51	10.90	-1.10	1.10	0.00		SESS
	Minimum Y value	8.831858E-01		27.11	9.28	7.00	11.55	-1.10	1.10	0.00		2
	Maximum Y value	1.725889E+01		29.04	9.85	7.50	12.20	-1.10	1.10	0.00		SESD
	No. of graph points	25		30.97	10.42	8.00	12.85	-1.10	1.10	0.00		0
	SUM(Ypred.- Yobs)^2	2.151484E+02		32.90	11.00	8.50	13.50	-1.10	1.10	0.00		MASB
	SUM(Yobs - Yave)^2	1.371855E+03		34.83	11.57	9.00	14.14	-1.10	1.10	0.00		3
	SUM(X - Xave)^2	1.308872E+04		36.76	12.14	9.50	14.78	-1.10	1.10	0.00		MMSB
	Std. Error of Y-estimate	9.629973E-01		38.69	12.71	10.00	15.42	-1.10	1.10	0.00		1
	R^2	8.431697E-01		40.63	13.28	10.51	16.06	-1.10	1.10	0.00		NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)		42.56	13.86	11.02	16.70	-1.10	1.10	0.00		0
est.M, Std.Err.Y	0.296	0.2		44.49	14.43	11.53	17.33	-1.10	1.10	0.00		PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	4.19	2.49	1.48	3.50	3.93	-54%	67%		3
Inverse Log Transform (Y/N)?		No	50	7.99	3.61	2.31	4.92	6.87	-49%	59%		SESB
Inverse Power Transform (Y/N)?		Yes	75	13.62	5.28	3.63	6.93	12.14	-43%	50%		0
Inverse Power Transform (1/Power):		1.5	90	19.74	7.09	5.14	9.05	18.90	-38%	44%		<<--Original Units Errors

TEXT BOX ==> (AS ^0.67) = (2.96E-01)x(AS predict (from Factor Anal.)) + (1.25E+00) R^2 = 0.84; Std. Error of Y-estimate = 9.63E-01 +/-3 x IQR of r -1.103323 1.103323

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,0.7)*MAX(y-Ymin,0.2)). 95% Conf V - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!E	DA!G	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AS predict	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	-0.060746734	1.129243235	1.505633947	9.61669E-03	9.58564E+00	9.50791E+01	-9.80647E-02	-1.20330E-01	1.22731E+00	
BASS	BASS-BWBK-SS-BA102-0001	-0.669756625	0.92525194	2.055195275	1.47819E-02	1.08904E+01	1.07327E+02	-1.21581E-01	-1.74298E-01	1.04683E+00	
BASS	BASS-BWBK-SS-BA103-0001	-0.586015082	0.973152319	1.98614376	9.70158E-03	1.05765E+01	1.05599E+02	-9.84966E-02	-1.38812E-01	1.07165E+00	
BASS	BASS-BWBK-SS-BA104-0001	-0.732840979	1.191138425	1.702228945	2.65691E-02	9.20621E+00	1.08638E+02	1.63000E-01	2.12666E-01	1.02814E+00	
BASS	BASS-BWBK-SS-BA105-0001	-0.004900922	1.129243235	1.482717303	1.31364E-02	9.58564E+00	9.39932E+01	-1.14614E-01	-1.39562E-01	1.24386E+00	
BASS	BASS-BWBK-SS-BA106-0001	-0.808277778	1.084889807	2.177884483	6.25787E-03	9.86225E+00	1.10216E+02	7.91067E-02	1.16743E-01	1.00578E+00	
BASS	BASS-BWBK-SS-BA107-0001	-0.666109872	0.91830817	2.052036901	1.67975E-02	1.09363E+01	1.07251E+02	-1.29605E-01	-1.85659E-01	1.04791E+00	
BASS	BASS-BWBK-SS-BA108-0001	-1.121589067	0.945929025	2.613670433	1.08855E-03	1.07543E+01	1.16893E+02	3.29932E-02	5.33396E-02	9.12936E-01	
BASS	BASS-BWBK-SS-BA109-0001	-1.853517055	0.959588944	2.720294102	6.94608E-02	1.06649E+01	1.33255E+02	2.63554E-01	4.34688E-01	6.96035E-01	
BASS	BASS-BWBK-SS-BA110-0001	0.38609221	1.065602237	1.494166085	8.65083E-02	9.98376E+00	8.65647E+01	-2.94123E-01	-3.59524E-01	1.35973E+00	
BASS	BASS-BWBK-SS-BA111-0001	-0.682656747	0.979898643	2.066485966	3.98303E-03	1.05327E+01	1.07594E+02	-6.31113E-02	-9.07242E-02	1.04301E+00	
BASS	BASS-BWBK-SS-BA112-0001	-0.625410595	0.883185767	2.017748319	3.12542E-02	1.11698E+01	1.06410E+02	-1.76789E-01	-2.51124E-01	1.05997E+00	
BASS	BASS-BWBK-SS-BA113-0001	-0.363055193	1.026491978	1.831574415	1.23720E-02	1.02324E+01	1.01066E+02	-1.11229E-01	-1.50533E-01	1.13772E+00	
MASB	MASB-BWBK-SB-MA01-0105	13.27645573	5.443386192	0.120389597	6.95404E-02	1.48371E+00	1.28619E+01	2.63705E-01	9.14983E-02	5.17968E+00	
MASB	MASB-BWBK-SB-MA02-0107	14.85506932	4.795046974	0.123691093	7.26660E-01	3.24598E-01	2.66768E+01	-8.52444E-01	-2.99802E-01	5.64749E+00	
MASB	MASB-BWBK-SB-MA03-0108	16.59165401	6.428728274	0.098875032	7.10834E-02	4.85505E+00	4.76314E+01	2.66615E-01	8.38354E-02	6.16211E+00	
MASB	MASB-BWBK-SB-MA04-0106	12.31914374	5.299560899	0.126398327	1.62870E-01	1.15401E+00	6.91184E+00	4.03572E-01	1.43480E-01	4.89599E+00	
MASB	MASB-BWBK-SB-MA05-0108	13.68275239	9.417419036	0.086844911	1.69524E+01	2.69580E+01	1.59412E+01	4.11734E+00	1.21336E+00	5.30008E+00	MASB-BWBK-SB-MA05-0108
MASB	MASB-BWBK-SB-MA06-0105	12.3015442	4.230056502	0.145286297	4.36547E-01	2.25143E-05	6.81961E+00	-6.60717E-01	-2.51842E-01	4.89077E+00	
MASB	MASB-BWBK-SB-MA07-0108	15.33558254	6.546510582	0.101353255	5.72479E-01	5.38796E+00	3.18714E+01	7.56624E-01	2.40879E-01	5.78989E+00	
MASB	MASB-BWBK-SB-MA08-0108	36.09071938	12.39717786	0.047842529	2.08550E-01	6.67794E+01	6.96992E+02	4.56672E-01	9.98876E-02	1.19405E+01	
MASB	MASB-BWBK-SB-MA09-0108	22.35988263	12.19756289	0.060416671	1.87150E+01	6.35568E+01	1.60523E+02	4.32608E+00	1.06334E+00	7.87148E+00	MASB-BWBK-SB-MA09-0108

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!E	DA!G	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AS predict	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	15.89277992	5.471923029	0.11081525	2.33371E-01	1.55404E+00	3.84732E+01	-4.83085E-01	-1.60814E-01	5.95501E+00	
MASB	MASB-BWBK-SB-MA11-0108	19.0304084	6.269984034	0.094281954	3.78022E-01	4.18069E+00	8.72412E+01	-6.14835E-01	-1.88787E-01	6.88482E+00	
MASB	MASB-BWBK-SB-MA12-0108	19.74473469	11.44126321	0.066221388	1.88769E+01	5.20700E+01	1.01096E+02	4.34476E+00	1.11806E+00	7.09650E+00	MASB-BWBK-SB-MA12-0108
MASB	MASB-BWBK-SB-MA13-0105	6.01461536	3.190924808	0.234677159	2.66447E-02	1.06996E+00	1.35092E+01	1.63232E-01	7.90752E-02	3.02769E+00	
MASB	MASB-BWBK-SB-MA14-0104	20.69443252	7.120367359	0.084324209	6.63432E-02	8.38135E+00	1.21095E+02	-2.57572E-01	-7.47953E-02	7.37794E+00	
MASB	MASB-BWBK-SB-MA15-0105	13.994206	5.669644725	0.114817846	7.68754E-02	2.08610E+00	1.85253E+01	2.77264E-01	9.39503E-02	5.39238E+00	
MASB	MASB-BWBK-SB-MA16-0104	11.20618545	4.033264272	0.155909533	2.83992E-01	3.68822E-02	2.29849E+00	-5.32909E-01	-2.10421E-01	4.56617E+00	
MASB	MASB-BWBK-SB-MA17-0104	11.21086587	4.033264272	0.155881602	2.85472E-01	3.68822E-02	2.31271E+00	-5.34296E-01	-2.10950E-01	4.56756E+00	
MASB	MASB-BWBK-SB-MA18-0104	5.563902704	3.865530119	0.21261538	9.43622E-01	1.29443E-01	1.70256E+01	9.71402E-01	4.47916E-01	2.89413E+00	
MASB	MASB-BWBK-SB-MA19-0103	5.453162545	3.728679007	0.219311391	7.52328E-01	2.46644E-01	1.79517E+01	8.67368E-01	4.06195E-01	2.86131E+00	
MASB	MASB-BWBK-SB-MA20-0103	12.55292136	3.694073786	0.157144764	1.61593E+00	2.82214E-01	8.19571E+00	-1.27119E+00	-5.03920E-01	4.96527E+00	
MASS	MASS-BWBK-SS-MA01-0001	0.120574159	1.792561899	0.746353574	2.61654E-01	5.91827E+00	9.15760E+01	5.11521E-01	4.41912E-01	1.28104E+00	
MASS	MASS-BWBK-SS-MA02-0001	0.293237268	1.792561899	0.715709944	2.11925E-01	5.91827E+00	8.83012E+01	4.60354E-01	3.89458E-01	1.33221E+00	
MASS	MASS-BWBK-SS-MA03-0001	3.615895614	3.153494065	0.283783562	6.99971E-01	1.14879E+00	3.68960E+01	8.36643E-01	4.45691E-01	2.31685E+00	
MASS	MASS-BWBK-SS-MA04-0001	2.685568108	2.305218146	0.39360544	6.97286E-02	3.68676E+00	4.90636E+01	2.64062E-01	1.65667E-01	2.04116E+00	
MASS	MASS-BWBK-SS-MA05-0001	6.48721246	2.805855095	0.249715605	1.30963E-01	2.01486E+00	1.02585E+01	-3.61888E-01	-1.80841E-01	3.16774E+00	
MASS	MASS-BWBK-SS-MA06-0001	10.05672986	7.969939269	0.108846872	1.40205E+01	1.40222E+01	1.34412E-01	3.74440E+00	1.23535E+00	4.22554E+00	MASS-BWBK-SS-MA06-0001
MASS	MASS-BWBK-SS-MA07-0001	0.305253869	2.348920585	0.56217175	1.02648E+00	3.52084E+00	8.80755E+01	1.01315E+00	7.59642E-01	1.33577E+00	MASS-BWBK-SS-MA07-0001
MASS	MASS-BWBK-SS-MA08-0001	11.01785667	4.610593104	0.144372382	1.00460E-02	1.48442E-01	1.76292E+00	1.00230E-01	3.80837E-02	4.51036E+00	
MASS	MASS-BWBK-SS-MA09-0001	10.18826154	4.88595171	0.144037171	3.86178E-01	4.36445E-01	2.48158E-01	6.21432E-01	2.35847E-01	4.26452E+00	
MASS	MASS-BWBK-SS-MA10-0001	11.1635745	5.241482788	0.132765308	4.73257E-01	1.03260E+00	2.17111E+00	6.87937E-01	2.50663E-01	4.55355E+00	
MASS	MASS-BWBK-SS-MA11-0001	16.38448959	5.528774814	0.108640291	3.27124E-01	1.69902E+00	4.48148E+01	-5.71947E-01	-1.88517E-01	6.10072E+00	
MASS	MASS-BWBK-SS-MA12-0001	5.008583892	2.216541975	0.330596579	2.63191E-01	4.03516E+00	2.19167E+01	-5.13022E-01	-2.94975E-01	2.72956E+00	
MASS	MASS-BWBK-SS-MA13-0001	7.020902023	3.03983898	0.228580867	8.18297E-02	1.40535E+00	7.12465E+00	-2.86059E-01	-1.36765E-01	3.32590E+00	
MASS	MASS-BWBK-SS-MA14-0001	2.673660293	2.171534093	0.414066025	1.79310E-02	4.21800E+00	4.92305E+01	1.33907E-01	8.61661E-02	2.03763E+00	
MASS	MASS-BWBK-SS-MA15-0001	2.969599696	2.392220179	0.370669234	7.12320E-02	3.36022E+00	4.51652E+01	2.66893E-01	1.62492E-01	2.12533E+00	
MASS	MASS-BWBK-SS-MA16-0001	6.671312945	3.589268453	0.208202819	1.34666E-01	4.04551E-01	9.11312E+00	3.66969E-01	1.67445E-01	3.22230E+00	
MASS	MASS-BWBK-SS-MA17-0001	6.270633256	3.447095504	0.219108719	1.18015E-01	6.05620E-01	1.16928E+01	3.43534E-01	1.60805E-01	3.10356E+00	
MASS	MASS-BWBK-SS-MA18-0001	5.248654122	3.831547162	0.218531514	1.06263E+00	1.55050E-01	1.97265E+01	1.03084E+00	4.81891E-01	2.80071E+00	
MASS	MASS-BWBK-SS-MA19-0001	6.921316511	3.694073786	0.201353315	1.58155E-01	2.82214E-01	7.66620E+00	3.97687E-01	1.78452E-01	3.29639E+00	
MASS	MASS-BWBK-SS-MA20-0001	8.251035033	3.763124384	0.185374439	5.28332E-03	2.13617E-01	2.07093E+00	7.26864E-02	3.12952E-02	3.69044E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	6.404729106	2.705453085	0.25778049	1.91710E-01	2.30997E+00	1.07937E+01	-4.37847E-01	-2.22304E-01	3.14330E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	2.830961383	2.477667769	0.365897605	1.54783E-01	3.05426E+00	4.70479E+01	3.93425E-01	2.37981E-01	2.08424E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	3.84362082	3.03983898	0.285286668	4.29684E-01	1.40535E+00	3.41814E+01	6.55503E-01	3.50119E-01	2.38434E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	9.334174257	3.55399273	0.182939932	2.09237E-01	4.50669E-01	1.26688E-01	-4.57425E-01	-1.95647E-01	4.01142E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	2.780120753	2.725680889	0.342243954	4.30998E-01	2.24889E+00	4.77479E+01	6.56505E-01	3.84066E-01	2.06918E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	6.671721228	2.5198421	0.267712093	4.93617E-01	2.90863E+00	9.11065E+00	-7.02579E-01	-3.63521E-01	3.22242E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	3.471509456	2.5198421	0.338735228	6.04070E-02	2.90863E+00	3.86710E+01	2.45778E-01	1.43045E-01	2.27406E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	4.419639478	2.370619812	0.327369397	3.40088E-02	3.43988E+00	2.77778E+01	-1.84415E-01	-1.05515E-01	2.55503E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	6.464947642	2.348920585	0.286385291	6.59709E-01	3.52084E+00	1.04017E+01	-8.12225E-01	-4.34662E-01	3.16115E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	5.369817243	2.685149378	0.277177603	2.29410E-02	2.37210E+00	1.86649E+01	-1.51463E-01	-7.97416E-02	2.83661E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	7.334208716	2.5198421	0.25787975	8.08024E-01	2.90863E+00	5.55026E+00	-8.98902E-01	-4.56479E-01	3.41874E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	7.09447755	2.238875126	0.287115772	1.22950E+00	3.94593E+00	6.73729E+00	-1.10883E+00	-5.94144E-01	3.34770E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	3.077621979	2.216541975	0.389989831	3.50506E-03	4.03516E+00	4.37250E+01	5.92036E-02	3.69721E-02	2.15734E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	2.73272138	3.00148075	0.320832582	8.95580E-01	1.49776E+00	4.84052E+01	9.46351E-01	5.36033E-01	2.05513E+00	MMSB-BWBK-SB-MM114-0110
MMSB	MMSB-BWBK-SB-MM115-0110	4.926705411	2.080083823	0.351034214	3.90895E-01	4.60200E+00	2.26900E+01	-6.25216E-01	-3.70429E-01	2.70530E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	4.1811056	2.348920585	0.336238344	1.83403E-02	3.52084E+00	3.03491E+01	-1.35426E-01	-7.85284E-02	2.48435E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	3.794575101	2.348920585	0.347553295	4.36022E-04	3.52084E+00	3.47573E+01	-2.08811E-02	-1.23102E-02	2.36980E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	2.47076378	2.392220179	0.39146549	1.71992E-01	3.36022E+00	5.21189E+01	4.14719E-01	2.59478E-01	1.97750E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	4.179864418	2.5198421	0.31822981	1.28615E-03	2.90863E+00	3.03628E+01	3.58630E-02	2.02310E-02	2.48398E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	1.996514491	1.842015749	0.520471619	2.55519E-05	5.68010E+00	5.91914E+01	5.05489E-03	3.64679E-03	1.83696E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	7.50852924	3.228137283	0.213426171	5.86923E-02	9.94357E-01	4.75928E+00	-2.42265E-01	-1.11922E-01	3.47040E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	4.893847334	2.392220179	0.313388709	9.20164E-02	3.36022E+00	2.30041E+01	-3.03342E-01	-1.69814E-01	2.69556E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!E	DA!G	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AS predict	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	7.428572113	3.301927249	0.211048566	2.09614E-02	8.52639E-01	5.11454E+00	-1.44780E-01	-6.65121E-02	3.44671E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	7.52474844	3.301927249	0.209963601	3.00265E-02	8.52639E-01	4.68878E+00	-1.73281E-01	-7.94007E-02	3.47521E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	3.890599935	2.644309612	0.314407873	6.05414E-02	2.49957E+00	3.36343E+01	2.46052E-01	1.37966E-01	2.39826E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	7.054037624	3.077956704	0.226165393	6.64405E-02	1.31642E+00	6.94886E+00	-2.57761E-01	-1.22583E-01	3.33572E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	6.717724928	2.765913248	0.248934099	2.21032E-01	2.12984E+00	8.83505E+00	-4.70141E-01	-2.34569E-01	3.23605E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	5.732371521	2.725680889	0.267481406	4.76860E-02	2.24889E+00	1.56637E+01	-2.18371E-01	-1.12939E-01	2.94405E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	5.279992345	2.725680889	0.275832355	7.10857E-03	2.24889E+00	1.94491E+01	-8.43123E-02	-4.42806E-02	2.80999E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	2.856489847	1.938991221	0.448432704	2.33529E-02	5.22726E+00	4.66983E+01	-1.52816E-01	-1.02334E-01	2.09181E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	2.476441959	1.890814389	0.478748978	7.80910E-03	5.44988E+00	5.20370E+01	-8.83691E-02	-6.11441E-02	1.97918E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	1.900816985	2.080083823	0.471742456	7.37026E-02	4.60200E+00	6.06730E+01	2.71482E-01	1.86463E-01	1.80860E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	5.215026535	2.477667769	0.297868939	9.80149E-02	3.05426E+00	2.00263E+01	-3.13073E-01	-1.70867E-01	2.79074E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	1.289333392	1.792561899	0.591515823	2.72806E-02	5.91827E+00	7.05730E+01	1.65168E-01	1.27031E-01	1.62739E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	3.596147601	1.986576777	0.407802975	1.05250E-01	5.01193E+00	3.71363E+01	-3.24423E-01	-2.07174E-01	2.31100E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	2.792686379	2.080083823	0.424055117	5.16070E-05	4.60200E+00	4.75744E+01	7.18380E-03	4.67806E-03	2.07290E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	5.766087393	2.435131383	0.29080076	2.69270E-01	3.20475E+00	1.53979E+01	-5.18912E-01	-2.79828E-01	2.95404E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	2.967384404	2.725680889	0.335531037	3.61214E-01	2.24889E+00	4.51950E+01	6.01011E-01	3.48136E-01	2.12467E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	2.161122936	2.261097439	0.425173323	1.40892E-01	3.85814E+00	5.66856E+01	3.75356E-01	2.44752E-01	1.88574E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	8.351267892	2.348920585	0.258565376	1.88025E+00	3.52084E+00	1.79249E+00	-1.37122E+00	-6.97256E-01	3.72014E+00	
NESB	NESB-BWBK-SB-NE01-0108	8.903181644	3.00148075	0.209491921	7.78304E-01	1.49776E+00	6.19251E-01	-8.82216E-01	-4.03793E-01	3.88370E+00	
NESB	NESB-BWBK-SB-NE02-0109	9.316301564	3.228137283	0.195393452	6.05259E-01	9.94357E-01	1.39730E-01	-7.77984E-01	-3.43895E-01	4.00612E+00	
NESB	NESB-BWBK-SB-NE03-0105	9.824371371	3.115839842	0.195842579	1.08336E+00	1.23093E+00	1.80270E-02	-1.04084E+00	-4.60616E-01	4.15668E+00	
NESB	NESB-BWBK-SB-NE04-0110	7.211602277	2.765913248	0.242058037	3.80069E-01	2.12984E+00	6.14298E+00	-6.16497E-01	-3.03313E-01	3.38241E+00	
NESB	NESB-BWBK-SB-NE05-0108	9.012407939	2.904491652	0.213378486	1.02328E+00	1.74457E+00	4.59276E-01	-1.01157E+00	-4.67275E-01	3.91606E+00	
NESB	NESB-BWBK-SB-NE06-0109	8.173894596	2.88489971	0.223205335	6.12585E-01	1.79670E+00	2.29890E+00	-7.82678E-01	-3.69773E-01	3.66758E+00	
NESB	NESB-BWBK-SB-NE07-0107	9.028277541	3.00148075	0.208284292	8.45088E-01	1.49776E+00	4.38018E-01	-9.19287E-01	-4.19546E-01	3.92077E+00	
NESB	NESB-BWBK-SB-NE08-0104	6.055390855	2.685149378	0.264891933	1.25760E-01	2.37210E+00	1.32112E+01	-3.54627E-01	-1.82518E-01	3.03978E+00	
NESB	NESB-BWBK-SB-NE09-0110	7.741681625	2.725680889	0.237831755	6.62294E-01	2.24889E+00	3.79636E+00	-8.13814E-01	-3.96881E-01	3.53950E+00	
NESB	NESB-BWBK-SB-NE10-0107	6.196705295	2.435131383	0.282916198	4.17991E-01	3.20475E+00	1.22039E+01	-6.46522E-01	-3.43884E-01	3.08165E+00	
NESB	NESB-BWBK-SB-NE101-0110	6.272572936	2.171534093	0.309059813	8.69747E-01	4.21800E+00	1.16795E+01	-9.32602E-01	-5.18463E-01	3.10414E+00	
NESB	NESB-BWBK-SB-NE102-0110	4.098117798	1.890814389	0.40834911	3.23692E-01	5.44988E+00	3.12703E+01	-5.68940E-01	-3.63565E-01	2.45975E+00	
NESB	NESB-BWBK-SB-NE103-0110	3.44881133	1.767577948	0.4617897	2.49760E-01	6.04045E+00	3.89538E+01	-4.99759E-01	-3.39612E-01	2.26734E+00	
NESB	NESB-BWBK-SB-NE104-0110	2.708036941	1.639882998	0.538248115	1.66408E-01	6.68444E+00	4.87493E+01	-4.07932E-01	-2.99281E-01	2.04781E+00	
NESB	NESB-BWBK-SB-NE105-0110	6.34084817	2.392220179	0.284375888	5.36042E-01	3.36022E+00	1.12175E+01	-7.32149E-01	-3.90433E-01	3.12437E+00	
NESB	NESB-BWBK-SB-NE106-0110	4.564457233	1.890814389	0.393233733	5.00041E-01	5.44988E+00	2.62723E+01	-7.07136E-01	-4.43433E-01	2.59795E+00	
NESB	NESB-BWBK-SB-NE107-0510	3.628369687	1.534036644	0.529412539	6.18600E-01	7.24296E+00	3.67447E+01	-7.86511E-01	-5.72272E-01	2.32055E+00	
NESB	NESB-BWBK-SB-NE108-0110	4.64201515	1.691538112	0.436407573	8.63776E-01	6.42001E+00	2.54832E+01	-9.29396E-01	-6.13969E-01	2.62093E+00	
NESB	NESB-BWBK-SB-NE109-0110	4.565620719	1.691538112	0.438996745	8.22208E-01	6.42001E+00	2.62604E+01	-9.06757E-01	-6.00788E-01	2.59829E+00	
NESB	NESB-BWBK-SB-NE110-0110	3.940729953	1.842015749	0.424258639	3.26153E-01	5.68010E+00	3.30553E+01	-5.71098E-01	-3.71985E-01	2.41311E+00	
NESS	NESS-BKG-SS03-NEB-0016	8.068256385	3.374901689	0.201120381	6.83149E-02	7.23197E-01	2.63040E+00	-2.61371E-01	-1.17216E-01	3.63627E+00	
NESS	NESS-BKG-SS09-NEB-0018	4.234671706	4.88595171	0.202570336	5.69171E+00	4.36445E-01	2.97618E+01	2.38573E+00	1.07377E+00	2.50022E+00	NESS-BKG-SS09-NEB-0018
NESS	NESS-BWBK-SS-NE01-0001	10.77541032	5.946279717	0.125057221	2.27335E+00	2.96173E+00	1.17788E+00	1.50776E+00	5.33197E-01	4.43852E+00	NESS-BWBK-SS-NE01-0001
NESS	NESS-BWBK-SS-NE02-0001	9.429922635	6.637391074	0.124104225	6.74752E+00	5.81813E+00	6.76958E-02	2.59760E+00	9.15093E-01	4.03979E+00	NESS-BWBK-SS-NE02-0001
NESS	NESS-BWBK-SS-NE03-0001	8.488751381	4.19757986	0.170800849	1.90704E-01	7.69048E-04	1.44325E+00	4.36697E-01	1.80478E-01	3.76088E+00	
NESS	NESS-BWBK-SS-NE04-0001	8.106884585	3.55399273	0.193883265	8.78482E-03	4.50669E-01	2.50659E+00	-9.37274E-02	-4.12702E-02	3.64772E+00	
NESS	NESS-BWBK-SS-NE05-0001	7.253297738	4.454017329	0.175360617	1.12201E+00	5.23063E-02	5.93804E+00	1.05925E+00	4.43573E-01	3.39477E+00	
NESS	NESS-BWBK-SS-NE06-0001	6.550211541	3.153494065	0.228939944	1.08362E-03	1.14879E+00	9.85894E+00	-3.29185E-02	-1.57507E-02	3.18641E+00	
NESS	NESS-BWBK-SS-NE07-0001	8.618916501	5.153756646	0.149531685	1.83413E+00	8.62010E-01	1.14745E+00	1.35430E+00	5.23699E-01	3.79946E+00	NESS-BWBK-SS-NE07-0001
NESS	NESS-BWBK-SS-NE08-0001	7.553561821	3.447095504	0.203620379	1.34336E-03	6.05620E-01	4.56482E+00	-3.66518E-02	-1.65389E-02	3.48375E+00	
NESS	NESS-BWBK-SS-NE09-0001	7.24352566	4.099385194	0.18487509	5.00577E-01	1.58575E-02	5.98576E+00	7.07515E-01	3.04211E-01	3.39187E+00	
NESS	NESS-BWBK-SS-NE10-0001	7.084960891	4.066391931	0.187471749	5.20578E-01	2.52555E-02	6.78679E+00	7.21511E-01	3.12400E-01	3.34488E+00	
NESS	NESS-BWBK-SS-NE101-0001	3.742242446	2.12605484	0.379190797	5.20928E-02	4.40688E+00	3.53771E+01	-2.28239E-01	-1.40546E-01	2.35429E+00	
NESS	NESS-BWBK-SS-NE102-0001	2.646856852	1.792561899	0.494315155	5.62272E-02	5.91827E+00	4.96074E+01	-2.37123E-01	-1.66715E-01	2.02968E+00	
NESS	NESS-BWBK-SS-NE103-0001	2.013576296	1.986576777	0.484108771	2.08975E-02	5.01193E+00	5.89291E+01	1.44560E-01	1.00582E-01	1.84202E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	redicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!E	DA!G	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**AS predict**	**AS ^0.67**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
NESS	NESS-BWBK-SS-NE104-0001	3.740874894	1.792561899	0.443355172	3.15087E-01	5.91827E+00	3.53934E+01	-5.61326E-01	-3.73759E-01	2.35389E+00	
NESS	NESS-BWBK-SS-NE105-0001	1.765371004	1.691538112	0.584671701	5.91749E-03	6.42001E+00	6.28014E+01	-7.69252E-02	-5.88200E-02	1.76846E+00	
NESS	NESS-BWBK-SS-NE106-0001	2.516079619	1.742416162	0.516088888	6.17590E-02	6.16477E+00	5.14667E+01	-2.48514E-01	-1.78531E-01	1.99093E+00	
NESS	NESS-BWBK-SS-NE107-0001	1.949738633	1.742416162	0.553181213	6.50975E-03	6.16477E+00	5.99133E+01	-8.06830E-02	-6.00089E-02	1.82310E+00	
NESS	NESS-BWBK-SS-NE108-0001	2.404987396	1.792561899	0.508159058	2.73726E-02	5.91827E+00	5.30730E+01	-1.65447E-01	-1.17939E-01	1.95801E+00	
NESS	NESS-BWBK-SS-NE109-0001	1.671182124	1.424402129	0.724024917	9.99502E-02	7.84509E+00	6.43032E+01	-3.16149E-01	-2.69010E-01	1.74055E+00	
NESS	NESS-BWBK-SS-NE110-0001	2.584068894	2.080083823	0.433908373	4.76182E-03	4.60200E+00	5.04958E+01	6.90059E-02	4.54554E-02	2.01108E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	8.549869892	4.610593104	0.16058656	6.91555E-01	1.48442E-01	1.30014E+00	8.31598E-01	3.33248E-01	3.77900E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	25.65536895	7.49035798	0.074174681	1.84339E+00	1.06605E+01	2.54890E+02	-1.35771E+00	-3.69774E-01	8.84807E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	21.22638165	6.766152446	0.085819278	5.92016E-01	6.45587E+00	1.33086E+02	-7.69426E-01	-2.25403E-01	7.53558E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	14.1948467	7.80376763	0.094888442	5.53157E+00	1.28053E+01	2.02927E+01	2.35193E+00	7.24487E-01	5.45184E+00	PMSB-BWBK-SB-PM04-0105
PMSB	PMSB-BWBK-SB-PM05-0105	14.6781733	5.877733751	0.110050818	7.98994E-02	2.73050E+00	2.48808E+01	2.82665E-01	9.37710E-02	5.59507E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	16.99296374	6.428728274	0.097816664	2.18123E-02	4.85505E+00	5.33317E+01	1.47690E-01	4.61909E-02	6.28104E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	16.30420006	6.481208051	0.099186386	1.63442E-01	5.08907E+00	4.37462E+01	4.04279E-01	1.27323E-01	6.07693E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	12.77285121	6.868285455	0.106879904	3.37767E+00	6.98531E+00	9.50331E+00	1.83784E+00	6.00837E-01	5.03044E+00	PMSB-BWBK-SB-PM08-0106
PMSB	PMSB-BWBK-SB-PM09-0106	9.096105908	6.000833218	0.133587319	4.24346E+00	3.15248E+00	3.52837E-01	2.05997E+00	7.52909E-01	3.94087E+00	PMSB-BWBK-SB-PM09-0106
PMSB	PMSB-BWBK-SB-PM10-0105	14.51455674	5.918908978	0.110146395	1.38627E-01	2.86827E+00	2.32753E+01	3.72327E-01	1.23569E-01	5.54658E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	17.19851626	5.725503855	0.104112452	3.80009E-01	2.25058E+00	5.63762E+01	-6.16449E-01	-1.98906E-01	6.34195E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	3.896314316	3.03983898	0.283976425	4.09456E-01	1.40535E+00	3.35680E+01	6.39888E-01	3.40993E-01	2.39995E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	14.17288991	4.641588834	0.128848759	6.46003E-01	1.73287E-01	2.00953E+01	-8.03743E-01	-2.88508E-01	5.44533E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	6.273639854	3.694073786	0.20922275	3.47653E-01	2.82214E-01	1.16722E+01	5.89621E-01	2.69698E-01	3.10445E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	11.6735835	4.485550359	0.143253027	4.80190E-02	6.77242E-02	3.93418E+00	-2.19132E-01	-8.29389E-02	4.70468E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	7.814536753	3.865530119	0.186230829	9.26867E-02	1.29443E-01	3.51776E+00	3.04445E-01	1.31382E-01	3.56109E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	13.00837937	5.020747126	0.127523628	6.31893E-03	6.32718E-01	1.10109E+01	-7.94917E-02	-2.83869E-02	5.10024E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	20.94683325	6.585536125	0.087700545	7.52036E-01	5.57066E+00	1.26714E+02	-8.67200E-01	-2.56815E-01	7.45274E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	13.91670878	5.065277397	0.123135782	9.24997E-02	7.05543E-01	1.78642E+01	-3.04138E-01	-1.06724E-01	5.36941E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	10.8488061	4.779812496	0.14213925	1.02110E-01	3.07471E-01	1.34258E+00	3.19546E-01	1.20473E-01	4.46027E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	16.62269752	5.500385648	0.108269009	4.50144E-01	1.62581E+00	4.80608E+01	-6.70927E-01	-2.20764E-01	6.17131E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	22.13498194	7.465979245	0.07957806	1.14823E-01	1.05019E+01	1.54875E+02	-3.38855E-01	-9.55896E-02	7.80483E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	21.77872652	7.070311794	0.08269953	3.95577E-01	8.09403E+00	1.46135E+02	-6.28949E-01	-1.80870E-01	7.69926E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	22.85096135	8.204370068	0.074356936	3.51041E-02	1.58329E+01	1.73208E+02	1.87361E-01	5.10904E-02	8.01701E+00	
PMSS	PMSS-DABK-S-SO21-0001	12.88523675	5.613509052	0.119763425	3.02239E-01	1.92709E+00	1.02089E+01	5.49763E-01	1.90256E-01	5.06375E+00	
PMSS	PMSS-DABK-S-SO22-0001	15.00682832	5.500385648	0.113338492	3.68938E-02	1.62581E+00	2.82675E+01	-1.92078E-01	-6.46644E-02	5.69246E+00	
PMSS	PMSS-DABK-S-SO23-0001	8.867803977	4.262408947	0.166137401	1.51474E-01	1.37621E-03	6.76182E-01	3.89196E-01	1.58636E-01	3.87321E+00	
PMSS	PMSS-DABK-S-SO24-0001	17.9097503	5.212322846	0.108111018	1.79667E+00	9.74191E-01	6.75625E+01	-1.34040E+00	-4.40726E-01	6.55272E+00	
PMSS	PMSS-DABK-S-SO25-0001	35.32069385	7.683983123	0.06289255	1.62275E+01	1.19624E+01	6.56927E+02	-4.02833E+00	-1.01024E+00	1.17123E+01	
PMSS	PMSS-DABK-S-SO26-0001	15.54874656	6.082201996	0.105132391	5.25077E-02	3.44804E+00	3.43237E+01	2.29146E-01	7.42985E-02	5.85306E+00	
PMSS	PMSS-DABK-S-SO27-0001	7.909833709	3.933052423	0.183256812	1.18148E-01	8.54154E-02	3.16937E+00	3.43727E-01	1.47144E-01	3.58933E+00	
PMSS	PMSS-DABK-S-SO28-0001	10.15747701	4.579492834	0.150081272	1.05038E-01	1.25444E-01	2.18435E-01	3.24096E-01	1.25556E-01	4.25540E+00	
PMSS	PMSS-DABK-S-SO29-0001	12.67443202	4.825443595	0.132137271	3.09171E-02	3.60158E-01	8.90620E+00	-1.75833E-01	-6.39164E-02	5.00128E+00	
PMSS	PMSS-DABK-S-SO30-0001	9.320617062	4.132246217	0.165964104	1.55866E-02	8.66116E-03	1.36523E-01	1.24846E-01	5.08607E-02	4.00740E+00	
PMSS	PMSS-DABK-S-SO31-0001	8.296014254	3.190924808	0.206625376	2.63007E-01	1.06996E+00	1.94349E+00	-5.12842E-01	-2.33118E-01	3.70377E+00	
PMSS	PMSS-DABK-S-SO32-0001	15.36369227	5.528774814	0.111814526	7.25991E-02	1.69902E+00	3.21896E+01	-2.69442E-01	-9.00979E-02	5.79822E+00	
PMSS	PMSS-DABK-S-SO33-0001	4.573701472	2.805855095	0.2844698	4.20929E-02	2.01486E+00	2.61776E+01	2.05166E-01	1.09426E-01	2.60069E+00	
PMSS	PMSS-DABK-S-SO34-0001	7.713774104	3.265136495	0.209478337	7.08031E-02	9.21936E-01	3.90589E+00	-2.66088E-01	-1.21786E-01	3.53122E+00	
PMSS	PMSS-DABK-S-SO35-0001	9.625048433	3.831547162	0.171896025	7.07925E-02	1.55050E-01	4.23260E-03	-2.66069E-01	-1.10313E-01	4.09762E+00	
PMSS	PMSS-DABK-S-SO36-0001	5.96249173	3.228137283	0.233582631	4.66088E-02	9.94357E-01	1.38951E+01	2.15891E-01	1.04341E-01	3.01225E+00	
PMSS	PMSS-DABK-S-SO37-0001	11.37610229	4.825443595	0.138469401	4.36463E-02	3.60158E-01	2.84258E+00	2.08917E-01	7.77411E-02	4.61653E+00	
PMSS	PMSS-DABK-S-SO38-0001	5.639767593	3.077956704	0.246586493	2.60328E-02	1.31642E+00	1.64052E+01	1.61347E-01	8.01208E-02	2.91661E+00	
PMSS	PMSS-DABK-S-SO39-0001	10.69632213	3.65930571	0.16941888	5.71194E-01	3.20363E-01	1.01247E+00	-7.55773E-01	-3.11080E-01	4.41508E+00	
PMSS	PMSS-DABK-S-SO40-0001	6.163349659	3.411094095	0.222135008	1.15141E-01	6.62950E-01	1.24380E+01	3.39325E-01	1.59928E-01	3.07177E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!E	DA!G	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**AS predict**	**AS ^0.67**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	25.1118126	8.458436074	0.069967868	5.22389E-02	1.79193E+01	2.37829E+02	-2.28558E-01	-6.04570E-02	8.68699E+00	
SESB	SESB-BWBK-SB-SO04-0108	20.84312181	8.157754172	0.077824369	5.41331E-01	1.54641E+01	1.24390E+02	7.35752E-01	2.05253E-01	7.42200E+00	
SESB	SESB-BWBK-SB-SO05-0106	18.43638231	7.587479384	0.085740012	7.72105E-01	1.13042E+01	7.64973E+01	8.78695E-01	2.57294E-01	6.70878E+00	
SESB	SESB-BWBK-SB-SO06-0108	27.91778863	10.12132214	0.060298828	3.63367E-01	3.47629E+01	3.32248E+02	6.02799E-01	1.48022E-01	9.51852E+00	
SESB	SESB-BWBK-SB-SO07-0106	15.56291153	6.189855071	0.104018224	1.10623E-01	3.85943E+00	3.44898E+01	3.32601E-01	1.07270E-01	5.85725E+00	
SESB	SESB-BWBK-SB-SO08-0107	25.08071846	8.549879733	0.069589483	1.63584E-02	1.87019E+01	2.36871E+02	-1.27900E-01	-3.37398E-02	8.67778E+00	
SESB	SESB-BWBK-SB-SO09-0106	16.05531761	7.49035798	0.091930267	2.21171E+00	1.06605E+01	4.05159E+01	1.48718E+00	4.50914E-01	6.00317E+00	
SESB	SESB-BWBK-SB-SO11-0106	19.75968421	8.227628401	0.07937085	1.26944E+00	1.60185E+01	1.01396E+02	1.12669E+00	3.17422E-01	7.10093E+00	
SESB	SESB-BWBK-SB-SO12-0106	21.69855402	8.00532198	0.077211202	1.08781E-01	1.42885E+01	1.44203E+02	3.29819E-01	9.16466E-02	7.67550E+00	
SESB	SESB-BWBK-SB-SO15-0103	11.40419799	4.764553701	0.139403364	1.95164E-02	2.90782E-01	2.93811E+00	1.39701E-01	5.21599E-02	4.62485E+00	
SESB	SESB-BWBK-SB-SO16-0105	13.26309483	4.485550359	0.135512368	4.76337E-01	6.77242E-02	1.27662E+01	-6.90171E-01	-2.54066E-01	5.17572E+00	
SESB	SESB-BWBK-SB-SO17-0106	6.871202024	3.00148075	0.232611432	7.84306E-02	1.49776E+00	7.94622E+00	-2.80055E-01	-1.35070E-01	3.28154E+00	
SESB	SESB-BWBK-SB-SO18-0105	3.975995888	2.685149378	0.30853956	6.84267E-02	2.37210E+00	3.26511E+01	2.61585E-01	1.45301E-01	2.42356E+00	
SESB	SESB-BWBK-SB-SO19-0104	5.071272747	2.725680889	0.279958417	5.04450E-04	2.24889E+00	2.13336E+01	-2.24600E-02	-1.18838E-02	2.74814E+00	
SESB	SESB-BWBK-SB-SO20-0104	17.7695122	4.672481414	0.115967883	3.38075E+00	1.99961E-01	6.52768E+01	-1.83868E+00	-6.26145E-01	6.51116E+00	
SESS	SESS-DABK-S-SO01-0001	8.124370928	3.933052423	0.18127598	7.84842E-02	8.54154E-02	2.45153E+00	2.80150E-01	1.19278E-01	3.65290E+00	
SESS	SESS-DABK-S-SO02-0001	12.42359212	6.428728274	0.112384868	2.25536E+00	4.85505E+00	7.47194E+00	1.50179E+00	5.03457E-01	4.92694E+00	
SESS	SESS-DABK-S-SO03-0001	10.16442865	4.19757986	0.158446558	3.58525E-03	7.69048E-04	2.24981E-01	-5.98770E-02	-2.38342E-02	4.25746E+00	
SESS	SESS-DABK-S-SO04-0001	8.11436984	3.89936435	0.182376939	6.22134E-02	1.06242E-01	2.48295E+00	2.49426E-01	1.06519E-01	3.64994E+00	
SESS	SESS-DABK-S-SO05-0001	10.01398218	4.485550359	0.152941928	7.43528E-02	6.77242E-02	1.04895E-01	2.72677E-01	1.06638E-01	4.21287E+00	
SESS	SESS-DABK-S-SO06-0001	44.48762797	17.25888641	0.03630084	8.00904E+00	1.69874E+02	1.21087E+03	2.83002E+00	5.39198E-01	1.44289E+01	
SESS	SESS-DABK-S-SO07-0001	5.792032553	4.610593104	0.18732348	2.71874E+00	1.48442E-01	1.51950E+01	1.64886E+00	7.13642E-01	2.96173E+00	SESS-DABK-S-SO07-0001
SESS	SESS-DABK-S-SO08-0001	11.15948765	5.585335783	0.127838883	1.06709E+00	1.84967E+00	2.15908E+00	1.03300E+00	3.69345E-01	4.55233E+00	
SESS	SESS-DABK-S-SO09-0001	14.10720478	5.414774355	0.117584073	1.23046E-04	1.41482E+00	1.95108E+01	-1.10926E-02	-3.80371E-03	5.42587E+00	
SESS	SESS-DABK-S-SO10-0001	16.62340359	5.005859797	0.11457654	1.35877E+00	6.09256E-01	4.80706E+01	-1.16566E+00	-3.94567E-01	6.17152E+00	
SESS	SESS-DABK-S-SO11-0001	2.731633151	1.902915653	0.462466887	2.30711E-02	5.39352E+00	4.84204E+01	-1.51892E-01	-1.03294E-01	2.05481E+00	
SESS	SESS-DABK-S-SO12-0001	6.097029946	3.447095504	0.221487963	1.56009E-01	6.05620E-01	1.29102E+01	3.94980E-01	1.85887E-01	3.05212E+00	
SESS	SESS-DABK-S-SO13-0001	9.527536425	5.299560899	0.141050877	1.51497E+00	1.15401E+00	2.64291E-02	1.23084E+00	4.62264E-01	4.06872E+00	
SESS	SESS-DABK-S-SO14-0001	8.938504712	5.005859797	0.149919835	1.23587E+00	6.09256E-01	5.64906E-01	1.11170E+00	4.30443E-01	3.89416E+00	
SESS	SESS-DABK-S-SO15-0001	9.9028025	4.946087443	0.144692544	5.87003E-01	5.19518E-01	4.52394E-02	7.66161E-01	2.91436E-01	4.17993E+00	
SESS	SESS-DABK-S-SO16-0001	3.201051409	2.477667769	0.352247685	8.05152E-02	3.05426E+00	4.21078E+01	2.83752E-01	1.68408E-01	2.19392E+00	
SESS	SESS-DABK-S-SO17-0001	9.586982456	3.228137283	0.193068122	7.36504E-01	9.94357E-01	1.06346E-02	-8.58198E-01	-3.77088E-01	4.08634E+00	
SESS	SESS-DABK-S-SO18-0001	4.562089446	3.228137283	0.257818577	3.98021E-01	9.94357E-01	2.62966E+01	6.30889E-01	3.20339E-01	2.59725E+00	
SESS	SESS-DABK-S-SO19-0001	7.219805169	4.390613599	0.177264782	1.01158E+00	2.73248E-02	6.10239E+00	1.00577E+00	4.23459E-01	3.38484E+00	
SESS	SESS-DABK-S-SO20-0001	12.05682244	8.204370068	0.099092427	1.14658E+01	1.58329E+01	5.60134E+00	3.38612E+00	1.06591E+00	4.81825E+00	SESS-DABK-S-SO20-0001
SESD	SESD-SD01	12.4660444	5.863976613	0.118409348	8.54616E-01	2.68522E+00	7.70583E+00	9.24454E-01	3.18111E-01	4.93952E+00	
SESD	SESD-SD02	10.65599678	3.966596834	0.16101416	1.90560E-01	6.69333E-02	9.32943E-01	-4.36532E-01	-1.75165E-01	4.40313E+00	
SESD	SESD-SD03	19.72430747	7.269491743	0.085186605	3.20558E-02	9.26703E+00	1.00685E+02	1.79041E-01	5.22563E-02	7.09045E+00	
SESD	SESD-SD04	18.37896444	6.481208051	0.093963268	4.43358E-02	5.08907E+00	7.54962E+01	-2.10561E-01	-6.45441E-02	6.69177E+00	
SESD	SESD-SD05	15.4151375	6.349604208	0.10292463	2.87448E-01	4.51262E+00	3.27760E+01	5.36142E-01	1.72004E-01	5.81346E+00	
SESD	SESD-SD06	18.1672464	6.791757603	0.091942948	2.64810E-02	6.58665E+00	7.18619E+01	1.62730E-01	4.93431E-02	6.62903E+00	
SESD	SESD-SD07	15.68322715	6.50736837	0.100692195	3.77561E-01	5.20778E+00	3.59175E+01	6.14460E-01	1.94981E-01	5.89291E+00	
SESD	SESD-SD08	30.47684047	8.458436074	0.063899322	3.30673E+00	1.79193E+01	4.32088E+02	-1.81844E+00	-4.59671E-01	1.02769E+01	
SESD	SESD-SD09	7.725588119	4.033264272	0.182044197	2.48540E-01	3.68822E-02	3.85933E+00	4.98538E-01	2.12710E-01	3.53473E+00	
SESD	SESD-SD10	18.8100268	6.868285455	0.08992116	2.37899E-03	6.98531E+00	8.31729E+01	4.87748E-02	1.46260E-02	6.81951E+00	
SESD	SESD-SD11	29.78044528	9.154891032	0.061819527	8.38351E-01	2.43008E+01	4.03622E+02	-9.15615E-01	-2.27654E-01	1.00705E+01	
SESD	SESD-SD12	33.33304265	10.5669867	0.054173721	3.09473E-01	4.02168E+01	5.58988E+02	-5.56303E-01	-1.29481E-01	1.11233E+01	
SESD	SESD-SD13	22.8705313	8.29720717	0.073860678	7.52946E-02	1.65803E+01	1.73724E+02	2.74399E-01	7.45742E-02	8.02281E+00	
SESD	SESD-SD14	13.42276566	6.428728274	0.10864735	1.45369E+00	4.85505E+00	1.39327E+01	1.20569E+00	3.97416E-01	5.22304E+00	
SESD	SESD-SD15	22.00196217	7.922639752	0.077167857	2.47196E-02	1.36702E+01	1.51582E+02	1.57225E-01	4.36756E-02	7.76542E+00	
SESD	SESD-SD16	20.11130196	6.969664646	0.086487457	5.54454E-02	7.53147E+00	1.08601E+02	-2.35468E-01	-6.92483E-02	7.20513E+00	
SESD	SESD-SD17	17.39722409	7.120367359	0.091260339	5.17723E-01	8.38135E+00	5.93997E+01	7.19530E-01	2.17365E-01	6.40084E+00	
SESD	SESD-SD18	13.10967453	4.855744778	0.129703801	7.53569E-02	3.97446E-01	1.16934E+01	-2.74512E-01	-9.88639E-02	5.13026E+00	
SESD	SESD-SD19	17.72909016	6.766152446	0.093167952	7.12723E-02	6.45587E+00	6.46253E+01	2.66969E-01	8.14880E-02	6.49918E+00	
SESD	SESD-SD20	11.79832252	3.831547162	0.157620991	8.28284E-01	1.55050E-01	4.44457E+00	-9.10101E-01	-3.61324E-01	4.74165E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: AS ^0.67	
	X variable name used on graph: FE	
	N	234.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.060000E+00
0.10	t-Value: 2-tail, 0.100 alpha	1.651448
degrees freedom	SUM(XY*w^2)	9.133106E+04
2	SUM(X^2*w^2)	4.557398E+08
	SUM(X*w^2)	2.436084E+04
	SUM(Y*w^2)	4.720641E+00
	SUM(w^2)	1.559503E+00
	SUM(Y)	988.722909
	SUM(X)	4.708720E+06
	Denominator	1.172770E+08
	Slope	2.339101E-04
	Intercept	-6.268692E-01
	Minimum X value	5.940000E+03
	Maximum X value	5.390000E+04
	Minimum Y value	8.831858E-01
	Maximum Y value	1.725889E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	2.621428E+02
	SUM(Yobs - Yave)^2	1.371855E+03
	SUM(X - Xave)^2	1.757949E+10
	Std. Error of Y-estimate	1.062980E+00
	R^2	8.089136E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	2.34E-04	1

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:	
Inverse Log Transform (Y/N)?	No
Inverse Power Transform (Y/N)?	Yes
Inverse Power Transform (1/Power):	1.5

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
5940.00	0.76	-0.15	1.68	-0.25	0.25	0.01	No. of Exceedances
7938.33	1.23	0.32	2.14	-0.25	0.25	0.01	of Upper 95% Limit
9936.67	1.70	0.79	2.61	-0.25	0.25	0.01	for Each Soil Type:
11935.00	2.16	1.11	3.21	-0.25	0.25	0.01	---- \/ ----
13933.33	2.63	1.41	3.85	-0.25	0.25	0.01	BASS
15931.67	3.10	1.74	4.46	-0.25	0.25	0.01	0
17930.00	3.57	2.07	5.07	-0.25	0.25	0.01	MASS
19928.33	4.03	2.41	5.66	-0.25	0.25	0.01	3
21926.67	4.50	2.77	6.24	-0.25	0.25	0.01	MMSS
23925.00	4.97	3.13	6.81	-0.25	0.25	0.01	0
25923.33	5.44	3.49	7.38	-0.25	0.25	0.01	NESS
27921.67	5.90	3.86	7.95	-0.25	0.25	0.01	2
29920.00	6.37	4.24	8.51	-0.25	0.25	0.01	PMSS
31918.33	6.84	4.61	9.06	-0.25	0.25	0.01	0
33916.67	7.31	4.99	9.62	-0.25	0.25	0.01	SESS
35915.00	7.77	5.38	10.17	-0.25	0.25	0.01	6
37913.33	8.24	5.76	10.72	-0.25	0.25	0.01	SESD
39911.67	8.71	6.15	11.26	-0.25	0.25	0.01	0
41910.00	9.18	6.54	11.81	-0.25	0.25	0.01	MASB
43908.33	9.64	6.94	12.35	-0.25	0.25	0.01	3
45906.67	10.11	7.33	12.89	-0.25	0.25	0.01	MMSB
47905.00	10.58	7.73	13.43	-0.25	0.25	0.01	0
49903.33	11.05	8.13	13.97	-0.25	0.25	0.01	NESB
51901.67	11.51	8.52	14.50	-0.25	0.25	0.01	0
53900.00	11.98	8.92	15.04	-0.25	0.25	0.01	PMSB
14550.00	2.78	1.51	4.63	4.63	-60%	76%	1
18200.00	3.63	2.12	5.15	6.92	-56%	69%	SESB
24675.00	5.14	3.26	7.03	11.67	-49%	60%	0
32230.00	6.91	4.67	9.15	18.17	-44%	52%	<<--Original Units Errors

TEXT BOX ==>	(AS ^0.67) = (2.34E-04)x(FE) + (-6.27E-01) R^2 = 0.81; Std. Error of Y-estimate = 1.06E+00					+/-3 x IQR of r	-0.249844	0.249844
TEXT BOX ==>	Weighted 1/SQRT(MAX(x-Xmin,4273.5)*MAX(y-Ymin,1.0)). 95% C			V - wt.descrip.	TEXT BOX==>	Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5		Y-Pred.
	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,4273.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!G	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	AS ^0.67	Regression Wt.				
BASS	BASS-BWBK-SS-BA101-0001	9130	1.129243235	0.015297059	1.44010E-01	9.58564E+00	1.20840E+08	-3.79486E-01
BASS	BASS-BWBK-SS-BA102-0001	7400	0.92525194	0.015297059	3.19742E-02	1.08904E+01	1.61868E+08	-1.78813E-01
BASS	BASS-BWBK-SS-BA103-0001	7780	0.973152319	0.015297059	4.83115E-02	1.05765E+01	1.52343E+08	-2.19799E-01
BASS	BASS-BWBK-SS-BA104-0001	8800	1.191138425	0.015297059	5.77926E-02	9.20621E+00	1.28204E+08	-2.40401E-01
BASS	BASS-BWBK-SS-BA105-0001	8450	1.129243235	0.015297059	4.85883E-02	9.58564E+00	1.36253E+08	-2.20428E-01
BASS	BASS-BWBK-SS-BA106-0001	8975	1.084889807	0.015297059	1.50221E-01	9.86225E+00	1.24272E+08	-3.87584E-01
BASS	BASS-BWBK-SS-BA107-0001	7390	0.91830817	0.015297059	3.36421E-02	1.09363E+01	1.62123E+08	-1.83418E-01
BASS	BASS-BWBK-SS-BA108-0001	7180	0.945929025	0.015297059	1.13798E-02	1.07543E+01	1.67514E+08	-1.06676E-01
BASS	BASS-BWBK-SS-BA109-0001	7860	0.959588944	0.015297059	6.35418E-02	1.06649E+01	1.50375E+08	-2.52075E-01
BASS	BASS-BWBK-SS-BA110-0001	9920	1.065602237	0.015297059	3.94279E-01	9.98376E+00	1.04096E+08	-6.27916E-01
BASS	BASS-BWBK-SS-BA111-0001	8040	0.979898643	0.015297059	7.50042E-02	1.05327E+01	1.45992E+08	-2.73869E-01
BASS	BASS-BWBK-SS-BA112-0001	8000	0.883185767	0.015297059	1.30484E-01	1.11698E+01	1.46961E+08	-3.61225E-01
BASS	BASS-BWBK-SS-BA113-0001	7855	1.026491978	0.015297059	3.38569E-02	1.02324E+01	1.50497E+08	-1.84002E-01
MASB	MASB-BWBK-SB-MA01-0105	27000	5.443386192	0.003226851	6.01800E-02	1.48371E+00	4.72968E+07	-2.45316E-01
MASB	MASB-BWBK-SB-MA02-0107	29000	4.795046974	0.003329497	1.85362E+00	3.24598E-01	7.88058E+07	-1.36148E+00
MASB	MASB-BWBK-SB-MA03-0108	29300	6.428728274	0.002778379	4.08173E-02	4.85505E+00	8.42222E+07	2.02033E-01
MASB	MASB-BWBK-SB-MA04-0106	27800	5.299560899	0.003218414	3.32086E-01	1.15401E+00	5.89404E+07	-5.76269E-01
MASB	MASB-BWBK-SB-MA05-0108	27200	9.417419036	0.002347665	1.35566E+01	2.69580E+01	5.00877E+07	3.68193E+00
MASB	MASB-BWBK-SB-MA06-0105	25800	4.230056502	0.003878742	1.38758E+00	2.25143E-05	3.22313E+07	-1.17795E+00
MASB	MASB-BWBK-SB-MA07-0108	28000	6.546510582	0.002829186	3.89249E-01	5.38796E+00	6.20513E+07	6.23898E-01
MASB	MASB-BWBK-SB-MA08-0108	51700	12.39717786	0.001377666	8.66570E-01	6.67794E+01	9.97124E+08	9.30897E-01
MASB	MASB-BWBK-SB-MA09-0108	35000	12.19756289	0.001743961	2.15071E+01	6.35568E+01	2.21333E+08	4.63758E+00

Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
---- \/ ----	---- \/ ----	---- \/ ----
Wt'd.Residuals		Candidate High Outliers
-4.69354E-02	1.50873E+00	
-2.21159E-02	1.10407E+00	
-2.71850E-02	1.19295E+00	
-2.97331E-02	1.43154E+00	
-2.72628E-02	1.34967E+00	
-4.79369E-02	1.47247E+00	
-2.26854E-02	1.10173E+00	
-1.31938E-02	1.05261E+00	
-3.11769E-02	1.21166E+00	
-7.76615E-02	1.69352E+00	
-3.38725E-02	1.25377E+00	
-4.46768E-02	1.24441E+00	
-2.27576E-02	1.21049E+00	
-1.39353E-02	5.68870E+00	
-7.85596E-02	6.15652E+00	
1.06492E-02	6.22670E+00	
-3.26924E-02	5.87583E+00	
1.78400E-01	5.73548E+00	MASB-BWBK-SB-MA05-0108
-7.33624E-02	5.40801E+00	
3.31852E-02	5.92261E+00	
3.45520E-02	1.14663E+01	
1.93669E-01	7.55998E+00	MASB-BWBK-SB-MA09-0108

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,4273.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!G	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	26900	5.471923029	0.003224466	3.73990E-02	1.55404E+00	4.59313E+07	-1.93388E-01	-1.09814E-02	5.66531E+00	
MASB	MASB-BWBK-SB-MA11-0108	32500	6.269984034	0.002643751	4.97340E-01	4.18069E+00	1.53197E+08	-7.05224E-01	-3.62608E-02	6.97521E+00	
MASB	MASB-BWBK-SB-MA12-0108	33600	11.44126321	0.001850468	1.77136E+01	5.20700E+01	1.81637E+08	4.20875E+00	1.81048E-01	7.23251E+00	MASB-BWBK-SB-MA12-0108
MASB	MASB-BWBK-SB-MA13-0105	15800	3.190924808	0.006629308	1.48877E-02	1.06996E+00	1.86860E+07	1.22015E-01	9.93454E-03	3.06891E+00	
MASB	MASB-BWBK-SB-MA14-0104	31350	7.120367359	0.002511907	1.71525E-01	8.38135E+00	1.26051E+08	4.14156E-01	2.07571E-02	6.70621E+00	
MASB	MASB-BWBK-SB-MA15-0105	24400	5.669644725	0.003364163	3.47049E-01	2.08610E+00	1.82950E+07	5.89109E-01	3.41691E-02	5.08054E+00	
MASB	MASB-BWBK-SB-MA16-0104	21300	4.033264272	0.004546149	1.03781E-01	3.68822E-02	1.38595E+06	-3.22151E-01	-2.17211E-02	4.35541E+00	
MASB	MASB-BWBK-SB-MA17-0104	20800	4.033264272	0.004622	4.21053E-02	3.68822E-02	4.58688E+05	-2.05196E-01	-1.39503E-02	4.23846E+00	
MASB	MASB-BWBK-SB-MA18-0104	17200	3.865530119	0.005456974	2.20098E-01	1.29443E-01	8.54238E+06	4.69146E-01	3.46565E-02	3.39638E+00	
MASB	MASB-BWBK-SB-MA19-0103	15100	3.728679007	0.006194033	6.78163E-01	2.46644E-01	2.52279E+07	8.23506E-01	6.48117E-02	2.90517E+00	
MASB	MASB-BWBK-SB-MA20-0103	24600	3.694073786	0.004366389	2.05419E+00	2.82214E-01	2.00459E+07	-1.43324E+00	-9.47069E-02	5.12732E+00	
MASS	MASS-BWBK-SS-MA01-0001	7090	1.792561899	0.015297059	5.79134E-01	5.91827E+00	1.69852E+08	7.61009E-01	9.41225E-02	1.03155E+00	
MASS	MASS-BWBK-SS-MA02-0001	8420	1.792561899	0.015297059	2.02418E-01	5.91827E+00	1.36954E+08	4.49908E-01	5.56452E-02	1.34265E+00	
MASS	MASS-BWBK-SS-MA03-0001	11800	3.153494065	0.008669794	1.04086E+00	1.14879E+00	6.92679E+07	1.02022E+00	9.49949E-02	2.13327E+00	
MASS	MASS-BWBK-SS-MA04-0001	11900	2.305218146	0.010862308	2.20694E-02	3.68676E+00	6.76134E+07	1.48558E-01	1.54830E-02	2.15666E+00	
MASS	MASS-BWBK-SS-MA05-0001	17700	2.805855095	0.006650343	5.00533E-01	2.01486E+00	5.86965E+06	-7.07484E-01	-5.76950E-02	3.51334E+00	
MASS	MASS-BWBK-SS-MA06-0001	20400	7.969939269	0.003123865	1.46310E+01	1.40222E+01	7.68759E+04	3.82504E+00	2.13788E-01	4.14490E+00	MASS-BWBK-SS-MA06-0001
MASS	MASS-BWBK-SS-MA07-0001	5940	2.348920585	0.012635145	2.51655E+00	3.52084E+00	2.01150E+08	1.58636E+00	1.78317E-01	7.62557E-01	MASS-BWBK-SS-MA07-0001
MASS	MASS-BWBK-SS-MA08-0001	18900	4.610593104	0.004549818	6.66774E-01	1.48442E-01	1.49508E+06	8.16562E-01	5.50790E-02	3.79403E+00	
MASS	MASS-BWBK-SS-MA09-0001	20800	4.88595171	0.004100252	4.19246E-01	4.36445E-01	4.58688E+05	6.47492E-01	4.14610E-02	4.23846E+00	
MASS	MASS-BWBK-SS-MA10-0001	21600	5.241482788	0.003827769	6.65684E-01	1.03260E+00	2.18231E+06	8.15895E-01	5.04786E-02	4.42559E+00	
MASS	MASS-BWBK-SS-MA11-0001	26600	5.528774814	0.003227858	4.40411E-03	1.69902E+00	4.19550E+07	-6.63635E-02	-3.77039E-03	5.59514E+00	
MASS	MASS-BWBK-SS-MA12-0001	14900	2.216541975	0.009148985	4.11970E-01	4.03516E+00	2.72770E+07	-6.41849E-01	-6.13930E-02	2.85839E+00	
MASS	MASS-BWBK-SS-MA13-0001	15300	3.03983898	0.007038367	7.72365E-03	1.40535E+00	2.32588E+07	8.78843E-02	7.37305E-03	2.95195E+00	
MASS	MASS-BWBK-SS-MA14-0001	9440	2.171534093	0.01347694	3.48445E-01	4.21800E+00	1.14121E+08	5.90292E-01	6.85272E-02	1.58124E+00	
MASS	MASS-BWBK-SS-MA15-0001	10500	2.392220179	0.012055022	3.17007E-01	3.36022E+00	9.25970E+07	5.63034E-01	6.18185E-02	1.82919E+00	
MASS	MASS-BWBK-SS-MA16-0001	15000	3.589268453	0.006386536	5.00538E-01	4.04551E-01	2.62424E+07	7.07487E-01	5.65394E-02	2.88178E+00	
MASS	MASS-BWBK-SS-MA17-0001	14900	3.447095504	0.006597731	3.46573E-01	6.05620E-01	2.72770E+07	5.88705E-01	4.78184E-02	2.85839E+00	
MASS	MASS-BWBK-SS-MA18-0001	13000	3.831547162	0.006931182	2.00955E+00	1.55050E-01	5.07334E+07	1.41759E+00	1.18019E-01	2.41396E+00	MASS-BWBK-SS-MA18-0001
MASS	MASS-BWBK-SS-MA19-0001	15200	3.694073786	0.006198302	5.86006E-01	2.82214E-01	2.42333E+07	7.65510E-01	6.02681E-02	2.92856E+00	
MASS	MASS-BWBK-SS-MA20-0001	17400	3.763124384	0.005504477	1.02374E-01	2.13617E-01	7.41329E+06	3.19959E-01	2.37384E-02	3.44317E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	16800	2.705453085	0.007108518	3.56847E-01	2.30997E+00	1.10406E+07	-5.97367E-01	-5.03652E-02	3.30282E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	15800	2.477667769	0.007975386	3.49567E-01	3.05426E+00	1.86860E+07	-5.91242E-01	-5.28009E-02	3.06891E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	14900	3.03983898	0.007193758	3.29235E-02	1.40535E+00	2.72770E+07	1.81448E-01	1.53897E-02	2.85839E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	24000	3.55399273	0.004553233	2.05343E+00	4.50669E-01	1.50332E+07	-1.43298E+00	-9.66941E-02	4.98697E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	12000	2.725680889	0.00946369	2.97711E-01	2.24889E+00	6.59788E+07	5.45629E-01	5.30796E-02	2.18005E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	21600	2.5198421	0.006246336	3.63187E+00	2.90863E+00	2.18231E+06	-1.90575E+00	-1.50618E-01	4.42559E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	14700	2.5198421	0.008351591	8.51277E-02	2.90863E+00	2.94061E+07	-2.91767E-01	-2.66637E-02	2.81161E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	15550	2.370619812	0.008364104	4.09360E-01	3.43988E+00	2.09099E+07	-6.39812E-01	-5.85143E-02	3.01043E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	17800	2.348920585	0.007584552	1.41089E+00	3.52084E+00	5.39510E+06	-1.18781E+00	-1.03446E-01	3.53673E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	16900	2.685149378	0.007115767	4.10960E-01	2.37210E+00	1.03860E+07	-6.41061E-01	-5.40767E-02	3.32621E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	19200	2.5198421	0.00678812	1.80731E+00	2.90863E+00	8.51440E+05	-1.34436E+00	-1.10762E-01	3.86420E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	19550	2.238875126	0.007361916	2.91452E+00	3.94593E+00	3.28025E+05	-1.70720E+00	-1.46480E-01	3.94607E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	16100	2.216541975	0.008591719	8.51081E-01	4.03516E+00	1.61824E+07	-9.22541E-01	-8.55117E-02	3.13908E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	12700	3.00148075	0.008356673	4.32559E-01	1.49776E+00	5.50970E+07	6.57692E-01	6.01228E-02	2.34379E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	16300	2.080083823	0.008980314	1.22275E+00	4.60200E+00	1.46133E+07	-1.10578E+00	-1.04789E-01	3.18586E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	15600	2.348920585	0.008403955	4.53208E-01	3.52084E+00	2.04551E+07	-6.73207E-01	-6.17150E-02	3.02213E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	13500	2.348920585	0.009499733	3.31225E-02	3.52084E+00	4.38606E+07	-1.81996E-01	-1.77385E-02	2.53092E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	14900	2.392220179	0.00859996	2.17315E-01	3.36022E+00	2.72770E+07	-4.66170E-01	-4.32308E-02	2.85839E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	15800	2.5198421	0.007871958	3.01475E-01	2.90863E+00	1.86860E+07	-5.49068E-01	-4.87155E-02	3.06891E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	10600	1.842015749	0.014648968	1.11549E-04	5.68010E+00	9.06825E+07	-1.05617E-02	-1.27831E-03	1.85258E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	17800	3.228137283	0.005996402	9.52293E-02	9.94357E-01	5.39510E+06	-3.08593E-01	-2.38963E-02	3.53673E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	14100	2.392220179	0.009011671	7.78647E-02	3.36022E+00	3.62733E+07	-2.79042E-01	-2.64894E-02	2.67126E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,4273.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!G	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	17400	3.301927249	0.006006382	1.99483E-02	8.52639E-01	7.41329E+06	-1.41239E-01	-1.09461E-02	3.44317E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	18000	3.301927249	0.005855064	7.92899E-02	8.52639E-01	4.50600E+06	-2.81585E-01	-2.15464E-02	3.58351E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	12000	2.644309612	0.009679852	2.15536E-01	2.49957E+00	6.59788E+07	4.64258E-01	4.56766E-02	2.18005E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	17900	3.077956704	0.006172197	2.32482E-01	1.31642E+00	4.94055E+06	-4.82164E-01	-3.78804E-02	3.56012E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	17800	2.765913248	0.006692123	5.94158E-01	2.12984E+00	5.39510E+06	-7.70817E-01	-6.30570E-02	3.53673E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	15400	2.725680889	0.007574453	6.23325E-02	2.24889E+00	2.23042E+07	-2.49665E-01	-2.17287E-02	2.97535E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	15500	2.725680889	0.007534733	7.45595E-02	2.24889E+00	2.13697E+07	-2.73056E-01	-2.37020E-02	2.99874E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	9880	1.938991221	0.014887301	6.49378E-02	5.22726E+00	1.04914E+08	2.54829E-01	3.10926E-02	1.68416E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	10400	1.890814389	0.014917029	7.22823E-03	5.44988E+00	9.45316E+07	8.50190E-02	1.03838E-02	1.80580E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9120	2.080083823	0.013982324	3.29124E-01	4.60200E+00	1.21060E+08	5.73693E-01	6.78374E-02	1.50639E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	14100	2.477667769	0.008766881	3.74790E-02	3.05426E+00	3.62733E+07	-1.93595E-01	-1.81266E-02	2.67126E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	8240	1.792561899	0.015297059	2.42076E-01	5.91827E+00	1.41199E+08	4.92012E-01	6.08527E-02	1.30055E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	11000	1.986576777	0.013383202	1.63502E-03	5.01193E+00	8.32243E+07	4.04353E-02	4.67779E-03	1.94614E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	10200	2.080083823	0.013982324	1.03086E-01	4.60200E+00	9.84607E+07	3.21070E-01	3.79656E-02	1.75901E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	15000	2.435131383	0.008433302	1.99496E-01	3.20475E+00	2.62424E+07	-4.46650E-01	-4.10172E-02	2.88178E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	13100	2.725680889	0.008706434	8.31332E-02	2.24889E+00	4.93188E+07	2.88328E-01	2.69034E-02	2.43735E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	11400	2.261097439	0.011529036	4.90144E-02	3.85814E+00	7.60861E+07	2.21392E-01	2.37716E-02	2.03971E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	17600	2.348920585	0.007649323	1.30194E+00	3.52084E+00	6.36419E+06	-1.14103E+00	-9.97947E-02	3.48995E+00	
NESB	NESB-BWBK-SB-NE01-0108	23700	3.00148075	0.005155672	3.66844E+00	1.49776E+00	1.27968E+07	-1.91532E+00	-1.37526E-01	4.91680E+00	
NESB	NESB-BWBK-SB-NE02-0109	22200	3.228137283	0.005121212	1.78970E+00	9.94357E-01	4.31503E+06	-1.33780E+00	-9.57363E-02	4.56593E+00	
NESB	NESB-BWBK-SB-NE03-0105	22300	3.115839842	0.00523236	2.17116E+00	1.23093E+00	4.74048E+06	-1.47349E+00	-1.06585E-01	4.58933E+00	
NESB	NESB-BWBK-SB-NE04-0110	20000	2.765913248	0.006146298	1.65230E+00	2.12984E+00	1.50639E+04	-1.28542E+00	-1.00775E-01	4.05133E+00	
NESB	NESB-BWBK-SB-NE05-0108	22900	2.904491652	0.005400961	3.33128E+00	1.74457E+00	7.71320E+06	-1.82518E+00	-1.34135E-01	4.72967E+00	
NESB	NESB-BWBK-SB-NE06-0109	21100	2.88489971	0.005740496	2.02702E+00	1.79670E+00	9.55047E+05	-1.42373E+00	-1.07871E-01	4.30863E+00	
NESB	NESB-BWBK-SB-NE07-0107	23100	3.00148075	0.005245032	3.15053E+00	1.49776E+00	8.86411E+06	-1.77497E+00	-1.28548E-01	4.77645E+00	
NESB	NESB-BWBK-SB-NE08-0104	18200	2.685149378	0.006727935	8.93298E-01	2.37210E+00	3.69691E+06	-9.45144E-01	-7.75245E-02	3.63029E+00	
NESB	NESB-BWBK-SB-NE09-0110	20500	2.725680889	0.006105428	2.08111E+00	2.24889E+00	1.42329E+05	-1.44261E+00	-1.12721E-01	4.16829E+00	
NESB	NESB-BWBK-SB-NE10-0107	18200	2.435131383	0.007249641	1.42841E+00	3.20475E+00	3.69691E+06	-1.19516E+00	-1.01762E-01	3.63029E+00	
NESB	NESB-BWBK-SB-NE101-0110	17600	2.171534093	0.008158946	1.73821E+00	4.21800E+00	6.36419E+06	-1.31841E+00	-1.19088E-01	3.48995E+00	
NESB	NESB-BWBK-SB-NE102-0110	14400	1.890814389	0.010830901	7.23556E-01	5.44988E+00	3.27497E+07	-8.50621E-01	-8.85255E-02	2.74144E+00	
NESB	NESB-BWBK-SB-NE103-0110	13100	1.767577948	0.011817986	4.48598E-01	6.04045E+00	4.93188E+07	-6.69775E-01	-7.28116E-02	2.43735E+00	
NESB	NESB-BWBK-SB-NE104-0110	11800	1.639882998	0.013063249	2.43430E-01	6.68444E+00	6.92679E+07	-4.93386E-01	-5.63914E-02	2.13327E+00	
NESB	NESB-BWBK-SB-NE105-0110	17300	2.392220179	0.007637677	1.05587E+00	3.36022E+00	7.96783E+06	-1.02755E+00	-8.98019E-02	3.41977E+00	
NESB	NESB-BWBK-SB-NE106-0110	15200	1.890814389	0.010352477	1.07692E+00	5.44988E+00	2.42333E+07	-1.03775E+00	-1.05588E-01	2.92856E+00	
NESB	NESB-BWBK-SB-NE107-0510	13600	1.534036644	0.011425774	1.04095E+00	7.24296E+00	4.25461E+07	-1.02027E+00	-1.09058E-01	2.55431E+00	
NESB	NESB-BWBK-SB-NE108-0110	15200	1.691538112	0.010391889	1.53023E+00	6.42001E+00	2.42333E+07	-1.23703E+00	-1.26103E-01	2.92856E+00	
NESB	NESB-BWBK-SB-NE109-0110	14900	1.691538112	0.010564428	1.36154E+00	6.42001E+00	2.72770E+07	-1.16685E+00	-1.19933E-01	2.85839E+00	
NESB	NESB-BWBK-SB-NE110-0110	14800	1.842015749	0.01062388	9.86017E-01	5.68010E+00	2.83315E+07	-9.92984E-01	-1.02349E-01	2.83500E+00	
NESS	NESS-BKG-SS03-NEB-0016	17700	3.374901689	0.005841805	1.91648E-02	7.23197E-01	5.86965E+06	-1.38437E-01	-1.05810E-02	3.51334E+00	
NESS	NESS-BKG-SS09-NEB-0018	13700	4.88595171	0.005673996	5.32803E+00	4.36445E-01	4.12515E+07	2.30825E+00	1.73871E-01	2.57770E+00	NESS-BKG-SS09-NEB-0018
NESS	NESS-BWBK-SS-NE01-0001	23000	5.946279717	0.003402534	1.42377E+00	2.96173E+00	8.27865E+06	1.19322E+00	6.96019E-02	4.75306E+00	
NESS	NESS-BWBK-SS-NE02-0001	22600	6.637391074	0.003229757	3.91206E+00	5.81813E+00	6.13684E+06	1.97789E+00	1.12406E-01	4.65950E+00	NESS-BWBK-SS-NE02-0001
NESS	NESS-BWBK-SS-NE03-0001	19700	4.19757986	0.004682618	4.68380E-02	7.69048E-04	1.78705E+05	2.16421E-01	1.48096E-02	3.98116E+00	
NESS	NESS-BWBK-SS-NE04-0001	20800	3.55399273	0.005019603	4.68495E-01	4.50669E-01	4.58688E+05	-6.84467E-01	-4.84939E-02	4.23846E+00	
NESS	NESS-BWBK-SS-NE05-0001	18600	4.454017329	0.004703254	5.33133E-01	5.23063E-02	2.31872E+06	7.30159E-01	5.00745E-02	3.72386E+00	
NESS	NESS-BWBK-SS-NE06-0001	19100	3.153494065	0.00578535	4.72407E-01	1.14879E+00	1.04599E+06	-6.87319E-01	-5.22785E-02	3.84081E+00	
NESS	NESS-BWBK-SS-NE07-0001	19200	5.153756646	0.004202283	1.66295E+00	8.62010E-01	8.51440E+05	1.28955E+00	8.35953E-02	3.86420E+00	
NESS	NESS-BWBK-SS-NE08-0001	19000	3.447095504	0.005464835	1.37142E-01	6.05620E-01	1.26053E+06	-3.70326E-01	-2.73762E-02	3.81742E+00	
NESS	NESS-BWBK-SS-NE09-0001	17700	4.099385194	0.005141915	3.43450E-01	1.58575E-02	5.86965E+06	5.86046E-01	4.20237E-02	3.51334E+00	
NESS	NESS-BWBK-SS-NE10-0001	17400	4.066391931	0.005235707	3.88411E-01	2.52555E-02	7.41329E+06	6.23226E-01	4.50955E-02	3.44317E+00	
NESS	NESS-BWBK-SS-NE101-0001	13200	2.12605484	0.010527348	1.12017E-01	4.40688E+00	4.79243E+07	-3.34689E-01	-3.43400E-02	2.46074E+00	
NESS	NESS-BWBK-SS-NE102-0001	10700	1.792561899	0.014494276	6.95665E-03	5.91827E+00	8.87879E+07	-8.34065E-02	-1.00415E-02	1.87597E+00	
NESS	NESS-BWBK-SS-NE103-0001	9870	1.986576777	0.014562744	9.28748E-02	5.01193E+00	1.05119E+08	3.04754E-01	3.67765E-02	1.68182E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,4273,	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!G	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	12300	1.792561899	0.012539247	2.09455E-01	5.91827E+00	6.11952E+07	-4.57663E-01	-5.12485E-02	2.25022E+00	
NESS	NESS-BWBK-SS-NE105-0001	9200	1.691538112	0.015297059	2.77005E-02	6.42001E+00	1.19306E+08	1.66435E-01	2.05849E-02	1.52510E+00	
NESS	NESS-BWBK-SS-NE106-0001	10100	1.742416162	0.015297059	4.61555E-05	6.16477E+00	1.00455E+08	6.79378E-03	8.40264E-04	1.73562E+00	
NESS	NESS-BWBK-SS-NE107-0001	9320	1.742416162	0.015297059	3.58131E-02	6.16477E+00	1.16699E+08	1.89244E-01	2.34059E-02	1.55317E+00	
NESS	NESS-BWBK-SS-NE108-0001	10100	1.792561899	0.015297059	3.24211E-03	5.91827E+00	1.00455E+08	5.69395E-02	7.04235E-03	1.73562E+00	
NESS	NESS-BWBK-SS-NE109-0001	9020	1.424402129	0.015297059	3.43365E-03	7.84509E+00	1.23271E+08	-5.85974E-02	-7.24740E-03	1.48300E+00	
NESS	NESS-BWBK-SS-NE110-0001	9580	2.080083823	0.013982324	2.17244E-01	4.60200E+00	1.11149E+08	4.66095E-01	5.51142E-02	1.61399E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	21000	4.610593104	0.004220696	1.05853E-01	1.48442E-01	7.69594E+05	3.25351E-01	2.11370E-02	4.28524E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	38700	7.49035798	0.002149415	8.74397E-01	1.06605E+01	3.45115E+08	-9.35092E-01	-4.33525E-02	8.42545E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	35100	6.766152446	0.002414393	6.67851E-01	6.45587E+00	2.24318E+08	-8.17221E-01	-4.01554E-02	7.58337E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	27700	7.80376763	0.00257691	3.80768E+00	1.28053E+01	5.74149E+07	1.95133E+00	9.90558E-02	5.85244E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	27700	5.877733751	0.00303335	6.39807E-04	2.73050E+00	5.74149E+07	2.52944E-02	1.39311E-03	5.85244E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	30300	6.428728274	0.002720754	1.01616E-03	4.85505E+00	1.03577E+08	-3.18772E-02	-1.66274E-03	6.46061E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	26600	6.481208051	0.002940475	7.85120E-01	5.08907E+00	4.19550E+07	8.86070E-01	4.80482E-02	5.59514E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	24800	6.868285455	0.002976415	2.87026E+00	6.98531E+00	2.18768E+07	1.69419E+00	9.24289E-02	5.17410E+00	
PMSB	PMSB-BWBK-SB-PM09-0106	20300	6.000833218	0.003688821	3.53187E+00	3.15248E+00	3.14229E+04	1.87933E+00	1.14142E-01	4.12150E+00	PMSB-BWBK-SB-PM09-0106
PMSB	PMSB-BWBK-SB-PM10-0105	25700	5.918908978	0.003170119	2.85466E-01	2.86827E+00	3.11059E+07	5.34290E-01	3.00825E-02	5.38462E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	28600	5.725503855	0.003018863	1.13876E-01	2.25058E+00	7.18640E+07	-3.37455E-01	-1.85412E-02	6.06296E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	14900	3.03983898	0.007193758	3.29235E-02	1.40535E+00	2.72770E+07	1.81448E-01	1.53897E-02	2.85839E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	24300	4.641588834	0.003806817	1.72687E-01	1.73287E-01	1.74495E+07	-4.15556E-01	-2.56396E-02	5.05715E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	16400	3.694073786	0.005831931	2.35049E-01	2.82214E-01	1.38588E+07	4.84818E-01	3.70241E-02	3.20926E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	23000	4.485550359	0.004033821	7.15625E-02	6.77242E-02	8.27865E+06	-2.67512E-01	-1.69903E-02	4.75306E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	18700	3.865530119	0.005126203	1.39905E-02	1.29443E-01	2.02418E+06	1.18281E-01	8.46864E-03	3.74725E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	25200	5.020747126	0.003542417	6.09680E-02	6.32718E-01	2.57786E+07	-2.46917E-01	-1.46961E-02	5.26766E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	34100	6.585536125	0.002495495	5.83585E-01	5.57066E+00	1.95364E+08	-7.63928E-01	-3.81619E-02	7.34946E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	25900	5.065277397	0.00346117	1.34047E-01	7.05543E-01	3.33768E+07	-3.66124E-01	-2.15397E-02	5.43140E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	22550	4.779812496	0.003930708	1.74266E-02	3.07471E-01	5.89162E+06	1.32010E-01	8.27641E-03	4.64780E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	29300	5.500385648	0.003044908	5.27526E-01	1.62581E+00	8.42222E+07	-7.26310E-01	-4.00783E-02	6.22670E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	34900	7.465979245	0.002290317	4.98613E-03	1.05019E+01	2.18368E+08	-7.06125E-02	-3.37932E-03	7.53659E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	33900	7.070311794	0.00240429	5.39958E-02	8.09403E+00	1.89813E+08	-2.32370E-01	-1.13939E-02	7.30268E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	36100	8.204370068	0.002128108	1.49836E-01	1.58329E+01	2.55273E+08	3.87086E-01	1.78568E-02	7.81728E+00	
PMSS	PMSS-DABK-S-SO21-0001	20400	5.613509052	0.003823582	2.15682E+00	1.92709E+00	7.68759E+04	1.46861E+00	9.08119E-02	4.14490E+00	
PMSS	PMSS-DABK-S-SO22-0001	23500	5.500385648	0.003511951	3.97364E-01	1.62581E+00	1.14059E+07	6.30369E-01	3.73567E-02	4.87002E+00	
PMSS	PMSS-DABK-S-SO23-0001	18200	4.262408947	0.004912995	3.99570E-01	1.37621E-03	3.69691E+06	6.32115E-01	4.43067E-02	3.63029E+00	
PMSS	PMSS-DABK-S-SO24-0001	25700	5.212322846	0.003419053	2.96860E-02	9.74191E-01	3.11059E+07	-1.72296E-01	-1.00746E-02	5.38462E+00	
PMSS	PMSS-DABK-S-SO25-0001	43300	7.683983123	0.001983886	3.30314E+00	1.19624E+01	5.37186E+08	-1.81745E+00	-8.09509E-02	9.50144E+00	
PMSS	PMSS-DABK-S-SO26-0001	24600	6.082201996	0.003210581	9.11803E-01	3.44804E+00	2.00459E+07	9.54884E-01	5.41056E-02	5.12732E+00	
PMSS	PMSS-DABK-S-SO27-0001	16000	3.933052423	0.005709007	6.68079E-01	8.54154E-02	1.69969E+07	8.17361E-01	6.17581E-02	3.11569E+00	
PMSS	PMSS-DABK-S-SO28-0001	18300	4.579492834	0.004678501	8.57120E-01	1.25444E-01	3.32236E+06	9.25808E-01	6.33249E-02	3.65368E+00	
PMSS	PMSS-DABK-S-SO29-0001	21800	4.825443595	0.003999226	1.24661E-01	3.60158E-01	2.81322E+06	3.53074E-01	2.23282E-02	4.47237E+00	
PMSS	PMSS-DABK-S-SO30-0001	18000	4.132246217	0.005051815	3.01109E-01	8.66116E-03	4.50600E+06	5.48734E-01	3.90019E-02	3.58351E+00	
PMSS	PMSS-DABK-S-SO31-0001	16500	3.190924808	0.006405819	1.74072E-03	1.06996E+00	1.31242E+07	-4.17219E-02	-3.33927E-03	3.23265E+00	
PMSS	PMSS-DABK-S-SO32-0001	23200	5.528774814	0.0035315	5.31340E-01	1.69902E+00	9.46956E+06	7.28931E-01	4.33177E-02	4.79984E+00	
PMSS	PMSS-DABK-S-SO33-0001	12700	2.805855095	0.00877151	2.13506E-01	2.01486E+00	5.50970E+07	4.62067E-01	4.32755E-02	2.34379E+00	
PMSS	PMSS-DABK-S-SO34-0001	15400	3.265136495	0.006661746	8.39787E-02	9.21936E-01	2.23042E+07	2.89791E-01	2.36526E-02	2.97535E+00	
PMSS	PMSS-DABK-S-SO35-0001	17850	3.831547162	0.005336466	8.01580E-02	1.55050E-01	5.16532E+06	2.83122E-01	2.06824E-02	3.54843E+00	
PMSS	PMSS-DABK-S-SO36-0001	14200	3.228137283	0.007185269	2.84605E-01	9.94357E-01	3.50788E+07	5.33484E-01	4.52213E-02	2.69465E+00	
PMSS	PMSS-DABK-S-SO37-0001	20100	4.825443595	0.004232489	5.63582E-01	3.60158E-01	5.16882E+02	7.50721E-01	4.88401E-02	4.07472E+00	
PMSS	PMSS-DABK-S-SO38-0001	13700	3.077956704	0.007662571	2.50258E-01	1.31642E+00	4.12515E+07	5.00258E-01	4.37907E-02	2.57770E+00	
PMSS	PMSS-DABK-S-SO39-0001	18800	3.65930571	0.005292494	1.23953E-02	3.20363E-01	1.74963E+06	-1.11334E-01	-8.09951E-03	3.77064E+00	
PMSS	PMSS-DABK-S-SO40-0001	14500	3.411094095	0.00679802	4.17662E-01	6.62950E-01	3.16151E+07	6.46267E-01	5.32848E-02	2.76483E+00	

APPENDIX F, TABLE F8-1
SUPPORT DATA FOR ARSENIC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,4273,	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!G	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	AS ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
SESB	SESB-BWBK-SB-SO03-0108	40900	8.458436074	0.001943192	2.31954E-01	1.79193E+01	4.31695E+08	-4.81616E-01	-2.12304E-02	8.94005E+00	
SESB	SESB-BWBK-SB-SO04-0108	33600	8.157754172	0.002229309	8.56079E-01	1.54641E+01	1.81637E+08	9.25245E-01	4.36860E-02	7.23251E+00	
SESB	SESB-BWBK-SB-SO05-0106	31600	7.587479384	0.002410989	6.76985E-01	1.13042E+01	1.31728E+08	8.22791E-01	4.04005E-02	6.76469E+00	
SESB	SESB-BWBK-SB-SO06-0108	42650	10.12132214	0.001717179	5.95872E-01	3.47629E+01	5.07478E+08	7.71927E-01	3.19878E-02	9.34939E+00	
SESB	SESB-BWBK-SB-SO07-0106	29100	6.189855071	0.002852461	9.88363E-05	3.85943E+00	8.05913E+07	9.94164E-03	5.30968E-04	6.17991E+00	
SESB	SESB-BWBK-SB-SO08-0107	39900	8.549879733	0.001959802	2.44179E-02	1.87019E+01	3.91140E+08	-1.56262E-01	-6.91768E-03	8.70614E+00	
SESB	SESB-BWBK-SB-SO09-0106	29000	7.49035798	0.002561902	1.77912E+00	1.06605E+01	7.88058E+07	1.33384E+00	6.75124E-02	6.15652E+00	
SESB	SESB-BWBK-SB-SO11-0106	34800	8.227628401	0.002172063	5.10407E-01	1.60185E+01	2.15422E+08	7.14428E-01	3.32962E-02	7.51320E+00	
SESB	SESB-BWBK-SB-SO12-0106	34900	8.00532198	0.00220189	2.19708E-01	1.42885E+01	2.18368E+08	4.68730E-01	2.19948E-02	7.53659E+00	
SESB	SESB-BWBK-SB-SO15-0103	22700	4.764553701	0.003920763	6.66911E-03	2.90782E-01	6.64229E+06	8.16646E-02	5.11351E-03	4.68289E+00	
SESB	SESB-BWBK-SB-SO16-0105	24900	4.485550359	0.00382637	5.06860E-01	6.77242E-02	2.28223E+07	-7.11941E-01	-4.40390E-02	5.19749E+00	
SESB	SESB-BWBK-SB-SO17-0106	18100	3.00148075	0.006230745	3.66536E-01	1.49776E+00	4.09146E+06	-6.05422E-01	-4.77890E-02	3.60690E+00	
SESB	SESB-BWBK-SB-SO18-0105	15000	2.685149378	0.007826415	3.86643E-02	2.37210E+00	2.62424E+07	-1.96632E-01	-1.73955E-02	2.88178E+00	
SESB	SESB-BWBK-SB-SO19-0104	16400	2.725680889	0.007203291	2.33845E-01	2.24889E+00	1.38588E+07	-4.83575E-01	-4.10421E-02	3.20926E+00	
SESB	SESB-BWBK-SB-SO20-0104	29700	4.672481414	0.00333271	2.71517E+00	1.99961E-01	9.17240E+07	-1.64778E+00	-9.51256E-02	6.32026E+00	
SESS	SESS-DABK-S-SO01-0001	18600	3.933052423	0.00508912	4.37624E-02	8.54154E-02	2.31872E+06	2.09195E-01	1.49235E-02	3.72386E+00	
SESS	SESS-DABK-S-SO02-0001	24100	6.428728274	0.003151157	2.01176E+00	4.85505E+00	1.58186E+07	1.41837E+00	7.96202E-02	5.01036E+00	
SESS	SESS-DABK-S-SO03-0001	19100	4.19757986	0.004788175	1.27283E-01	7.69048E-04	1.04599E+06	3.56767E-01	2.46871E-02	3.84081E+00	
SESS	SESS-DABK-S-SO04-0001	18400	3.89936435	0.00515837	4.94122E-02	1.06242E-01	2.96782E+06	2.22289E-01	1.59652E-02	3.67708E+00	
SESS	SESS-DABK-S-SO05-0001	19300	4.485550359	0.0045583	3.57551E-01	6.77242E-02	6.76893E+05	5.97955E-01	4.03711E-02	3.88759E+00	
SESS	SESS-DABK-S-SO06-0001	53900	17.25888641	0.001128393	2.78573E+01	1.69874E+02	1.14090E+09	5.27800E+00	1.77296E-01	1.19809E+01	SESS-DABK-S-SO06-0001
SESS	SESS-DABK-S-SO07-0001	16000	4.610593104	0.005164135	2.23473E+00	1.48442E-01	1.69969E+07	1.49490E+00	1.07426E-01	3.11569E+00	SESS-DABK-S-SO07-0001
SESS	SESS-DABK-S-SO08-0001	20500	5.585335783	0.003821827	2.00803E+00	1.84967E+00	1.42329E+05	1.41705E+00	8.76033E-02	4.16829E+00	
SESS	SESS-DABK-S-SO09-0001	23000	5.414774355	0.003596543	4.37863E-01	1.41482E+00	8.27865E+06	6.61712E-01	3.96837E-02	4.75306E+00	
SESS	SESS-DABK-S-SO10-0001	23800	5.005859797	0.003685274	4.31250E-03	6.09256E-01	1.35223E+07	6.56697E-02	3.98657E-03	4.94019E+00	
SESS	SESS-DABK-S-SO11-0001	8840	1.902915653	0.015148351	2.13462E-01	5.39352E+00	1.27300E+08	4.62020E-01	5.68648E-02	1.44090E+00	
SESS	SESS-DABK-S-SO12-0001	14500	3.447095504	0.006750124	4.65491E-01	6.05620E-01	3.16151E+07	6.82269E-01	5.60546E-02	2.76483E+00	
SESS	SESS-DABK-S-SO13-0001	18700	5.299560899	0.004212517	2.40967E+00	1.15401E+00	2.02418E+06	1.55231E+00	1.00751E-01	3.74725E+00	SESS-DABK-S-SO13-0001
SESS	SESS-DABK-S-SO14-0001	18000	5.005859797	0.004484736	2.02307E+00	6.09256E-01	4.50600E+06	1.42235E+00	9.52520E-02	3.58351E+00	
SESS	SESS-DABK-S-SO15-0001	17500	4.946087443	0.004614269	2.18901E+00	5.19518E-01	6.87874E+06	1.47953E+00	1.00502E-01	3.46656E+00	SESS-DABK-S-SO15-0001
SESS	SESS-DABK-S-SO16-0001	9330	2.477667769	0.012114294	8.50372E-01	3.05426E+00	1.16483E+08	9.22156E-01	1.01497E-01	1.55551E+00	SESS-DABK-S-SO16-0001
SESS	SESS-DABK-S-SO17-0001	14800	3.228137283	0.006937711	1.54557E-01	9.94357E-01	2.83315E+07	3.93138E-01	3.27456E-02	2.83500E+00	
SESS	SESS-DABK-S-SO18-0001	13100	3.228137283	0.007717499	6.25341E-01	9.94357E-01	4.93188E+07	7.90785E-01	6.94699E-02	2.43735E+00	
SESS	SESS-DABK-S-SO19-0001	17300	4.390613599	0.005009755	9.42528E-01	2.73248E-02	7.96783E+06	9.70839E-01	6.87156E-02	3.41977E+00	
SESS	SESS-DABK-S-SO20-0001	23500	8.204370068	0.002788991	1.11179E+01	1.58329E+01	1.14059E+07	3.33435E+00	1.76090E-01	4.87002E+00	SESS-DABK-S-SO20-0001
SESD	SESD-SD01	24700	5.863976613	0.003271406	5.08750E-01	2.68522E+00	2.09514E+07	7.13267E-01	4.07962E-02	5.15071E+00	
SESD	SESD-SD02	20900	3.966596834	0.004656059	8.71750E-02	6.69333E-02	6.04141E+05	-2.95254E-01	-2.01468E-02	4.26185E+00	
SESD	SESD-SD03	34000	7.269491743	0.00236228	3.20140E-03	9.26703E+00	1.92578E+08	-5.65810E-02	-2.75002E-03	7.32607E+00	
SESD	SESD-SD04	31300	6.481208051	0.002654044	4.55001E-02	5.08907E+00	1.24931E+08	-2.13307E-01	-1.09891E-02	6.69452E+00	
SESD	SESD-SD05	27100	6.349604208	0.002940294	4.06420E-01	4.51262E+00	4.86822E+07	6.37511E-01	3.45687E-02	5.71209E+00	
SESD	SESD-SD06	30900	6.791757603	0.002603973	3.64070E-02	6.58665E+00	1.16149E+08	1.90806E-01	9.73667E-03	6.60095E+00	
SESD	SESD-SD07	29100	6.50736837	0.002770773	1.07227E-01	5.20778E+00	8.05913E+07	3.27455E-01	1.72366E-02	6.17991E+00	
SESD	SESD-SD08	42700	8.458436074	0.00189502	8.14784E-01	1.79193E+01	5.09733E+08	-9.02654E-01	-3.92942E-02	9.36109E+00	
SESD	SESD-SD09	15700	4.033264272	0.005703145	9.75641E-01	3.68822E-02	1.95606E+07	9.87746E-01	7.45937E-02	3.04552E+00	
SESD	SESD-SD10	31200	6.868285455	0.002571862	3.88724E-02	6.98531E+00	1.22706E+08	1.97161E-01	9.99873E-03	6.67112E+00	
SESD	SESD-SD11	36200	9.154891032	0.001998794	1.72716E+00	2.43008E+01	2.58478E+08	1.31422E+00	5.87558E-02	7.84067E+00	
SESD	SESD-SD12	40850	10.5669867	0.001719896	2.68511E+00	4.02168E+01	4.29620E+08	1.63863E+00	6.79567E-02	8.92836E+00	
SESD	SESD-SD13	33600	8.29720717	0.002208244	1.13358E+00	1.65803E+01	1.81637E+08	1.06470E+00	5.00323E-02	7.23251E+00	
SESD	SESD-SD14	23900	6.428728274	0.003168654	2.14666E+00	4.85505E+00	1.42677E+07	1.46515E+00	8.24743E-02	4.96358E+00	
SESD	SESD-SD15	34100	7.922639752	0.002246023	3.28531E-01	1.36702E+01	1.95364E+08	5.73176E-01	2.71641E-02	7.34946E+00	
SESD	SESD-SD16	31000	6.969664646	0.00256051	1.19247E-01	7.53147E+00	1.18315E+08	3.45322E-01	1.74738E-02	6.62434E+00	
SESD	SESD-SD17	28900	7.120367359	0.00264253	9.74635E-01	8.38135E+00	7.70404E+07	9.87236E-01	5.07494E-02	6.13313E+00	
SESD	SESD-SD18	23100	4.855744778	0.003830065	6.28717E-03	3.97446E-01	8.86411E+06	7.92917E-02	4.90717E-03	4.77645E+00	
SESD	SESD-SD19	29900	6.766152446	0.002663535	1.59290E-01	6.45587E+00	9.55949E+07	3.99111E-01	2.05979E-02	6.36704E+00	
SESD	SESD-SD20	21400	3.831547162	0.004683871	2.99492E-01	1.55050E-01	1.63141E+06	-5.47259E-01	-3.74537E-02	4.37881E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: Pb ^0.67	
	X variable name used on graph: PB predict (from Factor Anal.)	
	N	115.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.511590E+01
0.10	t-Value: 2-tail, 0.100 alpha	1.658450
degrees freedom	SUM(XY*w^2)	1.465042E+03
2	SUM(X^2*w^2)	3.845034E+03
	SUM(X*w^2)	2.324061E+02
	SUM(Y*w^2)	1.225879E+02
	SUM(w^2)	3.437956E+01
	SUM(Y)	755.630828
	SUM(X)	1.963852E+03
	Denominator	7.817794E+04
	Slope	2.798400E-01
	Intercept	1.674000E+00
	Minimum X value	1.956295E-01
	Maximum X value	4.372861E+01
	Minimum Y value	1.890814E+00
	Maximum Y value	1.348146E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.598682E+02
	SUM(Yobs - Yave)^2	8.434383E+02
	SUM(X - Xave)^2	9.859968E+03
	Std. Error of Y-estimate	1.189438E+00
	R^2	8.104565E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	0.279	0.2
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		25
Inverse Log Transform (Y/N)?	No	50
Inverse Power Transform (Y/N)?	Yes	75
Inverse Power Transform (1/Power):	1.5	90

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
0.20	1.73	1.33	2.12	-1.21	1.21	-0.01	No. of Exceedances
2.01	2.24	1.68	2.79	-1.21	1.21	-0.01	of Upper 95% Limit
3.82	2.74	1.93	3.56	-1.21	1.21	-0.01	for Each Soil Type:
5.64	3.25	2.25	4.26	-1.21	1.21	-0.01	---- V ----
7.45	3.76	2.59	4.93	-1.21	1.21	-0.01	BASS
9.26	4.27	2.96	5.58	-1.21	1.21	-0.01	0
11.08	4.77	3.33	6.21	-1.21	1.21	-0.01	MASS
12.89	5.28	3.72	6.84	-1.21	1.21	-0.01	2
14.71	5.79	4.12	7.46	-1.21	1.21	-0.01	MMSS
16.52	6.30	4.52	8.07	-1.21	1.21	-0.01	0
18.33	6.80	4.93	8.68	-1.21	1.21	-0.01	NESS
20.15	7.31	5.35	9.28	-1.21	1.21	-0.01	4
21.96	7.82	5.76	9.88	-1.21	1.21	-0.01	PMSS
23.78	8.33	6.18	10.47	-1.21	1.21	-0.01	2
25.59	8.84	6.61	11.06	-1.21	1.21	-0.01	SESS
27.40	9.34	7.04	11.65	-1.21	1.21	-0.01	2
29.22	9.85	7.47	12.23	-1.21	1.21	-0.01	SESD
31.03	10.36	7.90	12.82	-1.21	1.21	-0.01	0
32.85	10.87	8.33	13.40	-1.21	1.21	-0.01	MASB
34.66	11.37	8.77	13.98	-1.21	1.21	-0.01	0
36.47	11.88	9.21	14.56	-1.21	1.21	-0.01	MMSB
38.29	12.39	9.64	15.13	-1.21	1.21	-0.01	0
40.10	12.90	10.08	15.71	-1.21	1.21	-0.01	NESB
41.91	13.40	10.53	16.28	-1.21	1.21	-0.01	0
43.73	13.91	10.97	16.85	-1.21	1.21	-0.01	PMSB
10.92	4.73	3.30	6.16	10.29	-42%	49%	0
16.62	6.33	4.55	8.11	15.91	-39%	45%	SESB
23.24	8.18	6.06	10.29	23.38	-36%	41%	0
29.16	9.83	7.45	12.21	30.84	-34%	38%	<<--Original Units Errors

TEXT BOX ==> (Pb ^0.67) = (2.80E-01)x(PB predict (from Factor Anal.)) + (1.67E+00) R^2 = 0.81; Std. Error of Y-estimate = 1.19E+00 +/-3 x IQR of r -1.214684 1.214684

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,0.7)*MAX(y-Ymin,0.2)). 95% Conf V - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!P	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	PB predict	Pb ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	1.915172466	2.080083823	1.705212391	1.68632E-02	2.01657E+01	2.29880E+02	-1.29858E-01	-1.69574E-01	2.20994E+00	
BASS	BASS-BWBK-SS-BA102-0001	1.123435394	1.890814389	2.321434461	9.51955E-03	2.19014E+01	2.54516E+02	-9.75682E-02	-1.48657E-01	1.98838E+00	
BASS	BASS-BWBK-SS-BA103-0001	1.755985454	1.938991221	1.790082942	5.12588E-02	2.14528E+01	2.34733E+02	-2.26404E-01	-3.02915E-01	2.16540E+00	
BASS	BASS-BWBK-SS-BA104-0001	3.018568642	2.261097439	0.978097891	6.63676E-02	1.85727E+01	1.97639E+02	-2.57619E-01	-2.54782E-01	2.51872E+00	
BASS	BASS-BWBK-SS-BA105-0001	1.824333347	2.261097439	1.287692056	5.86382E-03	1.85727E+01	2.32643E+02	7.65756E-02	8.68953E-02	2.18452E+00	
BASS	BASS-BWBK-SS-BA106-0001	2.357190562	2.435131383	0.921913754	1.03012E-02	1.71030E+01	2.16672E+02	1.01495E-01	9.74516E-02	2.33364E+00	
BASS	BASS-BWBK-SS-BA107-0001	1.864537041	2.033599058	1.730887562	2.63002E-02	2.05853E+01	2.31418E+02	-1.62173E-01	-2.13360E-01	2.19577E+00	
BASS	BASS-BWBK-SS-BA108-0001	1.212526106	2.080083823	2.217413017	4.45825E-03	2.01657E+01	2.51681E+02	6.67701E-02	9.94272E-02	2.01331E+00	
BASS	BASS-BWBK-SS-BA109-0001	0.19562945	1.938991221	2.641022529	4.42033E-02	2.14528E+01	2.84980E+02	2.10246E-01	3.41675E-01	1.72875E+00	
BASS	BASS-BWBK-SS-BA110-0001	2.149207164	2.080083823	1.599814601	3.81619E-02	2.01657E+01	2.22838E+02	-1.95351E-01	-2.47087E-01	2.27543E+00	
BASS	BASS-BWBK-SS-BA111-0001	1.301886962	2.033599058	2.125968796	2.22917E-05	2.05853E+01	2.48854E+02	-4.72141E-03	-6.88414E-03	2.03832E+00	
BASS	BASS-BWBK-SS-BA112-0001	1.367027996	1.938991221	2.066011154	1.38200E-02	2.14528E+01	2.46803E+02	-1.17558E-01	-1.68974E-01	2.05655E+00	
BASS	BASS-BWBK-SS-BA113-0001	5.997474881	2.825719659	0.429371406	2.77322E-01	1.40249E+01	1.22755E+02	-5.26614E-01	-3.45071E-01	3.35233E+00	
MASS	MASS-BWBK-SS-MA01-0001	11.57711361	4.88595171	0.171274292	7.72155E-04	2.83839E+00	3.02485E+01	-2.77877E-02	-1.15000E-02	4.91374E+00	
MASS	MASS-BWBK-SS-MA02-0001	13.65383642	4.946087443	0.155948565	3.01184E-01	2.63938E+00	1.17179E+01	-5.48802E-01	-2.16724E-01	5.49489E+00	
MASS	MASS-BWBK-SS-MA03-0001	11.19316161	5.005859797	0.170852048	3.98264E-02	2.44873E+00	3.46193E+01	1.99566E-01	8.24889E-02	4.80629E+00	
MASS	MASS-BWBK-SS-MA04-0001	10.73129152	5.124348519	0.171328795	2.00081E-01	2.09194E+00	4.02677E+01	4.47304E-01	1.85148E-01	4.67704E+00	
MASS	MASS-BWBK-SS-MA05-0001	15.63808066	5.641611799	0.131395375	1.66912E-01	8.63210E-01	2.07043E+00	-4.08548E-01	-1.48093E-01	6.05016E+00	
MASS	MASS-BWBK-SS-MA06-0001	16.19685547	6.189855071	0.120569537	2.77977E-04	1.45045E-01	7.74616E-01	-1.66727E-02	-5.78927E-03	6.20653E+00	
MASS	MASS-BWBK-SS-MA07-0001	8.101514669	5.270561843	0.193456187	1.76739E+00	1.69037E+00	8.05589E+01	1.32943E+00	5.84734E-01	3.94113E+00	MASS-BWBK-SS-MA07-0001
MASS	MASS-BWBK-SS-MA08-0001	18.80714821	9.825782451	0.082287999	8.34511E+00	1.05955E+01	2.99349E+00	2.88879E+00	8.28675E-01	6.93699E+00	MASS-BWBK-SS-MA08-0001
MASS	MASS-BWBK-SS-MA09-0001	28.88728087	10.53620157	0.063493608	6.05884E-01	1.57252E+01	1.39483E+02	7.78386E-01	1.96137E-01	9.75782E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	redicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!P	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	PB predict	Pb ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASS	MASS-BWBK-SS-MA10-0001	24.9437941	9.504116406	0.072852083	7.22238E-01	8.60492E+00	6.18868E+01	8.49846E-01	2.29383E-01	8.65427E+00	
MASS	MASS-BWBK-SS-MA11-0001	25.22597935	7.563257557	0.083923089	1.36885E+00	9.85165E-01	6.64062E+01	-1.16998E+00	-3.38937E-01	8.73324E+00	
MASS	MASS-BWBK-SS-MA12-0001	12.04993712	5.270561843	0.157986427	5.04036E-02	1.69037E+00	2.52711E+01	2.24508E-01	8.92362E-02	5.04605E+00	
MASS	MASS-BWBK-SS-MA13-0001	21.06847453	5.863976613	0.109809781	2.90984E+00	4.99462E-01	1.59320E+01	-1.70582E+00	-5.65269E-01	7.56980E+00	
MASS	MASS-BWBK-SS-MA14-0001	22.19189337	8.087579399	0.085653088	4.13718E-02	2.30091E+00	2.61624E+01	2.03401E-01	5.95283E-02	7.88418E+00	
MASS	MASS-BWBK-SS-MA15-0001	19.73630923	6.842823749	0.101657503	1.25447E-01	7.40498E-02	7.07204E+00	-3.54185E-01	-1.12927E-01	7.19701E+00	
MASS	MASS-BWBK-SS-MA16-0001	18.58280125	6.243331554	0.111782106	3.98008E-01	1.07172E-01	2.26750E+00	-6.30879E-01	-2.10927E-01	6.87421E+00	
MASS	MASS-BWBK-SS-MA17-0001	18.68493523	6.109204058	0.113231263	6.29782E-01	2.12981E-01	2.58553E+00	-7.93588E-01	-2.67041E-01	6.90279E+00	
MASS	MASS-BWBK-SS-MA18-0001	22.4959054	7.045217486	0.093272946	8.53843E-01	2.25164E-01	2.93648E+01	-9.24036E-01	-2.82206E-01	7.96925E+00	
MASS	MASS-BWBK-SS-MA19-0001	21.06111043	6.842823749	0.098377339	5.25504E-01	7.40498E-02	1.58733E+01	-7.24917E-01	-2.27371E-01	7.56774E+00	
MASS	MASS-BWBK-SS-MA20-0001	16.60308726	6.323119888	0.117263947	8.48138E-06	6.12973E-02	2.24573E-01	2.91228E-03	9.97276E-04	6.32021E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	16.29042015	5.808785734	0.125929276	1.79713E-01	5.80518E-01	6.18673E-01	-4.23925E-01	-1.50436E-01	6.23271E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	10.85244516	3.933052423	0.21435474	6.05122E-01	6.95720E+00	3.87448E+01	-7.77896E-01	-3.60154E-01	4.71095E+00	
MMSS	MMSS-BWBK-SS-MM103-0001	15.8900513	6.136146578	0.122509989	2.39473E-04	1.88839E-01	1.40880E+00	1.54749E-02	5.41644E-03	6.12067E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	14.34327311	6.136146578	0.129033389	2.00996E-01	1.88839E-01	7.47314E+00	4.48325E-01	1.61044E-01	5.68782E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	11.89153473	4.976018495	0.166471974	6.60926E-04	2.54302E+00	2.68888E+01	-2.57085E-02	-1.04893E-02	5.00173E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	14.05512569	4.946087443	0.153674307	4.37052E-01	2.63938E+00	9.13159E+00	-6.61099E-01	-2.59159E-01	5.60719E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	14.39814888	4.946087443	0.151807172	5.73186E-01	2.63938E+00	7.17613E+00	-7.57090E-01	-2.94981E-01	5.70318E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	17.19643813	5.357322491	0.130262407	1.27448E+00	1.47229E+00	1.42707E-02	-1.12893E+00	-4.07452E-01	6.48625E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	13.79273903	4.326748711	0.173757642	1.45688E+00	5.03533E+00	1.07862E+01	-1.20701E+00	-5.03134E-01	5.53376E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	10.99499455	5.212322846	0.166967985	2.12967E-01	1.84520E+00	3.69905E+01	4.61484E-01	1.88570E-01	4.75084E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	9.446217762	4.733962534	0.194991454	1.73500E-01	3.37361E+00	5.82285E+01	4.16533E-01	1.83932E-01	4.31743E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9.277213308	5.153756646	0.183702263	7.80787E-01	2.00774E+00	6.08363E+01	8.83621E-01	3.78725E-01	4.27014E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	16.62469183	6.969664646	0.10947398	4.13978E-01	1.59171E-01	2.04563E-01	6.43411E-01	2.12885E-01	6.32625E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	7.535063675	3.728679007	0.272277623	2.90880E-03	8.07710E+00	9.10481E+01	-5.39333E-02	-2.81425E-02	3.78261E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	9.794352675	4.230056502	0.211035578	3.41492E-02	5.47863E+00	5.30366E+01	-1.84795E-01	-8.48923E-02	4.41485E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	10.15208943	4.733962534	0.187952358	4.79618E-02	3.37361E+00	4.79541E+01	2.19002E-01	9.49449E-02	4.51496E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	12.56885473	5.557091279	0.148472462	1.33827E-01	1.02741E+00	2.03232E+01	3.65823E-01	1.40959E-01	5.19127E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	6.161930852	3.338514166	0.340257849	3.58091E-03	1.04470E+01	1.19138E+02	-5.98407E-02	-3.49061E-02	3.39835E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	5.380180888	3.03983898	0.409713	1.95304E-02	1.24670E+01	1.36815E+02	-1.39751E-01	-8.94530E-02	3.17959E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	6.955936611	3.65930571	0.289211341	1.50205E-03	8.47623E+00	1.02435E+02	3.87563E-02	2.08425E-02	3.62055E+00	
NESS	NESS-BKG-SS03-NEB-0016	20.28059243	12.46335937	0.068623792	2.61534E+01	3.47234E+01	1.02631E+01	5.11404E+00	1.33968E+00	7.34932E+00	NESS-BKG-SS03-NEB-0016
NESS	NESS-BKG-SS09-NEB-0018	14.0537266	6.136146578	0.130374411	2.80213E-01	1.88839E-01	9.14005E+00	5.29352E-01	1.91135E-01	5.60679E+00	
NESS	NESS-BWBK-SS-NE01-0001	20.63969802	7.294196927	0.095144454	2.42162E-02	5.23444E-01	1.26930E+01	-1.55616E-01	-4.80004E-02	7.44981E+00	
NESS	NESS-BWBK-SS-NE02-0001	19.03295318	6.481208051	0.107538861	2.69333E-01	8.00932E-03	3.82584E+00	-5.18973E-01	-1.70187E-01	7.00018E+00	
NESS	NESS-BWBK-SS-NE03-0001	13.96295436	5.328480829	0.145359477	6.39645E-02	1.54312E+00	9.69714E+00	-2.52912E-01	-9.64254E-02	5.58139E+00	
NESS	NESS-BWBK-SS-NE04-0001	13.02019556	5.124348519	0.155288729	3.73351E-02	2.09194E+00	1.64575E+01	-1.93223E-01	-7.61427E-02	5.31757E+00	
NESS	NESS-BWBK-SS-NE05-0001	14.43120782	6.714796141	0.120672862	1.00474E+00	2.07629E-02	7.00010E+00	1.00237E+00	3.48202E-01	5.71243E+00	
NESS	NESS-BWBK-SS-NE06-0001	11.62705806	4.579492834	0.180376648	1.21259E-01	3.96492E+00	2.97016E+01	-3.48223E-01	-1.47893E-01	4.92772E+00	
NESS	NESS-BWBK-SS-NE07-0001	18.73203918	8.366495414	0.09127345	2.10401E+00	3.22487E+00	2.73923E+00	1.45052E+00	4.38224E-01	6.91597E+00	
NESS	NESS-BWBK-SS-NE08-0001	12.67735088	5.035612416	0.159612308	3.46024E-02	2.35650E+00	1.93567E+01	-1.86017E-01	-7.43167E-02	5.22163E+00	
NESS	NESS-BWBK-SS-NE09-0001	16.77732043	6.714796141	0.111810545	1.19599E-01	2.07629E-02	8.97947E-02	3.45831E-01	1.15639E-01	6.36897E+00	
NESS	NESS-BWBK-SS-NE10-0001	17.10721944	8.843764427	0.092219598	5.67621E+00	5.16681E+00	9.14536E-04	2.38248E+00	7.23504E-01	6.46128E+00	NESS-BWBK-SS-NE10-0001
NESS	NESS-BWBK-SS-NE101-0001	12.16643825	4.066391931	0.195952573	1.02468E+00	6.27157E+00	2.41134E+01	-1.01226E+00	-4.48094E-01	5.07866E+00	
NESS	NESS-BWBK-SS-NE102-0001	11.66395945	5.443386192	0.156667343	2.55372E-01	1.27084E+00	2.93008E+01	5.05344E-01	2.00021E-01	4.93804E+00	
NESS	NESS-BWBK-SS-NE103-0001	10.1960012	5.124348519	0.175854385	3.56528E-01	2.09194E+00	4.73478E+01	5.97100E-01	2.50394E-01	4.52725E+00	
NESS	NESS-BWBK-SS-NE104-0001	10.3187794	7.827614154	0.128992947	1.06668E+01	1.57983E+00	4.56733E+01	3.26601E+00	1.17301E+00	4.56161E+00	NESS-BWBK-SS-NE104-0001
NESS	NESS-BWBK-SS-NE105-0001	8.988287408	4.164977093	0.223629526	5.90747E-04	5.78752E+00	6.54269E+01	-2.43053E-02	-1.14938E-02	4.18928E+00	
NESS	NESS-BWBK-SS-NE106-0001	10.48756417	8.412528546	0.122059225	1.44680E+01	3.39232E+00	4.34204E+01	3.80369E+00	1.32889E+00	4.60884E+00	NESS-BWBK-SS-NE106-0001
NESS	NESS-BWBK-SS-NE107-0001	11.74994069	5.299560899	0.159342129	1.13878E-01	1.61580E+00	2.83773E+01	3.37458E-01	1.34705E-01	4.96210E+00	
NESS	NESS-BWBK-SS-NE108-0001	12.05321498	5.753331403	0.147763328	4.98944E-01	6.68096E-01	2.52382E+01	7.06360E-01	2.71525E-01	5.04697E+00	
NESS	NESS-BWBK-SS-NE109-0001	9.229799721	4.132246217	0.222225093	1.55304E-02	5.94607E+00	6.15782E+01	-1.24621E-01	-5.87473E-02	4.25687E+00	
NESS	NESS-BWBK-SS-NE110-0001	13.18672112	6.817314583	0.124999399	2.11162E+00	6.08173E-02	1.51341E+01	1.45314E+00	5.13762E-01	5.36417E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,0.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!P	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	PB predict	Pb ^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
PMSS	PMSS-DABK-S-SO21-0001	30.53971826	10.86230562	0.060608095	4.12256E-01	1.84179E+01	1.81245E+02	6.42072E-01	1.58070E-01	1.02202E+01	
PMSS	PMSS-DABK-S-SO22-0001	43.72860528	12.10193262	0.047430114	3.27277E+00	3.05945E+01	7.10309E+02	-1.80908E+00	-3.93989E-01	1.39110E+01	
PMSS	PMSS-DABK-S-SO23-0001	27.03594386	10.14226643	0.067195627	8.14558E-01	1.27561E+01	9.91810E+01	9.02529E-01	2.33955E-01	9.23974E+00	
PMSS	PMSS-DABK-S-SO24-0001	30.32248366	9.176911228	0.067495627	9.65368E-01	6.79232E+00	1.75443E+02	-9.82532E-01	-2.55261E-01	1.01594E+01	
PMSS	PMSS-DABK-S-SO25-0001	27.65547493	10.13179699	0.066475476	5.16515E-01	1.26814E+01	1.11905E+02	7.18690E-01	1.85299E-01	9.41311E+00	
PMSS	PMSS-DABK-S-SO26-0001	40.44767408	12.55760083	0.048260212	1.89464E-01	3.58429E+01	5.46189E+02	-4.35275E-01	-9.56221E-02	1.29929E+01	
PMSS	PMSS-DABK-S-SO27-0001	29.33669891	12.38770894	0.057176404	6.27066E+00	3.38376E+01	1.50301E+02	2.50413E+00	5.98777E-01	9.88358E+00	PMSS-DABK-S-SO27-0001
PMSS	PMSS-DABK-S-SO28-0001	36.30420801	11.00344245	0.055128095	6.88777E-01	1.96492E+01	3.69686E+02	-8.29926E-01	-1.94861E-01	1.18334E+01	
PMSS	PMSS-DABK-S-SO29-0001	34.08346467	10.24666558	0.059426854	9.31708E-01	1.35127E+01	2.89221E+02	-9.65250E-01	-2.35305E-01	1.12119E+01	
PMSS	PMSS-DABK-S-SO30-0001	32.46791141	8.8885431	0.066543649	3.50167E+00	5.37238E+00	2.36881E+02	-1.87128E+00	-4.82715E-01	1.07598E+01	
PMSS	PMSS-DABK-S-SO31-0001	23.77756861	6.944389309	0.091603251	1.91414E+00	1.39642E-01	4.48979E+01	-1.38352E+00	-4.18738E-01	8.32791E+00	
PMSS	PMSS-DABK-S-SO32-0001	37.8401551	13.48145602	0.047873518	1.48418E+00	4.77585E+01	4.31110E+02	1.21827E+00	2.66557E-01	1.22632E+01	
PMSS	PMSS-DABK-S-SO33-0001	32.51764114	9.719153002	0.062866026	1.11214E+00	9.91274E+00	2.38414E+02	-1.05458E+00	-2.64417E-01	1.07737E+01	
PMSS	PMSS-DABK-S-SO34-0001	22.28163041	8.087579399	0.085478904	3.17868E-02	2.30091E+00	2.70884E+01	1.78289E-01	5.21258E-02	7.90929E+00	
PMSS	PMSS-DABK-S-SO35-0001	26.14398693	10.4847928	0.066965009	2.23401E+00	1.53201E+01	8.22106E+01	1.49466E+00	3.86782E-01	8.99013E+00	
PMSS	PMSS-DABK-S-SO36-0001	23.01892742	10.3298034	0.072055243	4.90263E+00	1.41308E+01	3.53068E+01	2.21419E+00	5.94357E-01	8.11562E+00	PMSS-DABK-S-SO36-0001
PMSS	PMSS-DABK-S-SO37-0001	26.22218602	7.269491743	0.084518912	3.03639E+00	4.88306E-01	8.36348E+01	-1.74252E+00	-5.06589E-01	9.01202E+00	
PMSS	PMSS-DABK-S-SO38-0001	23.45875942	8.181078721	0.082666867	3.32005E-03	2.59331E+00	4.07271E+01	-5.76198E-02	-1.65668E-02	8.23870E+00	
PMSS	PMSS-DABK-S-SO39-0001	20.3433664	6.842823749	0.100114305	2.74642E-01	7.40498E-02	1.06693E+01	-5.24063E-01	-1.65818E-01	7.36689E+00	
PMSS	PMSS-DABK-S-SO40-0001	25.03603411	7.563257557	0.084243343	1.24730E+00	9.85165E-01	6.33466E+01	-1.11683E+00	-3.24155E-01	8.68008E+00	
SESS	SESS-DABK-S-SO01-0001	21.0338745	6.296579986	0.104365927	1.59653E+00	7.51433E-02	1.56570E+01	-1.26354E+00	-4.08195E-01	7.56012E+00	
SESS	SESS-DABK-S-SO02-0001	19.62830245	10.41260798	0.077708446	1.05354E+01	1.47602E+01	6.50926E+00	3.24582E+00	9.04814E-01	7.16678E+00	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	30.8867585	9.373920468	0.065986124	8.90058E-01	7.85803E+00	1.90710E+02	-9.43429E-01	-2.42346E-01	1.03173E+01	
SESS	SESS-DABK-S-SO04-0001	30.63188672	7.922639752	0.073804017	5.39812E+00	1.82773E+00	1.83736E+02	-2.32339E+00	-6.31192E-01	1.02460E+01	
SESS	SESS-DABK-S-SO05-0001	26.82563804	8.731317964	0.074091828	2.02111E-01	4.66826E+00	9.50364E+01	-4.49568E-01	-1.22372E-01	9.18089E+00	
SESS	SESS-DABK-S-SO06-0001	26.52101322	8.686136373	0.074766599	1.67693E-01	4.47506E+00	8.91898E+01	-4.09503E-01	-1.11972E-01	9.09564E+00	
SESS	SESS-DABK-S-SO07-0001	23.88166465	8.157754172	0.082077866	3.97166E-02	2.51873E+00	4.63038E+01	-1.99290E-01	-5.70951E-02	8.35704E+00	
SESS	SESS-DABK-S-SO08-0001	22.60293674	9.022208527	0.079107552	1.04654E+00	6.00988E+00	3.05362E+01	1.02300E+00	2.87731E-01	7.99921E+00	
SESS	SESS-DABK-S-SO09-0001	25.546883	8.343431314	0.078186602	2.30024E-01	3.14257E+00	7.17393E+01	-4.79608E-01	-1.34107E-01	8.82304E+00	
SESS	SESS-DABK-S-SO10-0001	19.0226612	7.294196927	0.099146232	8.81472E-02	5.23444E-01	3.78568E+00	2.96896E-01	9.34851E-02	6.99730E+00	
SESS	SESS-DABK-S-SO11-0001	16.94493953	6.559531991	0.11308441	2.06383E-02	1.24788E-04	1.74342E-02	1.43660E-01	4.83102E-02	6.41587E+00	
SESS	SESS-DABK-S-SO12-0001	21.28029923	6.944389309	0.096876233	4.68799E-01	1.39642E-01	1.76679E+01	-6.84689E-01	-2.13109E-01	7.62908E+00	
SESS	SESS-DABK-S-SO13-0001	19.84026718	5.753331403	0.114800237	2.16905E+00	6.68096E-01	7.63577E+00	-1.47277E+00	-4.99006E-01	7.22610E+00	
SESS	SESS-DABK-S-SO14-0001	18.45426335	7.49035798	0.098898464	4.25257E-01	8.45766E-01	1.89691E+00	6.52117E-01	2.05079E-01	6.83824E+00	
SESS	SESS-DABK-S-SO15-0001	25.6744509	8.040626668	0.079887605	6.69305E-01	2.16068E+00	7.39165E+01	-8.18111E-01	-2.31234E-01	8.85874E+00	
SESS	SESS-DABK-S-SO16-0001	12.02483482	5.641611799	0.150127555	3.63105E-01	8.63210E-01	2.55242E+01	6.02582E-01	2.33478E-01	5.03903E+00	
SESS	SESS-DABK-S-SO17-0001	19.99638365	7.732008212	0.092984021	2.13648E-01	1.34863E+00	8.52293E+00	4.62221E-01	1.40946E-01	7.26979E+00	
SESS	SESS-DABK-S-SO18-0001	19.99886117	7.244744507	0.09711708	6.62357E-04	4.54332E-01	8.53740E+00	-2.57363E-02	-8.02036E-03	7.27048E+00	
SESS	SESS-DABK-S-SO19-0001	23.70454134	11.30287864	0.067226623	8.97242E+00	2.23935E+01	4.39246E+01	2.99540E+00	7.76650E-01	8.30748E+00	SESS-DABK-S-SO19-0001
SESS	SESS-DABK-S-SO20-0001	27.29137654	10.30905039	0.066212332	9.95670E-01	1.39752E+01	1.04334E+02	9.97832E-01	2.56760E-01	9.31122E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: PB^0.5
X variable name used on graph: V

	N	115.000000
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	6.617947E+00
0.10	**t-Value: 2-tail, 0.100 alpha**	1.658450
degrees freedom	SUM(XY*w^2)	1.560693E+03
2	SUM(X^2*w^2)	7.976282E+03
	SUM(X*w^2)	4.031522E+02
	SUM(Y*w^2)	8.415246E+01
	SUM(w^2)	2.599272E+01
	SUM(Y)	463.941033
	SUM(X)	2.355950E+03
	Denominator	4.479358E+04
	Slope	**1.482448E-01**
	Intercept	**9.382327E-01**
	Minimum X value	5.200000E+00
	Maximum X value	3.580000E+01
	Minimum Y value	1.612452E+00
	Maximum Y value	7.035624E+00
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	4.377518E+01
	SUM(Yobs - Yave)^2	1.898867E+02
	SUM(X - Xave)^2	7.233842E+03
	Std. Error of Y-estimate	**6.224074E-01**
	R^2	**7.694668E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1/SQRT(xy)**
est.M, Std.Err.Y	**1.48E-01**	**0.6**

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:

Inverse Log Transform (Y/N)?	**No**	**25**
Inverse Power Transform (Y/N)?	**Yes**	**50**
Inverse Power Transform (1/Power):	**2**	**75**
		90

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
5.20	1.71	1.19	2.23	-0.90	0.90	0.00	**No. of Exceedances**
6.48	1.90	1.38	2.41	-0.90	0.90	0.00	**of Upper 95% Limit**
7.75	2.09	1.57	2.60	-0.90	0.90	0.00	**for Each Soil Type:**
9.03	2.28	1.75	2.80	-0.90	0.90	0.00	---- V ----
10.30	2.47	1.88	3.05	-0.90	0.90	0.00	BASS
11.58	2.65	2.00	3.30	-0.90	0.90	0.00	0
12.85	2.84	2.14	3.55	-0.90	0.90	0.00	MASS
14.13	3.03	2.27	3.79	-0.90	0.90	0.00	2
15.40	3.22	2.41	4.03	-0.90	0.90	0.00	MMSS
16.68	3.41	2.55	4.27	-0.90	0.90	0.00	0
17.95	3.60	2.70	4.50	-0.90	0.90	0.00	NESS
19.23	3.79	2.84	4.74	-0.90	0.90	0.00	3
20.50	3.98	2.99	4.97	-0.90	0.90	0.00	PMSS
21.78	4.17	3.14	5.19	-0.90	0.90	0.00	0
23.05	4.36	3.29	5.42	-0.90	0.90	0.00	SESS
24.33	4.54	3.44	5.65	-0.90	0.90	0.00	2
25.60	4.73	3.59	5.87	-0.90	0.90	0.00	SESD
26.88	4.92	3.75	6.10	-0.90	0.90	0.00	0
28.15	5.11	3.90	6.32	-0.90	0.90	0.00	MASB
29.43	5.30	4.06	6.54	-0.90	0.90	0.00	0
30.70	5.49	4.21	6.77	-0.90	0.90	0.00	MMSB
31.98	5.68	4.37	6.99	-0.90	0.90	0.00	0
33.25	5.87	4.53	7.21	-0.90	0.90	0.00	NESB
34.53	6.06	4.69	7.43	-0.90	0.90	0.00	0
35.80	6.25	4.84	7.65	-0.90	0.90	0.00	PMSB
14.65	3.11	2.33	3.89	9.67	**-44%**	**57%**	0
20.90	4.04	3.04	5.04	16.29	**-43%**	**56%**	SESB
26.30	4.84	3.68	6.00	23.40	**-42%**	**54%**	0
30.72	5.49	4.22	6.77	30.17	**-41%**	**52%**	<<--Original Units Errors

TEXT BOX ==> **(PB^0.5) = (1.48E-01)x(V) + (9.38E-01)** **R^2 = 0.77; Std. Error of Y-estimate = 6.22E-01** **+/-3 x IQR of r** -0.899044 0.899044

TEXT BOX ==> **Weighted 1/SQRT(MAX(x-Xmin,4.1)*MAX(y-Ymin,0.6)).** **95% Cont** **V - wt.descrip.** **TEXT BOX==>** **Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5** **Y-Pred.**

Indexed value lookups: **X data column ref.** **Y data column ref.**
Specify X-col., Y-col. as: "DA!" + column **DA!Y** **DA!AC**

GROUP	**SAMPLE**	**V**	**PB^0.5**	**MAX(x-Xmin,4.1)** ---- V ---- **Regression Wt.**	(Pred. - Obs.)^2 ---- V ----	(Y - Ymean)^2 ---- V ----	(X - Xmean)^2 ---- V ----	Obs-Pred ---- V ----	Predicted) x (1/S ---- V ---- **Wt'd.Residuals**	Y-Pred. ---- V ----	Spl. IDs>upper 95% C.L. ---- V ---- **Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	6.3	1.732050808	0.641179469	1.96348E-02	5.30021E+00	2.01257E+02	-1.40124E-01	-1.12203E-01	1.87218E+00	
BASS	BASS-BWBK-SS-BA102-0001	5.2	1.61245155	0.641179469	9.34205E-03	5.86520E+00	2.33678E+02	-9.66543E-02	-7.73946E-02	1.70911E+00	
BASS	BASS-BWBK-SS-BA103-0001	6	1.643167673	0.641179469	3.40528E-02	5.71737E+00	2.09859E+02	-1.84534E-01	-1.47763E-01	1.82770E+00	
BASS	BASS-BWBK-SS-BA104-0001	8.3	1.843908891	0.641179469	1.05466E-01	4.79768E+00	1.48511E+02	-3.24756E-01	-2.60044E-01	2.16866E+00	
BASS	BASS-BWBK-SS-BA105-0001	6.1	1.843908891	0.641179469	1.91190E-06	4.79768E+00	2.06972E+02	1.38271E-03	1.10719E-03	1.84253E+00	
BASS	BASS-BWBK-SS-BA106-0001	7.75	1.949358869	0.641179469	1.89809E-02	4.34685E+00	1.62219E+02	-1.37771E-01	-1.10319E-01	2.08713E+00	
BASS	BASS-BWBK-SS-BA107-0001	5.9	1.702938637	0.641179469	1.20865E-02	5.43511E+00	2.12767E+02	-1.09939E-01	-8.80319E-02	1.81288E+00	
BASS	BASS-BWBK-SS-BA108-0001	5.5	1.732050808	0.641179469	4.63475E-04	5.30021E+00	2.24596E+02	-2.15285E-02	-1.72386E-02	1.75358E+00	
BASS	BASS-BWBK-SS-BA109-0001	6.1	1.643167673	0.641179469	3.97438E-02	5.71737E+00	2.06972E+02	-1.99359E-01	-1.59634E-01	1.84253E+00	
BASS	BASS-BWBK-SS-BA110-0001	7.8	1.732050808	0.641179469	1.31400E-01	5.30021E+00	1.60948E+02	-3.62492E-01	-2.90260E-01	2.09454E+00	
BASS	BASS-BWBK-SS-BA111-0001	6	1.702938637	0.641179469	1.55658E-02	5.43511E+00	2.09859E+02	-1.24763E-01	-9.99024E-02	1.82770E+00	
BASS	BASS-BWBK-SS-BA112-0001	5.8	1.643167673	0.641179469	2.39894E-02	5.71737E+00	2.15694E+02	-1.54885E-01	-1.24022E-01	1.79805E+00	
BASS	BASS-BWBK-SS-BA113-0001	6.05	2.179449472	0.641179469	1.18567E-01	3.44036E+00	2.08413E+02	3.44336E-01	2.75722E-01	1.83511E+00	
MASS	MASS-BWBK-SS-MA01-0001	13.6	3.286335345	0.266684457	1.10206E-01	5.59406E-01	4.74242E+01	3.31973E-01	1.71436E-01	2.95436E+00	
MASS	MASS-BWBK-SS-MA02-0001	14.2	3.31662479	0.255341776	7.47013E-02	5.15014E-01	3.95204E+01	2.73315E-01	1.38110E-01	3.04331E+00	
MASS	MASS-BWBK-SS-MA03-0001	14.8	3.346640106	0.245084714	4.59604E-02	4.72835E-01	3.23365E+01	2.14384E-01	1.06133E-01	3.13226E+00	
MASS	MASS-BWBK-SS-MA04-0001	13.9	3.405877273	0.253162092	1.65683E-01	3.94877E-01	4.33823E+01	4.07041E-01	2.04804E-01	2.99884E+00	
MASS	MASS-BWBK-SS-MA05-0001	19.9	3.660601044	0.18224705	5.18491E-02	1.39628E-01	3.44008E-01	-2.27704E-01	-9.72077E-02	3.88830E+00	
MASS	MASS-BWBK-SS-MA06-0001	20.9	3.924283374	0.165986228	1.26037E-02	1.20970E-02	1.70964E-01	-1.12266E-01	-4.57389E-02	4.03655E+00	
MASS	MASS-BWBK-SS-MA07-0001	11.6	3.478505426	0.289366282	6.73438E-01	3.08874E-01	7.89703E+01	8.20633E-01	4.41441E-01	2.65787E+00	MASS-BWBK-SS-MA07-0001
MASS	MASS-BWBK-SS-MA08-0001	22.1	5.54977477	0.122590302	1.78311E+00	2.29676E+00	2.60331E+00	1.33533E+00	4.67538E-01	4.21444E+00	MASS-BWBK-SS-MA08-0001
MASS	MASS-BWBK-SS-MA09-0001	29.5	5.848076607	0.098568491	2.87962E-01	3.28989E+00	8.12428E+01	5.36621E-01	1.68476E-01	5.31146E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,4.1)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!AC	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V	PB^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASS	MASS-BWBK-SS-MA10-0001	27.5	5.412947441	0.108624411	1.58389E-01	1.90075E+00	4.91889E+01	3.97982E-01	1.31168E-01	5.01497E+00	
MASS	MASS-BWBK-SS-MA11-0001	30.4	4.5607017	0.116015914	7.81764E-01	2.77130E-01	9.82771E+01	-8.84174E-01	-3.01159E-01	5.44488E+00	
MASS	MASS-BWBK-SS-MA12-0001	15.6	3.478505426	0.226997587	5.18260E-02	3.08874E-01	2.38781E+01	2.27653E-01	1.08464E-01	3.25085E+00	
MASS	MASS-BWBK-SS-MA13-0001	24.3	3.768288736	0.155838707	5.96437E-01	7.07460E-02	1.45426E+01	-7.72293E-01	-3.04874E-01	4.54058E+00	
MASS	MASS-BWBK-SS-MA14-0001	24	4.795831523	0.129263775	8.98337E-02	5.79976E-01	1.23445E+01	2.99723E-01	1.07760E-01	4.49611E+00	
MASS	MASS-BWBK-SS-MA15-0001	22.3	4.23083916	0.149446234	1.75652E-04	3.86395E-02	3.28870E+00	-1.32534E-02	-5.12353E-03	4.24409E+00	
MASS	MASS-BWBK-SS-MA16-0001	23.2	3.949683532	0.154174602	1.83038E-01	7.15485E-03	7.36296E+00	-4.27829E-01	-1.67988E-01	4.37751E+00	
MASS	MASS-BWBK-SS-MA17-0001	22.5	3.885871846	0.159454611	1.50443E-01	2.20220E-02	4.05409E+00	-3.87870E-01	-1.54883E-01	4.27374E+00	
MASS	MASS-BWBK-SS-MA18-0001	25.9	4.324349662	0.133468304	2.05594E-01	8.41463E-02	2.93057E+01	-4.53424E-01	-1.65651E-01	4.77777E+00	
MASS	MASS-BWBK-SS-MA19-0001	24.8	4.23083916	0.139590221	1.47353E-01	3.86395E-02	1.86061E+01	-3.83865E-01	-1.43419E-01	4.61470E+00	
MASS	MASS-BWBK-SS-MA20-0001	21.1	3.987480407	0.162729763	6.19658E-03	2.18925E-03	3.76356E-01	-7.87183E-02	-3.17548E-02	4.06620E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	21.7	3.741657387	0.168713255	1.70973E-01	8.56221E-02	1.47253E+00	-4.13488E-01	-1.69839E-01	4.15515E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	16.7	2.792848009	0.271417053	3.85732E-01	1.54113E+00	1.43377E+01	-6.21073E-01	-3.23565E-01	3.41392E+00	
MMSS	MMSS-BWBK-SS-MM103-0001	22.2	3.898717738	0.160402873	1.09264E-01	1.83744E-02	2.93601E+00	-3.30550E-01	-1.32386E-01	4.22927E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	20.6	3.898717738	0.16852962	8.71582E-03	1.83744E-02	1.28773E-02	-9.33586E-02	-3.83259E-02	3.99208E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	16.7	3.33166625	0.224898222	6.76592E-03	4.93652E-01	1.43377E+01	-8.22552E-02	-3.90082E-02	3.41392E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	21.1	3.31662479	0.192107609	5.61861E-01	5.15014E-01	3.76356E-01	-7.49574E-01	-3.28539E-01	4.06620E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	20.4	3.31662479	0.196481351	4.17061E-01	5.15014E-01	7.48601E-03	-6.45803E-01	-2.86260E-01	3.96243E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	22.7	3.521363372	0.173016707	6.11566E-01	2.63073E-01	4.89949E+00	-7.82027E-01	-3.25286E-01	4.30339E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	20.3	3	0.218467806	8.97951E-01	1.06971E+00	3.47904E-02	-9.47603E-01	-4.42915E-01	3.94760E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	15.2	3.449637662	0.233304665	6.66071E-02	3.41795E-01	2.79473E+01	2.58083E-01	1.24658E-01	3.19155E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	13.9	3.209361307	0.268287344	4.43209E-02	6.80474E-01	4.33823E+01	2.10525E-01	1.09045E-01	2.99884E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	12.8	3.420526275	0.269764636	3.41944E-01	3.76681E-01	5.90826E+01	5.84760E-01	3.03718E-01	2.83577E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	21.5	4.289522118	0.151382714	2.69043E-02	6.51537E-02	1.02714E+00	1.64025E-01	6.38189E-02	4.12550E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	10.8	2.683281573	0.408362371	2.07373E-02	1.82517E+00	9.38287E+01	1.44005E-01	9.20236E-02	2.53928E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	13.5	2.949576241	0.300175332	1.00767E-04	1.17656E+00	4.88115E+01	1.00383E-02	5.49979E-03	2.93954E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	14.3	3.209361307	0.262324659	2.28697E-02	6.80474E-01	3.82731E+01	1.51227E-01	7.74551E-02	3.05813E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	17.8	3.619392214	0.198860012	1.79788E-03	1.72123E-01	7.21740E+00	4.24014E-02	1.89084E-02	3.57699E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	12.7	2.469817807	0.394353931	1.23288E-01	2.44751E+00	6.06299E+01	-3.51124E-01	-2.20498E-01	2.82094E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	11.2	2.302172887	0.49157246	8.78541E-02	3.00016E+00	8.62395E+01	-2.96402E-01	-2.07814E-01	2.59857E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	14.4	2.645751311	0.324334331	1.82506E-01	1.92798E+00	3.70457E+01	-4.27207E-01	-2.43296E-01	3.07296E+00	
NESS	NESS-BKG-SS03-NEB-0016	23.1	6.633249581	0.105484126	5.15545E+00	6.75470E+00	6.83027E+00	2.27056E+00	7.37440E-01	4.36269E+00	NESS-BKG-SS03-NEB-0016
NESS	NESS-BKG-SS09-NEB-0018	18.9	3.898717738	0.178680155	2.51722E-02	1.83744E-02	2.51705E+00	1.58658E-01	6.70655E-02	3.74006E+00	
NESS	NESS-BWBK-SS-NE01-0001	23	4.438468204	0.140994652	8.20914E-03	1.63376E-01	6.31757E+00	9.06043E-02	3.40212E-02	4.34786E+00	
NESS	NESS-BWBK-SS-NE02-0001	19.6	4.062019202	0.168373614	4.76059E-02	7.70027E-04	7.85921E-01	2.18188E-01	8.95297E-02	3.84383E+00	
NESS	NESS-BWBK-SS-NE03-0001	19.5	3.507135583	0.192116021	1.03601E-01	2.77871E-01	9.73225E-01	-3.21871E-01	-1.41080E-01	3.82901E+00	
NESS	NESS-BWBK-SS-NE04-0001	20.6	3.405877273	0.190282103	3.43629E-01	3.94877E-01	1.28773E-02	-5.86199E-01	-2.55708E-01	3.99208E+00	
NESS	NESS-BWBK-SS-NE05-0001	19.6	4.171330723	0.164738028	1.07256E-01	1.87857E-02	7.85921E-01	3.27499E-01	1.32925E-01	3.84383E+00	
NESS	NESS-BWBK-SS-NE06-0001	19.5	3.130495168	0.214629719	4.87919E-01	8.16809E-01	9.73225E-01	-6.98512E-01	-3.23608E-01	3.82901E+00	
NESS	NESS-BWBK-SS-NE07-0001	23	4.91934955	0.130340565	3.26596E-01	7.83366E-01	6.31757E+00	5.71486E-01	2.06322E-01	4.34786E+00	
NESS	NESS-BWBK-SS-NE08-0001	19.1	3.361547263	0.202808341	1.66596E-01	4.52556E-01	1.92244E+00	-4.08162E-01	-1.83813E-01	3.76971E+00	
NESS	NESS-BWBK-SS-NE09-0001	20.9	4.171330723	0.157770312	1.81659E-02	1.87857E-02	1.70964E-01	1.34781E-01	5.35354E-02	4.03655E+00	
NESS	NESS-BWBK-SS-NE10-0001	21.5	5.128352562	0.132095456	1.00572E+00	1.19702E+00	1.02714E+00	1.00286E+00	3.64487E-01	4.12550E+00	
NESS	NESS-BWBK-SS-NE101-0001	17.3	2.863564213	0.257015375	4.08710E-01	1.37055E+00	1.01539E+01	-6.39304E-01	-3.24106E-01	3.50287E+00	
NESS	NESS-BWBK-SS-NE102-0001	15.8	3.563705936	0.219882224	8.02050E-02	2.21430E-01	2.19635E+01	2.83205E-01	1.32799E-01	3.28050E+00	
NESS	NESS-BWBK-SS-NE103-0001	15	3.405877273	0.238531239	5.95224E-02	3.94877E-01	3.01019E+01	2.43972E-01	1.19155E-01	3.16191E+00	
NESS	NESS-BWBK-SS-NE104-0001	15.4	4.679743583	0.178781407	2.12734E+00	4.16636E-01	2.58727E+01	1.45854E+00	6.16708E-01	3.22120E+00	NESS-BWBK-SS-NE104-0001
NESS	NESS-BWBK-SS-NE105-0001	12.5	2.915475947	0.324236794	1.54214E-02	1.25170E+00	6.37845E+01	1.24183E-01	7.07119E-02	2.79129E+00	
NESS	NESS-BWBK-SS-NE106-0001	14.5	4.939635614	0.179771198	3.42936E+00	8.19687E-01	3.58384E+01	1.85185E+00	7.85175E-01	3.08778E+00	NESS-BWBK-SS-NE106-0001
NESS	NESS-BWBK-SS-NE107-0001	14.8	3.492849839	0.235363688	1.30028E-01	2.93136E-01	3.23365E+01	3.60594E-01	1.74939E-01	3.13226E+00	
NESS	NESS-BWBK-SS-NE108-0001	15.3	3.714835124	0.217011793	2.58528E-01	1.02039E-01	2.69000E+01	5.08456E-01	2.36862E-01	3.20638E+00	
NESS	NESS-BWBK-SS-NE109-0001	12.5	2.898275349	0.326398264	1.14452E-02	1.29048E+00	6.37845E+01	1.06982E-01	6.11203E-02	2.79129E+00	
NESS	NESS-BWBK-SS-NE110-0001	17.3	4.219004622	0.178063141	5.12851E-01	3.41269E-02	1.01539E+01	7.16136E-01	3.02192E-01	3.50287E+00	

APPENDIX F, TABLE F8-2
SUPPORT DATA FOR LEAD REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,4.1)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!AC	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V	PB^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
PMSS	PMSS-DABK-S-SO21-0001	27.6	5.983310121	0.1010631	9.09200E-01	3.79876E+00	5.06016E+01	9.53520E-01	3.03128E-01	5.02979E+00	
PMSS	PMSS-DABK-S-SO22-0001	34.9	6.488451279	0.083097879	1.41733E-01	6.02301E+00	2.07748E+02	3.76474E-01	1.08525E-01	6.11198E+00	
PMSS	PMSS-DABK-S-SO23-0001	30.4	5.683308895	0.098731739	5.68504E-02	2.71933E+00	9.82771E+01	2.38433E-01	7.49195E-02	5.44488E+00	
PMSS	PMSS-DABK-S-SO24-0001	30.9	5.272570531	0.103106451	6.07266E-02	1.53339E+00	1.08441E+02	-2.46428E-01	-7.91284E-02	5.51900E+00	
PMSS	PMSS-DABK-S-SO25-0001	35.8	5.678908346	0.08964606	3.20910E-01	2.70484E+00	2.34503E+02	-5.66489E-01	-1.69612E-01	6.24540E+00	
PMSS	PMSS-DABK-S-SO26-0001	35.2	6.670832032	0.081177118	2.64588E-01	6.95146E+00	2.16486E+02	5.14381E-01	1.46555E-01	6.15645E+00	
PMSS	PMSS-DABK-S-SO27-0001	30.3	6.603029608	0.089348592	1.37588E+00	6.59853E+00	9.63044E+01	1.17298E+00	3.50618E-01	5.43005E+00	
PMSS	PMSS-DABK-S-SO28-0001	31.5	6.041522987	0.092654343	1.87990E-01	4.02907E+00	1.21297E+02	4.33578E-01	1.31978E-01	5.60795E+00	
PMSS	PMSS-DABK-S-SO29-0001	33.8	5.727128425	0.092182634	4.91863E-02	2.86577E+00	1.77249E+02	-2.21780E-01	-6.73359E-02	5.94891E+00	
PMSS	PMSS-DABK-S-SO30-0001	28.8	5.14781507	0.109478027	3.58429E-03	1.23998E+00	6.91139E+01	-5.98689E-02	-1.98091E-02	5.20768E+00	
PMSS	PMSS-DABK-S-SO31-0001	27	4.277849927	0.131186966	4.39560E-01	5.93313E-02	4.24254E+01	-6.62993E-01	-2.40134E-01	4.94084E+00	
PMSS	PMSS-DABK-S-SO32-0001	34.1	7.03562364	0.079877486	1.08627E+00	9.00812E+00	1.85327E+02	1.04224E+00	2.94565E-01	5.99338E+00	
PMSS	PMSS-DABK-S-SO33-0001	30.8	5.504543578	0.100181716	1.36842E-07	2.16170E+00	1.06368E+02	3.69922E-04	1.17086E-04	5.50417E+00	
PMSS	PMSS-DABK-S-SO34-0001	26.5	4.795831523	0.121441174	5.02530E-03	5.79976E-01	3.61619E+01	-7.08893E-02	-2.47038E-02	4.86672E+00	
PMSS	PMSS-DABK-S-SO35-0001	29.95	5.826662853	0.097916131	2.01150E-01	3.21267E+00	8.95574E+01	4.48497E-01	1.40342E-01	5.37817E+00	
PMSS	PMSS-DABK-S-SO36-0001	28.1	5.761944116	0.102585213	4.33005E-01	2.98486E+00	5.79651E+01	6.58032E-01	2.10760E-01	5.10391E+00	
PMSS	PMSS-DABK-S-SO37-0001	30.9	4.427188724	0.117574872	1.19205E+00	1.54385E-01	1.08441E+02	-1.09181E+00	-3.74373E-01	5.51900E+00	
PMSS	PMSS-DABK-S-SO38-0001	28.6	4.837354649	0.115115482	1.16063E-01	6.44945E-01	6.58285E+01	-3.40680E-01	-1.15588E-01	5.17804E+00	
PMSS	PMSS-DABK-S-SO39-0001	26.1	4.23083916	0.135179205	3.32449E-01	3.86395E-02	3.15111E+01	-5.76584E-01	-2.11991E-01	4.80742E+00	
PMSS	PMSS-DABK-S-SO40-0001	29	4.5607017	0.11937939	4.57830E-01	2.77130E-01	7.24793E+01	-6.76631E-01	-2.33785E-01	5.23733E+00	
SESS	SESS-DABK-S-SO01-0001	23.5	3.974921383	0.152086729	1.99867E-01	3.52224E-03	9.08105E+00	-4.47065E-01	-1.74348E-01	4.42199E+00	
SESS	SESS-DABK-S-SO02-0001	18.9	5.796550698	0.132080509	4.22915E+00	3.10563E+00	2.51705E+00	2.05649E+00	7.47388E-01	3.74006E+00	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	34.2	5.357238094	0.095959387	4.23759E-01	1.75024E+00	1.88059E+02	-6.50968E-01	-2.01652E-01	6.00821E+00	
SESS	SESS-DABK-S-SO04-0001	30.4	4.722287581	0.112961639	5.22134E-01	4.73368E-01	9.82771E+01	-7.22588E-01	-2.42860E-01	5.44488E+00	
SESS	SESS-DABK-S-SO05-0001	29.5	5.07937004	0.108949451	5.38636E-02	1.09223E+00	8.12428E+01	-2.32085E-01	-7.66055E-02	5.31146E+00	
SESS	SESS-DABK-S-SO06-0001	34	5.059644256	0.100362385	8.44401E-01	1.05139E+00	1.82614E+02	-9.18913E-01	-2.91112E-01	5.97856E+00	
SESS	SESS-DABK-S-SO07-0001	24.15	4.827007354	0.128125304	9.52721E-02	6.28433E-01	1.34211E+01	3.08662E-01	1.10484E-01	4.51835E+00	
SESS	SESS-DABK-S-SO08-0001	25.2	5.205766034	0.117960713	2.82772E-01	1.37240E+00	2.22169E+01	5.31763E-01	1.82636E-01	4.67400E+00	
SESS	SESS-DABK-S-SO09-0001	30.8	4.909175083	0.108852587	3.54023E-01	7.65459E-01	1.06368E+02	-5.94999E-01	-1.96307E-01	5.50417E+00	
SESS	SESS-DABK-S-SO10-0001	23.1	4.438468204	0.140600261	5.74258E-03	1.63376E-01	6.83027E+00	7.57798E-02	2.84149E-02	4.36269E+00	
SESS	SESS-DABK-S-SO11-0001	17.95	4.098780306	0.177609271	2.49553E-01	4.16160E-03	6.43394E+00	4.99553E-01	2.10530E-01	3.59923E+00	
SESS	SESS-DABK-S-SO12-0001	22.2	4.277849927	0.148557463	2.36020E-03	5.93313E-02	2.93601E+00	4.85819E-02	1.87250E-02	4.22927E+00	
SESS	SESS-DABK-S-SO13-0001	20.7	3.714835124	0.175177439	8.53024E-02	1.02039E-01	4.55730E-02	-2.92066E-01	-1.22242E-01	4.00690E+00	
SESS	SESS-DABK-S-SO14-0001	24.3	4.527692569	0.134012739	1.66143E-04	2.43466E-01	1.45426E+01	-1.28896E-02	-4.71861E-03	4.54058E+00	
SESS	SESS-DABK-S-SO15-0001	29.4	4.774934555	0.114308419	2.72167E-01	5.48584E-01	7.94501E+01	-5.21696E-01	-1.76383E-01	5.29663E+00	
SESS	SESS-DABK-S-SO16-0001	14	3.660601044	0.235547141	4.18532E-01	1.39628E-01	4.20750E+01	6.46941E-01	3.13981E-01	3.01366E+00	
SESS	SESS-DABK-S-SO17-0001	22.4	4.636809248	0.138649785	1.42803E-01	3.63054E-01	3.66140E+00	3.77892E-01	1.40711E-01	4.25892E+00	
SESS	SESS-DABK-S-SO18-0001	22.4	4.415880433	0.144009454	2.46375E-02	1.45627E-01	3.66140E+00	1.56963E-01	5.95654E-02	4.25892E+00	
SESS	SESS-DABK-S-SO19-0001	23.9	6.164414003	0.108387665	2.83293E+00	4.53751E+00	1.16518E+01	1.68313E+00	5.54125E-01	4.48128E+00	SESS-DABK-S-SO19-0001
SESS	SESS-DABK-S-SO20-0001	30.6	5.753259945	0.097508073	7.76933E-02	2.95493E+00	1.02282E+02	2.78735E-01	8.70387E-02	5.47452E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: PB			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: PB predict (from Factor Anal.)			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	99.000000		5.97	6.02	4.30	7.74	-3.64	3.64	-0.09	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.009617E+02		6.28	6.32	4.60	8.03	-3.64	3.64	-0.09	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.660715		6.59	6.62	4.91	8.33	-3.64	3.64	-0.09	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	6.956783E+03		6.89	6.92	5.21	8.63	-3.64	3.64	-0.09	---- V ----
2	SUM(X^2*w^2)	6.962078E+03		7.20	7.22	5.51	8.92	-3.64	3.64	-0.09	BASS
	SUM(X*w^2)	8.145500E+02		7.50	7.52	5.81	9.22	-3.64	3.64	-0.09	0
	SUM(Y*w^2)	8.145500E+02		7.81	7.82	6.11	9.52	-3.64	3.64	-0.09	MASS
	SUM(w^2)	9.900000E+01		8.11	8.12	6.41	9.82	-3.64	3.64	-0.09	0
	SUM(Y)	814.550000		8.42	8.42	6.71	10.12	-3.64	3.64	-0.09	MMSS
	SUM(X)	8.145500E+02		8.73	8.72	7.01	10.42	-3.64	3.64	-0.09	0
	Denominator	2.575403E+04		9.03	9.02	7.31	10.72	-3.64	3.64	-0.09	NESS
	Slope	9.796456E-01		9.34	9.32	7.61	11.02	-3.64	3.64	-0.09	0
	Intercept	1.674717E-01		9.64	9.61	7.91	11.32	-3.64	3.64	-0.09	PMSS
	Minimum X value	5.974086E+00		9.95	9.91	8.20	11.63	-3.64	3.64	-0.09	0
	Maximum X value	1.331292E+01		10.26	10.21	8.50	11.93	-3.64	3.64	-0.09	SESS
	Minimum Y value	5.200000E+00		10.56	10.51	8.79	12.23	-3.64	3.64	-0.09	0
	Maximum Y value	1.350000E+01		10.87	10.81	9.09	12.54	-3.64	3.64	-0.09	SESD
	No. of graph points	25		11.17	11.11	9.38	12.84	-3.64	3.64	-0.09	0
	SUM(Ypred.- Yobs)^2	1.009617E+02		11.48	11.41	9.68	13.15	-3.64	3.64	-0.09	MASB
	SUM(Yobs - Yave)^2	3.506211E+02		11.78	11.71	9.97	13.45	-3.64	3.64	-0.09	1
	SUM(X - Xave)^2	2.601417E+02		12.09	12.01	10.26	13.76	-3.64	3.64	-0.09	MMSB
	Std. Error of Y-estimate	1.020217E+00		12.40	12.31	10.55	14.07	-3.64	3.64	-0.09	2
	R^2	7.120490E-01		12.70	12.61	10.84	14.38	-3.64	3.64	-0.09	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1		13.01	12.91	11.13	14.69	-3.64	3.64	-0.09	0
est.M, Std.Err.Y				13.31	13.21	11.42	14.99	-3.64	3.64	-0.09	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	6.98	7.00	5.30	8.71	7.00	-24%	24%	1
Inverse Log Transform (Y/N)?		No	50	7.79	7.80	6.09	9.50	7.80	-22%	22%	SESB
Inverse Power Transform (Y/N)?		No	75	9.02	9.01	7.30	10.71	9.01	-19%	19%	1
Inverse Power Transform (1/Power):		1	90	10.57	10.52	8.80	12.24	10.52	-16%	16%	<<--Original Units Errors
TEXT BOX ==>	(PB) = (9.80E-01)x(PB predict (from Factor Anal.)) + (1.67E-01)			R^2 = 0.71; Std. Error of Y-estimate = 1.02E+00				+/-3 x IQR of re	-3.639536	3.639536	
TEXT BOX ==>	95% Confidence Limits on a Y-value predicted from one X-value			V - wt.descrip.	TEXT BOX==> Residuals Plot: (Observed - Predicted) Versus Y-Pred.					Y-Pred.	
	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!S	DA!T	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	PB predict	PB	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA01-0105	9.031111334	9.1	1	7.26587E-03	7.60772E-01	6.45345E-01	8.52401E-02	8.52401E-02	9.01476E+00	
MASB	MASB-BWBK-SB-MA02-0107	9.263922289	8.4	1	7.10366E-01	2.96605E-02	1.07360E+00	-8.42832E-01	-8.42832E-01	9.24283E+00	
MASB	MASB-BWBK-SB-MA03-0108	10.62186787	8.4	1	4.72253E+00	2.96605E-02	5.73167E+00	-2.17314E+00	-2.17314E+00	1.05731E+01	
MASB	MASB-BWBK-SB-MA04-0106	8.620082668	7.7	1	8.31922E-01	2.78549E-01	1.53903E-01	-9.12098E-01	-9.12098E-01	8.61210E+00	
MASB	MASB-BWBK-SB-MA05-0108	8.674173801	8.1	1	3.19324E-01	1.63272E-02	1.99269E-01	-5.65088E-01	-5.65088E-01	8.66509E+00	
MASB	MASB-BWBK-SB-MA06-0105	8.957394781	8.2	1	5.51371E-01	7.71605E-04	5.32341E-01	-7.42544E-01	-7.42544E-01	8.94254E+00	
MASB	MASB-BWBK-SB-MA07-0108	8.507796157	8	1	2.52101E-01	5.18827E-02	7.84103E-02	-5.02097E-01	-5.02097E-01	8.50210E+00	
MASB	MASB-BWBK-SB-MA08-0108	11.34814769	12.2	1	8.37894E-01	1.57785E+01	9.73671E+00	9.15366E-01	9.15366E-01	1.12846E+01	
MASB	MASB-BWBK-SB-MA09-0108	10.43420279	10.5	1	1.22562E-02	5.16299E+00	4.86831E+00	1.10708E-01	1.10708E-01	1.03893E+01	
MASB	MASB-BWBK-SB-MA10-0104	8.641552266	8.7	1	4.47158E-03	2.22994E-01	1.71209E-01	6.68699E-02	6.68699E-02	8.63313E+00	
MASB	MASB-BWBK-SB-MA11-0108	10.12197854	13.4	1	1.09997E+01	2.67519E+01	3.58800E+00	3.31658E+00	3.31658E+00	1.00834E+01	MASB-BWBK-SB-MA11-0108
MASB	MASB-BWBK-SB-MA12-0108	9.954908677	8.8	1	1.25385E+00	3.27438E-01	2.98298E+00	-1.11975E+00	-1.11975E+00	9.91975E+00	
MASB	MASB-BWBK-SB-MA13-0105	6.453616112	6.4	1	8.05114E-03	3.34077E+00	3.14765E+00	-8.97282E-02	-8.97282E-02	6.48973E+00	
MASB	MASB-BWBK-SB-MA14-0104	9.4354977	10.05	1	4.08429E-01	3.32049E+00	1.45859E+00	6.39085E-01	6.39085E-01	9.41092E+00	
MASB	MASB-BWBK-SB-MA15-0105	8.049321003	8.3	1	6.10320E-02	5.21605E-03	3.18468E-02	2.47047E-01	2.47047E-01	8.05295E+00	
MASB	MASB-BWBK-SB-MA16-0104	7.610780281	8.9	1	1.62986E+00	4.51883E-01	3.80686E-01	1.27666E+00	1.27666E+00	7.62334E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!S**	**DA!T**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**PB predict**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA17-0104	7.490330537	7.9	1	1.55756E-01	1.07438E-01	5.43828E-01	3.94659E-01	3.94659E-01	7.50534E+00	
MASB	MASB-BWBK-SB-MA18-0104	5.974085505	7	1	9.60482E-01	1.50744E+00	5.07913E+00	9.80042E-01	9.80042E-01	6.01996E+00	
MASB	MASB-BWBK-SB-MA19-0103	6.23868852	6.8	1	2.71258E-01	2.03855E+00	3.95648E+00	5.20825E-01	5.20825E-01	6.27918E+00	
MASB	MASB-BWBK-SB-MA20-0103	9.014654796	8.1	1	8.07551E-01	1.63272E-02	6.19175E-01	-8.98638E-01	-8.98638E-01	8.99864E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	7.131987912	10.6	1	1.18729E+01	5.62744E+00	1.20076E+00	3.44571E+00	3.44571E+00	7.15429E+00	MMSB-BWBK-SB-MM101-0110
MMSB	MMSB-BWBK-SB-MM102-0109	6.851871768	7.5	1	3.84552E-01	5.29660E-01	1.89312E+00	6.20122E-01	6.20122E-01	6.87988E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	7.120836778	8.2	1	1.11647E+00	7.71605E-04	1.22532E+00	1.05663E+00	1.05663E+00	7.14337E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	8.912226396	9.1	1	4.06850E-02	7.60772E-01	4.68470E-01	2.01705E-01	2.01705E-01	8.89829E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	6.509900743	7.7	1	1.33433E+00	2.78549E-01	2.95110E+00	1.15513E+00	1.15513E+00	6.54487E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	7.014548571	8.3	1	1.58951E+00	5.21605E-03	1.47193E+00	1.26076E+00	1.26076E+00	7.03924E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	6.85639884	6.8	1	7.10859E-03	2.03855E+00	1.88068E+00	-8.43125E-02	-8.43125E-02	6.88431E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	6.631794622	7.15	1	2.35924E-01	1.16160E+00	2.54716E+00	4.85720E-01	4.85720E-01	6.66428E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	7.595509431	9	1	1.93661E+00	5.96327E-01	3.99763E-01	1.39162E+00	1.39162E+00	7.60838E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	7.036653104	8	1	8.81913E-01	5.18827E-02	1.41878E+00	9.39102E-01	9.39102E-01	7.06090E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	7.33162223	9.4	1	4.20306E+00	1.37410E+00	8.03095E-01	2.05014E+00	2.05014E+00	7.34986E+00	MMSB-BWBK-SB-MM111-0110
MMSB	MMSB-BWBK-SB-MM112-0110	6.683863305	6.45	1	7.03781E-02	3.16049E+00	2.38367E+00	-2.65289E-01	-2.65289E-01	6.71529E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	6.929569848	6.6	1	1.26732E-01	2.64966E+00	1.68534E+00	-3.55994E-01	-3.55994E-01	6.95599E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	6.455886932	6.5	1	6.47581E-05	2.98522E+00	3.13960E+00	8.04724E-03	8.04724E-03	6.49195E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	6.507935975	5.7	1	7.10552E-01	6.38966E+00	2.95786E+00	-8.42942E-01	-8.42942E-01	6.54294E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	7.034856754	8	1	8.85221E-01	5.18827E-02	1.42306E+00	9.40862E-01	9.40862E-01	7.05914E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	6.874836187	6.7	1	4.09555E-02	2.33410E+00	1.83045E+00	-2.02375E-01	-2.02375E-01	6.90237E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	7.935192387	9.2	1	1.58471E+00	9.45216E-01	8.56062E-02	1.25885E+00	1.25885E+00	7.94115E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	6.451460232	6.9	1	1.70060E-01	1.76299E+00	3.15530E+00	4.12384E-01	4.12384E-01	6.48762E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	6.238987461	5.3	1	9.59358E-01	8.57188E+00	3.95529E+00	-9.79468E-01	-9.79468E-01	6.27947E+00	
NESB	NESB-BWBK-SB-NE01-0108	7.774090068	7.4	1	1.46938E-01	6.85216E-01	2.05833E-01	-3.83325E-01	-3.83325E-01	7.78332E+00	
NESB	NESB-BWBK-SB-NE02-0109	7.684441489	7.5	1	3.82206E-02	5.29660E-01	2.95214E-01	-1.95501E-01	-1.95501E-01	7.69550E+00	
NESB	NESB-BWBK-SB-NE03-0105	7.843804485	6.9	1	9.05581E-01	1.76299E+00	1.47435E-01	-9.51620E-01	-9.51620E-01	7.85162E+00	
NESB	NESB-BWBK-SB-NE04-0110	7.315980335	7.3	1	1.19297E-03	8.60772E-01	8.31375E-01	-3.45395E-02	-3.45395E-02	7.33454E+00	
NESB	NESB-BWBK-SB-NE05-0108	7.78792411	7.2	1	3.56262E-01	1.05633E+00	1.93471E-01	-5.96877E-01	-5.96877E-01	7.79688E+00	
NESB	NESB-BWBK-SB-NE06-0109	7.59876326	7	1	3.74014E-01	1.50744E+00	3.95659E-01	-6.11566E-01	-6.11566E-01	7.61157E+00	
NESB	NESB-BWBK-SB-NE07-0107	8.055137829	7.8	1	6.69008E-02	1.82994E-01	2.98046E-02	-2.58652E-01	-2.58652E-01	8.05865E+00	
NESB	NESB-BWBK-SB-NE08-0104	7.230324052	6.5	1	5.63440E-01	2.98522E+00	9.94914E-01	-7.50627E-01	-7.50627E-01	7.25063E+00	
NESB	NESB-BWBK-SB-NE09-0110	7.401105596	6.5	1	8.42599E-01	2.98522E+00	6.83387E-01	-9.17932E-01	-9.17932E-01	7.41793E+00	
NESB	NESB-BWBK-SB-NE10-0107	6.866076335	7.5	1	3.67487E-01	5.29660E-01	1.85423E+00	6.06207E-01	6.06207E-01	6.89379E+00	
NESB	NESB-BWBK-SB-NE101-0110	7.374161115	7.4	1	7.16394E-05	6.85216E-01	7.28661E-01	8.46400E-03	8.46400E-03	7.39154E+00	
NESB	NESB-BWBK-SB-NE102-0110	6.961930495	6.6	1	1.50308E-01	2.64966E+00	1.60237E+00	-3.87696E-01	-3.87696E-01	6.98770E+00	
NESB	NESB-BWBK-SB-NE103-0110	6.76426745	5.85	1	8.91242E-01	5.65383E+00	2.14186E+00	-9.44056E-01	-9.44056E-01	6.79406E+00	
NESB	NESB-BWBK-SB-NE104-0110	6.55869531	5.5	1	1.19392E+00	7.44077E+00	2.78584E+00	-1.09267E+00	-1.09267E+00	6.59267E+00	
NESB	NESB-BWBK-SB-NE105-0110	7.393982911	7.1	1	9.66926E-02	1.27188E+00	6.95214E-01	-3.10954E-01	-3.10954E-01	7.41095E+00	
NESB	NESB-BWBK-SB-NE106-0110	7.143310535	6.5	1	4.42736E-01	2.98522E+00	1.17607E+00	-6.65384E-01	-6.65384E-01	7.16538E+00	
NESB	NESB-BWBK-SB-NE107-0510	6.454160474	5.7	1	6.24513E-01	6.38966E+00	3.14572E+00	-7.90261E-01	-7.90261E-01	6.49026E+00	
NESB	NESB-BWBK-SB-NE108-0110	6.952992031	6.2	1	6.06747E-01	4.11188E+00	1.62508E+00	-7.78940E-01	-7.78940E-01	6.97894E+00	
NESB	NESB-BWBK-SB-NE109-0110	6.971095044	6.4	1	3.56020E-01	3.34077E+00	1.57925E+00	-5.96674E-01	-5.96674E-01	6.99667E+00	
NESB	NESB-BWBK-SB-NE110-0110	6.801691728	6.45	1	1.44947E-01	3.16049E+00	2.03372E+00	-3.80719E-01	-3.80719E-01	6.83072E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	7.896774198	7.6	1	9.21193E-02	3.94105E-01	1.09563E-01	-3.03512E-01	-3.03512E-01	7.90351E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	9.512469064	10.1	1	3.76603E-01	3.50522E+00	1.65043E+00	6.13680E-01	6.13680E-01	9.48632E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	9.867157822	7.2	1	6.93685E+00	1.05633E+00	2.68757E+00	-2.63379E+00	-2.63379E+00	9.83379E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	8.295460581	10.3	1	4.02370E+00	4.29410E+00	4.58096E-03	2.00592E+00	2.00592E+00	8.29408E+00	PMSB-BWBK-SB-PM04-0105
PMSB	PMSB-BWBK-SB-PM05-0105	8.216693793	8.3	1	6.90239E-03	5.21605E-03	1.22855E-04	8.30806E-02	8.30806E-02	8.21692E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	8.002700114	6.6	1	1.98044E+00	2.64966E+00	5.06600E-02	-1.40728E+00	-1.40728E+00	8.00728E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	7.802504118	6.5	1	1.71914E+00	2.98522E+00	1.80858E-01	-1.31116E+00	-1.31116E+00	7.81116E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	7.908756544	7.7	1	4.63326E-02	2.78549E-01	1.01775E-01	-2.15250E-01	-2.15250E-01	7.91525E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!S**	**DA!T**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**PB predict**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
PMSB	PMSB-BWBK-SB-PM09-0106	7.290131281	5.2	1	4.44879E+00	9.16744E+00	8.79181E-01	-2.10922E+00	-2.10922E+00	7.30922E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	7.82071526	7.9	1	5.04089E-03	1.07438E-01	1.65700E-01	7.09992E-02	7.09992E-02	7.82900E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	8.953374891	7.3	1	2.68503E+00	8.60772E-01	5.26491E-01	-1.63861E+00	-1.63861E+00	8.93861E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	6.12009495	6.1	1	3.96845E-03	4.52744E+00	4.44233E+00	-6.29956E-02	-6.29956E-02	6.16300E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	7.022988372	7	1	2.25731E-03	1.50744E+00	1.45152E+00	-4.75112E-02	-4.75112E-02	7.04751E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	6.345610308	6.5	1	1.34744E-02	2.98522E+00	3.54255E+00	1.16079E-01	1.16079E-01	6.38392E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	7.653580213	8	1	1.12046E-01	5.18827E-02	3.29703E-01	3.34732E-01	3.34732E-01	7.66527E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	6.985561044	6.8	1	4.44559E-02	2.03855E+00	1.54310E+00	-2.10846E-01	-2.10846E-01	7.01085E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	7.992672141	9.4	1	1.96713E+00	1.37410E+00	5.52747E-02	1.40254E+00	1.40254E+00	7.99746E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	9.840182655	8.9	1	8.23308E-01	4.51883E-01	2.59985E+00	-9.07363E-01	-9.07363E-01	9.80736E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	8.664032043	8.6	1	3.04178E-03	1.38549E-01	1.90318E-01	-5.51523E-02	-5.51523E-02	8.65515E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	7.864973974	7.75	1	1.49716E-02	2.28272E-01	1.31627E-01	-1.22359E-01	-1.22359E-01	7.87236E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	10.50326992	10.6	1	2.04623E-02	5.62744E+00	5.17786E+00	1.43046E-01	1.43046E-01	1.04570E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	10.21824088	11.3	1	1.25950E+00	9.43855E+00	3.96194E+00	1.12227E+00	1.12227E+00	1.01777E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	11.27944617	10.8	1	1.74165E-01	6.61633E+00	9.31268E+00	-4.17331E-01	-4.17331E-01	1.12173E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	11.52886306	10.8	1	4.37809E-01	6.61633E+00	1.08972E+01	-6.61671E-01	-6.61671E-01	1.14617E+01	
SESB	SESB-BWBK-SB-SO03-0108	13.31291704	12.9	1	9.57357E-02	2.18297E+01	2.58586E+01	-3.09412E-01	-3.09412E-01	1.32094E+01	
SESB	SESB-BWBK-SB-SO04-0108	11.52932395	10.8	1	4.38407E-01	6.61633E+00	1.09002E+01	-6.62123E-01	-6.62123E-01	1.14621E+01	
SESB	SESB-BWBK-SB-SO05-0106	10.55231767	10.4	1	1.10256E-02	4.71855E+00	5.40349E+00	-1.05003E-01	-1.05003E-01	1.05050E+01	
SESB	SESB-BWBK-SB-SO06-0108	12.11510025	13.4	1	1.86056E+00	2.67519E+01	1.51113E+01	1.36402E+00	1.36402E+00	1.20360E+01	
SESB	SESB-BWBK-SB-SO07-0106	10.88355521	13	1	4.71108E+00	2.27741E+01	7.05315E+00	2.17050E+00	2.17050E+00	1.08295E+01	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	12.27788292	13.5	1	1.70186E+00	2.77963E+01	1.64034E+01	1.30455E+00	1.30455E+00	1.21954E+01	
SESB	SESB-BWBK-SB-SO09-0106	9.852392398	10	1	3.26437E-02	3.14077E+00	2.63937E+00	1.80676E-01	1.80676E-01	9.81932E+00	
SESB	SESB-BWBK-SB-SO11-0106	10.15754087	10.7	1	3.38420E-01	6.11188E+00	3.72399E+00	5.81738E-01	5.81738E-01	1.01183E+01	
SESB	SESB-BWBK-SB-SO12-0106	11.52894997	11.05	1	1.69543E-01	7.96494E+00	1.08977E+01	-4.11756E-01	-4.11756E-01	1.14618E+01	
SESB	SESB-BWBK-SB-SO15-0103	7.788444782	8.6	1	6.44187E-01	1.38549E-01	1.93013E-01	8.02613E-01	8.02613E-01	7.79739E+00	
SESB	SESB-BWBK-SB-SO16-0105	8.885020455	7.6	1	1.61708E+00	3.94105E-01	4.31968E-01	-1.27164E+00	-1.27164E+00	8.87164E+00	
SESB	SESB-BWBK-SB-SO17-0106	7.798696817	7.5	1	9.45135E-02	5.29660E-01	1.84110E-01	-3.07431E-01	-3.07431E-01	7.80743E+00	
SESB	SESB-BWBK-SB-SO18-0105	6.948476229	7.1	1	1.57463E-02	1.27188E+00	1.63661E+00	1.25484E-01	1.25484E-01	6.97452E+00	
SESB	SESB-BWBK-SB-SO19-0104	7.557029656	8	1	1.84314E-01	5.18827E-02	4.49903E-01	4.29318E-01	4.29318E-01	7.57068E+00	
SESB	SESB-BWBK-SB-SO20-0104	10.29211095	9.4	1	7.22657E-01	1.37410E+00	4.26147E+00	-8.50093E-01	-8.50093E-01	1.02501E+01	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: PB
X variable name used on graph: ZN

	N	99.000000
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	1.264851E+02
0.10	**t-Value: 2-tail, 0.100 alpha**	1.660715
degrees freedom	SUM(XY*w^2)	3.546079E+04
2	SUM(X^2*w^2)	1.844481E+05
	SUM(X*w^2)	4.074150E+03
	SUM(Y*w^2)	8.145500E+02
	SUM(w^2)	9.900000E+01
	SUM(Y)	814.550000
	SUM(X)	4.074150E+03
	Denominator	1.661667E+06
	Slope	**1.155584E-01**
	Intercept	**3.472201E+00**
	Minimum X value	1.870000E+01
	Maximum X value	7.450000E+01
	Minimum Y value	5.200000E+00
	Maximum Y value	1.350000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.264851E+02
	SUM(Yobs - Yave)^2	3.506211E+02
	SUM(X - Xave)^2	1.678452E+04
	Std. Error of Y-estimate	**1.141915E+00**
	R^2	**6.392543E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**
est.M, Std.Err.Y		

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		**25**
Inverse Log Transform (Y/N)?	**No**	**50**
Inverse Power Transform (Y/N)?	**No**	**75**
Inverse Power Transform (1/Power):	**1**	**90**

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
18.70	5.63	3.70	7.57	-3.29	3.29	-0.11	**No. of Exceedances**
21.03	5.90	3.97	7.83	-3.29	3.29	-0.11	**of Upper 95% Limit**
23.35	6.17	4.25	8.09	-3.29	3.29	-0.11	**for Each Soil Type:**
25.68	6.44	4.52	8.36	-3.29	3.29	-0.11	---- \/ ----
28.00	6.71	4.79	8.62	-3.29	3.29	-0.11	BASS
30.33	6.98	5.06	8.89	-3.29	3.29	-0.11	0
32.65	7.25	5.34	9.16	-3.29	3.29	-0.11	MASS
34.98	7.51	5.61	9.42	-3.29	3.29	-0.11	0
37.30	7.78	5.88	9.69	-3.29	3.29	-0.11	MMSS
39.63	8.05	6.15	9.96	-3.29	3.29	-0.11	0
41.95	8.32	6.41	10.23	-3.29	3.29	-0.11	NESS
44.28	8.59	6.68	10.50	-3.29	3.29	-0.11	0
46.60	8.86	6.95	10.76	-3.29	3.29	-0.11	PMSS
48.93	9.13	7.22	11.04	-3.29	3.29	-0.11	0
51.25	9.39	7.48	11.31	-3.29	3.29	-0.11	SESS
53.58	9.66	7.75	11.58	-3.29	3.29	-0.11	0
55.90	9.93	8.01	11.85	-3.29	3.29	-0.11	SESD
58.23	10.20	8.28	12.12	-3.29	3.29	-0.11	0
60.55	10.47	8.54	12.40	-3.29	3.29	-0.11	MASB
62.88	10.74	8.81	12.67	-3.29	3.29	-0.11	1
65.20	11.01	9.07	12.94	-3.29	3.29	-0.11	MMSB
67.53	11.28	9.33	13.22	-3.29	3.29	-0.11	3
69.85	11.54	9.59	13.50	-3.29	3.29	-0.11	NESB
72.18	11.81	9.85	13.77	-3.29	3.29	-0.11	0
74.50	12.08	10.11	14.05	-3.29	3.29	-0.11	PMSB
30.73	7.02	5.11	8.93	7.02	**-27%**	**27%**	0
38.60	7.93	6.03	9.84	7.93	**-24%**	**24%**	SESB
51.40	9.41	7.50	11.32	9.41	**-20%**	**20%**	1
61.00	10.52	8.59	12.45	10.52	**-18%**	**18%**	<<--Original Units Errors

TEXT BOX ==> **(PB) = (1.16E-01)x(ZN) + (3.47E+00)** **R^2 = 0.64; Std. Error of Y-estimate = 1.14E+00**

+/-3 x IQR of r -3.293515 3.293515

TEXT BOX ==> **95% Confidence Limits on a Y-value predicted from one X-value**

Indexed value lookups: **X data column ref.** **Y data column ref.**

Specify X-col., Y-col. as: "DA!" + column **DA!AF** **DA!T**

GROUP	**SAMPLE**	**ZN**	**PB**	**Regression Wt.**	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
				---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
				\/ - wt.descrip.	**TEXT BOX==>**	**Residuals Plot:**	**(Observed - Predicted)**	**Versus Y-Pred.**		**Y-Pred.**	
									Wt'd.Residuals		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA01-0105	53.2	9.1	1	2.70302E-01	7.60772E-01	1.45129E+02	-5.19906E-01	-5.19906E-01	9.61991E+00	
MASB	MASB-BWBK-SB-MA02-0107	55.4	8.4	1	2.17307E+00	2.96605E-02	2.02976E+02	-1.47413E+00	-1.47413E+00	9.87413E+00	
MASB	MASB-BWBK-SB-MA03-0108	63.2	8.4	1	5.64295E+00	2.96605E-02	4.86069E+02	-2.37549E+00	-2.37549E+00	1.07755E+01	
MASB	MASB-BWBK-SB-MA04-0106	61.5	7.7	1	8.28887E+00	2.78549E-01	4.13999E+02	-2.87904E+00	-2.87904E+00	1.05790E+01	
MASB	MASB-BWBK-SB-MA05-0108	53.3	8.1	1	2.34538E+00	1.63272E-02	1.47549E+02	-1.53146E+00	-1.53146E+00	9.63146E+00	
MASB	MASB-BWBK-SB-MA06-0105	53.3	8.2	1	2.04908E+00	7.71605E-04	1.47549E+02	-1.43146E+00	-1.43146E+00	9.63146E+00	
MASB	MASB-BWBK-SB-MA07-0108	49.05	8	1	1.30037E+00	5.18827E-02	6.23621E+01	-1.14034E+00	-1.14034E+00	9.14034E+00	
MASB	MASB-BWBK-SB-MA08-0108	71.4	12.2	1	2.27464E-01	1.57785E+01	9.14879E+02	4.76932E-01	4.76932E-01	1.17231E+01	
MASB	MASB-BWBK-SB-MA09-0108	60.1	10.5	1	6.84612E-03	5.16299E+00	3.58988E+02	8.27413E-02	8.27413E-02	1.04173E+01	
MASB	MASB-BWBK-SB-MA10-0104	44.3	8.7	1	1.17860E-02	2.22994E-01	9.90342E+00	1.08564E-01	1.08564E-01	8.59144E+00	
MASB	MASB-BWBK-SB-MA11-0108	61.6	13.4	1	7.89275E+00	2.67519E+01	4.18079E+02	2.80940E+00	2.80940E+00	1.05906E+01	MASB-BWBK-SB-MA11-0108
MASB	MASB-BWBK-SB-MA12-0108	60.2	8.8	1	2.65304E+00	3.27438E-01	3.62787E+02	-1.62881E+00	-1.62881E+00	1.04288E+01	
MASB	MASB-BWBK-SB-MA13-0105	30.5	6.4	1	3.56088E-01	3.34077E+00	1.13487E+02	-5.96731E-01	-5.96731E-01	6.99673E+00	
MASB	MASB-BWBK-SB-MA14-0104	44.25	10.05	1	2.14430E+00	3.32049E+00	9.59122E+00	1.46434E+00	1.46434E+00	8.58566E+00	
MASB	MASB-BWBK-SB-MA15-0105	36.2	8.3	1	4.15492E-01	5.21605E-03	2.45325E+01	6.44586E-01	6.44586E-01	7.65541E+00	
MASB	MASB-BWBK-SB-MA16-0104	37.4	8.9	1	1.22305E+00	4.51883E-01	1.40852E+01	1.10592E+00	1.10592E+00	7.79408E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AF	DA!T	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**ZN**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA17-0104	38.4	7.9	1	9.29698E-05	1.07438E-01	7.57918E+00	-9.64208E-03	-9.64208E-03	7.90964E+00	
MASB	MASB-BWBK-SB-MA18-0104	33.5	7	1	1.17928E-01	1.50744E+00	5.85689E+01	-3.43406E-01	-3.43406E-01	7.34341E+00	
MASB	MASB-BWBK-SB-MA19-0103	31	6.8	1	6.47754E-02	2.03855E+00	1.03084E+02	-2.54510E-01	-2.54510E-01	7.05451E+00	
MASB	MASB-BWBK-SB-MA20-0103	49	8.1	1	1.07032E+00	1.63272E-02	6.15749E+01	-1.03456E+00	-1.03456E+00	9.13456E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	28.8	10.6	1	1.44379E+01	5.62744E+00	1.52597E+02	3.79972E+00	3.79972E+00	6.80028E+00	MMSB-BWBK-SB-MM101-0110
MMSB	MMSB-BWBK-SB-MM102-0109	29.8	7.5	1	3.41243E-01	5.29660E-01	1.28891E+02	5.84160E-01	5.84160E-01	6.91584E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	28.3	8.2	1	2.12430E+00	7.71605E-04	1.65200E+02	1.45750E+00	1.45750E+00	6.74250E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	38.9	9.1	1	1.28273E+00	7.60772E-01	5.07615E+00	1.13258E+00	1.13258E+00	7.96742E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	23.1	7.7	1	2.42861E+00	2.78549E-01	3.25912E+02	1.55840E+00	1.55840E+00	6.14160E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	42.8	8.3	1	1.39474E-02	5.21605E-03	2.71251E+00	-1.18099E-01	-1.18099E-01	8.41810E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	27.5	6.8	1	2.24832E-02	2.03855E+00	1.86405E+02	1.49944E-01	1.49944E-01	6.65006E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	28.7	7.15	1	1.30519E-01	1.16160E+00	1.55078E+02	3.61274E-01	3.61274E-01	6.78873E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	31.9	9	1	3.39108E+00	5.96327E-01	8.56186E+01	1.84149E+00	1.84149E+00	7.15851E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	29	8	1	1.38440E+00	5.18827E-02	1.47696E+02	1.17661E+00	1.17661E+00	6.82339E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	31.7	9.4	1	5.12841E+00	1.37410E+00	8.93598E+01	2.26460E+00	2.26460E+00	7.13540E+00	MMSB-BWBK-SB-MM111-0110
MMSB	MMSB-BWBK-SB-MM112-0110	30.55	6.45	1	3.05266E-01	3.16049E+00	1.12424E+02	-5.52509E-01	-5.52509E-01	7.00251E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	31	6.6	1	2.06579E-01	2.64966E+00	1.03084E+02	-4.54510E-01	-4.54510E-01	7.05451E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	23.7	6.5	1	8.35591E-02	2.98522E+00	3.04608E+02	2.89066E-01	2.89066E-01	6.21093E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	31.4	5.7	1	1.96205E+00	6.38966E+00	9.51216E+01	-1.40073E+00	-1.40073E+00	7.10073E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	31.5	8	1	7.88030E-01	5.18827E-02	9.31810E+01	8.87711E-01	8.87711E-01	7.11229E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	25	6.7	1	1.14813E-01	2.33410E+00	2.60920E+02	3.38840E-01	3.38840E-01	6.36116E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	30.9	9.2	1	4.65285E+00	9.45216E-01	1.05125E+02	2.15705E+00	2.15705E+00	7.04295E+00	MMSB-BWBK-SB-MM118-0110
MMSB	MMSB-BWBK-SB-MM119-0110	29.4	6.9	1	9.23142E-04	1.76299E+00	1.38134E+02	3.03832E-02	3.03832E-02	6.86962E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	18.7	5.3	1	1.10984E-01	8.57188E+00	5.04139E+02	-3.33142E-01	-3.33142E-01	5.63314E+00	
NESB	NESB-BWBK-SB-NE01-0108	41.9	7.4	1	8.35572E-01	6.85216E-01	5.57964E-01	-9.14096E-01	-9.14096E-01	8.31410E+00	
NESB	NESB-BWBK-SB-NE02-0109	40.7	7.5	1	4.56201E-01	5.29660E-01	2.05236E-01	-6.75426E-01	-6.75426E-01	8.17543E+00	
NESB	NESB-BWBK-SB-NE03-0105	34.7	6.9	1	3.38813E-01	1.76299E+00	4.16416E+01	-5.82076E-01	-5.82076E-01	7.48208E+00	
NESB	NESB-BWBK-SB-NE04-0110	35.9	7.3	1	1.02878E-01	8.60772E-01	2.75943E+01	-3.20746E-01	-3.20746E-01	7.62075E+00	
NESB	NESB-BWBK-SB-NE05-0108	40.5	7.2	1	9.06903E-01	1.05633E+00	4.26449E-01	-9.52315E-01	-9.52315E-01	8.15231E+00	
NESB	NESB-BWBK-SB-NE06-0109	36.8	7	1	5.25261E-01	1.50744E+00	1.89489E+01	-7.24749E-01	-7.24749E-01	7.72475E+00	
NESB	NESB-BWBK-SB-NE07-0107	41.6	7.8	1	2.29852E-01	1.82994E-01	1.99782E-01	-4.79429E-01	-4.79429E-01	8.27943E+00	
NESB	NESB-BWBK-SB-NE08-0104	32.9	6.5	1	5.99186E-01	2.98522E+00	6.81125E+01	-7.74071E-01	-7.74071E-01	7.27407E+00	
NESB	NESB-BWBK-SB-NE09-0110	36.4	6.5	1	1.38892E+00	2.98522E+00	2.25913E+01	-1.17853E+00	-1.17853E+00	7.67853E+00	
NESB	NESB-BWBK-SB-NE10-0107	33.4	7.5	1	2.82743E-02	5.29660E-01	6.01095E+01	1.68150E-01	1.68150E-01	7.33185E+00	
NESB	NESB-BWBK-SB-NE101-0110	30	7.4	1	2.12565E-01	6.85216E-01	1.24390E+02	4.61048E-01	4.61048E-01	6.93895E+00	
NESB	NESB-BWBK-SB-NE102-0110	27.5	6.6	1	2.50559E-03	2.64966E+00	1.86405E+02	-5.00559E-02	-5.00559E-02	6.65006E+00	
NESB	NESB-BWBK-SB-NE103-0110	24.15	5.85	1	1.70516E-01	5.65383E+00	2.89103E+02	-4.12935E-01	-4.12935E-01	6.26294E+00	
NESB	NESB-BWBK-SB-NE104-0110	22.1	5.5	1	2.76719E-01	7.44077E+00	3.63018E+02	-5.26041E-01	-5.26041E-01	6.02604E+00	
NESB	NESB-BWBK-SB-NE105-0110	30.3	7.1	1	1.59721E-02	1.27188E+00	1.17788E+02	1.26381E-01	1.26381E-01	6.97362E+00	
NESB	NESB-BWBK-SB-NE106-0110	28.2	6.5	1	5.33364E-02	2.98522E+00	1.67781E+02	-2.30947E-01	-2.30947E-01	6.73095E+00	
NESB	NESB-BWBK-SB-NE107-0510	24.7	5.7	1	3.92493E-01	6.38966E+00	2.70702E+02	-6.26492E-01	-6.26492E-01	6.32649E+00	
NESB	NESB-BWBK-SB-NE108-0110	26.4	6.2	1	1.04291E-01	4.11188E+00	2.17652E+02	-3.22942E-01	-3.22942E-01	6.52294E+00	
NESB	NESB-BWBK-SB-NE109-0110	26.3	6.4	1	1.24068E-02	3.34077E+00	2.20613E+02	-1.11386E-01	-1.11386E-01	6.51139E+00	
NESB	NESB-BWBK-SB-NE110-0110	26.35	6.45	1	4.51097E-03	3.16049E+00	2.19130E+02	-6.71637E-02	-6.71637E-02	6.51716E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	39.5	7.6	1	1.90756E-01	3.94105E-01	2.73251E+00	-4.36756E-01	-4.36756E-01	8.03676E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	45.7	10.1	1	1.81382E+00	3.50522E+00	2.06749E+01	1.34678E+00	1.34678E+00	8.75322E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	52.7	7.2	1	5.57964E+00	1.05633E+00	1.33333E+02	-2.36213E+00	-2.36213E+00	9.56213E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	46.5	10.3	1	2.11509E+00	4.29410E+00	2.85901E+01	1.45434E+00	1.45434E+00	8.84566E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	45	8.3	1	1.38628E-01	5.21605E-03	1.47992E+01	-3.72327E-01	-3.72327E-01	8.67233E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	43.4	6.6	1	3.56241E+00	2.64966E+00	5.04887E+00	-1.88743E+00	-1.88743E+00	8.48743E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	33.2	6.5	1	6.54058E-01	2.98522E+00	6.32507E+01	-8.08739E-01	-8.08739E-01	7.30874E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	40.1	7.7	1	1.64910E-01	2.78549E-01	1.10887E+00	-4.06091E-01	-4.06091E-01	8.10609E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!AF**	**DA!T**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**ZN**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
PMSB	PMSB-BWBK-SB-PM09-0106	33.7	5.2	1	4.69380E+00	9.16744E+00	5.55477E+01	-2.16652E+00	-2.16652E+00	7.36652E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	38.6	7.9	1	1.07281E-03	1.07438E-01	6.51796E+00	-3.27538E-02	-3.27538E-02	7.93275E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	40.2	7.3	1	6.68547E-01	8.60772E-01	9.08267E-01	-8.17647E-01	-8.17647E-01	8.11765E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	30.1	6.1	1	7.23363E-01	4.52744E+00	1.22169E+02	-8.50508E-01	-8.50508E-01	6.95051E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	31.3	7	1	7.95265E-03	1.50744E+00	9.70822E+01	-8.91777E-02	-8.91777E-02	7.08918E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	29.7	6.5	1	1.63446E-01	2.98522E+00	1.31172E+02	-4.04284E-01	-4.04284E-01	6.90428E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	38.1	8	1	1.56314E-02	5.18827E-02	9.32099E+00	1.25025E-01	1.25025E-01	7.87497E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	33.3	6.8	1	2.70706E-01	2.03855E+00	6.16701E+01	-5.20294E-01	-5.20294E-01	7.32029E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	41.35	9.4	1	1.32126E+00	1.37410E+00	3.87971E-02	1.14946E+00	1.14946E+00	8.25054E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	51	8.9	1	2.16856E-01	4.51883E-01	9.69628E+01	-4.65678E-01	-4.65678E-01	9.36568E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	44.2	8.6	1	4.04789E-04	1.38549E-01	9.28402E+00	2.01194E-02	2.01194E-02	8.57988E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	40.4	7.75	1	1.52692E-01	2.28272E-01	5.67055E-01	-3.90759E-01	-3.90759E-01	8.14076E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	56.5	10.6	1	3.58503E-01	5.62744E+00	2.35529E+02	5.98751E-01	5.98751E-01	1.00012E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	55.7	11.3	1	1.93543E+00	9.43855E+00	2.11614E+02	1.39120E+00	1.39120E+00	9.90880E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	51.8	10.8	1	1.80063E+00	6.61633E+00	1.13358E+02	1.34188E+00	1.34188E+00	9.45812E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	61.4	10.8	1	5.40634E-02	6.61633E+00	4.09940E+02	2.32515E-01	2.32515E-01	1.05675E+01	
SESB	SESB-BWBK-SB-SO03-0108	74.5	12.9	1	6.70271E-01	2.18297E+01	1.11202E+03	8.18701E-01	8.18701E-01	1.20813E+01	
SESB	SESB-BWBK-SB-SO04-0108	61.5	10.8	1	4.88231E-02	6.61633E+00	4.13999E+02	2.20960E-01	2.20960E-01	1.05790E+01	
SESB	SESB-BWBK-SB-SO05-0106	58.6	10.4	1	2.43606E-02	4.71855E+00	3.04397E+02	1.56079E-01	1.56079E-01	1.02439E+01	
SESB	SESB-BWBK-SB-SO06-0108	69.5	13.4	1	3.59668E+00	2.67519E+01	8.03551E+02	1.89649E+00	1.89649E+00	1.15035E+01	
SESB	SESB-BWBK-SB-SO07-0106	60.9	13	1	6.20157E+00	2.27741E+01	3.89943E+02	2.49029E+00	2.49029E+00	1.05097E+01	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	72.1	13.5	1	2.87655E+00	2.77963E+01	9.57715E+02	1.69604E+00	1.69604E+00	1.18040E+01	
SESB	SESB-BWBK-SB-SO09-0106	54.2	10	1	6.99791E-02	3.14077E+00	1.70223E+02	2.64536E-01	2.64536E-01	9.73546E+00	
SESB	SESB-BWBK-SB-SO11-0106	60.3	10.7	1	6.74075E-02	6.11188E+00	3.66606E+02	2.59630E-01	2.59630E-01	1.04404E+01	
SESB	SESB-BWBK-SB-SO12-0106	63.65	11.05	1	4.95103E-02	7.96494E+00	5.06114E+02	2.22509E-01	2.22509E-01	1.08275E+01	
SESB	SESB-BWBK-SB-SO15-0103	38.5	8.6	1	4.60772E-01	1.38549E-01	7.03857E+00	6.78802E-01	6.78802E-01	7.92120E+00	
SESB	SESB-BWBK-SB-SO16-0105	45.4	7.6	1	1.25116E+00	3.94105E-01	1.80368E+01	-1.11855E+00	-1.11855E+00	8.71855E+00	
SESB	SESB-BWBK-SB-SO17-0106	39.4	7.5	1	2.75836E-01	5.29660E-01	3.07312E+00	-5.25200E-01	-5.25200E-01	8.02520E+00	
SESB	SESB-BWBK-SB-SO18-0105	34.1	7.1	1	9.78070E-02	1.27188E+00	4.97452E+01	-3.12741E-01	-3.12741E-01	7.41274E+00	
SESB	SESB-BWBK-SB-SO19-0104	42.2	8	1	1.21636E-01	5.18827E-02	1.09615E+00	-3.48764E-01	-3.48764E-01	8.34876E+00	
SESB	SESB-BWBK-SB-SO20-0104	55.6	9.4	1	2.47254E-01	1.37410E+00	2.08715E+02	-4.97246E-01	-4.97246E-01	9.89725E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: PB			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: NI			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	99.000000		7.60	5.79	3.73	7.85	-4.21	4.21	-0.11	**No. of Exceedances**
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	1.438697E+02		8.83	6.10	4.04	8.15	-4.21	4.21	-0.11	**of Upper 95% Limit**
0.10	**t-Value: 2-tail, 0.100 alpha**	1.660715		10.06	6.40	4.36	8.45	-4.21	4.21	-0.11	**for Each Soil Type:**
degrees freedom	SUM(XY*w^2)	1.499544E+04		11.29	6.71	4.67	8.75	-4.21	4.21	-0.11	---- V ----
2	SUM(X^2*w^2)	3.327763E+04		12.52	7.02	4.98	9.06	-4.21	4.21	-0.11	BASS
	SUM(X*w^2)	1.721500E+03		13.75	7.32	5.29	9.36	-4.21	4.21	-0.11	0
	SUM(Y*w^2)	8.145500E+02		14.98	7.63	5.59	9.66	-4.21	4.21	-0.11	MASS
	SUM(w^2)	9.900000E+01		16.20	7.93	5.90	9.97	-4.21	4.21	-0.11	0
	SUM(Y)	814.550000		17.43	8.24	6.21	10.27	-4.21	4.21	-0.11	MMSS
	SUM(X)	1.721500E+03		18.66	8.54	6.51	10.58	-4.21	4.21	-0.11	0
	Denominator	3.309226E+05		19.89	8.85	6.82	10.88	-4.21	4.21	-0.11	NESS
	Slope	**2.487016E-01**		21.12	9.16	7.12	11.19	-4.21	4.21	-0.11	0
	Intercept	**3.903133E+00**		22.35	9.46	7.42	11.50	-4.21	4.21	-0.11	PMSS
	Minimum X value	7.600000E+00		23.58	9.77	7.72	11.81	-4.21	4.21	-0.11	0
	Maximum X value	3.710000E+01		24.81	10.07	8.02	12.12	-4.21	4.21	-0.11	SESS
	Minimum Y value	5.200000E+00		26.04	10.38	8.32	12.43	-4.21	4.21	-0.11	0
	Maximum Y value	1.350000E+01		27.27	10.68	8.62	12.75	-4.21	4.21	-0.11	SESD
	No. of graph points	25		28.50	10.99	8.92	13.06	-4.21	4.21	-0.11	0
	SUM(Ypred.- Yobs)^2	1.438697E+02		29.73	11.30	9.22	13.37	-4.21	4.21	-0.11	MASB
	SUM(Yobs - Yave)^2	3.506211E+02		30.95	11.60	9.51	13.69	-4.21	4.21	-0.11	1
	SUM(X - Xave)^2	3.342653E+03		32.18	11.91	9.81	14.00	-4.21	4.21	-0.11	MMSB
	Std. Error of Y-estimate	**1.217864E+00**		33.41	12.21	10.10	14.32	-4.21	4.21	-0.11	2
	R^2	**5.896718E-01**		34.64	12.52	10.40	14.64	-4.21	4.21	-0.11	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**		35.87	12.82	10.69	14.96	-4.21	4.21	-0.11	0
est.M, Std.Err.Y				37.10	13.13	10.98	15.28	-4.21	4.21	-0.11	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			**25**	12.60	7.04	5.00	9.08	7.04	**-29%**	**29%**	1
Inverse Log Transform (Y/N)?		**No**	**50**	16.50	8.01	5.97	10.04	8.01	**-25%**	**25%**	SESB
Inverse Power Transform (Y/N)?		**No**	**75**	21.25	9.19	7.15	11.23	9.19	**-22%**	**22%**	0
Inverse Power Transform (1/Power):		**1**	**90**	25.36	10.21	8.16	12.26	10.21	**-20%**	**20%**	<<--Original Units Errors
TEXT BOX ==>	**(PB) = (2.49E-01)x(NI) + (3.90E+00) R^2 = 0.59; Std. Error of Y-estimate = 1.22E+00**							**+/-3 x IQR of r**	-4.212075	4.212075	
TEXT BOX ==>	**95% Confidence Limits on a Y-value predicted from one X-value**			**V - wt.descrip.**	**TEXT BOX==> Residuals Plot: (Observed - Predicted) Versus Y-Pred.**					**Y-Pred.**	
	Indexed value lookups:	**X data column ref.**	**Y data column ref.**		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!Z**	**DA!T**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**NI**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA01-0105	21.9	9.1	1	6.23492E-02	7.60772E-01	2.03501E+01	-2.49698E-01	-2.49698E-01	9.34970E+00	
MASB	MASB-BWBK-SB-MA02-0107	23.5	8.4	1	1.81608E+00	2.96605E-02	3.73457E+01	-1.34762E+00	-1.34762E+00	9.74762E+00	
MASB	MASB-BWBK-SB-MA03-0108	25.4	8.4	1	3.31296E+00	2.96605E-02	6.41779E+01	-1.82015E+00	-1.82015E+00	1.02202E+01	
MASB	MASB-BWBK-SB-MA04-0106	24.5	7.7	1	5.27310E+00	2.78549E-01	5.05679E+01	-2.29632E+00	-2.29632E+00	9.99632E+00	
MASB	MASB-BWBK-SB-MA05-0108	22.1	8.1	1	1.68854E+00	1.63272E-02	2.21946E+01	-1.29944E+00	-1.29944E+00	9.39944E+00	
MASB	MASB-BWBK-SB-MA06-0105	21.8	8.2	1	1.26524E+00	7.71605E-04	1.94579E+01	-1.12483E+00	-1.12483E+00	9.32483E+00	
MASB	MASB-BWBK-SB-MA07-0108	19.1	8	1	4.26845E-01	5.18827E-02	2.92790E+00	-6.53334E-01	-6.53334E-01	8.65333E+00	
MASB	MASB-BWBK-SB-MA08-0108	25.35	12.2	1	3.96918E+00	1.57785E+01	6.33793E+01	1.99228E+00	1.99228E+00	1.02077E+01	
MASB	MASB-BWBK-SB-MA09-0108	21.5	10.5	1	1.56196E+00	5.16299E+00	1.69012E+01	1.24978E+00	1.24978E+00	9.25022E+00	
MASB	MASB-BWBK-SB-MA10-0104	15.8	8.7	1	7.52351E-01	2.22994E-01	2.52457E+00	8.67381E-01	8.67381E-01	7.83262E+00	
MASB	MASB-BWBK-SB-MA11-0108	22.7	13.4	1	1.48328E+01	2.67519E+01	2.82079E+01	3.85134E+00	3.85134E+00	9.54866E+00	MASB-BWBK-SB-MA11-0108
MASB	MASB-BWBK-SB-MA12-0108	24.6	8.8	1	1.49131E+00	3.27438E-01	5.20001E+01	-1.22119E+00	-1.22119E+00	1.00212E+01	
MASB	MASB-BWBK-SB-MA13-0105	12.3	6.4	1	3.16027E-01	3.34077E+00	2.58968E+01	-5.62163E-01	-5.62163E-01	6.96216E+00	
MASB	MASB-BWBK-SB-MA14-0104	17.3	10.05	1	3.40155E+00	3.32049E+00	7.90123E-03	1.84433E+00	1.84433E+00	8.20567E+00	
MASB	MASB-BWBK-SB-MA15-0105	15.1	8.3	1	4.11487E-01	5.21605E-03	5.23901E+00	6.41473E-01	6.41473E-01	7.65853E+00	
MASB	MASB-BWBK-SB-MA16-0104	14.3	8.9	1	2.07485E+00	4.51883E-01	9.54123E+00	1.44043E+00	1.44043E+00	7.45957E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!Z**	**DA!T**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**NI**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA17-0104	11.8	7.9	1	1.12824E+00	1.07438E-01	3.12357E+01	1.06219E+00	1.06219E+00	6.83781E+00	
MASB	MASB-BWBK-SB-MA18-0104	13.4	7	1	5.55709E-02	1.50744E+00	1.59112E+01	-2.35735E-01	-2.35735E-01	7.23573E+00	
MASB	MASB-BWBK-SB-MA19-0103	12.1	6.8	1	1.26389E-02	2.03855E+00	2.79723E+01	-1.12423E-01	-1.12423E-01	6.91242E+00	
MASB	MASB-BWBK-SB-MA20-0103	21	8.1	1	1.05240E+00	1.63272E-02	1.30401E+01	-1.02587E+00	-1.02587E+00	9.12587E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	12	10.6	1	1.37823E+01	5.62744E+00	2.90401E+01	3.71245E+00	3.71245E+00	6.88755E+00	MMSB-BWBK-SB-MM101-0110
MMSB	MMSB-BWBK-SB-MM102-0109	17.7	7.5	1	6.48269E-01	5.29660E-01	9.67901E-02	-8.05152E-01	-8.05152E-01	8.30515E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	13	8.2	1	1.13156E+00	7.71605E-04	1.92623E+01	1.06375E+00	1.06375E+00	7.13625E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	12.9	9.1	1	3.95459E+00	7.60772E-01	2.01501E+01	1.98862E+00	1.98862E+00	7.11138E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	10.3	7.7	1	1.52582E+00	2.78549E-01	5.02523E+01	1.23524E+00	1.23524E+00	6.46476E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	15.9	8.3	1	1.95816E-01	5.21605E-03	2.21679E+00	4.42511E-01	4.42511E-01	7.85749E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	11.4	6.8	1	3.80299E-03	2.03855E+00	3.58668E+01	6.16684E-02	6.16684E-02	6.73833E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	11	7.15	1	2.61273E-01	1.16160E+00	4.08179E+01	5.11149E-01	5.11149E-01	6.63885E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	13.4	9	1	3.11263E+00	5.96327E-01	1.59112E+01	1.76427E+00	1.76427E+00	7.23573E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	12	8	1	1.23754E+00	5.18827E-02	2.90401E+01	1.11245E+00	1.11245E+00	6.88755E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	13.3	9.4	1	4.79231E+00	1.37410E+00	1.67190E+01	2.18914E+00	2.18914E+00	7.21086E+00	MMSB-BWBK-SB-MM111-0110
MMSB	MMSB-BWBK-SB-MM112-0110	14.15	6.45	1	9.45291E-01	3.16049E+00	1.04904E+01	-9.72261E-01	-9.72261E-01	7.42226E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	14.6	6.6	1	8.72686E-01	2.64966E+00	7.77790E+00	-9.34177E-01	-9.34177E-01	7.53418E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	11.2	6.5	1	3.55667E-02	2.98522E+00	3.83023E+01	-1.88591E-01	-1.88591E-01	6.68859E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	9.7	5.7	1	3.78888E-01	6.38966E+00	5.91190E+01	-6.15539E-01	-6.15539E-01	6.31554E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	13	8	1	7.46057E-01	5.18827E-02	1.92623E+01	8.63746E-01	8.63746E-01	7.13625E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	10.6	6.7	1	2.58019E-02	2.33410E+00	4.60890E+01	1.60630E-01	1.60630E-01	6.53937E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	22.6	9.2	1	1.04840E-01	9.45216E-01	2.71557E+01	-3.23789E-01	-3.23789E-01	9.52379E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	11.9	6.9	1	1.39260E-03	1.76299E+00	3.01279E+01	3.73176E-02	3.73176E-02	6.86268E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	7.6	5.3	1	2.43311E-01	8.57188E+00	9.58223E+01	-4.93266E-01	-4.93266E-01	5.79327E+00	
NESB	NESB-BWBK-SB-NE01-0108	19	7.4	1	1.50912E+00	6.85216E-01	2.59568E+00	-1.22846E+00	-1.22846E+00	8.62846E+00	
NESB	NESB-BWBK-SB-NE02-0109	17.8	7.5	1	6.88936E-01	5.29660E-01	1.69012E-01	-8.30022E-01	-8.30022E-01	8.33002E+00	
NESB	NESB-BWBK-SB-NE03-0105	15.6	6.9	1	7.79474E-01	1.76299E+00	3.20012E+00	-8.82878E-01	-8.82878E-01	7.78288E+00	
NESB	NESB-BWBK-SB-NE04-0110	15.6	7.3	1	2.33171E-01	8.60772E-01	3.20012E+00	-4.82878E-01	-4.82878E-01	7.78288E+00	
NESB	NESB-BWBK-SB-NE05-0108	17.75	7.2	1	1.24900E+00	1.05633E+00	1.30401E-01	-1.11759E+00	-1.11759E+00	8.31759E+00	
NESB	NESB-BWBK-SB-NE06-0109	16.9	7	1	1.22366E+00	1.50744E+00	2.39012E-01	-1.10619E+00	-1.10619E+00	8.10619E+00	
NESB	NESB-BWBK-SB-NE07-0107	18.8	7.8	1	6.06410E-01	1.82994E-01	1.99123E+00	-7.78723E-01	-7.78723E-01	8.57872E+00	
NESB	NESB-BWBK-SB-NE08-0104	15.5	6.5	1	1.58258E+00	2.98522E+00	3.56790E+00	-1.25801E+00	-1.25801E+00	7.75801E+00	
NESB	NESB-BWBK-SB-NE09-0110	15.7	6.5	1	1.71021E+00	2.98522E+00	2.85235E+00	-1.30775E+00	-1.30775E+00	7.80775E+00	
NESB	NESB-BWBK-SB-NE10-0107	12.9	7.5	1	1.51022E-01	5.29660E-01	2.01501E+01	3.88616E-01	3.88616E-01	7.11138E+00	
NESB	NESB-BWBK-SB-NE101-0110	12.5	7.4	1	1.50619E-01	6.85216E-01	2.39012E+01	3.88097E-01	3.88097E-01	7.01190E+00	
NESB	NESB-BWBK-SB-NE102-0110	11	6.6	1	1.50940E-03	2.64966E+00	4.08179E+01	-3.88510E-02	-3.88510E-02	6.63885E+00	
NESB	NESB-BWBK-SB-NE103-0110	9.85	5.85	1	2.52852E-01	5.65383E+00	5.68348E+01	-5.02844E-01	-5.02844E-01	6.35284E+00	
NESB	NESB-BWBK-SB-NE104-0110	9	5.5	1	4.11455E-01	7.44077E+00	7.03735E+01	-6.41448E-01	-6.41448E-01	6.14145E+00	
NESB	NESB-BWBK-SB-NE105-0110	11.7	7.1	1	8.24023E-02	1.27188E+00	3.23635E+01	2.87058E-01	2.87058E-01	6.81294E+00	
NESB	NESB-BWBK-SB-NE106-0110	11.8	6.5	1	1.14117E-01	2.98522E+00	3.12357E+01	-3.37812E-01	-3.37812E-01	6.83781E+00	
NESB	NESB-BWBK-SB-NE107-0510	8.8	5.7	1	1.53435E-01	6.38966E+00	7.37690E+01	-3.91707E-01	-3.91707E-01	6.09171E+00	
NESB	NESB-BWBK-SB-NE108-0110	10.1	6.2	1	4.62334E-02	4.11188E+00	5.31279E+01	-2.15020E-01	-2.15020E-01	6.41502E+00	
NESB	NESB-BWBK-SB-NE109-0110	10.2	6.4	1	1.59119E-03	3.34077E+00	5.16801E+01	-3.98897E-02	-3.98897E-02	6.43989E+00	
NESB	NESB-BWBK-SB-NE110-0110	9.9	6.45	1	7.17761E-03	3.16049E+00	5.60835E+01	8.47208E-02	8.47208E-02	6.36528E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	21.3	7.6	1	2.56153E+00	3.94105E-01	1.52968E+01	-1.60048E+00	-1.60048E+00	9.20048E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	18.9	10.1	1	2.23923E+00	3.50522E+00	2.28346E+00	1.49641E+00	1.49641E+00	8.60359E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	23.4	7.2	1	6.36427E+00	1.05633E+00	3.61335E+01	-2.52275E+00	-2.52275E+00	9.72275E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	21.2	10.3	1	1.26426E+00	4.29410E+00	1.45246E+01	1.12439E+00	1.12439E+00	9.17561E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	19.3	8.3	1	1.62469E-01	5.21605E-03	3.65235E+00	-4.03074E-01	-4.03074E-01	8.70307E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	19	6.6	1	4.11466E+00	2.64966E+00	2.59568E+00	-2.02846E+00	-2.02846E+00	8.62846E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	15	6.5	1	1.28518E+00	2.98522E+00	5.70679E+00	-1.13366E+00	-1.13366E+00	7.63366E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	18.3	7.7	1	5.69078E-01	2.78549E-01	8.30123E-01	-7.54373E-01	-7.54373E-01	8.45437E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
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	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!Z**	**DA!T**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**NI**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
PMSB	PMSB-BWBK-SB-PM09-0106	16.6	5.2	1	8.01784E+00	9.16744E+00	6.22346E-01	-2.83158E+00	-2.83158E+00	8.03158E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	15.1	7.9	1	5.83090E-02	1.07438E-01	5.23901E+00	2.41473E-01	2.41473E-01	7.65853E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	21.1	7.3	1	3.42523E+00	8.60772E-01	1.37723E+01	-1.85074E+00	-1.85074E+00	9.15074E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	12.7	6.1	1	9.24759E-01	4.52744E+00	2.19857E+01	-9.61644E-01	-9.61644E-01	7.06164E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	11.4	7	1	6.84704E-02	1.50744E+00	3.58668E+01	2.61668E-01	2.61668E-01	6.73833E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	11.8	6.5	1	1.14117E-01	2.98522E+00	3.12357E+01	-3.37812E-01	-3.37812E-01	6.83781E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	15.2	8	1	1.00237E-01	5.18827E-02	4.79123E+00	3.16602E-01	3.16602E-01	7.68340E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	13.6	6.8	1	2.35686E-01	2.03855E+00	1.43557E+01	-4.85475E-01	-4.85475E-01	7.28548E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	16.75	9.4	1	1.77187E+00	1.37410E+00	4.08179E-01	1.33111E+00	1.33111E+00	8.06889E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	21.2	8.9	1	7.59593E-02	4.51883E-01	1.45246E+01	-2.75607E-01	-2.75607E-01	9.17561E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	18.2	8.6	1	2.90694E-02	1.38549E-01	6.57901E-01	1.70498E-01	1.70498E-01	8.42950E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	16.75	7.75	1	1.01688E-01	2.28272E-01	4.08179E-01	-3.18885E-01	-3.18885E-01	8.06889E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	23.6	10.6	1	6.84771E-01	5.62744E+00	3.85779E+01	8.27509E-01	8.27509E-01	9.77249E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	21.2	11.3	1	4.51304E+00	9.43855E+00	1.45246E+01	2.12439E+00	2.12439E+00	9.17561E+00	PMSB-BWBK-SB-SO02-0109-PM
PMSB	PMSB-BWBK-SB-SO13-0104-PM	25.6	10.8	1	2.81012E-01	6.61633E+00	6.74223E+01	5.30106E-01	5.30106E-01	1.02699E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	27.1	10.8	1	2.46658E-02	6.61633E+00	9.43057E+01	1.57053E-01	1.57053E-01	1.06429E+01	
SESB	SESB-BWBK-SB-SO03-0108	37.1	12.9	1	5.28827E-02	2.18297E+01	3.88528E+02	-2.29962E-01	-2.29962E-01	1.31300E+01	
SESB	SESB-BWBK-SB-SO04-0108	26.8	10.8	1	5.36682E-02	6.61633E+00	8.85690E+01	2.31664E-01	2.31664E-01	1.05683E+01	
SESB	SESB-BWBK-SB-SO05-0106	24.6	10.4	1	1.43495E-01	4.71855E+00	5.20001E+01	3.78807E-01	3.78807E-01	1.00212E+01	
SESB	SESB-BWBK-SB-SO06-0108	30.4	13.4	1	3.74941E+00	2.67519E+01	1.69289E+02	1.93634E+00	1.93634E+00	1.14637E+01	
SESB	SESB-BWBK-SB-SO07-0106	29.1	13	1	3.45830E+00	2.27741E+01	1.37150E+02	1.85965E+00	1.85965E+00	1.11403E+01	
SESB	SESB-BWBK-SB-SO08-0107	31	13.5	1	3.56121E+00	2.77963E+01	1.85262E+02	1.88712E+00	1.88712E+00	1.16129E+01	
SESB	SESB-BWBK-SB-SO09-0106	23.6	10	1	5.17604E-02	3.14077E+00	3.85779E+01	2.27509E-01	2.27509E-01	9.77249E+00	
SESB	SESB-BWBK-SB-SO11-0106	27.2	10.7	1	1.03577E-03	6.11188E+00	9.62579E+01	3.21833E-02	3.21833E-02	1.06678E+01	
SESB	SESB-BWBK-SB-SO12-0106	26.6	11.05	1	2.82390E-01	7.96494E+00	8.48446E+01	5.31404E-01	5.31404E-01	1.05186E+01	
SESB	SESB-BWBK-SB-SO15-0103	15.7	8.6	1	6.27663E-01	1.38549E-01	2.85235E+00	7.92252E-01	7.92252E-01	7.80775E+00	
SESB	SESB-BWBK-SB-SO16-0105	20.5	7.6	1	1.96425E+00	3.94105E-01	9.67901E+00	-1.40152E+00	-1.40152E+00	9.00152E+00	
SESB	SESB-BWBK-SB-SO17-0106	17.8	7.5	1	6.88936E-01	5.29660E-01	1.69012E-01	-8.30022E-01	-8.30022E-01	8.33002E+00	
SESB	SESB-BWBK-SB-SO18-0105	15.1	7.1	1	3.11953E-01	1.27188E+00	5.23901E+00	-5.58527E-01	-5.58527E-01	7.65853E+00	
SESB	SESB-BWBK-SB-SO19-0104	16.5	8	1	4.50201E-05	5.18827E-02	7.90123E-01	-6.70970E-03	-6.70970E-03	8.00671E+00	
SESB	SESB-BWBK-SB-SO20-0104	21	9.4	1	7.51490E-02	1.37410E+00	1.30401E+01	2.74133E-01	2.74133E-01	9.12587E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
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	Y variable name used on graph: PB			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: FE			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	99.000000		10600.00	5.93	3.88	7.97	-4.31	4.31	-0.11	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.425092E+02		12312.50	6.23	4.19	8.28	-4.31	4.31	-0.11	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.660715		14025.00	6.54	4.50	8.58	-4.31	4.31	-0.11	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	2.022842E+07		15737.50	6.85	4.82	8.88	-4.31	4.31	-0.11	---- \/ ----
2	SUM(X^2*w^2)	6.071118E+10		17450.00	7.16	5.13	9.19	-4.31	4.31	-0.11	BASS
	SUM(X*w^2)	2.317750E+06		19162.50	7.46	5.44	9.49	-4.31	4.31	-0.11	0
	SUM(Y*w^2)	8.145500E+02		20875.00	7.77	5.75	9.80	-4.31	4.31	-0.11	MASS
	SUM(w^2)	9.900000E+01		22587.50	8.08	6.06	10.10	-4.31	4.31	-0.11	0
	SUM(Y)	814.550000		24300.00	8.39	6.36	10.41	-4.31	4.31	-0.11	MMSS
	SUM(X)	2.317750E+06		26012.50	8.70	6.67	10.72	-4.31	4.31	-0.11	0
	Denominator	6.384420E+11		27725.00	9.00	6.98	11.03	-4.31	4.31	-0.11	NESS
	Slope	1.796409E-04		29437.50	9.31	7.28	11.34	-4.31	4.31	-0.11	0
	Intercept	4.022093E+00		31150.00	9.62	7.59	11.65	-4.31	4.31	-0.11	PMSS
	Minimum X value	1.060000E+04		32862.50	9.93	7.89	11.96	-4.31	4.31	-0.11	0
	Maximum X value	5.170000E+04		34575.00	10.23	8.19	12.28	-4.31	4.31	-0.11	SESS
	Minimum Y value	5.200000E+00		36287.50	10.54	8.49	12.59	-4.31	4.31	-0.11	0
	Maximum Y value	1.350000E+01		38000.00	10.85	8.79	12.90	-4.31	4.31	-0.11	SESD
	No. of graph points	25		39712.50	11.16	9.09	13.22	-4.31	4.31	-0.11	0
	SUM(Ypred.- Yobs)^2	1.425092E+02		41425.00	11.46	9.39	13.54	-4.31	4.31	-0.11	MASB
	SUM(Yobs - Yave)^2	3.506211E+02		43137.50	11.77	9.69	13.85	-4.31	4.31	-0.11	1
	SUM(X - Xave)^2	6.448909E+09		44850.00	12.08	9.99	14.17	-4.31	4.31	-0.11	MMSB
	Std. Error of Y-estimate	1.212092E+00		46562.50	12.39	10.28	14.49	-4.31	4.31	-0.11	2
	R^2	5.935520E-01		48275.00	12.69	10.58	14.81	-4.31	4.31	-0.11	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1		49987.50	13.00	10.87	15.13	-4.31	4.31	-0.11	0
est.M, Std.Err.Y				51700.00	13.31	11.17	15.45	-4.31	4.31	-0.11	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	16350.00	6.96	4.93	8.99	6.96	-29%	29%	0
Inverse Log Transform (Y/N)?		No	50	22550.00	8.07	6.05	10.10	8.07	-25%	25%	SESB
Inverse Power Transform (Y/N)?		No	75	28800.00	9.20	7.17	11.22	9.20	-22%	22%	2
Inverse Power Transform (1/Power):		1	90	34820.00	10.28	8.23	12.32	10.28	-20%	20%	<<--Original Units Errors
TEXT BOX ==>	(PB) = (1.80E-04)x(FE) + (4.02E+00) R^2 = 0.59; Std. Error of Y-estimate = 1.21E+00							+/-3 x IQR of r	-4.305086	4.305086	
TEXT BOX ==>	95% Confidence Limits on a Y-value predicted from one X-value			\/ - wt.descrip.	TEXT BOX==>	Residuals Plot:	(Observed - Predicted)	Versus Y-Pred.		Y-Pred.	
	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!R	DA!T	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	PB	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA01-0105	27000	9.1	1	5.18025E-02	7.60772E-01	1.28765E+07	2.27602E-01	2.27602E-01	8.87240E+00	
MASB	MASB-BWBK-SB-MA02-0107	29000	8.4	1	6.91692E-01	2.96605E-02	3.12300E+07	-8.31680E-01	-8.31680E-01	9.23168E+00	
MASB	MASB-BWBK-SB-MA03-0108	29300	8.4	1	7.84239E-01	2.96605E-02	3.46731E+07	-8.85573E-01	-8.85573E-01	9.28557E+00	
MASB	MASB-BWBK-SB-MA04-0106	27800	7.7	1	1.73215E+00	2.78549E-01	1.92579E+07	-1.31611E+00	-1.31611E+00	9.01611E+00	
MASB	MASB-BWBK-SB-MA05-0108	27200	8.1	1	6.53392E-01	1.63272E-02	1.43519E+07	-8.08327E-01	-8.08327E-01	8.90833E+00	
MASB	MASB-BWBK-SB-MA06-0105	25800	8.2	1	2.08693E-01	7.71605E-04	5.70438E+06	-4.56829E-01	-4.56829E-01	8.65683E+00	
MASB	MASB-BWBK-SB-MA07-0108	28000	8	1	1.10679E+00	5.18827E-02	2.10533E+07	-1.05204E+00	-1.05204E+00	9.05204E+00	
MASB	MASB-BWBK-SB-MA08-0108	51700	12.2	1	1.23106E+00	1.57785E+01	8.00233E+08	-1.10953E+00	-1.10953E+00	1.33095E+01	
MASB	MASB-BWBK-SB-MA09-0108	35000	10.5	1	3.62804E-02	5.16299E+00	1.34291E+08	1.90474E-01	1.90474E-01	1.03095E+01	
MASB	MASB-BWBK-SB-MA10-0104	26900	8.7	1	2.38500E-02	2.22994E-01	1.21688E+07	-1.54434E-01	-1.54434E-01	8.85443E+00	
MASB	MASB-BWBK-SB-MA11-0108	32500	13.4	1	1.25286E+01	2.67519E+01	8.25987E+07	3.53958E+00	3.53958E+00	9.86042E+00	MASB-BWBK-SB-MA11-0108
MASB	MASB-BWBK-SB-MA12-0108	33600	8.8	1	1.58264E+00	3.27438E-01	1.03803E+08	-1.25803E+00	-1.25803E+00	1.00580E+01	
MASB	MASB-BWBK-SB-MA13-0105	15800	6.4	1	2.11987E-01	3.34077E+00	5.79367E+07	-4.60420E-01	-4.60420E-01	6.86042E+00	
MASB	MASB-BWBK-SB-MA14-0104	31350	10.05	1	1.56946E-01	3.32049E+00	6.30179E+07	3.96164E-01	3.96164E-01	9.65384E+00	
MASB	MASB-BWBK-SB-MA15-0105	24400	8.3	1	1.10948E-02	5.21605E-03	9.76903E+05	-1.05332E-01	-1.05332E-01	8.40533E+00	
MASB	MASB-BWBK-SB-MA16-0104	21300	8.9	1	1.10577E+00	4.51883E-01	4.45892E+06	1.05155E+00	1.05155E+00	7.84845E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!R	DA!T	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**FE**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA17-0104	20800	7.9	1	1.99870E-02	1.07438E-01	6.82054E+06	1.41375E-01	1.41375E-01	7.75862E+00	
MASB	MASB-BWBK-SB-MA18-0104	17200	7	1	1.25255E-02	1.50744E+00	3.85842E+07	-1.11917E-01	-1.11917E-01	7.11192E+00	
MASB	MASB-BWBK-SB-MA19-0103	15100	6.8	1	4.26784E-03	2.03855E+00	6.90830E+07	6.53287E-02	6.53287E-02	6.73467E+00	
MASB	MASB-BWBK-SB-MA20-0103	24600	8.1	1	1.16458E-01	1.63272E-02	1.41226E+06	-3.41260E-01	-3.41260E-01	8.44126E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	16800	10.6	1	1.26732E+01	5.62744E+00	4.37135E+07	3.55994E+00	3.55994E+00	7.04006E+00	MMSB-BWBK-SB-MM101-0110
MMSB	MMSB-BWBK-SB-MM102-0109	15800	7.5	1	4.09063E-01	5.29660E-01	5.79367E+07	6.39580E-01	6.39580E-01	6.86042E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	14900	8.2	1	2.25377E+00	7.71605E-04	7.24476E+07	1.50126E+00	1.50126E+00	6.69874E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	24000	9.1	1	5.87560E-01	7.60772E-01	3.46196E+05	7.66524E-01	7.66524E-01	8.33348E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	12000	7.7	1	2.31714E+00	2.78549E-01	1.30225E+08	1.52222E+00	1.52222E+00	6.17778E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	21600	8.3	1	1.58136E-01	5.21605E-03	3.28195E+06	3.97663E-01	3.97663E-01	7.90234E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	14700	6.8	1	1.88197E-02	2.03855E+00	7.58923E+07	1.37185E-01	1.37185E-01	6.66281E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	15550	7.15	1	1.11884E-01	1.16160E+00	6.18050E+07	3.34490E-01	3.34490E-01	6.81551E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	17800	9	1	3.16946E+00	5.96327E-01	3.14902E+07	1.78030E+00	1.78030E+00	7.21970E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	16900	8	1	8.87317E-01	5.18827E-02	4.24011E+07	9.41975E-01	9.41975E-01	7.05802E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	19200	9.4	1	3.72027E+00	1.37410E+00	1.77377E+07	1.92880E+00	1.92880E+00	7.47120E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	19550	6.45	1	1.17522E+00	3.16049E+00	1.49121E+07	-1.08407E+00	-1.08407E+00	7.53407E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	16100	6.6	1	9.87922E-02	2.64966E+00	5.34597E+07	-3.14312E-01	-3.14312E-01	6.91431E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	12700	6.5	1	3.85993E-02	2.98522E+00	1.14739E+08	1.96467E-01	1.96467E-01	6.30353E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	16300	5.7	1	1.56310E+00	6.38966E+00	5.05751E+07	-1.25024E+00	-1.25024E+00	6.95024E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	15600	8	1	1.38182E+00	5.18827E-02	6.10213E+07	1.17551E+00	1.17551E+00	6.82449E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	13500	6.7	1	6.38847E-02	2.33410E+00	9.82401E+07	2.52754E-01	2.52754E-01	6.44725E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	14900	9.2	1	6.25629E+00	9.45216E-01	7.24476E+07	2.50126E+00	2.50126E+00	6.69874E+00	MMSB-BWBK-SB-MM118-0110
MMSB	MMSB-BWBK-SB-MM119-0110	15800	6.9	1	1.56658E-03	1.76299E+00	5.79367E+07	3.95801E-02	3.95801E-02	6.86042E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	10600	5.3	1	3.92236E-01	8.57188E+00	1.64138E+08	-6.26287E-01	-6.26287E-01	5.92629E+00	
NESB	NESB-BWBK-SB-NE01-0108	23700	7.4	1	7.73667E-01	6.85216E-01	8.31652E+04	-8.79583E-01	-8.79583E-01	8.27958E+00	
NESB	NESB-BWBK-SB-NE02-0109	22200	7.5	1	2.60224E-01	5.29660E-01	1.46801E+06	-5.10122E-01	-5.10122E-01	8.01012E+00	
NESB	NESB-BWBK-SB-NE03-0105	22300	6.9	1	1.27258E+00	1.76299E+00	1.23569E+06	-1.12809E+00	-1.12809E+00	8.02809E+00	
NESB	NESB-BWBK-SB-NE04-0110	20000	7.3	1	9.91695E-02	8.60772E-01	1.16391E+07	-3.14912E-01	-3.14912E-01	7.61491E+00	
NESB	NESB-BWBK-SB-NE05-0108	22900	7.2	1	8.75854E-01	1.05633E+00	2.61751E+05	-9.35871E-01	-9.35871E-01	8.13587E+00	
NESB	NESB-BWBK-SB-NE06-0109	21100	7	1	6.60184E-01	1.50744E+00	5.34357E+06	-8.12517E-01	-8.12517E-01	7.81252E+00	
NESB	NESB-BWBK-SB-NE07-0107	23100	7.8	1	1.38234E-01	1.82994E-01	9.71046E+04	-3.71799E-01	-3.71799E-01	8.17180E+00	
NESB	NESB-BWBK-SB-NE08-0104	18200	6.5	1	6.26564E-01	2.98522E+00	2.71609E+07	-7.91558E-01	-7.91558E-01	7.29156E+00	
NESB	NESB-BWBK-SB-NE09-0110	20500	6.5	1	1.45138E+00	2.98522E+00	8.47751E+06	-1.20473E+00	-1.20473E+00	7.70473E+00	
NESB	NESB-BWBK-SB-NE10-0107	18200	7.5	1	4.34480E-02	5.29660E-01	2.71609E+07	2.08442E-01	2.08442E-01	7.29156E+00	
NESB	NESB-BWBK-SB-NE101-0110	17600	7.4	1	4.67538E-02	6.85216E-01	3.37749E+07	2.16226E-01	2.16226E-01	7.18377E+00	
NESB	NESB-BWBK-SB-NE102-0110	14400	6.6	1	7.96135E-05	2.64966E+00	8.12092E+07	-8.92264E-03	-8.92264E-03	6.60892E+00	
NESB	NESB-BWBK-SB-NE103-0110	13100	5.85	1	2.76034E-01	5.65383E+00	1.06329E+08	-5.25389E-01	-5.25389E-01	6.37539E+00	
NESB	NESB-BWBK-SB-NE104-0110	11800	5.5	1	4.11979E-01	7.44077E+00	1.34830E+08	-6.41856E-01	-6.41856E-01	6.14186E+00	
NESB	NESB-BWBK-SB-NE105-0110	17300	7.1	1	8.92895E-04	1.27188E+00	3.73519E+07	-2.98813E-02	-2.98813E-02	7.12988E+00	
NESB	NESB-BWBK-SB-NE106-0110	15200	6.5	1	6.38246E-02	2.98522E+00	6.74306E+07	-2.52635E-01	-2.52635E-01	6.75264E+00	
NESB	NESB-BWBK-SB-NE107-0510	13600	5.7	1	5.85546E-01	6.38966E+00	9.62678E+07	-7.65210E-01	-7.65210E-01	6.46521E+00	
NESB	NESB-BWBK-SB-NE108-0110	15200	6.2	1	3.05406E-01	4.11188E+00	6.74306E+07	-5.52635E-01	-5.52635E-01	6.75264E+00	
NESB	NESB-BWBK-SB-NE109-0110	14900	6.4	1	8.92474E-02	3.34077E+00	7.24476E+07	-2.98743E-01	-2.98743E-01	6.69874E+00	
NESB	NESB-BWBK-SB-NE110-0110	14800	6.45	1	5.32590E-02	3.16049E+00	7.41599E+07	-2.30779E-01	-2.30779E-01	6.68078E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	21000	7.6	1	3.78508E-02	3.94105E-01	5.81589E+06	-1.94553E-01	-1.94553E-01	7.79455E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	38700	10.1	1	7.64221E-01	3.50522E+00	2.33735E+08	-8.74197E-01	-8.74197E-01	1.09742E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	35100	7.2	1	9.78119E+00	1.05633E+00	1.36618E+08	-3.12749E+00	-3.12749E+00	1.03275E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	27700	10.3	1	1.69482E+00	4.29410E+00	1.83902E+07	1.30185E+00	1.30185E+00	8.99815E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	27700	8.3	1	4.87409E-01	5.21605E-03	1.83902E+07	-6.98147E-01	-6.98147E-01	8.99815E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	30300	6.6	1	8.20945E+00	2.64966E+00	4.74498E+07	-2.86521E+00	-2.86521E+00	9.46521E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	26600	6.5	1	5.29249E+00	2.98522E+00	1.01658E+07	-2.30054E+00	-2.30054E+00	8.80054E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	24800	7.7	1	6.04022E-01	2.78549E-01	1.92761E+06	-7.77188E-01	-7.77188E-01	8.47719E+00	

APPENDIX F, TABLE F8-3
SUPPORT DATA FOR LEAD REGRESSIONS IN SUBSURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!R**	**DA!T**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**FE**	**PB**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
PMSB	PMSB-BWBK-SB-PM09-0106	20300	5.2	1	6.09499E+00	9.16744E+00	9.68216E+06	-2.46880E+00	-2.46880E+00	7.66880E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	25700	7.9	1	5.45922E-01	1.07438E-01	5.23670E+06	-7.38865E-01	-7.38865E-01	8.63887E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	28600	7.3	1	3.45894E+00	8.60772E-01	2.69193E+07	-1.85982E+00	-1.85982E+00	9.15982E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	14900	6.1	1	3.58493E-01	4.52744E+00	7.24476E+07	-5.98743E-01	-5.98743E-01	6.69874E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	24300	7	1	1.92479E+00	1.50744E+00	7.89226E+05	-1.38737E+00	-1.38737E+00	8.38737E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	16400	6.5	1	2.19215E-01	2.98522E+00	4.91628E+07	-4.68205E-01	-4.68205E-01	6.96820E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	23000	8	1	2.36651E-02	5.18827E-02	1.69428E+05	-1.53835E-01	-1.53835E-01	8.15383E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	18700	6.8	1	3.38001E-01	2.03855E+00	2.21993E+07	-5.81379E-01	-5.81379E-01	7.38138E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	25200	9.4	1	7.24125E-01	1.37410E+00	3.19832E+06	8.50955E-01	8.50955E-01	8.54904E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	34100	8.9	1	1.55713E+00	4.51883E-01	1.14242E+08	-1.24785E+00	-1.24785E+00	1.01478E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	25900	8.6	1	5.59405E-03	1.38549E-01	6.19205E+06	-7.47934E-02	-7.47934E-02	8.67479E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	22550	7.75	1	1.04327E-01	2.28272E-01	7.42382E+05	-3.22996E-01	-3.22996E-01	8.07300E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	29300	10.6	1	1.72772E+00	5.62744E+00	3.46731E+07	1.31443E+00	1.31443E+00	9.28557E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	34900	11.3	1	1.01695E+00	9.43855E+00	1.31983E+08	1.00844E+00	1.00844E+00	1.02916E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	33900	10.8	1	4.73453E-01	6.61633E+00	1.10006E+08	6.88079E-01	6.88079E-01	1.01119E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	36100	10.8	1	8.57723E-02	6.61633E+00	1.60995E+08	2.92869E-01	2.92869E-01	1.05071E+01	
SESB	SESB-BWBK-SB-SO03-0108	40900	12.9	1	2.34271E+00	2.18297E+01	3.05844E+08	1.53059E+00	1.53059E+00	1.13694E+01	
SESB	SESB-BWBK-SB-SO04-0108	33600	10.8	1	5.50522E-01	6.61633E+00	1.03803E+08	7.41971E-01	7.41971E-01	1.00580E+01	
SESB	SESB-BWBK-SB-SO05-0106	31600	10.4	1	4.91756E-01	4.71855E+00	6.70496E+07	7.01253E-01	7.01253E-01	9.69875E+00	
SESB	SESB-BWBK-SB-SO06-0108	42650	13.4	1	2.94541E+00	2.67519E+01	3.70115E+08	1.71622E+00	1.71622E+00	1.16838E+01	
SESB	SESB-BWBK-SB-SO07-0106	29100	13	1	1.40652E+01	2.27741E+01	3.23577E+07	3.75036E+00	3.75036E+00	9.24964E+00	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	39900	13.5	1	5.33718E+00	2.77963E+01	2.71867E+08	2.31023E+00	2.31023E+00	1.11898E+01	SESB-BWBK-SB-SO08-0107
SESB	SESB-BWBK-SB-SO09-0106	29000	10	1	5.90315E-01	3.14077E+00	3.12300E+07	7.68320E-01	7.68320E-01	9.23168E+00	
SESB	SESB-BWBK-SB-SO11-0106	34800	10.7	1	1.81819E-01	6.11188E+00	1.29695E+08	4.26402E-01	4.26402E-01	1.02736E+01	
SESB	SESB-BWBK-SB-SO12-0106	34900	11.05	1	5.75229E-01	7.96494E+00	1.31983E+08	7.58438E-01	7.58438E-01	1.02916E+01	
SESB	SESB-BWBK-SB-SO15-0103	22700	8.6	1	2.50058E-01	1.38549E-01	5.06398E+05	5.00058E-01	5.00058E-01	8.09994E+00	
SESB	SESB-BWBK-SB-SO16-0105	24900	7.6	1	8.01298E-01	3.94105E-01	2.21529E+06	-8.95152E-01	-8.95152E-01	8.49515E+00	
SESB	SESB-BWBK-SB-SO17-0106	18100	7.5	1	5.12596E-02	5.29660E-01	2.82133E+07	2.26406E-01	2.26406E-01	7.27359E+00	
SESB	SESB-BWBK-SB-SO18-0105	15000	7.1	1	1.46913E-01	1.27188E+00	7.07553E+07	3.83293E-01	3.83293E-01	6.71671E+00	
SESB	SESB-BWBK-SB-SO19-0104	16400	8	1	1.06460E+00	5.18827E-02	4.91628E+07	1.03180E+00	1.03180E+00	6.96820E+00	
SESB	SESB-BWBK-SB-SO20-0104	29700	9.4	1	1.81230E-03	1.37410E+00	3.95438E+07	4.25711E-02	4.25711E-02	9.35743E+00	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: CR			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: CR predict (from Factor Anal.)			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	214.000000		4.40	4.89	3.67	6.11	-0.45	0.45	-0.03	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	5.511899E+00		5.20	5.65	4.23	7.06	-0.45	0.45	-0.03	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.652073		6.00	6.40	4.78	8.02	-0.45	0.45	-0.03	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	2.165463E+02		6.80	7.16	5.33	8.99	-0.45	0.45	-0.03	---- \/ ----
2	SUM(X^2*w^2)	2.140000E+02		7.60	7.92	5.88	9.95	-0.45	0.45	-0.03	BASS
	SUM(X*w^2)	1.943281E+01		8.40	8.67	6.43	10.92	-0.45	0.45	-0.03	0
	SUM(Y*w^2)	1.983904E+01		9.20	9.43	6.97	11.89	-0.45	0.45	-0.03	MASS
	SUM(w^2)	2.006612E+00		10.00	10.19	7.52	12.86	-0.45	0.45	-0.03	0
	SUM(Y)	2599.550000		10.80	10.95	8.06	13.83	-0.45	0.45	-0.03	MMSS
	SUM(X)	2.594375E+03		11.60	11.70	8.60	14.80	-0.45	0.45	-0.03	1
	Denominator	5.178082E+01		12.40	12.46	9.15	15.77	-0.45	0.45	-0.03	NESS
	Slope	**9.462173E-01**		13.20	13.22	9.69	16.74	-0.45	0.45	-0.03	0
	Intercept	**7.232996E-01**		14.00	13.97	10.23	17.72	-0.45	0.45	-0.03	PMSS
	Minimum X value	4.401713E+00		14.80	14.73	10.77	18.69	-0.45	0.45	-0.03	1
	Maximum X value	2.360572E+01		15.60	15.49	11.32	19.66	-0.45	0.45	-0.03	SESS
	Minimum Y value	4.800000E+00		16.40	16.25	11.86	20.63	-0.45	0.45	-0.03	2
	Maximum Y value	2.820000E+01		17.20	17.00	12.40	21.61	-0.45	0.45	-0.03	SESD
	No. of graph points	25		18.00	17.76	12.94	22.58	-0.45	0.45	-0.03	0
	SUM(Ypred.- Yobs)^2	8.769458E+02		18.80	18.52	13.48	23.55	-0.45	0.45	-0.03	MASB
	SUM(Yobs - Yave)^2	2.499011E+03		19.60	19.27	14.02	24.53	-0.45	0.45	-0.03	3
	SUM(X - Xave)^2	2.348534E+03		20.41	20.03	14.56	25.50	-0.45	0.45	-0.03	MMSB
	Std. Error of Y-estimate	**2.033848E+00**		21.21	20.79	15.10	26.47	-0.45	0.45	-0.03	2
	R^2	**6.490829E-01**		22.01	21.55	15.64	27.45	-0.45	0.45	-0.03	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1/x**		22.81	22.30	16.19	28.42	-0.45	0.45	-0.03	0
est.M, Std.Err.Y				23.61	23.06	16.73	29.39	-0.45	0.45	-0.03	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			**25**	10.32	10.49	7.73	13.24	10.49	**-26%**	**26%**	5
Inverse Log Transform (Y/N)?		**No**	**50**	12.37	12.42	9.12	15.73	12.42	**-27%**	**27%**	SESB
Inverse Power Transform (Y/N)?		**No**	**75**	14.54	14.48	10.60	18.37	14.48	**-27%**	**27%**	0
Inverse Power Transform (1/Power):		**1**	**90**	16.21	16.06	11.73	20.40	16.06	**-27%**	**27%**	<<--Original Units Errors

TEXT BOX ==> **(CR) = (9.46E-01)x(CR predict (from Factor Anal.)) + (7.23E-01)** **R^2 = 0.65; Std. Error of Y-estimate = 2.03E+00** **+/-3 x IQR of r** -0.450437 0.450437

TEXT BOX ==> **Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro** \/ - wt.descrip. **TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.**

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!J**	**DA!K**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**CR predict**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	5.598540208	5.6	0.031904386	1.77018E-01	4.28688E+01	4.25718E+01	-4.20735E-01	-7.51509E-02	6.02074E+00	
BASS	BASS-BWBK-SS-BA102-0001	4.443702056	4.8	0.050641917	1.63859E-02	5.39847E+01	5.89754E+01	-1.28007E-01	-2.88065E-02	4.92801E+00	
BASS	BASS-BWBK-SS-BA103-0001	5.012027104	5	0.039808258	2.16938E-01	5.10858E+01	5.05694E+01	-4.65767E-01	-9.29298E-02	5.46577E+00	
BASS	BASS-BWBK-SS-BA104-0001	6.5699803	6.4	0.02316711	2.91523E-01	3.30330E+01	3.08388E+01	-5.39929E-01	-8.21812E-02	6.93993E+00	
BASS	BASS-BWBK-SS-BA105-0001	5.186482234	5.7	0.037175277	4.78325E-03	4.15694E+01	4.81187E+01	6.91610E-02	1.33349E-02	5.63084E+00	
BASS	BASS-BWBK-SS-BA106-0001	6.930012958	7.45	0.020822454	2.86970E-02	2.20658E+01	2.69697E+01	1.69402E-01	2.44447E-02	7.28060E+00	
BASS	BASS-BWBK-SS-BA107-0001	4.567038936	4.8	0.047943592	5.98835E-02	5.39847E+01	5.70963E+01	-2.44711E-01	-5.35820E-02	5.04471E+00	
BASS	BASS-BWBK-SS-BA108-0001	4.873236297	5.2	0.042108043	1.80742E-02	4.82668E+01	5.25627E+01	-1.34440E-01	-2.75875E-02	5.33444E+00	
BASS	BASS-BWBK-SS-BA109-0001	6.834635656	7	0.021407663	3.62332E-02	2.64960E+01	2.79694E+01	-1.90350E-01	-2.78508E-02	7.19035E+00	
BASS	BASS-BWBK-SS-BA110-0001	6.937644253	7	0.02077667	8.28397E-02	2.64960E+01	2.68905E+01	-2.87819E-01	-4.14865E-02	7.28782E+00	
BASS	BASS-BWBK-SS-BA111-0001	5.167581978	5.9	0.037447709	8.23947E-02	3.90304E+01	4.83813E+01	2.87045E-01	5.55472E-02	5.61296E+00	
BASS	BASS-BWBK-SS-BA112-0001	4.914282354	5.2	0.041407574	3.00255E-02	4.82668E+01	5.19692E+01	-1.73279E-01	-3.52602E-02	5.37328E+00	
BASS	BASS-BWBK-SS-BA113-0001	4.401712687	5.85	0.051612705	9.24912E-01	3.96576E+01	5.96221E+01	9.61724E-01	2.18488E-01	4.88828E+00	
MASB	MASB-BWBK-SB-MA01-0105	14.57983525	14.7	0.004704297	3.27637E-02	6.51561E+00	6.03483E+00	1.81008E-01	1.24149E-02	1.45190E+01	
MASB	MASB-BWBK-SB-MA02-0107	16.58367315	15.9	0.003636123	2.65285E-01	1.40818E+01	1.98954E+01	-5.15059E-01	-3.10582E-02	1.64151E+01	
MASB	MASB-BWBK-SB-MA03-0108	14.467851	13.4	0.004777404	1.02623E+00	1.56893E+00	5.49717E+00	-1.01303E+00	-7.00195E-02	1.44130E+01	
MASB	MASB-BWBK-SB-MA04-0106	17.62216216	16.3	0.003220191	1.20493E+00	1.72438E+01	3.02381E+01	-1.09769E+00	-6.22906E-02	1.73977E+01	
MASB	MASB-BWBK-SB-MA05-0108	14.95788816	15.5	0.004469505	3.88487E-01	1.12397E+01	8.03519E+00	6.23287E-01	4.16695E-02	1.48767E+01	
MASB	MASB-BWBK-SB-MA06-0105	15.76769822	15.1	0.004022198	2.94815E-01	8.71767E+00	1.32820E+01	-5.42969E-01	-3.44355E-02	1.56430E+01	
MASB	MASB-BWBK-SB-MA07-0108	13.75580131	12.35	0.005284796	1.93009E+00	4.10346E-02	2.66523E+00	-1.38928E+00	-1.00996E-01	1.37393E+01	
MASB	MASB-BWBK-SB-MA08-0108	16.82912667	18.7	0.00353083	4.21353E+00	4.29362E+01	2.21453E+01	2.05269E+00	1.21972E-01	1.66473E+01	
MASB	MASB-BWBK-SB-MA09-0108	13.37946723	13	0.005586276	1.46830E-01	7.26876E-01	1.57809E+00	-3.83183E-01	-2.86397E-02	1.33832E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CR predict	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	10.9773323	11.6	0.00829863	2.39863E-01	2.99680E-01	1.31312E+00	4.89758E-01	4.46154E-02	1.11102E+01	
MASB	MASB-BWBK-SB-MA11-0108	16.28312964	15.8	0.003771588	1.09349E-01	1.33413E+01	1.73046E+01	-3.30679E-01	-2.03081E-02	1.61307E+01	
MASB	MASB-BWBK-SB-MA12-0108	15.18153152	15.3	0.004338792	4.48051E-02	9.93870E+00	9.35310E+00	2.11672E-01	1.39427E-02	1.50883E+01	
MASB	MASB-BWBK-SB-MA13-0105	10.58245165	14.2	0.008929506	1.19951E+01	4.21304E+00	2.37405E+00	3.46340E+00	3.27278E-01	1.07366E+01	MASB-BWBK-SB-MA13-0105
MASB	MASB-BWBK-SB-MA14-0104	12.83138837	16.4	0.006073691	1.24992E+01	1.80844E+01	5.01464E-01	3.53542E+00	2.75529E-01	1.28646E+01	MASB-BWBK-SB-MA14-0104
MASB	MASB-BWBK-SB-MA15-0105	12.5466586	15.2	0.006352488	6.78516E+00	9.31818E+00	1.79277E-01	2.60483E+00	2.07612E-01	1.25952E+01	
MASB	MASB-BWBK-SB-MA16-0104	10.98476149	12.7	0.008287408	2.50503E+00	3.05334E-01	1.29615E+00	1.58273E+00	1.44084E-01	1.11173E+01	
MASB	MASB-BWBK-SB-MA17-0104	10.14375102	12.4	0.009718581	4.32019E+00	6.37917E-02	3.91840E+00	2.07851E+00	2.04905E-01	1.03215E+01	
MASB	MASB-BWBK-SB-MA18-0104	12.45933309	16.7	0.006441847	1.75348E+01	2.07259E+01	1.12954E-01	4.18746E+00	3.36090E-01	1.25125E+01	MASB-BWBK-SB-MA18-0104
MASB	MASB-BWBK-SB-MA19-0103	10.26865447	12	0.009483593	2.43460E+00	2.17356E-02	3.43951E+00	1.56032E+00	1.51950E-01	1.04397E+01	
MASB	MASB-BWBK-SB-MA20-0103	14.56658039	13.5	0.004712863	1.01294E+00	1.82945E+00	5.96988E+00	-1.00645E+00	-6.90931E-02	1.45065E+01	
MASS	MASS-BWBK-SS-MA01-0001	7.519401217	8.1	0.017686157	6.84935E-02	1.63817E+01	2.11954E+01	2.61713E-01	3.48050E-02	7.83829E+00	
MASS	MASS-BWBK-SS-MA02-0001	11.03387327	11.7	0.008213798	2.87573E-01	2.00194E-01	1.18673E+00	5.36258E-01	4.86011E-02	1.11637E+01	
MASS	MASS-BWBK-SS-MA03-0001	9.234773944	10.6	0.011725934	1.29640E+00	2.39454E+00	8.34328E+00	1.13860E+00	1.23295E-01	9.46140E+00	
MASS	MASS-BWBK-SS-MA04-0001	11.10758161	11.2	0.008105148	1.12130E-03	8.97623E-01	1.03158E+00	-3.34859E-02	-3.01469E-03	1.12335E+01	
MASS	MASS-BWBK-SS-MA05-0001	13.96070464	13.8	0.005130803	1.77317E-02	2.73099E+00	3.37625E+00	-1.33160E-01	-9.53823E-03	1.39332E+01	
MASS	MASS-BWBK-SS-MA06-0001	14.25630546	15.8	0.004920237	2.51900E+00	1.33413E+01	4.54994E+00	1.58714E+00	1.11329E-01	1.42129E+01	
MASS	MASS-BWBK-SS-MA07-0001	4.825266754	4.8	0.042949424	2.39171E-01	5.39847E+01	5.32605E+01	-4.89051E-01	-1.01352E-01	5.28905E+00	
MASS	MASS-BWBK-SS-MA08-0001	12.76054178	10.4	0.006141321	5.74822E+00	3.05351E+00	4.06145E-01	-2.39755E+00	-1.87887E-01	1.27975E+01	
MASS	MASS-BWBK-SS-MA09-0001	18.59617346	17.4	0.002891697	8.45152E-01	2.75895E+01	4.18988E+01	-9.19321E-01	-4.94360E-02	1.83193E+01	
MASS	MASS-BWBK-SS-MA10-0001	16.01891608	15.3	0.00389703	3.37184E-01	9.93870E+00	1.51762E+01	-5.80676E-01	-3.62494E-02	1.58807E+01	
MASS	MASS-BWBK-SS-MA11-0001	14.56616842	16	0.004713129	2.23185E+00	1.48423E+01	5.96787E+00	1.49394E+00	1.02562E-01	1.45061E+01	
MASS	MASS-BWBK-SS-MA12-0001	11.92660085	11.8	0.007030183	4.34539E-02	1.20708E-01	3.86697E-02	-2.08456E-01	-1.74782E-02	1.20085E+01	
MASS	MASS-BWBK-SS-MA13-0001	11.57791523	13.6	0.007460008	3.69207E+00	2.10996E+00	2.97387E-01	1.92148E+00	1.65960E-01	1.16785E+01	
MASS	MASS-BWBK-SS-MA14-0001	10.84703987	10.1	0.00849919	7.86692E-01	4.19197E+00	1.62870E+00	-8.86957E-01	-8.17695E-02	1.09870E+01	
MASS	MASS-BWBK-SS-MA15-0001	10.87583786	11.4	0.00845424	1.48837E-01	5.58651E-01	1.55603E+00	3.85794E-01	3.54726E-02	1.10142E+01	
MASS	MASS-BWBK-SS-MA16-0001	10.53201394	11.7	0.009015237	1.02238E+00	2.00194E-01	2.53202E+00	1.01113E+00	9.60050E-02	1.06889E+01	
MASS	MASS-BWBK-SS-MA17-0001	10.77600826	12.2	0.008611606	1.63905E+00	2.76361E-03	1.81505E+00	1.28025E+00	1.18806E-01	1.09197E+01	
MASS	MASS-BWBK-SS-MA18-0001	10.68049054	10.4	0.008766326	1.84354E-01	3.05351E+00	2.08155E+00	-4.29365E-01	-4.02009E-02	1.08294E+01	
MASS	MASS-BWBK-SS-MA19-0001	11.27441468	12.2	0.007867051	6.53921E-01	2.76361E-03	7.20516E-01	8.08654E-01	7.17247E-02	1.13913E+01	
MASS	MASS-BWBK-SS-MA20-0001	12.18882237	12.2	0.006730952	3.20069E-03	2.76361E-03	4.30014E-03	-5.65746E-02	-4.64152E-03	1.22566E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	10.52479821	9.6	0.009027603	1.17082E+00	6.48940E+00	2.55504E+00	-1.08205E+00	-1.02809E-01	1.06820E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	14.7083799	12.1	0.00462243	6.45477E+00	2.24960E-03	6.68291E+00	-2.54062E+00	-1.72733E-01	1.46406E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	10.40732879	11.8	0.009232545	1.51070E+00	1.20708E-01	2.94438E+00	1.22911E+00	1.18100E-01	1.05709E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	13.32807383	13.7	0.00562944	1.33551E-01	2.41047E+00	1.45161E+00	3.65446E-01	2.74193E-02	1.33346E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	8.735691325	7.7	0.013104047	1.66194E+00	1.97796E+01	1.14755E+01	-1.28916E+00	-1.47574E-01	8.98916E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	15.41491594	15.1	0.004208406	4.37480E-02	8.71767E+00	1.08351E+01	-2.09160E-01	-1.35687E-02	1.53092E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	9.930792034	16	0.010139866	3.45746E+01	1.48423E+01	4.80686E+00	5.88001E+00	5.92099E-01	1.01200E+01	MMSB-BWBK-SB-MM107-0110
MMSB	MMSB-BWBK-SB-MM108-0110	10.43051441	9.85	0.009191546	5.51801E-01	5.27818E+00	2.86534E+00	-7.42833E-01	-7.12173E-02	1.05928E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	12.64245958	13	0.006256578	9.87128E-02	7.26876E-01	2.69582E-01	3.14186E-01	2.48516E-02	1.26858E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	11.30648949	14.3	0.007822479	8.28463E+00	4.63356E+00	6.67093E-01	2.87830E+00	2.54571E-01	1.14217E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	12.61278823	11.6	0.006286049	1.11881E+00	2.99680E-01	2.39651E-01	-1.05774E+00	-8.38624E-02	1.26577E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	12.8858577	12.05	0.006022452	7.50167E-01	9.49259E-03	5.81575E-01	-8.66122E-01	-6.72149E-02	1.29161E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	12.57273381	18.8	0.006326166	3.81944E+01	4.42567E+01	2.02038E-01	6.18016E+00	4.91553E-01	1.26198E+01	MMSB-BWBK-SB-MM113-0110
MMSB	MMSB-BWBK-SB-MM114-0110	9.811511941	8.8	0.010387909	1.45714E+00	1.12053E+01	5.34412E+00	-1.20712E+00	-1.23031E-01	1.00071E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	11.0629574	9.8	0.008170667	1.93561E+00	5.51043E+00	1.12421E+00	-1.39126E+00	-1.25759E-01	1.11913E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	11.38469554	11.65	0.007715377	2.38098E-02	2.47437E-01	5.45458E-01	1.54304E-01	1.35536E-02	1.14957E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	8.900218308	6.9	0.012624049	5.03931E+00	2.75355E+01	1.03879E+01	-2.24484E+00	-2.52223E-01	9.14484E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	16.46005522	9.5	0.003690944	4.62140E+01	7.00889E+00	1.88079E+01	-6.79809E+00	-4.13005E-01	1.62981E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	10.79306128	10.2	0.008584415	5.41521E-01	3.79248E+00	1.76939E+00	-7.35881E-01	-6.81810E-02	1.09359E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	6.621462951	6.2	0.022808257	6.21957E-01	3.53719E+01	3.02696E+01	-7.88643E-01	-1.19104E-01	6.98864E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	12.97419716	12.1	0.005940719	8.09478E-01	2.24960E-03	7.24116E-01	-8.99710E-01	-6.93461E-02	1.29997E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	9.61736366	9.6	0.010811549	4.99146E-02	6.48940E+00	6.27945E+00	-2.23416E-01	-2.32305E-02	9.82342E+00	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CR predict	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	12.44542353	12.2	0.006456254	8.96255E-02	2.76361E-03	1.03798E-01	-2.99375E-01	-2.40550E-02	1.24994E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	13.32236353	12.4	0.005634267	8.63321E-01	6.37917E-02	1.43788E+00	-9.29151E-01	-6.97437E-02	1.33292E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	8.674386963	8.5	0.013289922	1.85895E-01	1.33037E+01	1.18946E+01	-4.31155E-01	-4.97044E-02	8.93115E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	12.33544763	15.1	0.006571888	7.31533E+00	8.71767E+00	4.50291E-02	2.70469E+00	2.19261E-01	1.23953E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	13.13259245	12.6	0.005798278	3.02045E-01	2.04820E-01	1.01878E+00	-5.49586E-01	-4.18490E-02	1.31496E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	12.24685006	11.9	0.006667318	1.69317E-01	6.12216E-02	1.52777E-02	-4.11481E-01	-3.35990E-02	1.23115E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	11.22229668	11.5	0.007940293	2.49541E-02	4.19165E-01	8.11711E-01	1.57969E-01	1.40763E-02	1.13420E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	7.47413795	7.1	0.01790102	4.83663E-01	2.54765E+01	2.16142E+01	-6.95458E-01	-9.30487E-02	7.79546E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	8.143095238	7.8	0.015080682	3.94934E-01	1.89001E+01	1.58416E+01	-6.28437E-01	-7.71743E-02	8.42844E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	7.391296292	6.4	0.018304538	1.73468E+00	3.30330E+01	2.23914E+01	-1.31707E+00	-1.78192E-01	7.71707E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	11.76594259	10.2	0.007223481	2.74379E+00	3.79248E+00	1.27666E-01	-1.65644E+00	-1.40782E-01	1.18564E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	6.07473077	5.8	0.027098542	4.50664E-01	4.02899E+01	3.65845E+01	-6.71315E-01	-1.10509E-01	6.47132E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	7.527783827	7.1	0.01764679	5.56843E-01	2.54765E+01	2.11183E+01	-7.46219E-01	-9.91287E-02	7.84622E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	7.370166356	7	0.018409645	4.85919E-01	2.64960E+01	2.25918E+01	-6.97079E-01	-9.45811E-02	7.69708E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	11.18076557	10.3	0.007999391	1.00548E+00	3.41300E+00	8.88271E-01	-1.00273E+00	-8.96838E-02	1.13027E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	9.316525221	9.4	0.01152105	1.92536E-02	7.54837E+00	7.87769E+00	-1.38757E-01	-1.48937E-02	9.53876E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	8.694678916	7.6	0.013227961	1.82346E+00	2.06791E+01	1.17551E+01	-1.35036E+00	-1.55308E-01	8.95036E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	8.277801106	12.8	0.014593855	1.80124E+01	4.25848E-01	1.47875E+01	4.24410E+00	5.12709E-01	8.55590E+00	MMSS-BWBK-SS-MM120-0001
NESB	NESB-BWBK-SB-NE01-0108	15.8814423	14.9	0.003964789	7.23513E-01	7.57664E+00	1.41240E+01	-8.50596E-01	-5.35591E-02	1.57506E+01	
NESB	NESB-BWBK-SB-NE02-0109	14.39839905	13.6	0.004823603	5.58479E-01	2.10996E+00	5.17632E+00	-7.47314E-01	-5.19026E-02	1.43473E+01	
NESB	NESB-BWBK-SB-NE03-0105	13.04736101	12.4	0.00587428	4.47479E-01	6.37917E-02	8.53987E-01	-6.68939E-01	-5.12700E-02	1.30689E+01	
NESB	NESB-BWBK-SB-NE04-0110	13.28711949	11.9	0.005664197	1.94826E+00	6.12216E-02	1.35460E+00	-1.39580E+00	-1.05049E-01	1.32958E+01	
NESB	NESB-BWBK-SB-NE05-0108	14.67550707	13.6	0.004643161	1.01913E+00	2.10996E+00	6.51403E+00	-1.00952E+00	-6.87894E-02	1.46095E+01	
NESB	NESB-BWBK-SB-NE06-0109	13.6861251	12	0.005338743	2.80009E+00	2.17356E-02	2.44259E+00	-1.67335E+00	-1.22266E-01	1.36733E+01	
NESB	NESB-BWBK-SB-NE07-0107	15.61399456	14.6	0.004101776	8.05564E-01	6.01510E+00	1.21853E+01	-8.97532E-01	-5.74825E-02	1.54975E+01	
NESB	NESB-BWBK-SB-NE08-0104	12.76523967	11.8	0.006136801	1.00399E+00	1.20708E-01	4.12155E-01	-1.00199E+00	-7.84937E-02	1.28020E+01	
NESB	NESB-BWBK-SB-NE09-0110	12.91288057	12.4	0.005997272	2.93429E-01	6.37917E-02	6.23521E-01	-5.41691E-01	-4.19497E-02	1.29417E+01	
NESB	NESB-BWBK-SB-NE10-0107	12.43988248	13.4	0.006462007	8.20597E-01	1.56893E+00	1.00258E-01	9.05868E-01	7.28197E-02	1.24941E+01	
NESB	NESB-BWBK-SB-NE101-0110	12.63211897	11.7	0.006266825	9.52634E-01	2.00194E-01	2.58951E-01	-9.76030E-01	-7.72657E-02	1.26760E+01	
NESB	NESB-BWBK-SB-NE102-0110	11.3419999	10	0.007773574	2.11789E+00	4.61146E+00	6.10347E-01	-1.45530E+00	-1.28310E-01	1.14553E+01	
NESB	NESB-BWBK-SB-NE103-0110	9.832167697	8.7	0.010344308	1.76005E+00	1.18848E+01	5.24904E+00	-1.32667E+00	-1.34931E-01	1.00267E+01	
NESB	NESB-BWBK-SB-NE104-0110	8.659298287	7.7	0.013336277	1.48079E+00	1.97796E+01	1.19989E+01	-1.21688E+00	-1.40528E-01	8.91688E+00	
NESB	NESB-BWBK-SB-NE105-0110	11.77370984	11	0.007213954	7.46130E-01	1.31660E+00	1.22176E-01	-8.63788E-01	-7.33658E-02	1.18638E+01	
NESB	NESB-BWBK-SB-NE106-0110	11.43574624	10	0.007646646	2.38394E+00	4.61146E+00	4.72657E-01	-1.54400E+00	-1.35015E-01	1.15440E+01	
NESB	NESB-BWBK-SB-NE107-0510	8.960223486	7.6	0.012455533	2.56518E+00	2.06791E+01	1.00047E+01	-1.60162E+00	-1.78748E-01	9.20162E+00	
NESB	NESB-BWBK-SB-NE108-0110	10.64809232	9.8	0.008819752	9.97420E-01	5.51043E+00	2.17608E+00	-9.98709E-01	-9.37923E-02	1.07987E+01	
NESB	NESB-BWBK-SB-NE109-0110	10.63150505	9.6	0.008847295	1.39952E+00	6.48940E+00	2.22529E+00	-1.18301E+00	-1.11274E-01	1.07830E+01	
NESB	NESB-BWBK-SB-NE110-0110	10.46897835	10.05	0.009124129	3.35506E-01	4.39921E+00	2.73660E+00	-5.79228E-01	-5.53281E-02	1.06292E+01	
NESS	NESS-BKG-SS03-NEB-0016	17.97830918	12	0.003093872	3.28866E+01	2.17356E-02	3.42818E+01	-5.73469E+00	-3.18978E-01	1.77347E+01	
NESS	NESS-BKG-SS09-NEB-0018	10.58746008	11.4	0.008921059	4.33836E-01	5.58651E-01	2.35864E+00	6.58662E-01	6.22115E-02	1.07413E+01	
NESS	NESS-BWBK-SS-NE01-0001	15.78007806	17.1	0.004015889	2.08894E+00	2.45280E+01	1.33724E+01	1.44532E+00	9.15912E-02	1.56547E+01	
NESS	NESS-BWBK-SS-NE02-0001	15.57373642	17	0.00412301	2.37333E+00	2.35474E+01	1.19059E+01	1.54056E+00	9.89204E-02	1.54594E+01	
NESS	NESS-BWBK-SS-NE03-0001	13.60568165	14.5	0.00540206	8.14991E-01	5.53459E+00	2.19761E+00	9.02769E-01	6.63523E-02	1.35972E+01	
NESS	NESS-BWBK-SS-NE04-0001	15.12546556	15.7	0.004371017	4.41856E-01	1.26208E+01	9.01332E+00	6.64723E-01	4.39473E-02	1.50353E+01	
NESS	NESS-BWBK-SS-NE05-0001	13.93118586	16.7	0.005152569	7.81074E+00	2.07259E+01	3.26864E+00	2.79477E+00	2.00613E-01	1.39052E+01	
NESS	NESS-BWBK-SS-NE06-0001	14.85123873	15.2	0.004533928	1.79946E-01	9.31818E+00	7.44194E+00	4.24201E-01	2.85633E-02	1.47758E+01	
NESS	NESS-BWBK-SS-NE07-0001	14.80308065	14.4	0.004563476	1.09053E-01	5.07407E+00	7.18151E+00	-3.30231E-01	-2.23083E-02	1.47302E+01	
NESS	NESS-BWBK-SS-NE08-0001	14.11187715	14.2	0.005021465	1.53258E-02	4.21304E+00	3.95465E+00	1.23798E-01	8.77258E-03	1.40762E+01	
NESS	NESS-BWBK-SS-NE09-0001	14.63152419	13.9	0.004671118	4.46092E-01	3.07150E+00	6.29145E+00	-6.67901E-01	-4.56481E-02	1.45679E+01	
NESS	NESS-BWBK-SS-NE10-0001	15.00431765	12.8	0.004441887	4.49714E+00	4.25848E-01	8.30057E+00	-2.12065E+00	-1.41336E-01	1.49206E+01	
NESS	NESS-BWBK-SS-NE101-0001	10.78176494	10.3	0.008602413	3.90866E-01	3.41300E+00	1.79957E+00	-6.25192E-01	-5.79861E-02	1.09252E+01	
NESS	NESS-BWBK-SS-NE102-0001	9.181220661	7.9	0.011863126	2.28230E+00	1.80407E+01	8.65552E+00	-1.51073E+00	-1.64546E-01	9.41073E+00	
NESS	NESS-BWBK-SS-NE103-0001	8.453465229	8.3	0.013993632	1.78181E-01	1.48027E+01	1.34673E+01	-4.22115E-01	-4.99340E-02	8.72211E+00	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	CR predict	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	11.27459882	7.9	0.007866794	1.21907E+01	1.80407E+01	7.20204E-01	-3.49152E+00	-3.09680E-01	1.13915E+01	
NESS	NESS-BWBK-SS-NE105-0001	7.252407499	6.6	0.019012341	9.71512E-01	3.07740E+01	2.37251E+01	-9.85653E-01	-1.35907E-01	7.58565E+00	
NESS	NESS-BWBK-SS-NE106-0001	10.27120412	7.1	0.009478886	1.11696E+01	2.54765E+01	3.43006E+00	-3.34209E+00	-3.25385E-01	1.04421E+01	
NESS	NESS-BWBK-SS-NE107-0001	8.02612972	6.6	0.015523429	2.95071E+00	3.07740E+01	1.67864E+01	-1.71776E+00	-2.14021E-01	8.31776E+00	
NESS	NESS-BWBK-SS-NE108-0001	8.907163487	7.1	0.01260437	4.20829E+00	2.54765E+01	1.03432E+01	-2.05141E+00	-2.30310E-01	9.15141E+00	
NESS	NESS-BWBK-SS-NE109-0001	7.067040602	6.3	0.020022801	1.23267E+00	3.41924E+01	2.55652E+01	-1.11026E+00	-1.57103E-01	7.41026E+00	
NESS	NESS-BWBK-SS-NE110-0001	8.456845996	6.6	0.013982446	4.51696E+00	3.07740E+01	1.34425E+01	-2.12531E+00	-2.51313E-01	8.72531E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	15.87313026	13.9	0.003968943	3.39566E+00	3.07150E+00	1.40616E+01	-1.84273E+00	-1.16091E-01	1.57427E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	13.98878936	21.3	0.005110222	5.38795E+01	8.37695E+01	3.48025E+00	7.34027E+00	5.24725E-01	1.39597E+01	PMSB-BWBK-SB-PM02-0104
PMSB	PMSB-BWBK-SB-PM03-0106	15.17501331	15.7	0.00434252	3.81726E-01	1.26208E+01	9.31328E+00	6.17840E-01	4.07143E-02	1.50822E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	15.41766473	15	0.004206906	9.71951E-02	8.13716E+00	1.08532E+01	-3.11761E-01	-2.02210E-02	1.53118E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	14.00654347	14.85	0.005097275	7.62943E-01	7.30389E+00	3.54681E+00	8.73466E-01	6.23613E-02	1.39765E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	13.36773828	14.1	0.005596083	5.29860E-01	3.81253E+00	1.54876E+00	7.27915E-01	5.44531E-02	1.33721E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	9.858906626	13	0.010288273	8.69089E+00	7.26876E-01	5.12724E+00	2.94803E+00	2.99022E-01	1.00520E+01	PMSB-BWBK-SB-PM07-0105
PMSB	PMSB-BWBK-SB-PM08-0106	12.79589059	13.7	0.006107437	7.55173E-01	2.41047E+00	4.52449E-01	8.69007E-01	6.79130E-02	1.28310E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	11.17618827	11.9	0.008005945	3.61919E-01	6.12216E-02	8.96920E-01	6.01597E-01	5.38285E-02	1.12984E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	11.21149761	17.2	0.007955596	3.44356E+01	2.55285E+01	8.31287E-01	5.86819E+00	5.23408E-01	1.13318E+01	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	13.22674038	13.3	0.005716028	3.76129E-03	1.32842E+00	1.21770E+00	6.13293E-02	4.63677E-03	1.32387E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	10.56758642	14.4	0.008954645	1.35238E+01	5.07407E+00	2.42008E+00	3.67747E+00	3.47995E-01	1.07225E+01	PMSB-BWBK-SB-PM12-0105
PMSB	PMSB-BWBK-SB-PM13-0106	10.03630901	15.3	0.009927776	2.58081E+01	9.93870E+00	4.35531E+00	5.08017E+00	5.06179E-01	1.02198E+01	PMSB-BWBK-SB-PM13-0106
PMSB	PMSB-BWBK-SB-PM14-0106	9.832444207	11.9	0.010343726	3.50840E+00	6.12216E-02	5.24778E+00	1.87307E+00	1.90499E-01	1.00269E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	12.14753279	14.2	0.006776787	3.93028E+00	4.21304E+00	5.89803E-04	1.98249E+00	1.63201E-01	1.22175E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	11.28579737	12	0.00785119	3.57464E-01	2.17356E-02	7.01322E-01	5.97883E-01	5.29766E-02	1.14021E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	12.6386969	13.65	0.006260304	9.36533E-01	2.25772E+00	2.65689E-01	9.67746E-01	7.65701E-02	1.26823E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	14.94204261	15	0.00447899	1.91215E-02	8.13716E+00	7.94561E+00	1.38281E-01	9.25447E-03	1.48617E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	13.83041595	13.9	0.005227927	8.12181E-03	3.07150E+00	2.91443E+00	9.01211E-02	6.51615E-03	1.38099E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	12.96712334	13.45	0.005947202	2.08834E-01	1.69669E+00	7.12127E-01	4.56983E-01	3.52417E-02	1.29930E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	16.26912478	13.1	0.003778084	9.10487E+00	9.07390E-01	1.71883E+01	-3.01743E+00	-1.85470E-01	1.61174E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	14.89195766	14.6	0.004509168	4.59365E-02	6.01510E+00	7.66576E+00	-2.14328E-01	-1.43922E-02	1.48143E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	15.96104337	14.4	0.003925341	2.03324E+00	5.07407E+00	1.47287E+01	-1.42592E+00	-8.93372E-02	1.58259E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	17.1457539	14.7	0.003401628	5.04860E+00	6.51561E+00	2.52256E+01	-2.24691E+00	-1.31048E-01	1.69469E+01	
PMSS	PMSS-DABK-S-SO21-0001	12.56845297	12.5	0.006330476	1.34068E-02	1.24306E-01	1.98208E-01	-1.15788E-01	-9.21256E-03	1.26158E+01	
PMSS	PMSS-DABK-S-SO22-0001	14.25780103	15	0.004919205	6.17359E-01	8.13716E+00	4.55632E+00	7.85722E-01	5.51082E-02	1.42143E+01	
PMSS	PMSS-DABK-S-SO23-0001	16.05952855	13.6	0.003877345	5.37824E+00	2.10996E+00	1.54943E+01	-2.31910E+00	-1.44407E-01	1.59191E+01	
PMSS	PMSS-DABK-S-SO24-0001	11.64845923	14.2	0.007369924	6.02568E+00	4.21304E+00	2.25423E-01	2.45473E+00	2.10734E-01	1.17453E+01	
PMSS	PMSS-DABK-S-SO25-0001	12.3968916	14.6	0.006506904	4.60766E+00	6.01510E+00	7.48814E-02	2.14655E+00	1.73152E-01	1.24535E+01	
PMSS	PMSS-DABK-S-SO26-0001	16.73487381	15.2	0.003570714	1.84451E+00	9.31818E+00	2.12671E+01	-1.35813E+00	-8.11555E-02	1.65581E+01	
PMSS	PMSS-DABK-S-SO27-0001	16.08089121	12	0.00386705	1.55182E+01	2.17356E-02	1.56629E+01	-3.93932E+00	-2.44969E-01	1.59393E+01	
PMSS	PMSS-DABK-S-SO28-0001	13.20791969	14	0.00573233	6.07056E-01	3.43202E+00	1.17652E+00	7.79138E-01	5.89902E-02	1.32209E+01	
PMSS	PMSS-DABK-S-SO29-0001	15.3474094	16	0.00424551	5.69596E-01	1.48423E+01	1.03952E+01	7.54716E-01	4.91754E-02	1.52453E+01	
PMSS	PMSS-DABK-S-SO30-0001	13.46027349	15.2	0.005519405	3.02884E+00	9.31818E+00	1.78764E+00	1.74036E+00	1.29296E-01	1.34596E+01	
PMSS	PMSS-DABK-S-SO31-0001	9.324038946	11.6	0.011502489	4.21946E+00	2.99680E-01	7.83557E+00	2.05413E+00	2.20305E-01	9.54587E+00	
PMSS	PMSS-DABK-S-SO32-0001	14.9010515	15.1	0.004503666	7.67662E-02	8.71767E+00	7.71620E+00	2.77067E-01	1.85938E-02	1.48229E+01	
PMSS	PMSS-DABK-S-SO33-0001	13.30686736	13.4	0.005647397	7.31227E-03	1.56893E+00	1.40096E+00	8.55118E-02	6.42614E-03	1.33145E+01	
PMSS	PMSS-DABK-S-SO34-0001	10.3768476	12	0.009286865	2.12561E+00	2.17356E-02	3.04991E+00	1.45795E+00	1.40500E-01	1.05421E+01	
PMSS	PMSS-DABK-S-SO35-0001	13.38907301	13.35	0.005578263	1.78697E-03	1.44617E+00	1.60232E+00	-4.22726E-02	-3.15725E-03	1.33923E+01	
PMSS	PMSS-DABK-S-SO36-0001	13.31106695	12.4	0.005643834	8.43572E-01	6.37917E-02	1.41092E+00	-9.18462E-01	-6.89999E-02	1.33185E+01	
PMSS	PMSS-DABK-S-SO37-0001	10.70433021	13.9	0.008727322	9.29078E+00	3.07150E+00	2.01332E+00	3.04808E+00	2.84752E-01	1.08519E+01	PMSS-DABK-S-SO37-0001
PMSS	PMSS-DABK-S-SO38-0001	10.75623442	11.2	0.008643298	8.93800E-02	8.97623E-01	1.86872E+00	2.98965E-01	2.77946E-02	1.09010E+01	
PMSS	PMSS-DABK-S-SO39-0001	10.29906091	12.3	0.009427678	3.35458E+00	2.32776E-02	3.32765E+00	1.83155E+00	1.77837E-01	1.04684E+01	
PMSS	PMSS-DABK-S-SO40-0001	10.97254361	12.2	0.008305875	1.19747E+00	2.76361E-03	1.32412E+00	1.09429E+00	9.97298E-02	1.11057E+01	

APPENDIX F, TABLE F8-4
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	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!J**	**DA!K**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**CR predict**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	23.60571652	16.6	0.001794592	4.17243E+01	1.98254E+01	1.31847E+02	-6.45944E+00	-2.73639E-01	2.30594E+01	
SESB	SESB-BWBK-SB-SO04-0108	16.64974005	14.9	0.003607323	2.48873E+00	7.57664E+00	2.04891E+01	-1.57757E+00	-9.47506E-02	1.64776E+01	
SESB	SESB-BWBK-SB-SO05-0106	16.99877423	15.8	0.003460707	1.01573E+00	1.33413E+01	2.37708E+01	-1.00783E+00	-5.92887E-02	1.68078E+01	
SESB	SESB-BWBK-SB-SO06-0108	19.5301879	16.85	0.002621725	5.53709E+00	2.21142E+01	5.48628E+01	-2.35310E+00	-1.20485E-01	1.92031E+01	
SESB	SESB-BWBK-SB-SO07-0106	18.13331313	14.5	0.003041205	1.14336E+01	5.53459E+00	3.61209E+01	-3.38135E+00	-1.86472E-01	1.78814E+01	
SESB	SESB-BWBK-SB-SO08-0107	20.05157716	17.3	0.002487155	5.74297E+00	2.65490E+01	6.28584E+01	-2.39645E+00	-1.19514E-01	1.96964E+01	
SESB	SESB-BWBK-SB-SO09-0106	16.45826503	15.3	0.003691747	9.92804E-01	9.93870E+00	1.87924E+01	-9.96395E-01	-6.05407E-02	1.62964E+01	
SESB	SESB-BWBK-SB-SO11-0106	17.95925923	15.8	0.003100439	3.67359E+00	1.33413E+01	3.40590E+01	-1.91666E+00	-1.06723E-01	1.77167E+01	
SESB	SESB-BWBK-SB-SO12-0106	16.55384982	15.05	0.003649236	1.78714E+00	8.42491E+00	1.96302E+01	-1.33684E+00	-8.07570E-02	1.63868E+01	
SESB	SESB-BWBK-SB-SO15-0103	12.61587787	13.4	0.006282971	5.46621E-01	1.56893E+00	2.42685E-01	7.39338E-01	5.86038E-02	1.26607E+01	
SESB	SESB-BWBK-SB-SO16-0105	13.77902255	13.3	0.005266998	2.12751E-01	1.32842E+00	2.74159E+00	-4.61250E-01	-3.34748E-02	1.37612E+01	
SESB	SESB-BWBK-SB-SO17-0106	13.12156511	13.1	0.005808028	1.53288E-03	9.07390E-01	9.96639E-01	-3.91520E-02	-2.98379E-03	1.31392E+01	
SESB	SESB-BWBK-SB-SO18-0105	11.87544214	12.6	0.007090885	4.09538E-01	2.04820E-01	6.14072E-02	6.39951E-01	5.38886E-02	1.19600E+01	
SESB	SESB-BWBK-SB-SO19-0104	11.69001066	13.1	0.007317626	1.73030E+00	9.07390E-01	1.87694E-01	1.31541E+00	1.12524E-01	1.17846E+01	
SESB	SESB-BWBK-SB-SO20-0104	13.56297445	13.7	0.005436133	2.05002E-02	2.41047E+00	2.07282E+00	1.43179E-01	1.05566E-02	1.35568E+01	
SESS	SESS-DABK-S-SO01-0001	12.55962687	13	0.006339376	1.54106E-01	7.26876E-01	1.90427E-01	3.92564E-01	3.12560E-02	1.26074E+01	
SESS	SESS-DABK-S-SO02-0001	17.33882042	28.2	0.003326296	1.22554E+02	2.57685E+02	2.72022E+01	1.10704E+01	6.38475E-01	1.71296E+01	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	13.32676126	11.9	0.005630549	2.05438E+00	6.12216E-02	1.44845E+00	-1.43331E+00	-1.07551E-01	1.33333E+01	
SESS	SESS-DABK-S-SO04-0001	15.24480658	14.4	0.00430285	5.59803E-01	5.07407E+00	9.74413E+00	-7.48200E-01	-4.90790E-02	1.51482E+01	
SESS	SESS-DABK-S-SO05-0001	13.13720284	11.9	0.005794209	1.57239E+00	6.12216E-02	1.02811E+00	-1.25395E+00	-9.54502E-02	1.31539E+01	
SESS	SESS-DABK-S-SO06-0001	11.37755503	15.8	0.007725064	1.85852E+01	1.33413E+01	5.56056E-01	4.31106E+00	3.78909E-01	1.14889E+01	SESS-DABK-S-SO06-0001
SESS	SESS-DABK-S-SO07-0001	15.70546454	13.6	0.004054137	3.93658E+00	2.10996E+00	1.28323E+01	-1.98408E+00	-1.26331E-01	1.55841E+01	
SESS	SESS-DABK-S-SO08-0001	14.58185592	12.7	0.004702994	3.31569E+00	3.05334E-01	6.04476E+00	-1.82090E+00	-1.24875E-01	1.45209E+01	
SESS	SESS-DABK-S-SO09-0001	12.58577256	11.2	0.006313065	2.05113E+00	8.97623E-01	2.13930E-01	-1.43218E+00	-1.13793E-01	1.26322E+01	
SESS	SESS-DABK-S-SO10-0001	10.26839479	11	0.009484073	3.14236E-01	1.31660E+00	3.44048E+00	5.60567E-01	5.45915E-02	1.04394E+01	
SESS	SESS-DABK-S-SO11-0001	8.4165478	8.3	0.014116662	1.49911E-01	1.48027E+01	1.37396E+01	-3.87183E-01	-4.60026E-02	8.68718E+00	
SESS	SESS-DABK-S-SO12-0001	11.38896626	11.3	0.007709592	3.98948E-02	7.18137E-01	5.39168E-01	-1.99737E-01	-1.75378E-02	1.14997E+01	
SESS	SESS-DABK-S-SO13-0001	11.12792583	10.9	0.00807554	1.24423E-01	1.55608E+00	9.90664E-01	-3.52736E-01	-3.16983E-02	1.12527E+01	
SESS	SESS-DABK-S-SO14-0001	11.63892159	9.8	0.007382008	3.74906E+00	5.51043E+00	2.34571E-01	-1.93625E+00	-1.66360E-01	1.17362E+01	
SESS	SESS-DABK-S-SO15-0001	11.5513732	12.8	0.007494329	1.31467E+00	4.25848E-01	3.27040E-01	1.14659E+00	9.92601E-02	1.16534E+01	
SESS	SESS-DABK-S-SO16-0001	7.305013066	8.3	0.0187395	4.41654E-01	1.48027E+01	2.32154E+01	6.64570E-01	9.09746E-02	7.63543E+00	
SESS	SESS-DABK-S-SO17-0001	8.930784513	9.1	0.012537784	5.44094E-03	9.28683E+00	1.01918E+01	-7.37627E-02	-8.25938E-03	9.17376E+00	
SESS	SESS-DABK-S-SO18-0001	11.15225682	9.9	0.008040341	1.89271E+00	5.05094E+00	9.42822E-01	-1.37576E+00	-1.23361E-01	1.12758E+01	
SESS	SESS-DABK-S-SO19-0001	17.25334609	14.1	0.003359335	8.69492E+00	3.81253E+00	2.63179E+01	-2.94871E+00	-1.70907E-01	1.70487E+01	
SESS	SESS-DABK-S-SO20-0001	17.9453019	16	0.003105264	2.90176E+00	1.48423E+01	3.38963E+01	-1.70346E+00	-9.49249E-02	1.77035E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
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	Y variable name used on graph: CR			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: AL			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	214.000000		3710.00	5.42	3.82	7.03	0.00	0.00	0.00	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.340675E-05		4301.25	6.00	4.16	7.83	0.00	0.00	0.00	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.652073		4892.50	6.57	4.50	8.64	0.00	0.00	0.00	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	2.473128E-01		5483.75	7.14	4.84	9.45	0.00	0.00	0.00	---- V ----
2	SUM(X^2*w^2)	2.140000E+02		6075.00	7.72	5.17	10.26	0.00	0.00	0.00	BASS
	SUM(X*w^2)	2.185966E-02		6666.25	8.29	5.50	11.07	0.00	0.00	0.00	0
	SUM(Y*w^2)	2.587148E-05		7257.50	8.86	5.83	11.89	0.00	0.00	0.00	MASS
	SUM(w^2)	2.565515E-06		7848.75	9.43	6.16	12.71	0.00	0.00	0.00	0
	SUM(Y)	2599.550000		8440.00	10.01	6.49	13.52	0.00	0.00	0.00	MMSS
	SUM(X)	2.291560E+06		9031.25	10.58	6.82	14.34	0.00	0.00	0.00	0
	Denominator	7.117525E-05		9622.50	11.15	7.14	15.16	0.00	0.00	0.00	NESS
	Slope	**9.686355E-04**		10213.75	11.72	7.47	15.98	0.00	0.00	0.00	0
	Intercept	**1.830991E+00**		10805.00	12.30	7.80	16.80	0.00	0.00	0.00	PMSS
	Minimum X value	3.710000E+03		11396.25	12.87	8.12	17.62	0.00	0.00	0.00	0
	Maximum X value	1.790000E+04		11987.50	13.44	8.45	18.44	0.00	0.00	0.00	SESS
	Minimum Y value	4.800000E+00		12578.75	14.02	8.77	19.26	0.00	0.00	0.00	1
	Maximum Y value	2.820000E+01		13170.00	14.59	9.10	20.08	0.00	0.00	0.00	SESD
	No. of graph points	25		13761.25	15.16	9.42	20.90	0.00	0.00	0.00	0
	SUM(Ypred.- Yobs)^2	1.510810E+03		14352.50	15.73	9.75	21.72	0.00	0.00	0.00	MASB
	SUM(Yobs - Yave)^2	2.499011E+03		14943.75	16.31	10.07	22.54	0.00	0.00	0.00	1
	SUM(X - Xave)^2	1.535208E+09		15535.00	16.88	10.40	23.36	0.00	0.00	0.00	MMSB
	Std. Error of Y-estimate	**2.669543E+00**		16126.25	17.45	10.72	24.18	0.00	0.00	0.00	2
	R^2	**3.954370E-01**		16717.50	18.02	11.04	25.00	0.00	0.00	0.00	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1/x**		17308.75	18.60	11.37	25.83	0.00	0.00	0.00	0
est.M, Std.Err.Y	**7.13E+00**	**1.94**		17900.00	19.17	11.69	26.65	0.00	0.00	0.00	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			**25**	9300.00	10.84	6.97	14.71	10.84	**-36%**	**36%**	3
Inverse Log Transform (Y/N)?		**No**	**50**	10700.00	12.20	7.74	16.65	12.20	**-37%**	**37%**	SESB
Inverse Power Transform (Y/N)?		**No**	**75**	12175.00	13.62	8.55	18.70	13.62	**-37%**	**37%**	0
Inverse Power Transform (1/Power):		**1**	**90**	14270.00	15.65	9.70	21.60	15.65	**-38%**	**38%**	<<--Original Units Errors

TEXT BOX ==>	**(CR) = (9.69E-04)x(AL) + (1.83E+00)**	**R^2 = 0.40; Std. Error of Y-estimate = 2.67E+00**						**+/-3 x IQR of r**	-0.001009	0.001009	
TEXT BOX ==>	**Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro**			**√ - wt.descrip.**	**TEXT BOX==>**	**Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus**				**Y-Pred.**	
	Indexed value lookups:	**X data column ref.**	**Y data column ref.**	**Weighted 1/x.**	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!D**	**DA!K**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**AL**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	4760	5.6	4.41353E-08	7.08452E-01	4.28688E+01	3.53814E+07	-8.41696E-01	-1.76827E-04	6.44170E+00	
BASS	BASS-BWBK-SS-BA102-0001	3730	4.8	7.18757E-08	4.14737E-01	5.39847E+01	4.86956E+07	-6.44001E-01	-1.72654E-04	5.44400E+00	
BASS	BASS-BWBK-SS-BA103-0001	4130	5	5.86273E-08	6.91318E-01	5.10858E+01	4.32730E+07	-8.31455E-01	-2.01321E-04	5.83146E+00	
BASS	BASS-BWBK-SS-BA104-0001	4790	6.4	4.35842E-08	5.00623E-03	3.30330E+01	3.50254E+07	-7.07547E-02	-1.47713E-05	6.47075E+00	
BASS	BASS-BWBK-SS-BA105-0001	3920	5.7	6.50771E-08	5.17798E-03	4.15694E+01	4.60800E+07	7.19582E-02	1.83567E-05	5.62804E+00	
BASS	BASS-BWBK-SS-BA106-0001	4800	7.45	4.34028E-08	9.40045E-01	2.20658E+01	3.49071E+07	9.69559E-01	2.01991E-04	6.48044E+00	
BASS	BASS-BWBK-SS-BA107-0001	3810	4.8	6.8889E-08	5.20551E-01	5.39847E+01	4.75855E+07	-7.21492E-01	-1.89368E-04	5.52149E+00	
BASS	BASS-BWBK-SS-BA108-0001	3870	5.2	6.67695E-08	1.44104E-01	4.82668E+01	4.67613E+07	-3.79610E-01	-9.80904E-05	5.57961E+00	
BASS	BASS-BWBK-SS-BA109-0001	4160	7	5.77848E-08	1.29843E+00	2.64960E+01	4.28792E+07	1.13949E+00	2.73915E-04	5.86051E+00	
BASS	BASS-BWBK-SS-BA110-0001	5290	7	3.57346E-08	2.01848E-03	2.64960E+01	2.93572E+07	4.49275E-02	8.49292E-06	6.95507E+00	
BASS	BASS-BWBK-SS-BA111-0001	4250	5.9	5.53633E-08	2.27448E-03	3.90304E+01	4.17087E+07	-4.76915E-02	-1.12215E-05	5.94769E+00	
BASS	BASS-BWBK-SS-BA112-0001	4230	5.2	5.58881E-08	5.30448E-01	4.82668E+01	4.19674E+07	-7.28319E-01	-1.72179E-04	5.92832E+00	
BASS	BASS-BWBK-SS-BA113-0001	3710	5.85	7.26528E-08	1.80941E-01	3.96576E+01	4.89751E+07	4.25372E-01	1.14655E-04	5.42463E+00	
MASB	MASB-BWBK-SB-MA01-0105	10600	14.7	8.89996E-09	6.76766E+00	6.51561E+00	1.17125E+04	2.60147E+00	2.45422E-04	1.20985E+01	
MASB	MASB-BWBK-SB-MA02-0107	11400	15.9	7.69468E-09	9.16009E+00	1.40818E+01	4.78554E+05	3.02656E+00	2.65488E-04	1.28734E+01	
MASB	MASB-BWBK-SB-MA03-0108	9390	13.4	1.13415E-08	6.11831E+00	1.56893E+00	1.73772E+06	2.47352E+00	2.63421E-04	1.09265E+01	
MASB	MASB-BWBK-SB-MA04-0106	11400	16.3	7.69468E-09	1.17413E+01	1.72438E+01	4.78554E+05	3.42656E+00	3.00576E-04	1.28734E+01	
MASB	MASB-BWBK-SB-MA05-0108	10500	15.5	9.07029E-09	1.22384E+01	1.12397E+01	4.33574E+04	3.49834E+00	3.33175E-04	1.20017E+01	
MASB	MASB-BWBK-SB-MA06-0105	10700	15.1	8.73439E-09	8.43676E+00	8.71767E+00	6.76391E+01	2.90461E+00	2.71459E-04	1.21954E+01	
MASB	MASB-BWBK-SB-MA07-0108	10300	12.35	9.42596E-09	2.93833E-01	4.10346E-02	1.66647E+05	5.42064E-01	5.26275E-05	1.18079E+01	
MASB	MASB-BWBK-SB-MA08-0108	14150	18.7	4.99444E-09	1.00034E+01	4.29362E+01	1.18458E+07	3.16282E+00	2.23521E-04	1.55372E+01	
MASB	MASB-BWBK-SB-MA09-0108	11000	13	8.26446E-09	2.64215E-01	7.26876E-01	8.51331E+04	5.14019E-01	4.67290E-05	1.24860E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	AL	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	8630	11.6	1.3427E-08	1.98721E+00	2.99680E-01	4.31902E+06	1.40968E+00	1.63347E-04	1.01903E+01	
MASB	MASB-BWBK-SB-MA11-0108	11300	15.8	7.83147E-09	9.14112E+00	1.33413E+01	3.50198E+05	3.02343E+00	2.67560E-04	1.27766E+01	
MASB	MASB-BWBK-SB-MA12-0108	10900	15.3	8.4168E-09	8.47324E+00	9.93870E+00	3.67779E+04	2.91088E+00	2.67053E-04	1.23891E+01	
MASB	MASB-BWBK-SB-MA13-0105	9000	14.2	1.23457E-08	1.33319E+01	4.21304E+00	2.91803E+06	3.65129E+00	4.05699E-04	1.05487E+01	
MASB	MASB-BWBK-SB-MA14-0104	11900	16.4	7.06165E-09	9.25527E+00	1.80844E+01	1.42033E+06	3.04225E+00	2.55651E-04	1.33578E+01	
MASB	MASB-BWBK-SB-MA15-0105	12000	15.2	6.94444E-09	3.04636E+00	9.31818E+00	1.66868E+06	1.74538E+00	1.45449E-04	1.34546E+01	
MASB	MASB-BWBK-SB-MA16-0104	8820	12.7	1.28547E-08	5.40862E+00	3.05334E-01	3.56539E+06	2.32564E+00	2.63678E-04	1.03744E+01	
MASB	MASB-BWBK-SB-MA17-0104	10900	12.4	8.4168E-09	1.18424E-04	6.37917E-02	3.67779E+04	1.08823E-02	9.98374E-07	1.23891E+01	
MASB	MASB-BWBK-SB-MA18-0104	10700	16.7	8.73439E-09	2.02915E+01	2.07259E+01	6.76391E+01	4.50461E+00	4.20992E-04	1.21954E+01	MASB-BWBK-SB-MA18-0104
MASB	MASB-BWBK-SB-MA19-0103	9000	12	1.23457E-08	2.10624E+00	2.17356E-02	2.91803E+06	1.45129E+00	1.61254E-04	1.05487E+01	
MASB	MASB-BWBK-SB-MA20-0103	9610	13.5	1.08281E-08	5.57159E+00	1.82945E+00	1.20610E+06	2.36042E+00	2.45621E-04	1.11396E+01	
MASS	MASS-BWBK-SS-MA01-0001	8580	8.1	1.35839E-08	4.16929E+00	1.63817E+01	4.52934E+06	-2.04188E+00	-2.37982E-04	1.01419E+01	
MASS	MASS-BWBK-SS-MA02-0001	12700	11.7	6.20001E-09	5.91784E+00	2.00194E-01	3.96717E+06	-2.43266E+00	-1.91548E-04	1.41327E+01	
MASS	MASS-BWBK-SS-MA03-0001	9270	10.6	1.1637E-08	4.42016E-02	2.39454E+00	2.06849E+06	-2.10242E-01	-2.26798E-05	1.08102E+01	
MASS	MASS-BWBK-SS-MA04-0001	10400	11.2	9.24556E-09	4.96743E-01	8.97623E-01	9.50022E+04	-7.04800E-01	-6.77692E-05	1.19048E+01	
MASS	MASS-BWBK-SS-MA05-0001	12200	13.8	6.71862E-09	2.29996E-02	2.73099E+00	2.22539E+06	1.51656E-01	1.24308E-05	1.36483E+01	
MASS	MASS-BWBK-SS-MA06-0001	13800	15.8	5.251E-09	3.62211E-01	1.33413E+01	9.55908E+06	6.01839E-01	4.36115E-05	1.51982E+01	
MASS	MASS-BWBK-SS-MA07-0001	5470	4.8	3.34215E-08	5.42623E+00	5.39847E+01	2.74390E+07	-2.32943E+00	-4.25855E-04	7.12943E+00	
MASS	MASS-BWBK-SS-MA08-0001	11000	10.4	8.26446E-09	4.35132E+00	3.05351E+00	8.51331E+04	-2.08598E+00	-1.89635E-04	1.24860E+01	
MASS	MASS-BWBK-SS-MA09-0001	16800	17.4	3.54308E-09	4.95711E-01	2.75895E+01	3.71097E+07	-7.04067E-01	-4.19088E-05	1.81041E+01	
MASS	MASS-BWBK-SS-MA10-0001	14300	15.3	4.89021E-09	1.46290E-01	9.93870E+00	1.29009E+07	-3.82478E-01	-2.67467E-05	1.56825E+01	
MASS	MASS-BWBK-SS-MA11-0001	14300	16	4.89021E-09	1.00820E-01	1.48423E+01	1.29009E+07	3.17522E-01	2.22043E-05	1.56825E+01	
MASS	MASS-BWBK-SS-MA12-0001	10500	11.8	9.07029E-09	4.06682E-02	1.20708E-01	4.33574E+04	-2.01664E-01	-1.92060E-05	1.20017E+01	
MASS	MASS-BWBK-SS-MA13-0001	12500	13.6	6.4E-09	1.14877E-01	2.10996E+00	3.21046E+06	-3.38935E-01	-2.71148E-05	1.39389E+01	
MASS	MASS-BWBK-SS-MA14-0001	9980	10.1	1.00401E-08	1.95433E+00	4.19197E+00	5.30311E+05	-1.39797E+00	-1.40077E-04	1.14980E+01	
MASS	MASS-BWBK-SS-MA15-0001	11500	11.4	7.56144E-09	2.46584E+00	5.58651E-01	6.26909E+05	-1.57030E+00	-1.36548E-04	1.29703E+01	
MASS	MASS-BWBK-SS-MA16-0001	9940	11.7	1.01211E-08	5.79713E-02	2.00194E-01	5.90169E+05	2.40772E-01	2.42226E-05	1.14592E+01	
MASS	MASS-BWBK-SS-MA17-0001	11300	12.2	7.83147E-09	3.32435E-01	2.76361E-03	3.50198E+05	-5.76572E-01	-5.10241E-05	1.27766E+01	
MASS	MASS-BWBK-SS-MA18-0001	10400	10.4	9.24556E-09	2.26442E+00	3.05351E+00	9.50022E+04	-1.50480E+00	-1.44692E-04	1.19048E+01	
MASS	MASS-BWBK-SS-MA19-0001	11100	12.2	8.11622E-09	1.46570E-01	2.76361E-03	1.53488E+05	-3.82845E-01	-3.44905E-05	1.25828E+01	
MASS	MASS-BWBK-SS-MA20-0001	10100	12.2	9.80296E-09	3.43151E-01	2.76361E-03	3.69937E+05	5.85791E-01	5.79991E-05	1.16142E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	7735	9.6	1.6714E-08	7.65151E-02	6.48940E+00	8.84006E+06	2.76614E-01	3.57613E-05	9.32339E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	9150	12.1	1.19442E-08	1.97682E+00	2.24960E-03	2.42806E+06	1.40599E+00	1.53661E-04	1.06940E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	8050	11.8	1.54315E-08	4.71538E+00	1.20708E-01	7.06616E+06	2.17149E+00	2.69751E-04	9.62851E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	11300	13.7	7.83147E-09	8.52719E-01	2.41047E+00	3.50198E+05	9.23428E-01	8.17193E-05	1.27766E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	6760	7.7	2.1883E-08	4.60996E-01	1.97796E+01	1.55885E+07	-6.78967E-01	-1.00439E-04	8.37897E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	12000	15.1	6.94444E-09	2.70729E+00	8.71767E+00	1.66868E+06	1.64538E+00	1.37115E-04	1.34546E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	7650	16	1.70874E-08	4.56834E+01	1.48423E+01	9.35274E+06	6.75895E+00	8.83523E-04	9.24105E+00	MMSB-BWBK-SB-MM107-0110
MMSB	MMSB-BWBK-SB-MM108-0110	8775	9.85	1.29869E-08	2.31137E-01	5.27818E+00	3.73736E+06	-4.80767E-01	-5.47883E-05	1.03308E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	10800	13	8.57339E-09	5.00904E-01	7.26876E-01	8.42278E+03	7.07746E-01	6.55320E-05	1.22923E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	9490	14.3	1.11037E-08	1.07365E+01	4.63356E+00	1.48407E+06	3.27666E+00	3.45275E-04	1.10233E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	10000	11.6	0.00000001	6.83172E-03	2.99680E-01	5.01582E+05	8.26542E-02	8.26542E-06	1.15173E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	10350	12.05	9.33511E-09	3.74933E-02	9.49259E-03	1.28325E+05	1.93632E-01	1.87084E-05	1.18564E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	8890	18.8	1.26531E-08	6.98535E+01	4.42567E+01	3.30594E+06	8.35784E+00	9.40139E-04	1.04422E+01	MMSB-BWBK-SB-MM113-0110
MMSB	MMSB-BWBK-SB-MM114-0110	8040	8.8	1.54699E-08	6.70466E-01	1.12053E+01	7.11942E+06	-8.18820E-01	-1.01843E-04	9.61882E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	10700	9.8	8.73439E-09	5.73790E+00	5.51043E+00	6.76391E+01	-2.39539E+00	-2.23868E-04	1.21954E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	8475	11.65	1.39226E-08	2.59153E+00	2.47437E-01	4.98729E+06	1.60982E+00	1.89950E-04	1.00402E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	7070	6.9	2.0006E-08	3.16571E+00	2.75355E+01	1.32367E+07	-1.77924E+00	-2.51661E-04	8.67924E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	7890	9.5	1.60637E-08	7.00935E-04	7.00889E+00	7.94239E+06	2.64752E-02	3.35554E-06	9.47352E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	7940	10.2	1.5862E-08	4.59743E-01	3.79248E+00	7.66307E+06	6.78043E-01	8.53959E-05	9.52196E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	5520	6.2	3.28187E-08	9.56208E-01	3.53719E+01	2.69177E+07	-9.77859E-01	-1.77148E-04	7.17786E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	15200	12.1	4.32825E-09	1.98403E+01	2.24960E-03	2.01760E+07	-4.45425E+00	-2.93043E-04	1.65543E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	11400	9.6	7.69468E-09	1.07154E+01	6.48940E+00	4.78554E+05	-3.27344E+00	-2.87143E-04	1.28734E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	14200	12.2	4.95933E-09	1.14624E+01	2.76361E-03	1.21925E+07	-3.38561E+00	-2.38424E-04	1.55856E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	14100	12.4	5.02993E-09	9.54039E+00	6.37917E-02	1.15041E+07	-3.08875E+00	-2.19060E-04	1.54888E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	10400	8.5	9.24556E-09	1.15927E+01	1.33037E+01	9.50022E+04	-3.40480E+00	-3.27385E-04	1.19048E+01	
MMSS	MMSS-BWBK-SS-MM106-0001	14000	15.1	5.10204E-09	8.51985E-02	8.71767E+00	1.08358E+07	-2.91888E-01	-2.08491E-05	1.53919E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	15100	12.6	4.38577E-09	1.48794E+01	2.04820E-01	1.92877E+07	-3.85739E+00	-2.55456E-04	1.64574E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	15500	11.9	4.16233E-09	2.44515E+01	6.12216E-02	2.29611E+07	-4.94484E+00	-3.19022E-04	1.68448E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	14300	11.5	4.89021E-09	1.74931E+01	4.19165E-01	1.29009E+07	-4.18248E+00	-2.92481E-04	1.56825E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	9610	7.1	1.08281E-08	1.63182E+01	2.54765E+01	1.20610E+06	-4.03958E+00	-4.20351E-04	1.11396E+01	
MMSS	MMSS-BWBK-SS-MM111-0001	10900	7.8	8.4168E-09	2.10600E+01	1.89001E+01	3.67779E+04	-4.58912E+00	-4.21020E-04	1.23891E+01	
MMSS	MMSS-BWBK-SS-MM112-0001	9430	6.4	1.12454E-08	2.08413E+01	3.30330E+01	1.63386E+06	-4.56522E+00	-4.84117E-04	1.09652E+01	
MMSS	MMSS-BWBK-SS-MM113-0001	13500	10.2	5.48697E-09	2.21612E+01	3.79248E+00	7.79401E+06	-4.70757E+00	-3.48709E-04	1.49076E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	8540	5.8	1.37115E-08	1.85170E+01	4.02899E+01	4.70120E+06	-4.30314E+00	-5.03880E-04	1.01031E+01	
MMSS	MMSS-BWBK-SS-MM115-0001	10200	7.1	9.61169E-09	2.12620E+01	2.54765E+01	2.58292E+05	-4.61107E+00	-4.52066E-04	1.17111E+01	
MMSS	MMSS-BWBK-SS-MM116-0001	9520	7	1.10338E-08	1.64220E+01	2.64960E+01	1.41188E+06	-4.05240E+00	-4.25672E-04	1.10524E+01	
MMSS	MMSS-BWBK-SS-MM117-0001	12800	10.3	6.10352E-09	1.54412E+01	3.41300E+00	4.37553E+06	-3.92953E+00	-3.06994E-04	1.42295E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	9250	9.4	1.16874E-08	1.93452E+00	7.54837E+00	2.12642E+06	-1.39087E+00	-1.50364E-04	1.07909E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	8300	7.6	1.45159E-08	5.15592E+00	2.06791E+01	5.79954E+06	-2.27067E+00	-2.73574E-04	9.87067E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	8900	12.8	1.26247E-08	5.51382E+00	4.25848E-01	3.26968E+06	2.34815E+00	2.63837E-04	1.04518E+01	
NESB	NESB-BWBK-SB-NE01-0108	12300	14.9	6.60982E-09	1.33355E+00	7.57664E+00	2.53375E+06	1.15479E+00	9.38856E-05	1.37452E+01	
NESB	NESB-BWBK-SB-NE02-0109	11100	13.6	8.11622E-09	1.03460E+00	2.10996E+00	1.53488E+05	1.01716E+00	9.16356E-05	1.25828E+01	
NESB	NESB-BWBK-SB-NE03-0105	11100	12.4	8.11622E-09	3.34322E-02	6.37917E-02	1.53488E+05	-1.82845E-01	-1.64725E-05	1.25828E+01	
NESB	NESB-BWBK-SB-NE04-0110	10700	11.9	8.73439E-09	8.72556E-02	6.12216E-02	6.76391E+01	-2.95391E-01	-2.76066E-05	1.21954E+01	
NESB	NESB-BWBK-SB-NE05-0108	11550	13.6	7.49611E-09	3.37874E-01	2.10996E+00	7.08586E+05	5.81269E-01	5.03263E-05	1.30187E+01	
NESB	NESB-BWBK-SB-NE06-0109	10500	12	9.07029E-09	2.76730E-06	2.17356E-02	4.33574E+04	-1.66352E-03	-1.58430E-07	1.20017E+01	
NESB	NESB-BWBK-SB-NE07-0107	12300	14.6	6.60982E-09	7.30670E-01	6.01510E+00	2.53375E+06	8.54793E-01	6.94953E-05	1.37452E+01	
NESB	NESB-BWBK-SB-NE08-0104	10300	11.8	9.42596E-09	6.29867E-05	1.20708E-01	1.66647E+05	-7.93642E-03	-7.70526E-07	1.18079E+01	
NESB	NESB-BWBK-SB-NE09-0110	10350	12.4	9.33511E-09	2.95536E-01	6.37917E-02	1.28325E+05	5.43632E-01	5.25248E-05	1.18564E+01	
NESB	NESB-BWBK-SB-NE10-0107	11300	13.4	7.83147E-09	3.88663E-01	1.56893E+00	3.50198E+05	6.23428E-01	5.51706E-05	1.27766E+01	
NESB	NESB-BWBK-SB-NE101-0110	11800	11.7	7.18184E-09	2.43638E+00	2.00194E-01	1.19197E+06	-1.56089E+00	-1.32279E-04	1.32609E+01	
NESB	NESB-BWBK-SB-NE102-0110	10800	10	8.57339E-09	5.25443E+00	4.61146E+00	8.42278E+03	-2.29225E+00	-2.12246E-04	1.22923E+01	
NESB	NESB-BWBK-SB-NE103-0110	9340	8.7	1.14632E-08	4.74389E+00	1.18848E+01	1.87204E+06	-2.17805E+00	-2.33196E-04	1.08780E+01	
NESB	NESB-BWBK-SB-NE104-0110	8090	7.7	1.52793E-08	3.87008E+00	1.97796E+01	6.85510E+06	-1.96725E+00	-2.43171E-04	9.66725E+00	
NESB	NESB-BWBK-SB-NE105-0110	10800	11	8.57339E-09	1.66992E+00	1.31660E+00	8.42278E+03	-1.29225E+00	-1.19653E-04	1.22923E+01	
NESB	NESB-BWBK-SB-NE106-0110	10200	10	9.61169E-09	2.92777E+00	4.61146E+00	2.58292E+05	-1.71107E+00	-1.67752E-04	1.17111E+01	
NESB	NESB-BWBK-SB-NE107-0510	8220	7.6	1.47998E-08	4.81001E+00	2.06791E+01	6.19126E+06	-2.19317E+00	-2.66810E-04	9.79317E+00	
NESB	NESB-BWBK-SB-NE108-0110	10500	9.8	9.07029E-09	4.84732E+00	5.51043E+00	4.33574E+04	-2.20166E+00	-2.09682E-04	1.20017E+01	
NESB	NESB-BWBK-SB-NE109-0110	10400	9.6	9.24556E-09	5.31210E+00	6.48940E+00	9.50022E+04	-2.30480E+00	-2.21615E-04	1.19048E+01	
NESB	NESB-BWBK-SB-NE110-0110	10300	10.05	9.42596E-09	3.09034E+00	4.39921E+00	1.66647E+05	-1.75794E+00	-1.70673E-04	1.18079E+01	
NESS	NESS-BKG-SS03-NEB-0016	15300	12	4.27186E-09	2.16329E+01	2.17356E-02	2.10844E+07	-4.65111E+00	-3.03994E-04	1.66511E+01	
NESS	NESS-BKG-SS09-NEB-0018	12900	11.4	6.00925E-09	8.56375E+00	5.58651E-01	4.80388E+06	-2.92639E+00	-2.26852E-04	1.43264E+01	
NESS	NESS-BWBK-SS-NE01-0001	17100	17.1	3.41986E-09	1.67614E+00	2.45280E+01	4.08548E+07	-1.29466E+00	-7.57110E-05	1.83947E+01	
NESS	NESS-BWBK-SS-NE02-0001	15500	17	4.16233E-09	2.40743E-02	2.35474E+01	2.29611E+07	1.55159E-01	1.00103E-05	1.68448E+01	
NESS	NESS-BWBK-SS-NE03-0001	16100	14.5	3.85788E-09	8.56161E+00	5.53459E+00	2.90712E+07	-2.92602E+00	-1.81741E-04	1.74260E+01	
NESS	NESS-BWBK-SS-NE04-0001	16000	15.7	3.90625E-09	2.65416E+00	1.26208E+01	2.80029E+07	-1.62916E+00	-1.01822E-04	1.73292E+01	
NESS	NESS-BWBK-SS-NE05-0001	14600	16.7	4.69131E-09	5.28428E-01	2.07259E+01	1.51459E+07	7.26931E-01	4.97898E-05	1.59731E+01	
NESS	NESS-BWBK-SS-NE06-0001	14900	15.2	4.5043E-09	1.13137E+00	9.31818E+00	1.75710E+07	-1.06366E+00	-7.13866E-05	1.62637E+01	
NESS	NESS-BWBK-SS-NE07-0001	15000	14.4	4.44444E-09	3.84365E+00	5.07407E+00	1.84193E+07	-1.96052E+00	-1.30702E-04	1.63605E+01	
NESS	NESS-BWBK-SS-NE08-0001	15300	14.2	4.27186E-09	6.00796E+00	4.21304E+00	2.10844E+07	-2.45111E+00	-1.60204E-04	1.66511E+01	
NESS	NESS-BWBK-SS-NE09-0001	17900	13.9	3.121E-09	2.77683E+01	3.07150E+00	5.17216E+07	-5.26957E+00	-2.94389E-04	1.91696E+01	
NESS	NESS-BWBK-SS-NE10-0001	13600	12.8	5.40657E-09	4.85953E+00	4.25848E-01	8.36237E+06	-2.20443E+00	-1.62091E-04	1.50044E+01	
NESS	NESS-BWBK-SS-NE101-0001	14000	10.3	5.10204E-09	2.59273E+01	3.41300E+00	1.08358E+07	-5.09189E+00	-3.63706E-04	1.53919E+01	
NESS	NESS-BWBK-SS-NE102-0001	10700	7.9	8.73439E-09	1.84504E+01	1.80407E+01	6.76391E+01	-4.29539E+00	-4.01438E-04	1.21954E+01	
NESS	NESS-BWBK-SS-NE103-0001	9330	8.3	1.14878E-08	6.59647E+00	1.48027E+01	1.89950E+06	-2.56836E+00	-2.75280E-04	1.08684E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	11000	7.9	8.26446E-09	2.10312E+01	1.80407E+01	8.51331E+04	-4.58598E+00	-4.16907E-04	1.24860E+01	
NESS	NESS-BWBK-SS-NE105-0001	9580	6.6	1.0896E-08	2.03448E+01	3.07740E+01	1.27289E+06	-4.51052E+00	-4.70827E-04	1.11105E+01	
NESS	NESS-BWBK-SS-NE106-0001	10300	7.1	9.42596E-09	2.21647E+01	2.54765E+01	1.66647E+05	-4.70794E+00	-4.57081E-04	1.18079E+01	
NESS	NESS-BWBK-SS-NE107-0001	10700	6.6	8.73439E-09	3.13084E+01	3.07740E+01	6.76391E+01	-5.59539E+00	-5.22934E-04	1.21954E+01	
NESS	NESS-BWBK-SS-NE108-0001	10500	7.1	9.07029E-09	2.40263E+01	2.54765E+01	4.33574E+04	-4.90166E+00	-4.66825E-04	1.20017E+01	
NESS	NESS-BWBK-SS-NE109-0001	9720	6.3	1.05844E-08	2.44642E+01	3.41924E+01	9.76587E+05	-4.94613E+00	-5.08861E-04	1.12461E+01	
NESS	NESS-BWBK-SS-NE110-0001	9260	6.6	1.16621E-08	1.76447E+01	3.07740E+01	2.09735E+06	-4.20056E+00	-4.53624E-04	1.08006E+01	
PMSB	PMSB-BWBK-SB-PM01-0105	12300	13.9	6.60982E-09	2.39607E-02	3.07150E+00	2.53375E+06	1.54793E-01	1.25848E-05	1.37452E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	13200	21.3	5.73921E-09	4.46628E+01	8.37695E+01	6.20895E+06	6.68302E+00	5.06289E-04	1.46170E+01	PMSB-BWBK-SB-PM02-0104
PMSB	PMSB-BWBK-SB-PM03-0106	11400	15.7	7.69468E-09	7.98947E+00	1.26208E+01	4.78554E+05	2.82656E+00	2.47944E-04	1.28734E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	11100	15	8.11622E-09	5.84264E+00	8.13716E+00	1.53488E+05	2.41716E+00	2.17762E-04	1.25828E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	10900	14.85	8.4168E-09	6.05594E+00	7.30389E+00	3.67779E+04	2.46088E+00	2.25769E-04	1.23891E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	11200	14.1	7.97194E-09	2.01723E+00	3.81253E+00	2.41843E+05	1.42029E+00	1.26812E-04	1.26797E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	9280	13	1.16119E-08	4.75271E+00	7.26876E-01	2.03982E+06	2.18007E+00	2.34922E-04	1.08199E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	10500	13.7	9.07029E-09	2.88435E+00	2.41047E+00	4.33574E+04	1.69834E+00	1.61746E-04	1.20017E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	8390	11.9	1.42061E-08	3.77198E+00	6.12216E-02	5.37416E+06	1.94216E+00	2.31485E-04	9.95784E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	9830	17.2	1.03489E-08	3.41912E+01	2.55285E+01	7.71278E+05	5.84732E+00	5.94845E-04	1.13527E+01	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	9700	13.3	1.06281E-08	4.29834E+00	1.32842E+00	1.01652E+06	2.07324E+00	2.13737E-04	1.12268E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	8620	14.4	1.34582E-08	1.78031E+01	5.07407E+00	4.36068E+06	4.21937E+00	4.89486E-04	1.01806E+01	PMSB-BWBK-SB-PM12-0105
PMSB	PMSB-BWBK-SB-PM13-0106	10600	15.3	8.89996E-09	1.02494E+01	9.93870E+00	1.17125E+04	3.20147E+00	3.02026E-04	1.20985E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	8860	11.9	1.27389E-08	2.21087E+00	6.12216E-02	3.41593E+06	1.48690E+00	1.67822E-04	1.04131E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	10300	14.2	9.42596E-09	5.72197E+00	4.21304E+00	1.66647E+05	2.39206E+00	2.32239E-04	1.18079E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	9740	12	1.0541E-08	5.39489E-01	2.17356E-02	9.37458E+05	7.34499E-01	7.54106E-05	1.12655E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	10550	13.65	8.98452E-09	2.55970E+00	2.25772E+00	2.50349E+04	1.59990E+00	1.51650E-04	1.20501E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	11300	15	7.83147E-09	4.94363E+00	8.13716E+00	3.50198E+05	2.22343E+00	1.96764E-04	1.27766E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	10900	13.9	8.4168E-09	2.28277E+00	3.07150E+00	3.67779E+04	1.51088E+00	1.38613E-04	1.23891E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	10400	13.45	9.24556E-09	2.38764E+00	1.69669E+00	9.50022E+04	1.54520E+00	1.48577E-04	1.19048E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	11500	13.1	7.56144E-09	1.68223E-02	9.07390E-01	6.26909E+05	1.29701E-01	1.12783E-05	1.29703E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	11800	14.6	7.18184E-09	1.79322E+00	6.01510E+00	1.19197E+06	1.33911E+00	1.13484E-04	1.32609E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	9910	14.4	1.01825E-08	8.81990E+00	5.07407E+00	6.37162E+05	2.96983E+00	2.99680E-04	1.14302E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	11300	14.7	7.83147E-09	3.69958E+00	6.51561E+00	3.50198E+05	1.92343E+00	1.70215E-04	1.27766E+01	
PMSS	PMSS-DABK-S-SO21-0001	9290	12.5	1.15869E-08	2.79019E+00	1.24306E-01	2.01136E+06	1.67039E+00	1.79805E-04	1.08296E+01	
PMSS	PMSS-DABK-S-SO22-0001	12100	15	6.83013E-09	2.09821E+00	8.13716E+00	1.93704E+06	1.44852E+00	1.19712E-04	1.35515E+01	
PMSS	PMSS-DABK-S-SO23-0001	12100	13.6	6.83013E-09	2.35416E-03	2.10996E+00	1.93704E+06	4.85197E-02	4.00989E-06	1.35515E+01	
PMSS	PMSS-DABK-S-SO24-0001	11700	14.2	7.30514E-09	1.07324E+00	4.21304E+00	9.83619E+05	1.03597E+00	8.85448E-05	1.31640E+01	
PMSS	PMSS-DABK-S-SO25-0001	13050	14.6	5.8719E-09	1.64650E-02	6.01510E+00	5.48391E+06	1.28316E-01	9.83264E-06	1.44717E+01	
PMSS	PMSS-DABK-S-SO26-0001	12400	15.2	6.50364E-09	1.84397E+00	9.31818E+00	2.86211E+06	1.35793E+00	1.09510E-04	1.38421E+01	
PMSS	PMSS-DABK-S-SO27-0001	11000	12	8.26446E-09	2.36178E-01	2.17356E-02	8.51331E+04	-4.85981E-01	-4.41801E-05	1.24860E+01	
PMSS	PMSS-DABK-S-SO28-0001	10800	14	8.57339E-09	2.91640E+00	3.43202E+00	8.42278E+03	1.70775E+00	1.58125E-04	1.22923E+01	
PMSS	PMSS-DABK-S-SO29-0001	14600	16	4.69131E-09	7.25271E-04	1.48423E+01	1.51459E+07	2.69309E-02	1.84458E-06	1.59731E+01	
PMSS	PMSS-DABK-S-SO30-0001	14000	15.2	5.10204E-09	3.68209E-02	9.31818E+00	1.08358E+07	-1.91888E-01	-1.37063E-05	1.53919E+01	
PMSS	PMSS-DABK-S-SO31-0001	9780	11.6	1.0455E-08	8.74705E-02	2.99680E-01	8.61600E+05	2.95754E-01	3.02407E-05	1.13042E+01	
PMSS	PMSS-DABK-S-SO32-0001	11700	15.1	7.30514E-09	3.74799E+00	8.71767E+00	9.83619E+05	1.93597E+00	1.65468E-04	1.31640E+01	
PMSS	PMSS-DABK-S-SO33-0001	11200	13.4	7.97194E-09	5.18820E-01	1.56893E+00	2.41843E+05	7.20292E-01	6.43118E-05	1.26797E+01	
PMSS	PMSS-DABK-S-SO34-0001	9110	12	1.20493E-08	1.80833E+00	2.17356E-02	2.55432E+06	1.34474E+00	1.47611E-04	1.06553E+01	
PMSS	PMSS-DABK-S-SO35-0001	9835	13.35	1.03384E-08	3.96997E+00	1.44617E+00	7.62521E+05	1.99248E+00	2.02591E-04	1.13575E+01	
PMSS	PMSS-DABK-S-SO36-0001	10600	12.4	8.89996E-09	9.08859E-02	6.37917E-02	1.17125E+04	3.01473E-01	2.84408E-05	1.20985E+01	
PMSS	PMSS-DABK-S-SO37-0001	11400	13.9	7.69468E-09	1.05383E+00	3.07150E+00	4.78554E+05	1.02656E+00	9.00495E-05	1.28734E+01	
PMSS	PMSS-DABK-S-SO38-0001	9430	11.2	1.12454E-08	5.51200E-02	8.97623E-01	1.63386E+06	2.34776E-01	2.48968E-05	1.09652E+01	
PMSS	PMSS-DABK-S-SO39-0001	9890	12.3	1.02237E-08	7.90684E-01	2.32776E-02	6.69491E+05	8.89204E-01	8.99094E-05	1.14108E+01	
PMSS	PMSS-DABK-S-SO40-0001	10300	12.2	9.42596E-09	1.53714E-01	2.76361E-03	1.66647E+05	3.92064E-01	3.80644E-05	1.18079E+01	

APPENDIX F, TABLE F8-4
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART I
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
SESB	SESB-BWBK-SB-SO03-0108	14000	16.6	5.10204E-09	1.45954E+00	1.98254E+01	1.08358E+07	1.20811E+00	8.62937E-05	1.53919E+01	
SESB	SESB-BWBK-SB-SO04-0108	10600	14.9	8.89996E-09	7.84825E+00	7.57664E+00	1.17125E+04	2.80147E+00	2.64290E-04	1.20985E+01	
SESB	SESB-BWBK-SB-SO05-0106	12400	15.8	6.50364E-09	3.83349E+00	1.33413E+01	2.86211E+06	1.95793E+00	1.57897E-04	1.38421E+01	
SESB	SESB-BWBK-SB-SO06-0108	13450	16.85	5.52784E-09	3.96353E+00	2.21142E+01	7.51733E+06	1.99086E+00	1.48019E-04	1.48591E+01	
SESB	SESB-BWBK-SB-SO07-0106	10400	14.5	9.24556E-09	6.73506E+00	5.53459E+00	9.50022E+04	2.59520E+00	2.49538E-04	1.19048E+01	
SESB	SESB-BWBK-SB-SO08-0107	13100	17.3	5.82717E-09	7.72776E+00	2.65490E+01	5.72059E+06	2.77988E+00	2.12205E-04	1.45201E+01	
SESB	SESB-BWBK-SB-SO09-0106	11600	15.3	7.43163E-09	4.98556E+00	9.93870E+00	7.95264E+05	2.23284E+00	1.92486E-04	1.30672E+01	
SESB	SESB-BWBK-SB-SO11-0106	12600	15.8	6.29882E-09	3.11241E+00	1.33413E+01	3.57882E+06	1.76420E+00	1.40016E-04	1.40358E+01	
SESB	SESB-BWBK-SB-SO12-0106	10750	15.05	8.65333E-09	7.87463E+00	8.42491E+00	1.74521E+03	2.80618E+00	2.61040E-04	1.22438E+01	
SESB	SESB-BWBK-SB-SO15-0103	11000	13.4	8.26446E-09	8.35430E-01	1.56893E+00	8.51331E+04	9.14019E-01	8.30926E-05	1.24860E+01	
SESB	SESB-BWBK-SB-SO16-0105	9090	13.3	1.21024E-08	7.09750E+00	1.32842E+00	2.61865E+06	2.66411E+00	2.93082E-04	1.06359E+01	
SESB	SESB-BWBK-SB-SO17-0106	9140	13.1	1.19704E-08	5.83551E+00	9.07390E-01	2.45933E+06	2.41568E+00	2.64298E-04	1.06843E+01	
SESB	SESB-BWBK-SB-SO18-0105	9300	12.6	1.1562E-08	3.10006E+00	2.04820E-01	1.98310E+06	1.76070E+00	1.89322E-04	1.08393E+01	
SESB	SESB-BWBK-SB-SO19-0104	9060	13.1	1.21827E-08	6.21590E+00	9.07390E-01	2.71664E+06	2.49317E+00	2.75185E-04	1.06068E+01	
SESB	SESB-BWBK-SB-SO20-0104	9300	13.7	1.1562E-08	8.18360E+00	2.41047E+00	1.98310E+06	2.86070E+00	3.07602E-04	1.08393E+01	
SESS	SESS-DABK-S-SO01-0001	14300	13	4.89021E-09	7.19569E+00	7.26876E-01	1.29009E+07	-2.68248E+00	-1.87586E-04	1.56825E+01	
SESS	SESS-DABK-S-SO02-0001	12500	28.2	6.4E-09	2.03378E+02	2.57685E+02	3.21046E+06	1.42611E+01	1.14089E-03	1.39389E+01	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	12300	11.9	6.60982E-09	3.40479E+00	6.12216E-02	2.53375E+06	-1.84521E+00	-1.50017E-04	1.37452E+01	
SESS	SESS-DABK-S-SO04-0001	16700	14.4	3.58564E-09	1.30119E+01	5.07407E+00	3.59014E+07	-3.60720E+00	-2.16000E-04	1.80072E+01	
SESS	SESS-DABK-S-SO05-0001	13100	11.9	5.82717E-09	6.86501E+00	6.12216E-02	5.72059E+06	-2.62012E+00	-2.00009E-04	1.45201E+01	
SESS	SESS-DABK-S-SO06-0001	14800	15.8	4.56538E-09	1.34539E-01	1.33413E+01	1.67426E+07	-3.66796E-01	-2.47835E-05	1.61668E+01	
SESS	SESS-DABK-S-SO07-0001	13150	13.6	5.78294E-09	9.38085E-01	2.10996E+00	5.96227E+06	-9.68548E-01	-7.36538E-05	1.45685E+01	
SESS	SESS-DABK-S-SO08-0001	12300	12.7	6.60982E-09	1.09246E+00	3.05334E-01	2.53375E+06	-1.04521E+00	-8.49762E-05	1.37452E+01	
SESS	SESS-DABK-S-SO09-0001	11200	11.2	7.97194E-09	2.18954E+00	8.97623E-01	2.41843E+05	-1.47971E+00	-1.32117E-04	1.26797E+01	
SESS	SESS-DABK-S-SO10-0001	12500	11	6.4E-09	8.63734E+00	1.31660E+00	3.21046E+06	-2.93893E+00	-2.35115E-04	1.39389E+01	
SESS	SESS-DABK-S-SO11-0001	8240	8.3	1.47281E-08	2.28780E+00	1.48027E+01	6.09213E+06	-1.51255E+00	-1.83562E-04	9.81255E+00	
SESS	SESS-DABK-S-SO12-0001	11900	11.3	7.06165E-09	4.23435E+00	7.18137E-01	1.42033E+06	-2.05775E+00	-1.72920E-04	1.33578E+01	
SESS	SESS-DABK-S-SO13-0001	9840	10.9	1.03278E-08	2.13781E-01	1.55608E+00	7.53813E+05	-4.62364E-01	-4.69882E-05	1.13624E+01	
SESS	SESS-DABK-S-SO14-0001	9250	9.8	1.16874E-08	9.81822E-01	5.51043E+00	2.12642E+06	-9.90869E-01	-1.07121E-04	1.07909E+01	
SESS	SESS-DABK-S-SO15-0001	11700	12.8	7.30514E-09	1.32515E-01	4.25848E-01	9.83619E+05	-3.64026E-01	-3.11133E-05	1.31640E+01	
SESS	SESS-DABK-S-SO16-0001	9020	8.3	1.2291E-08	5.14420E+00	1.48027E+01	2.85010E+06	-2.26808E+00	-2.51450E-04	1.05681E+01	
SESS	SESS-DABK-S-SO17-0001	11000	9.1	8.26446E-09	1.14649E+01	9.28683E+00	8.51331E+04	-3.38598E+00	-3.07816E-04	1.24860E+01	
SESS	SESS-DABK-S-SO18-0001	9140	9.9	1.19704E-08	6.15157E-01	5.05094E+00	2.45933E+06	-7.84319E-01	-8.58117E-05	1.06843E+01	
SESS	SESS-DABK-S-SO19-0001	13000	14.1	5.91716E-09	1.04492E-01	3.81253E+00	5.25224E+06	-3.23252E-01	-2.48656E-05	1.44233E+01	
SESS	SESS-DABK-S-SO20-0001	15200	16	4.32825E-09	3.07194E-01	1.48423E+01	2.01760E+07	-5.54250E-01	-3.64638E-05	1.65543E+01	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: Cr^0.5
X variable name used on graph: CR predict (from Factor Anal.)

	N	214.000000
2sided ALPHA 0.10	SUM(w^2*(Ypred.- Yobs)^2)	9.237175E-02
	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	6.320466E+01
2	SUM(X^2*w^2)	2.140000E+02
	SUM(X*w^2)	1.921134E+01
	SUM(Y*w^2)	6.078644E+00
	SUM(w^2)	1.983882E+00
	SUM(Y)	737.844900
	SUM(X)	2.599550E+03
	Denominator	5.547538E+01
	Slope	**1.552352E-01**
	Intercept	**1.560762E+00**
	Minimum X value	3.119267E+00
	Maximum X value	1.801747E+01
	Minimum Y value	2.190890E+00
	Maximum Y value	5.310367E+00
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.252281E+01
	SUM(Yobs - Yave)^2	5.555422E+01
	SUM(X - Xave)^2	1.782933E+03
	Std. Error of Y-estimate	**2.430429E-01**
	R^2	**7.745841E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1/x**
est.M, Std.Err.Y		

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		**25**
Inverse Log Transform (Y/N)?	**No**	**50**
Inverse Power Transform (Y/N)?	**Yes**	**75**
Inverse Power Transform (1/Power):	**2**	**90**

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
3.12	2.04	1.93	2.16	-0.07	0.07	0.00	**No. of Exceedances**
3.74	2.14	2.00	2.28	-0.07	0.07	0.00	**of Upper 95% Limit**
4.36	2.24	2.08	2.39	-0.07	0.07	0.00	**for Each Soil Type:**
4.98	2.33	2.16	2.51	-0.07	0.07	0.00	---- V ----
5.60	2.43	2.23	2.63	-0.07	0.07	0.00	BASS
6.22	2.53	2.31	2.74	-0.07	0.07	0.00	0
6.84	2.62	2.39	2.86	-0.07	0.07	0.00	MASS
7.46	2.72	2.46	2.98	-0.07	0.07	0.00	1
8.09	2.82	2.54	3.10	-0.07	0.07	0.00	MMSS
8.71	2.91	2.61	3.21	-0.07	0.07	0.00	1
9.33	3.01	2.69	3.33	-0.07	0.07	0.00	NESS
9.95	3.10	2.76	3.45	-0.07	0.07	0.00	0
10.57	3.20	2.84	3.57	-0.07	0.07	0.00	PMSS
11.19	3.30	2.91	3.68	-0.07	0.07	0.00	0
11.81	3.39	2.99	3.80	-0.07	0.07	0.00	SESS
12.43	3.49	3.06	3.92	-0.07	0.07	0.00	1
13.05	3.59	3.14	4.04	-0.07	0.07	0.00	SESD
13.67	3.68	3.21	4.16	-0.07	0.07	0.00	0
14.29	3.78	3.29	4.27	-0.07	0.07	0.00	MASB
14.91	3.88	3.36	4.39	-0.07	0.07	0.00	2
15.53	3.97	3.43	4.51	-0.07	0.07	0.00	MMSB
16.16	4.07	3.51	4.63	-0.07	0.07	0.00	2
16.78	4.16	3.58	4.75	-0.07	0.07	0.00	NESB
17.40	4.26	3.66	4.86	-0.07	0.07	0.00	0
18.02	4.36	3.73	4.98	-0.07	0.07	0.00	PMSB
10.67	3.22	2.85	3.59	10.35	**-22%**	**24%**	4
12.64	3.52	3.09	3.96	12.42	**-23%**	**26%**	SESB
14.13	3.75	3.27	4.24	14.09	**-24%**	**28%**	0
15.34	3.94	3.41	4.47	15.54	**-25%**	**29%**	<<--Original Units Errors

TEXT BOX ==> **(Cr^0.5) = (1.55E-01)x(CR predict (from Factor Anal.)) + (1.56E+00)** **R^2 = 0.77; Std. Error of Y-estimate = 2.43E-01** **+/-3 x IQR of r** -0.068813 0.068813

TEXT BOX ==> **Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro** **V - wt.descrip.** **TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.**

	Indexed value lookups:	**X data column ref.**	**Y data column ref.**	**Weighted 1/x.**	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!J**	**DA!L**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**CR predict**	**Cr^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	5.826502353	2.366431913	0.029456704	9.76316E-03	1.16952E+00	3.99541E+01	-9.88087E-02	-1.69585E-02	2.46524E+00	
BASS	BASS-BWBK-SS-BA102-0001	4.389288115	2.19089023	0.051905314	2.62596E-03	1.58001E+00	6.01888E+01	-5.12442E-02	-1.16748E-02	2.24213E+00	
BASS	BASS-BWBK-SS-BA103-0001	5.063686438	2.236067977	0.03900016	1.22671E-02	1.46847E+00	5.01794E+01	-1.10757E-01	-2.18728E-02	2.34682E+00	
BASS	BASS-BWBK-SS-BA104-0001	6.465006452	2.529822128	0.023925558	1.19279E-03	8.42818E-01	3.22899E+01	-3.45368E-02	-5.34211E-03	2.56436E+00	
BASS	BASS-BWBK-SS-BA105-0001	5.056797535	2.387467277	0.039106493	1.73989E-03	1.12446E+00	5.02771E+01	4.17119E-02	8.24869E-03	2.34576E+00	
BASS	BASS-BWBK-SS-BA106-0001	6.664009522	2.729468813	0.022517946	1.80144E-02	5.16105E-01	3.00679E+01	1.34218E-01	2.01407E-02	2.59525E+00	
BASS	BASS-BWBK-SS-BA107-0001	4.54569113	2.19089023	0.048394962	5.70379E-03	1.58001E+00	5.77864E+01	-7.55234E-02	-1.66143E-02	2.26641E+00	
BASS	BASS-BWBK-SS-BA108-0001	4.734596873	2.28035085	0.044610181	2.36779E-04	1.36311E+00	5.49501E+01	-1.53876E-02	-3.25004E-03	2.29574E+00	
BASS	BASS-BWBK-SS-BA109-0001	6.23996838	2.645751311	0.025682377	1.35318E-02	6.43400E-01	3.48981E+01	1.16326E-01	1.86421E-02	2.52943E+00	
BASS	BASS-BWBK-SS-BA110-0001	7.347396386	2.645751311	0.018523927	3.08976E-03	6.43400E-01	2.30403E+01	-5.55856E-02	-7.56534E-03	2.70134E+00	
BASS	BASS-BWBK-SS-BA111-0001	5.20478528	2.42899156	0.036914277	3.63167E-03	1.03812E+00	4.82003E+01	6.02633E-02	1.15784E-02	2.36873E+00	
BASS	BASS-BWBK-SS-BA112-0001	5.098527395	2.28035085	0.038468964	5.16709E-03	1.36311E+00	4.96870E+01	-7.18824E-02	-1.40987E-02	2.35223E+00	
BASS	BASS-BWBK-SS-BA113-0001	4.585763169	2.418677324	0.047552872	2.13286E-02	1.05924E+00	5.71788E+01	1.46043E-01	3.18471E-02	2.27263E+00	
MASB	MASB-BWBK-SB-MA01-0105	13.82864624	3.834057903	0.005229265	1.60283E-02	1.49138E-01	2.82649E+00	1.26603E-01	9.15513E-03	3.70745E+00	
MASB	MASB-BWBK-SB-MA02-0107	15.10042388	3.987480407	0.004385526	6.82290E-03	2.91176E-01	8.72017E+00	8.26009E-02	5.47010E-03	3.90488E+00	
MASB	MASB-BWBK-SB-MA03-0108	13.37568047	3.660601044	0.005589439	5.50483E-04	4.52531E-02	1.50860E+00	2.34624E-02	1.75411E-03	3.63714E+00	
MASB	MASB-BWBK-SB-MA04-0106	15.86563074	4.037325848	0.003972696	1.86576E-04	3.47454E-01	1.38250E+01	1.36593E-02	8.60935E-04	4.02367E+00	
MASB	MASB-BWBK-SB-MA05-0108	13.618632	3.937003937	0.005391791	6.87230E-02	2.39249E-01	2.16444E+00	2.62151E-01	1.92494E-02	3.67485E+00	
MASB	MASB-BWBK-SB-MA06-0105	14.20236589	3.885871846	0.004957681	1.44968E-02	1.91843E-01	4.22276E+00	1.20403E-01	8.47764E-03	3.76547E+00	
MASB	MASB-BWBK-SB-MA07-0108	12.7908942	3.514256678	0.006112209	1.03058E-03	4.40674E-03	4.14046E-01	-3.21026E-02	-2.50980E-03	3.54636E+00	
MASB	MASB-BWBK-SB-MA08-0108	16.79185475	4.324349662	0.003546522	2.46178E-02	7.68211E-01	2.15707E+01	1.56901E-01	9.34385E-03	4.16745E+00	
MASB	MASB-BWBK-SB-MA09-0108	13.39212896	3.605551275	0.005575717	1.16559E-03	2.48623E-02	1.54928E+00	-3.41408E-02	-2.54932E-03	3.63969E+00	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!L	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**CR predict**	**Cr^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	10.67425721	3.405877273	0.008776567	3.53796E-02	1.76367E-03	2.17024E+00	1.88095E-01	1.76213E-02	3.21778E+00	
MASB	MASB-BWBK-SB-MA11-0108	14.58047367	3.974921383	0.004703885	2.27275E-02	2.77780E-01	5.91970E+00	1.50756E-01	1.03396E-02	3.82416E+00	
MASB	MASB-BWBK-SB-MA12-0108	14.12564674	3.911521443	0.00501168	2.49519E-02	2.14970E-01	3.91334E+00	1.57962E-01	1.11826E-02	3.75356E+00	
MASB	MASB-BWBK-SB-MA13-0105	11.2971937	3.768288736	0.007835358	2.05938E-01	1.02666E-01	7.22902E-01	4.53804E-01	4.01697E-02	3.31448E+00	MASB-BWBK-SB-MA13-0105
MASB	MASB-BWBK-SB-MA14-0104	14.30479206	4.049691346	0.004886939	7.19966E-02	3.62185E-01	4.65421E+00	2.68322E-01	1.87575E-02	3.78137E+00	
MASB	MASB-BWBK-SB-MA15-0105	13.91243642	3.898717738	0.005166466	3.17751E-02	2.03261E-01	3.11525E+00	1.78256E-01	1.28127E-02	3.72046E+00	
MASB	MASB-BWBK-SB-MA16-0104	11.51497863	3.563705936	0.007541778	4.64030E-02	1.34172E-02	3.99995E-01	2.15414E-01	1.87073E-02	3.34829E+00	
MASB	MASB-BWBK-SB-MA17-0104	12.24299706	3.521363372	0.006671516	3.60684E-03	5.40078E-03	9.13308E-03	6.00570E-02	4.90542E-03	3.46131E+00	
MASB	MASB-BWBK-SB-MA18-0104	12.65134853	4.086563348	0.006247789	3.15694E-01	4.07925E-01	2.53934E-01	5.61866E-01	4.44116E-02	3.52470E+00	MASB-BWBK-SB-MA18-0104
MASB	MASB-BWBK-SB-MA19-0103	10.87293354	3.464101615	0.008458757	4.64305E-02	2.63356E-04	1.62434E+00	2.15477E-01	1.98178E-02	3.24862E+00	
MASB	MASB-BWBK-SB-MA20-0103	13.06679895	3.674234614	0.005856816	7.23269E-03	5.12394E-02	8.45239E-01	8.50452E-02	6.50850E-03	3.58919E+00	
MASS	MASS-BWBK-SS-MA01-0001	8.121471374	2.846049894	0.015161095	6.02670E-04	3.62191E-01	1.62083E+01	2.45493E-02	3.02277E-03	2.82150E+00	
MASS	MASS-BWBK-SS-MA02-0001	12.97337722	3.420526275	0.00594147	2.37655E-02	7.47863E-04	6.82189E-01	-1.54161E-01	-1.18829E-02	3.57469E+00	
MASS	MASS-BWBK-SS-MA03-0001	9.935261795	3.255764119	0.010130745	2.33171E-02	3.69060E-02	4.89369E+00	1.52699E-01	1.53694E-02	3.10306E+00	
MASS	MASS-BWBK-SS-MA04-0001	11.78449284	3.346640106	0.007200758	1.89140E-03	1.02482E-02	1.31723E-01	-4.34903E-02	-3.69047E-03	3.39013E+00	
MASS	MASS-BWBK-SS-MA05-0001	14.1164942	3.714835124	0.005018181	1.39158E-03	7.12686E-02	3.87721E+00	-3.73039E-02	-2.64258E-03	3.75214E+00	
MASS	MASS-BWBK-SS-MA06-0001	15.85906946	3.974921383	0.003975984	2.27783E-03	2.77780E-01	1.37763E+01	-4.77266E-02	-3.00942E-03	4.02265E+00	
MASS	MASS-BWBK-SS-MA07-0001	3.119266953	2.19089023	0.102776757	2.12891E-02	1.58001E+00	8.15077E+01	1.45908E-01	4.67763E-02	2.04498E+00	MASS-BWBK-SS-MA07-0001
MASS	MASS-BWBK-SS-MA08-0001	11.66798382	3.224903099	0.00734528	2.16505E-02	4.97157E-02	2.29869E-01	-1.47141E-01	-1.26107E-02	3.37204E+00	
MASS	MASS-BWBK-SS-MA09-0001	18.01746761	4.171330723	0.003080438	3.47363E-02	5.23391E-01	3.44573E+01	-1.86377E-01	-1.03442E-02	4.35771E+00	
MASS	MASS-BWBK-SS-MA10-0001	15.4552419	3.911521443	0.004186474	2.34627E-03	2.14970E-01	1.09416E+01	-4.84383E-02	-3.13410E-03	3.95996E+00	
MASS	MASS-BWBK-SS-MA11-0001	16.10019039	4	0.003857785	3.60942E-03	3.04844E-01	1.56243E+01	-6.00785E-02	-3.73154E-03	4.06008E+00	
MASS	MASS-BWBK-SS-MA12-0001	11.99802784	3.435112807	0.006946728	1.40050E-04	1.62832E-04	2.23210E-02	1.18343E-02	9.86353E-04	3.42328E+00	
MASS	MASS-BWBK-SS-MA13-0001	13.62193001	3.687817783	0.00538918	1.55065E-04	5.75733E-02	2.17415E+00	1.24525E-02	9.14152E-04	3.67537E+00	
MASS	MASS-BWBK-SS-MA14-0001	10.49081128	3.178049716	0.009086191	1.26692E-04	7.28048E-02	2.74439E+00	-1.12558E-02	-1.07292E-03	3.18931E+00	
MASS	MASS-BWBK-SS-MA15-0001	11.53850574	3.376388603	0.007511054	5.97513E-04	5.11007E-03	3.70789E-01	2.44441E-02	2.11848E-03	3.35194E+00	
MASS	MASS-BWBK-SS-MA16-0001	10.65939093	3.420526275	0.008801065	4.20460E-02	7.47863E-04	2.21426E+00	2.05051E-01	1.92367E-02	3.21547E+00	
MASS	MASS-BWBK-SS-MA17-0001	11.62634668	3.492849839	0.007397985	1.61975E-02	2.02288E-03	2.71528E-01	1.27269E-01	1.09466E-02	3.36558E+00	
MASS	MASS-BWBK-SS-MA18-0001	10.31130457	3.224903099	0.009405303	4.02760E-03	4.97157E-02	3.37136E+00	6.34634E-02	6.15474E-03	3.16144E+00	
MASS	MASS-BWBK-SS-MA19-0001	11.71967671	3.492849839	0.007280626	1.27196E-02	2.02288E-03	1.82973E-01	1.12781E-01	9.62324E-03	3.38007E+00	
MASS	MASS-BWBK-SS-MA20-0001	11.97276005	3.492849839	0.00697608	5.40133E-03	2.02288E-03	3.05096E-02	7.34938E-02	6.13842E-03	3.41936E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	10.56222321	3.098386677	0.008963741	1.04049E-02	1.22141E-01	2.51288E+00	-1.02004E-01	-9.65748E-03	3.20039E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	12.9135948	3.478505426	0.005996608	7.55184E-03	9.38323E-04	5.87009E-01	-8.69013E-02	-6.72944E-03	3.56541E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	10.71827007	3.435112807	0.008704636	4.43093E-02	1.62832E-04	2.04250E+00	2.10498E-01	1.96392E-02	3.22462E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	14.73564246	3.701351105	0.004605342	2.15801E-02	6.42510E-02	6.69884E+00	-1.46902E-01	-9.96913E-03	3.84825E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	8.400394381	2.774887385	0.014171005	8.08414E-03	4.52910E-01	1.40403E+01	-8.99118E-02	-1.07033E-02	2.86480E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	16.25340338	3.885871846	0.003785396	3.92003E-02	1.91843E-01	1.68590E+01	-1.97991E-01	-1.21815E-02	4.08386E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	10.25342407	4	0.009511788	7.18333E-01	3.04844E-01	3.58726E+00	8.47545E-01	8.26597E-02	3.15245E+00	MMSB-BWBK-SB-MM107-0110
MMSB	MMSB-BWBK-SB-MM108-0110	11.11664258	3.138470965	0.008091941	2.18997E-02	9.57298E-02	1.06252E+00	-1.47986E-01	-1.33121E-02	3.28646E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	13.61149145	3.605551275	0.005397449	4.65036E-03	2.48623E-02	2.14348E+00	-6.81936E-02	-5.01000E-03	3.67374E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	11.8082272	3.78153408	0.00717184	1.50326E-01	1.11329E-01	1.15058E-01	3.87719E-01	3.28347E-02	3.39381E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	13.19691159	3.405877273	0.005741897	4.14164E-02	1.76367E-03	1.10141E+00	-2.03510E-01	-1.54210E-02	3.60939E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	13.68125205	3.471310992	0.005342547	4.54812E-02	5.49322E-04	2.35261E+00	-2.13263E-01	-1.55880E-02	3.68457E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	12.18663474	4.335896678	0.006733369	7.80289E-01	7.88585E-01	1.53702E-03	8.83340E-01	7.24843E-02	3.45256E+00	MMSB-BWBK-SB-MM113-0110
MMSB	MMSB-BWBK-SB-MM114-0110	9.96943863	2.966479395	0.010061404	2.01330E-02	2.31740E-01	4.74365E+00	-1.41891E-01	-1.42326E-02	3.10837E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	13.81781685	3.130495168	0.005237465	3.30946E-01	1.00729E-01	2.79019E+00	-5.75279E-01	-4.16331E-02	3.70577E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	11.62142209	3.413209633	0.007404256	2.34194E-03	1.20157E-03	2.76684E-01	4.83936E-02	4.16417E-03	3.36482E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	9.267891839	2.626785107	0.011642281	1.38891E-01	6.74186E-01	8.29174E+00	-3.72680E-01	-4.02120E-02	2.99947E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	12.39540346	3.082207001	0.006508466	1.62214E-01	1.33712E-01	6.14909E-02	-4.02758E-01	-3.24925E-02	3.48497E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	11.02717347	3.193743885	0.008223782	6.21320E-03	6.45818E-02	1.25497E+00	-7.88239E-02	-7.14815E-03	3.27257E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	6.981205778	2.48997992	0.020518193	2.38737E-02	9.17560E-01	2.66899E+01	-1.54511E-01	-2.21325E-02	2.64449E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	14.4630186	3.478505426	0.004780597	1.07208E-01	9.38323E-04	5.36195E+00	-3.27426E-01	-2.26389E-02	3.80593E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	10.6752252	3.098386677	0.008774975	1.42913E-02	1.22141E-01	2.16739E+00	-1.19546E-01	-1.11985E-02	3.21793E+00	

APPENDIX F, TABLE F8-5
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	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!L	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	CR predict	Cr^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	13.28225898	3.492849839	0.005668343	1.68445E-02	2.02288E-03	1.28784E+00	-1.29787E-01	-9.77142E-03	3.62264E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	14.26917305	3.521363372	0.004911367	6.47584E-02	5.40078E-03	4.50179E+00	-2.54477E-01	-1.78340E-02	3.77584E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	9.217430339	2.915475947	0.011770103	5.79974E-03	2.83447E-01	8.58490E+00	-7.61560E-02	-8.26217E-03	2.99163E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	13.96539007	3.885871846	0.005127361	2.47085E-02	1.91843E-01	3.30498E+00	1.57189E-01	1.12556E-02	3.72868E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	14.82068488	3.54964787	0.004552642	9.72232E-02	1.03580E-02	7.14629E+00	-3.11806E-01	-2.10386E-02	3.86145E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	13.77749428	3.449637662	0.005268167	6.24383E-02	3.11274E-06	2.65711E+00	-2.49877E-01	-1.81366E-02	3.69951E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	12.73666896	3.391164992	0.006164364	2.15434E-02	3.21584E-03	3.47203E-01	-1.46777E-01	-1.15239E-02	3.53794E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	7.733157254	2.664582519	0.016721927	9.33891E-03	6.13545E-01	1.94858E+01	-9.66380E-02	-1.24966E-02	2.76122E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	8.955110181	2.792848009	0.012469761	2.49838E-02	4.29058E-01	1.01909E+01	-1.58063E-01	-1.76506E-02	2.95091E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	7.430630897	2.529822128	0.018111258	3.40165E-02	8.42818E-01	2.22482E+01	-1.84436E-01	-2.48210E-02	2.71426E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	12.2228652	3.193743885	0.006693511	6.99271E-02	6.45818E-02	5.69048E-03	-2.64437E-01	-2.16346E-02	3.45818E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	6.591950544	2.408318916	0.023012941	3.08867E-02	1.08067E+00	3.08634E+01	-1.75746E-01	-2.66607E-02	2.58407E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	8.601940164	2.664582519	0.013514724	5.35940E-02	6.13545E-01	1.25705E+01	-2.31504E-01	-2.69130E-02	2.89609E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	7.889131212	2.645751311	0.016067253	1.95110E-02	6.43400E-01	1.81331E+01	-1.39682E-01	-1.77056E-02	2.78543E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	12.30656132	3.209361307	0.006602776	6.85458E-02	5.68880E-02	2.53228E-02	-2.61812E-01	-2.12742E-02	3.47117E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	10.08380756	3.065941943	0.009834469	3.62190E-03	1.45872E-01	4.25854E+00	-6.01822E-02	-5.96821E-03	3.12612E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	9.181833913	2.75680975	0.011861542	5.25768E-02	4.77569E-01	8.79476E+00	-2.29296E-01	-2.49728E-02	2.98611E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	9.28775268	3.577708764	0.011592543	3.30809E-01	1.68572E-02	8.17775E+00	5.75160E-01	6.19267E-02	3.00255E+00	MMSS-BWBK-SS-MM120-0001
NESB	NESB-BWBK-SB-NE01-0108	15.27709933	3.860051813	0.004284678	5.22064E-03	1.69891E-01	9.79483E+00	-7.22540E-02	-4.72956E-03	3.93231E+00	
NESB	NESB-BWBK-SB-NE02-0109	14.89988897	3.687817783	0.004504369	3.45706E-02	5.75733E-02	7.57603E+00	-1.85932E-01	-1.24787E-02	3.87375E+00	
NESB	NESB-BWBK-SB-NE03-0105	13.24829809	3.521363372	0.005697441	9.21621E-03	5.40078E-03	1.21191E+00	-9.60011E-02	-7.24630E-03	3.61736E+00	
NESB	NESB-BWBK-SB-NE04-0110	13.3698419	3.449637662	0.005594322	3.48176E-02	3.11274E-06	1.49429E+00	-1.86595E-01	-1.39564E-02	3.63623E+00	
NESB	NESB-BWBK-SB-NE05-0108	14.24890421	3.687817783	0.00492535	7.20393E-03	5.75733E-02	4.41619E+00	-8.48759E-02	-5.95666E-03	3.77269E+00	
NESB	NESB-BWBK-SB-NE06-0109	13.21381138	3.464101615	0.005727219	2.18772E-02	2.63356E-04	1.13717E+00	-1.47909E-01	-1.11935E-02	3.61201E+00	
NESB	NESB-BWBK-SB-NE07-0107	14.98642874	3.820994635	0.004452498	4.38096E-03	1.39219E-01	8.05991E+00	-6.61889E-02	-4.41659E-03	3.88718E+00	
NESB	NESB-BWBK-SB-NE08-0104	12.44016169	3.435112807	0.006461717	3.22629E-03	1.62832E-04	8.56919E-02	-5.68004E-02	-4.56589E-03	3.49191E+00	
NESB	NESB-BWBK-SB-NE09-0110	12.89373255	3.521363372	0.006015098	1.67772E-03	5.40078E-03	5.56968E-01	-4.09600E-02	-3.17674E-03	3.56232E+00	
NESB	NESB-BWBK-SB-NE10-0107	13.22570084	3.660601044	0.005716927	2.18505E-03	4.52531E-02	1.16267E+00	4.67445E-02	3.53437E-03	3.61386E+00	
NESB	NESB-BWBK-SB-NE101-0110	14.32003222	3.420526275	0.004876542	1.31921E-01	7.47863E-04	4.72020E+00	-3.63209E-01	-2.53637E-02	3.78374E+00	
NESB	NESB-BWBK-SB-NE102-0110	13.19470466	3.16227766	0.005743818	1.99601E-01	8.15649E-02	1.09678E+00	-4.46767E-01	-3.38596E-02	3.60904E+00	
NESB	NESB-BWBK-SB-NE103-0110	11.28956129	2.949576241	0.007845956	1.32295E-01	2.48300E-01	7.35939E-01	-3.63723E-01	-3.22177E-02	3.31330E+00	
NESB	NESB-BWBK-SB-NE104-0110	9.819479547	2.774887385	0.010371058	9.62264E-02	4.52910E-01	5.41935E+00	-3.10204E-01	-3.15907E-02	3.08509E+00	
NESB	NESB-BWBK-SB-NE105-0110	13.54658665	3.31662479	0.005449294	1.20440E-01	1.72262E-02	1.95764E+00	-3.47045E-01	-2.56186E-02	3.66367E+00	
NESB	NESB-BWBK-SB-NE106-0110	12.84642261	3.16227766	0.006059483	1.54215E-01	8.15649E-02	4.88591E-01	-3.92702E-01	-3.05689E-02	3.55498E+00	
NESB	NESB-BWBK-SB-NE107-0510	10.38521507	2.75680975	0.009271906	1.73142E-01	4.77569E-01	3.10540E+00	-4.16103E-01	-4.00669E-02	3.17291E+00	
NESB	NESB-BWBK-SB-NE108-0110	12.52393979	3.130495168	0.006375556	1.40193E-01	1.00729E-01	1.41760E-01	-3.74423E-01	-2.98966E-02	3.50492E+00	
NESB	NESB-BWBK-SB-NE109-0110	12.5342534	3.098386677	0.006365068	1.66572E-01	1.22141E-01	1.49632E-01	-4.08133E-01	-3.25614E-02	3.50652E+00	
NESB	NESB-BWBK-SB-NE110-0110	12.1529806	3.170173497	0.006770713	7.68172E-02	7.71172E-02	3.08102E-05	-2.77159E-01	-2.28059E-02	3.44733E+00	
NESS	NESS-BKG-SS03-NEB-0016	15.31260642	3.464101615	0.00426483	2.24407E-01	2.63356E-04	1.00183E+01	-4.73716E-01	-3.09363E-02	3.93782E+00	
NESS	NESS-BKG-SS09-NEB-0018	11.22949602	3.376388603	0.007930115	5.24368E-03	5.11007E-03	8.42603E-01	7.24133E-02	6.44849E-03	3.30398E+00	
NESS	NESS-BWBK-SS-NE01-0001	16.94804708	4.135214626	0.003481454	3.19011E-03	4.72438E-01	2.30459E+01	-5.64810E-02	-3.33260E-03	4.19170E+00	
NESS	NESS-BWBK-SS-NE02-0001	15.75710782	4.123105626	0.004027606	1.35223E-02	4.55939E-01	1.30298E+01	1.16286E-01	7.37988E-03	4.00682E+00	
NESS	NESS-BWBK-SS-NE03-0001	15.04150991	3.807886553	0.004419948	7.71718E-03	1.29609E-01	8.37570E+00	-8.78475E-02	-5.84034E-03	3.89573E+00	
NESS	NESS-BWBK-SS-NE04-0001	16.27533965	3.962322551	0.003775199	1.56113E-02	2.64658E-01	1.70396E+01	-1.24945E-01	-7.67697E-03	4.08727E+00	
NESS	NESS-BWBK-SS-NE05-0001	14.35521814	4.086563348	0.004852666	8.84265E-02	4.07925E-01	4.87433E+00	2.97366E-01	2.07148E-02	3.78920E+00	
NESS	NESS-BWBK-SS-NE06-0001	15.34827964	3.898717738	0.004245028	1.99253E-03	2.03261E-01	1.02454E+01	-4.46377E-02	-2.90832E-03	3.94336E+00	
NESS	NESS-BWBK-SS-NE07-0001	14.54504801	3.794733192	0.004726827	5.72763E-04	1.20312E-01	5.74857E+00	-2.39325E-02	-1.64540E-03	3.81867E+00	
NESS	NESS-BWBK-SS-NE08-0001	15.06519637	3.768288736	0.00440606	1.71930E-02	1.02666E-01	8.51336E+00	-1.31122E-01	-8.70365E-03	3.89941E+00	
NESS	NESS-BWBK-SS-NE09-0001	16.29975737	3.728270376	0.003763897	1.31615E-01	7.86225E-02	1.72418E+01	-3.62788E-01	-2.22573E-02	4.09106E+00	
NESS	NESS-BWBK-SS-NE10-0001	13.89685801	3.577708764	0.005178056	1.96939E-02	1.68572E-02	3.06050E+00	-1.40335E-01	-1.00983E-02	3.71804E+00	
NESS	NESS-BWBK-SS-NE101-0001	12.7715539	3.209361307	0.006130735	1.11553E-01	5.68880E-02	3.89531E-01	-3.33996E-01	-2.61515E-02	3.54336E+00	
NESS	NESS-BWBK-SS-NE102-0001	9.831382553	2.810693865	0.01034596	7.63113E-02	4.05998E-01	5.36408E+00	-2.76245E-01	-2.80983E-02	3.08694E+00	
NESS	NESS-BWBK-SS-NE103-0001	8.61681888	2.880972058	0.013468092	3.03591E-04	3.21377E-01	1.24652E+01	-1.74239E-02	-2.02208E-03	2.89840E+00	

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BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!L	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**CR predict**	**Cr^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
NESS	NESS-BWBK-SS-NE104-0001	10.50664156	2.810693865	0.009058831	1.45214E-01	4.05998E-01	2.69219E+00	-3.81069E-01	-3.62693E-02	3.19176E+00	
NESS	NESS-BWBK-SS-NE105-0001	8.10244193	2.569046516	0.015232393	6.22503E-02	7.72337E-01	1.63619E+01	-2.49500E-01	-3.07932E-02	2.81855E+00	
NESS	NESS-BWBK-SS-NE106-0001	9.216332357	2.664582519	0.011772908	1.06850E-01	6.13545E-01	8.59133E+00	-3.26879E-01	-3.54674E-02	2.99146E+00	
NESS	NESS-BWBK-SS-NE107-0001	8.76616697	2.569046516	0.013013093	1.24280E-01	7.72337E-01	1.14329E+01	-3.52533E-01	-4.02152E-02	2.92158E+00	
NESS	NESS-BWBK-SS-NE108-0001	9.589435993	2.664582519	0.010874615	1.48069E-01	6.13545E-01	6.54333E+00	-3.84798E-01	-4.01273E-02	3.04938E+00	
NESS	NESS-BWBK-SS-NE109-0001	8.128028691	2.50998008	0.015136642	9.76803E-02	8.79644E-01	1.61556E+01	-3.12538E-01	-3.84519E-02	2.82252E+00	
NESS	NESS-BWBK-SS-NE110-0001	7.808989685	2.569046516	0.016398733	4.15939E-02	7.72337E-01	1.88221E+01	-2.03946E-01	-2.61168E-02	2.77299E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	14.99925355	3.728270376	0.004444887	2.58901E-02	7.86225E-02	8.13290E+00	-1.60904E-01	-1.07275E-02	3.88917E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	15.62845526	4.615192304	0.004094189	3.94816E-01	1.36263E+00	1.21175E+01	6.28344E-01	4.02051E-02	3.98685E+00	PMSB-BWBK-SB-PM02-0104
PMSB	PMSB-BWBK-SB-PM03-0106	14.47838007	3.962322551	0.004770458	2.37179E-02	2.64658E-01	5.43333E+00	1.54006E-01	1.06370E-02	3.80832E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	14.13170709	3.872983346	0.005007382	1.40382E-02	1.80718E-01	3.93736E+00	1.18483E-01	8.38418E-03	3.75450E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	14.0000526	3.853569774	0.005102002	1.42818E-02	1.64590E-01	3.43221E+00	1.19507E-01	8.53615E-03	3.73406E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	14.28911204	3.754996671	0.00489767	5.73063E-04	9.43247E-02	4.58680E+00	-2.39387E-02	-1.67531E-03	3.77894E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	11.71653192	3.605551275	0.007284535	5.10628E-02	2.48623E-02	1.85673E-01	2.25971E-01	1.92865E-02	3.37958E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	13.0420223	3.701351105	0.00587909	1.34578E-02	6.42510E-02	8.00296E-01	1.16008E-01	8.89493E-03	3.58534E+00	
PMSB	PMSB-BWBK-SB-PM09-0106	10.69801977	3.449637662	0.008737621	5.20598E-02	3.11274E-06	2.10079E+00	2.28166E-01	2.13279E-02	3.22147E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	12.20927167	4.147288271	0.006708424	4.77781E-01	4.89181E-01	3.82440E-03	6.91217E-01	5.66141E-02	3.45607E+00	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	13.26214529	3.646916506	0.005685549	7.50896E-04	3.96182E-02	1.24259E+00	2.74025E-02	2.06622E-03	3.61951E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	10.7176758	3.794733192	0.008705601	3.25140E-01	1.20312E-01	2.04420E+00	5.70210E-01	5.32028E-02	3.22452E+00	PMSB-BWBK-SB-PM12-0105
PMSB	PMSB-BWBK-SB-PM13-0106	12.23555968	3.911521443	0.006679629	2.03735E-01	2.14970E-01	7.76686E-03	4.51370E-01	3.68900E-02	3.46015E+00	PMSB-BWBK-SB-PM13-0106
PMSB	PMSB-BWBK-SB-PM14-0106	10.69168826	3.449637662	0.008747973	5.25093E-02	3.11274E-06	2.11918E+00	2.29149E-01	2.14324E-02	3.22049E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	12.69938249	3.768288736	0.006200615	5.57599E-02	1.02666E-01	3.04652E-01	2.36135E-01	1.85942E-02	3.53215E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	11.6806181	3.464101615	0.007329399	8.11734E-03	2.63356E-04	2.17913E-01	9.00963E-02	7.71331E-03	3.37401E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	13.4473004	3.69459064	0.005530059	2.14684E-03	6.08694E-02	1.68966E+00	4.63340E-02	3.44560E-03	3.64826E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	14.2289213	3.872983346	0.004939194	1.06898E-02	1.80718E-01	4.33261E+00	1.03392E-01	7.26630E-03	3.76959E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	13.68625252	3.728270376	0.005338643	1.84213E-03	7.86225E-02	2.36798E+00	4.29200E-02	3.13599E-03	3.68535E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	12.86496875	3.667424164	0.006042025	1.20047E-02	4.82026E-02	5.14862E-01	1.09566E-01	8.51661E-03	3.55786E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	14.22527009	3.619392214	0.004941729	2.23899E-02	2.94187E-02	4.31742E+00	-1.49633E-01	-1.05188E-02	3.76902E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	14.04718233	3.820994635	0.005067824	6.33859E-03	1.39219E-01	3.60906E+00	7.96152E-02	5.66770E-03	3.74138E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	13.48088755	3.794733192	0.005502538	1.99551E-02	1.20312E-01	1.77811E+00	1.41263E-01	1.04787E-02	3.65347E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	14.74081369	3.834057903	0.004602111	2.24925E-04	1.49138E-01	6.72564E+00	-1.49975E-02	-1.01741E-03	3.84906E+00	
PMSS	PMSS-DABK-S-SO21-0001	10.99773631	3.535533906	0.008267865	7.15754E-02	7.68437E-03	1.32180E+00	2.67536E-01	2.43264E-02	3.26800E+00	
PMSS	PMSS-DABK-S-SO22-0001	13.51694205	3.872983346	0.005473222	4.57600E-02	1.80718E-01	1.87556E+00	2.13916E-01	1.58258E-02	3.65907E+00	
PMSS	PMSS-DABK-S-SO23-0001	14.00227182	3.687817783	0.005100385	2.17062E-03	5.75733E-02	3.44044E+00	-4.65899E-02	-3.32731E-03	3.73441E+00	
PMSS	PMSS-DABK-S-SO24-0001	12.66138552	3.768288736	0.006237887	5.85803E-02	1.02666E-01	2.64150E-01	2.42034E-01	1.91159E-02	3.52625E+00	
PMSS	PMSS-DABK-S-SO25-0001	14.07611875	3.820994635	0.00504701	5.64351E-03	1.39219E-01	3.71984E+00	7.51233E-02	5.33693E-03	3.74587E+00	
PMSS	PMSS-DABK-S-SO26-0001	14.58418586	3.898717738	0.004701491	5.47252E-03	2.03261E-01	5.93778E+00	7.39765E-02	5.07238E-03	3.82474E+00	
PMSS	PMSS-DABK-S-SO27-0001	12.63725359	3.464101615	0.006261734	3.41140E-03	2.63356E-04	2.39927E-01	-5.84072E-02	-4.62183E-03	3.52251E+00	
PMSS	PMSS-DABK-S-SO28-0001	12.71957195	3.741657387	0.006180947	4.25885E-02	8.63091E-02	3.27347E-01	2.06370E-01	1.62246E-02	3.53529E+00	
PMSS	PMSS-DABK-S-SO29-0001	15.49783105	4	0.004163496	1.11749E-03	3.04844E-01	1.12252E+01	3.34289E-02	2.15700E-03	3.96657E+00	
PMSS	PMSS-DABK-S-SO30-0001	15.00799896	3.898717738	0.004439708	6.70072E-05	2.03261E-01	8.18286E+00	8.18579E-03	5.45429E-04	3.89053E+00	
PMSS	PMSS-DABK-S-SO31-0001	10.34738303	3.405877273	0.00933983	5.70431E-02	1.76367E-03	3.24017E+00	2.38837E-01	2.30819E-02	3.16704E+00	
PMSS	PMSS-DABK-S-SO32-0001	13.83427262	3.885871846	0.005225013	3.15217E-02	1.91843E-01	2.84544E+00	1.77544E-01	1.28336E-02	3.70833E+00	
PMSS	PMSS-DABK-S-SO33-0001	12.99885731	3.660601044	0.0059182	6.71721E-03	4.52531E-02	7.24929E-01	8.19586E-02	6.30506E-03	3.57864E+00	
PMSS	PMSS-DABK-S-SO34-0001	10.65778801	3.464101615	0.008803712	6.19390E-02	2.63356E-04	2.21903E+00	2.48875E-01	2.33515E-02	3.21523E+00	
PMSS	PMSS-DABK-S-SO35-0001	11.89261974	3.653765181	0.007070415	6.09348E-02	4.23914E-02	6.49282E-02	2.46850E-01	2.07565E-02	3.40692E+00	
PMSS	PMSS-DABK-S-SO36-0001	11.34621314	3.521363372	0.007767802	3.97083E-02	5.40078E-03	6.41948E-01	1.99269E-01	1.75626E-02	3.32209E+00	
PMSS	PMSS-DABK-S-SO37-0001	11.80616909	3.728270376	0.007174341	1.12074E-01	7.86225E-02	1.16459E-01	3.34775E-01	2.83559E-02	3.39350E+00	
PMSS	PMSS-DABK-S-SO38-0001	10.29419804	3.346640106	0.009436587	3.52898E-02	1.02482E-02	3.43447E+00	1.87856E-01	1.82487E-02	3.15878E+00	
PMSS	PMSS-DABK-S-SO39-0001	11.28909989	3.507135583	0.007846597	3.76002E-02	3.51201E-03	7.36730E-01	1.93908E-01	1.71765E-02	3.31323E+00	
PMSS	PMSS-DABK-S-SO40-0001	11.35045591	3.492849839	0.007761996	2.89331E-02	2.02288E-03	6.35168E-01	1.70097E-01	1.49859E-02	3.32275E+00	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!J**	**DA!L**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**CR predict**	**Cr^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	17.95040097	4.074309757	0.0031035	7.45216E-02	3.92423E-01	3.36745E+01	-2.72987E-01	-1.52078E-02	4.34730E+00	
SESB	SESB-BWBK-SB-SO04-0108	14.03969907	3.860051813	0.005073228	1.43602E-02	1.69891E-01	3.58068E+00	1.19834E-01	8.53537E-03	3.74022E+00	
SESB	SESB-BWBK-SB-SO05-0106	15.1620498	3.974921383	0.004349949	3.65727E-03	2.77780E-01	9.08793E+00	6.04753E-02	3.98860E-03	3.91445E+00	
SESB	SESB-BWBK-SB-SO06-0108	16.50898844	4.10487515	0.003669096	3.48314E-04	4.31651E-01	1.90232E+01	-1.86632E-02	-1.13049E-03	4.12354E+00	
SESB	SESB-BWBK-SB-SO07-0106	14.14220437	3.807886553	0.004999951	2.67872E-03	1.29609E-01	3.97913E+00	5.17564E-02	3.65971E-03	3.75613E+00	
SESB	SESB-BWBK-SB-SO08-0107	16.80674207	4.159326869	0.003540242	1.08854E-04	5.06166E-01	2.17092E+01	-1.04333E-02	-6.20780E-04	4.16976E+00	
SESB	SESB-BWBK-SB-SO09-0106	14.6496762	3.911521443	0.00465955	5.86967E-03	2.14970E-01	6.26124E+00	7.66138E-02	5.22973E-03	3.83491E+00	
SESB	SESB-BWBK-SB-SO11-0106	16.07154733	3.974921383	0.003871548	6.51422E-03	2.77780E-01	1.53987E+01	-8.07107E-02	-5.02196E-03	4.05563E+00	
SESB	SESB-BWBK-SB-SO12-0106	13.95690268	3.879432948	0.005133599	2.31247E-02	1.86244E-01	3.27419E+00	1.52068E-01	1.08955E-02	3.72736E+00	
SESB	SESB-BWBK-SB-SO15-0103	12.95492485	3.660601044	0.005958408	7.88161E-03	4.52531E-02	6.52048E-01	8.87784E-02	6.85287E-03	3.57182E+00	
SESB	SESB-BWBK-SB-SO16-0105	12.20287108	3.646916506	0.006715463	3.68022E-02	3.96182E-02	3.07372E-03	1.91839E-01	1.57208E-02	3.45508E+00	
SESB	SESB-BWBK-SB-SO17-0106	12.09210812	3.619392214	0.006839053	3.29456E-02	2.94187E-02	3.06050E-03	1.81509E-01	1.50105E-02	3.43788E+00	
SESB	SESB-BWBK-SB-SO18-0105	11.80261691	3.54964787	0.00717866	2.45561E-02	1.03580E-02	1.18896E-01	1.56704E-01	1.32771E-02	3.39294E+00	
SESB	SESB-BWBK-SB-SO19-0104	12.28605772	3.619392214	0.006624832	2.29224E-02	2.94187E-02	1.92177E-02	1.51401E-01	1.23230E-02	3.46799E+00	
SESB	SESB-BWBK-SB-SO20-0104	12.71163554	3.701351105	0.006188667	2.79878E-02	6.42510E-02	3.18328E-01	1.67296E-01	1.31608E-02	3.53406E+00	
SESS	SESS-DABK-S-SO01-0001	13.31772259	3.605551275	0.005638195	5.10322E-04	2.48623E-02	1.36958E+00	-2.25903E-02	-1.69626E-03	3.62814E+00	
SESS	SESS-DABK-S-SO02-0001	16.29272633	5.310367219	0.003767146	1.48938E+00	3.46888E+00	1.71835E+01	1.22040E+00	7.49046E-02	4.08997E+00	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	12.32692084	3.449637662	0.006580983	6.09923E-04	3.11274E-06	3.22170E-02	-2.46966E-02	-2.00347E-03	3.47433E+00	
SESS	SESS-DABK-S-SO04-0001	15.68601112	3.794733192	0.004064199	4.04211E-02	1.20312E-01	1.25216E+01	-2.01050E-01	-1.28172E-02	3.99578E+00	
SESS	SESS-DABK-S-SO05-0001	12.61020577	3.449637662	0.006288624	4.71590E-03	3.11274E-06	2.14161E-01	-6.86724E-02	-5.44578E-03	3.51831E+00	
SESS	SESS-DABK-S-SO06-0001	16.17525571	3.974921383	0.003822062	9.37215E-03	2.77780E-01	1.62234E+01	-9.68099E-02	-5.98506E-03	4.07173E+00	
SESS	SESS-DABK-S-SO07-0001	14.96803792	3.687817783	0.004463446	3.86165E-02	5.75733E-02	7.95583E+00	-1.96511E-01	-1.31287E-02	3.88433E+00	
SESS	SESS-DABK-S-SO08-0001	13.91748713	3.563705936	0.005162717	2.48189E-02	1.34172E-02	3.13310E+00	-1.57540E-01	-1.13196E-02	3.72125E+00	
SESS	SESS-DABK-S-SO09-0001	11.59480702	3.346640106	0.007438287	1.97244E-04	1.02482E-02	3.05392E-01	-1.40444E-02	-1.21126E-03	3.36068E+00	
SESS	SESS-DABK-S-SO10-0001	11.1428167	3.31662479	0.00805397	6.81478E-04	1.72262E-02	1.00925E+00	2.61051E-02	2.34278E-03	3.29052E+00	
SESS	SESS-DABK-S-SO11-0001	8.318939108	2.880972058	0.014449876	8.30452E-04	3.21377E-01	1.46573E+01	2.88176E-02	3.46409E-03	2.85215E+00	
SESS	SESS-DABK-S-SO12-0001	12.44839647	3.361547263	0.006453171	1.73302E-02	7.45220E-03	9.05809E-02	-1.31644E-01	-1.05752E-02	3.49319E+00	
SESS	SESS-DABK-S-SO13-0001	10.83114937	3.301514804	0.008524147	3.52561E-03	2.14208E-02	1.73259E+00	5.93769E-02	5.48205E-03	3.24214E+00	
SESS	SESS-DABK-S-SO14-0001	9.794593868	3.130495168	0.010423826	2.42725E-03	1.00729E-01	5.53584E+00	4.92671E-02	5.03003E-03	3.08123E+00	
SESS	SESS-DABK-S-SO15-0001	10.87073144	3.577708764	0.008462184	1.08522E-01	1.68572E-02	1.62996E+00	3.29426E-01	3.03040E-02	3.24828E+00	
SESS	SESS-DABK-S-SO16-0001	7.905837704	2.880972058	0.015999419	8.63885E-03	3.21377E-01	1.79911E+01	9.29454E-02	1.17566E-02	2.78803E+00	
SESS	SESS-DABK-S-SO17-0001	10.21352397	3.016620626	0.009586251	1.68066E-02	1.85979E-01	3.73999E+00	-1.29640E-01	-1.26930E-02	3.14626E+00	
SESS	SESS-DABK-S-SO18-0001	10.73458479	3.146426545	0.008678197	6.51591E-03	9.08702E-02	1.99613E+00	-8.07212E-02	-7.51973E-03	3.22715E+00	
SESS	SESS-DABK-S-SO19-0001	15.14148508	3.754996671	0.004361773	2.44163E-02	9.43247E-02	8.96437E+00	-1.56257E-01	-1.03198E-02	3.91125E+00	
SESS	SESS-DABK-S-SO20-0001	16.83946281	4	0.003526497	3.05689E-02	3.04844E-01	2.20152E+01	-1.74840E-01	-1.03827E-02	4.17484E+00	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: CR
X variable name used on graph: FE_log

	N	214.000000
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	8.517721E+02
0.10	**t-Value: 2-tail, 0.100 alpha**	1.652073
degrees freedom	SUM(XY*w^2)	2.566559E+04
2	SUM(X^2*w^2)	2.049109E+04
	SUM(X*w^2)	2.092089E+03
	SUM(Y*w^2)	2.599550E+03
	SUM(w^2)	2.140000E+02
	SUM(Y)	2599.550000
	SUM(X)	2.092089E+03
	Denominator	8.255834E+03
	Slope	**6.534385E+00**
	Intercept	**-5.173348E+01**
	Minimum X value	8.689464E+00
	Maximum X value	1.089489E+01
	Minimum Y value	4.800000E+00
	Maximum Y value	2.820000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	8.517721E+02
	SUM(Yobs - Yave)^2	2.499011E+03
	SUM(X - Xave)^2	3.857866E+01
	Std. Error of Y-estimate	**2.004443E+00**
	R^2	**6.591563E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**
est.M, Std.Err.Y		

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		
Inverse Log Transform (Y/N)?	**No**	**50**
Inverse Power Transform (Y/N)?	**No**	**75**
Inverse Power Transform (1/Power):	**1**	**90**

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
8.69	5.05	1.68	8.42	-6.71	6.71	-0.28	**No. of Exceedances**
8.78	5.65	2.29	9.01	-6.71	6.71	-0.28	**of Upper 95% Limit**
8.87	6.25	2.89	9.60	-6.71	6.71	-0.28	**for Each Soil Type:**
8.97	6.85	3.50	10.20	-6.71	6.71	-0.28	---- V ----
9.06	7.45	4.11	10.79	-6.71	6.71	-0.28	BASS
9.15	8.05	4.71	11.39	-6.71	6.71	-0.28	0
9.24	8.65	5.32	11.98	-6.71	6.71	-0.28	MASS
9.33	9.25	5.92	12.58	-6.71	6.71	-0.28	2
9.42	9.85	6.53	13.18	-6.71	6.71	-0.28	MMSS
9.52	10.45	7.13	13.77	-6.71	6.71	-0.28	0
9.61	11.05	7.73	14.37	-6.71	6.71	-0.28	NESS
9.70	11.65	8.33	14.97	-6.71	6.71	-0.28	1
9.79	12.25	8.93	15.57	-6.71	6.71	-0.28	PMSS
9.88	12.85	9.53	16.17	-6.71	6.71	-0.28	1
9.98	13.45	10.13	16.77	-6.71	6.71	-0.28	SESS
10.07	14.05	10.73	17.38	-6.71	6.71	-0.28	1
10.16	14.65	11.33	17.98	-6.71	6.71	-0.28	SESD
10.25	15.25	11.93	18.58	-6.71	6.71	-0.28	0
10.34	15.86	12.52	19.19	-6.71	6.71	-0.28	MASB
10.44	16.46	13.12	19.79	-6.71	6.71	-0.28	1
10.53	17.06	13.71	20.40	-6.71	6.71	-0.28	MMSB
10.62	17.66	14.31	21.01	-6.71	6.71	-0.28	2
10.71	18.26	14.90	21.61	-6.71	6.71	-0.28	NESB
10.80	18.86	15.49	22.22	-6.71	6.71	-0.28	0
10.89	19.46	16.09	22.83	-6.71	6.71	-0.28	PMSB
9.55	10.70	7.37	14.02	10.70	**-31%**	**31%**	2
9.79	12.22	8.90	15.54	12.22	**-27%**	**27%**	SESB
10.06	14.01	10.69	17.34	14.01	**-24%**	**24%**	0
10.29	15.54	12.21	18.87	15.54	**-21%**	**21%**	<<--Original Units Errors

TEXT BOX ==> **(CR) = (6.53E+00)x(FE_log) + (-5.17E+01)** **R^2 = 0.66; Std. Error of Y-estimate = 2.00E+00** **+/-3 x IQR of r** -6.712141 6.712141

TEXT BOX ==> **95% Confidence Limits on a Y-value predicted from one X-valu** **V - wt.descrip.** **TEXT BOX==>** **Residuals Plot: (Observed - Predicted) Versus Y-Pred.** **Y-Pred.**

	Indexed value lookups:	**X data column ref.**	**Y data column ref.**		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!O**	**DA!K**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**FE_log**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	9.119320974	5.6	1	5.08804E+00	4.28688E+01	4.31382E-01	-2.25567E+00	-2.25567E+00	7.85567E+00	
BASS	BASS-BWBK-SS-BA102-0001	8.909235279	4.8	1	2.83211E+00	5.39847E+01	7.51485E-01	-1.68289E+00	-1.68289E+00	6.48289E+00	
BASS	BASS-BWBK-SS-BA103-0001	8.959311617	5	1	3.27649E+00	5.10858E+01	6.67172E-01	-1.81011E+00	-1.81011E+00	6.81011E+00	
BASS	BASS-BWBK-SS-BA104-0001	9.082507	6.4	1	1.47650E+00	3.30330E+01	4.81095E-01	-1.21511E+00	-1.21511E+00	7.61511E+00	
BASS	BASS-BWBK-SS-BA105-0001	9.04192172	5.7	1	2.72221E+00	4.15694E+01	5.39043E-01	-1.64991E+00	-1.64991E+00	7.34991E+00	
BASS	BASS-BWBK-SS-BA106-0001	9.102198213	7.45	1	8.63082E-02	2.20658E+01	4.54167E-01	-2.93783E-01	-2.93783E-01	7.74378E+00	
BASS	BASS-BWBK-SS-BA107-0001	8.907883014	4.8	1	2.80245E+00	5.39847E+01	7.53831E-01	-1.67405E+00	-1.67405E+00	6.47405E+00	
BASS	BASS-BWBK-SS-BA108-0001	8.879054662	5.2	1	1.17869E+00	4.82668E+01	8.04722E-01	-1.08568E+00	-1.08568E+00	6.28568E+00	
BASS	BASS-BWBK-SS-BA109-0001	8.969541885	7	1	1.51401E-02	2.64960E+01	6.50564E-01	1.23045E-01	1.23045E-01	6.87696E+00	
BASS	BASS-BWBK-SS-BA110-0001	9.2023082	7	1	1.95424E+00	2.64960E+01	3.29257E-01	-1.39794E+00	-1.39794E+00	8.39794E+00	
BASS	BASS-BWBK-SS-BA111-0001	8.992184362	5.9	1	1.26542E+00	3.90304E+01	6.14551E-01	-1.12491E+00	-1.12491E+00	7.02491E+00	
BASS	BASS-BWBK-SS-BA112-0001	8.987196821	5.2	1	3.21241E+00	4.82668E+01	6.22396E-01	-1.79232E+00	-1.79232E+00	6.99232E+00	
BASS	BASS-BWBK-SS-BA113-0001	8.968905551	5.85	1	1.04611E+00	3.96576E+01	6.51591E-01	-1.02280E+00	-1.02280E+00	6.87280E+00	
MASB	MASB-BWBK-SB-MA01-0105	10.20359214	14.7	1	5.79435E-02	6.51561E+00	1.82735E-01	-2.40715E-01	-2.40715E-01	1.49407E+01	
MASB	MASB-BWBK-SB-MA02-0107	10.27505111	15.9	1	2.42404E-01	1.40818E+01	2.48935E-01	4.92345E-01	4.92345E-01	1.54077E+01	
MASB	MASB-BWBK-SB-MA03-0108	10.2853428	13.4	1	4.30523E+00	1.56893E+00	2.59311E-01	-2.07490E+00	-2.07490E+00	1.54749E+01	
MASB	MASB-BWBK-SB-MA04-0106	10.2327913	16.3	1	1.36536E+00	1.72438E+01	2.08551E-01	1.16849E+00	1.16849E+00	1.51315E+01	
MASB	MASB-BWBK-SB-MA05-0108	10.21097225	15.5	1	2.61183E-01	1.12397E+01	1.89099E-01	5.11061E-01	5.11061E-01	1.49889E+01	
MASB	MASB-BWBK-SB-MA06-0105	10.15812977	15.1	1	2.08259E-01	8.71767E+00	1.45933E-01	4.56354E-01	4.56354E-01	1.46436E+01	
MASB	MASB-BWBK-SB-MA07-0108	10.23995979	12.35	1	7.99959E+00	4.10346E-02	2.15150E-01	-2.82835E+00	-2.82835E+00	1.51784E+01	
MASB	MASB-BWBK-SB-MA08-0108	10.85321306	18.7	1	2.35795E-01	4.29362E+01	1.16014E+00	-4.85588E-01	-4.85588E-01	1.91856E+01	
MASB	MASB-BWBK-SB-MA09-0108	10.46310334	13	1	1.32238E+01	7.26876E-01	4.71950E-01	-3.63646E+00	-3.63646E+00	1.66365E+01	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**FE_log**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	10.19988157	11.6	1	1.09990E+01	2.99680E-01	1.79576E-01	-3.31647E+00	-3.31647E+00	1.49165E+01	
MASB	MASB-BWBK-SB-MA11-0108	10.38899537	15.8	1	1.24052E-01	1.33413E+01	3.75619E-01	-3.52211E-01	-3.52211E-01	1.61522E+01	
MASB	MASB-BWBK-SB-MA12-0108	10.42228135	15.3	1	1.14429E+00	9.93870E+00	4.17528E-01	-1.06971E+00	-1.06971E+00	1.63697E+01	
MASB	MASB-BWBK-SB-MA13-0105	9.667765219	14.2	1	7.62083E+00	4.21304E+00	1.17402E-02	2.76058E+00	2.76058E+00	1.14394E+01	
MASB	MASB-BWBK-SB-MA14-0104	10.35296955	16.4	1	2.33478E-01	1.80844E+01	3.32758E-01	4.83196E-01	4.83196E-01	1.59168E+01	
MASB	MASB-BWBK-SB-MA15-0105	10.10233841	15.2	1	8.48087E-01	9.31818E+00	1.06420E-01	9.20916E-01	9.20916E-01	1.42791E+01	
MASB	MASB-BWBK-SB-MA16-0104	9.966462352	12.7	1	4.77781E-01	3.05334E-01	3.62312E-02	-6.91217E-01	-6.91217E-01	1.33912E+01	
MASB	MASB-BWBK-SB-MA17-0104	9.942708266	12.4	1	6.98894E-01	6.37917E-02	2.77525E-02	-8.35999E-01	-8.35999E-01	1.32360E+01	
MASB	MASB-BWBK-SB-MA18-0104	9.752664663	16.7	1	2.21447E+01	2.07259E+01	5.50030E-04	4.70582E+00	4.70582E+00	1.19942E+01	MASB-BWBK-SB-MA18-0104
MASB	MASB-BWBK-SB-MA19-0103	9.622450023	12	1	7.33921E-01	2.17356E-02	2.36137E-02	8.56692E-01	8.56692E-01	1.11433E+01	
MASB	MASB-BWBK-SB-MA20-0103	10.11050172	13.5	1	6.92933E-01	1.82945E+00	1.11813E-01	-8.32426E-01	-8.32426E-01	1.43324E+01	
MASS	MASS-BWBK-SS-MA01-0001	8.86644062	8.1	1	3.59765E+00	1.63817E+01	8.27512E-01	1.89675E+00	1.89675E+00	6.20325E+00	
MASS	MASS-BWBK-SS-MA02-0001	9.038365107	11.7	1	1.91260E+01	2.00194E-01	5.44278E-01	4.37333E+00	4.37333E+00	7.32667E+00	MASS-BWBK-SS-MA02-0001
MASS	MASS-BWBK-SS-MA03-0001	9.37585481	10.6	1	1.14071E+00	2.39454E+00	1.60210E-01	1.06804E+00	1.06804E+00	9.53196E+00	
MASS	MASS-BWBK-SS-MA04-0001	9.384293679	11.2	1	2.60144E+00	8.97623E-01	1.53526E-01	1.61290E+00	1.61290E+00	9.58710E+00	
MASS	MASS-BWBK-SS-MA05-0001	9.781319919	13.8	1	2.61978E+00	2.73099E+00	2.70663E-05	1.61857E+00	1.61857E+00	1.21814E+01	
MASS	MASS-BWBK-SS-MA06-0001	9.92329018	15.8	1	7.24087E+00	1.33413E+01	2.16598E-02	2.69089E+00	2.69089E+00	1.31091E+01	
MASS	MASS-BWBK-SS-MA07-0001	8.689464412	4.8	1	6.09206E-02	5.39847E+01	1.18081E+00	-2.46821E-01	-2.46821E-01	5.04682E+00	
MASS	MASS-BWBK-SS-MA08-0001	9.846917201	10.4	1	4.88438E+00	3.05351E+00	5.01261E-03	-2.21006E+00	-2.21006E+00	1.26101E+01	
MASS	MASS-BWBK-SS-MA09-0001	9.942708266	17.4	1	1.73389E+01	2.75895E+01	2.77525E-02	4.16400E+00	4.16400E+00	1.32360E+01	MASS-BWBK-SS-MA09-0001
MASS	MASS-BWBK-SS-MA10-0001	9.980448594	15.3	1	3.30291E+00	9.93870E+00	4.17512E-02	1.81739E+00	1.81739E+00	1.34826E+01	
MASS	MASS-BWBK-SS-MA11-0001	10.18866649	16	1	1.33822E+00	1.48423E+01	1.70197E-01	1.15682E+00	1.15682E+00	1.48432E+01	
MASS	MASS-BWBK-SS-MA12-0001	9.609116492	11.8	1	5.53266E-01	1.20708E-01	2.78893E-02	7.43818E-01	7.43818E-01	1.10562E+01	
MASS	MASS-BWBK-SS-MA13-0001	9.635608107	13.6	1	5.62027E+00	2.10996E+00	1.97429E-02	2.37071E+00	2.37071E+00	1.12293E+01	
MASS	MASS-BWBK-SS-MA14-0001	9.152711259	10.1	1	4.10527E+00	4.19197E+00	3.88635E-01	2.02615E+00	2.02615E+00	8.07385E+00	
MASS	MASS-BWBK-SS-MA15-0001	9.259130536	11.4	1	6.92090E+00	5.58651E-01	2.67275E-01	2.63076E+00	2.63076E+00	8.76924E+00	
MASS	MASS-BWBK-SS-MA16-0001	9.61580548	11.7	1	3.60132E-01	2.00194E-01	2.56999E-02	6.00110E-01	6.00110E-01	1.10999E+01	
MASS	MASS-BWBK-SS-MA17-0001	9.609116492	12.2	1	1.30832E+00	2.76361E-03	2.78893E-02	1.14382E+00	1.14382E+00	1.10562E+01	
MASS	MASS-BWBK-SS-MA18-0001	9.472704636	10.4	1	5.53124E-02	3.05351E+00	9.20593E-02	2.35186E-01	2.35186E-01	1.01648E+01	
MASS	MASS-BWBK-SS-MA19-0001	9.629050707	12.2	1	1.02730E+00	2.76361E-03	2.16286E-02	1.01356E+00	1.01356E+00	1.11864E+01	
MASS	MASS-BWBK-SS-MA20-0001	9.764225485	12.2	1	1.69719E-02	2.76361E-03	1.41417E-04	1.30276E-01	1.30276E-01	1.20697E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	9.729134165	9.6	1	5.01950E+00	6.48940E+00	2.20742E-03	-2.24042E+00	-2.24042E+00	1.18404E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	9.667765219	12.1	1	4.36372E-01	2.24960E-03	1.17402E-02	6.60585E-01	6.60585E-01	1.14394E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	9.609116492	11.8	1	5.53266E-01	1.20708E-01	2.78893E-02	7.43818E-01	7.43818E-01	1.10562E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	10.08580911	13.7	1	2.21912E-01	2.41047E+00	9.59090E-02	-4.71075E-01	-4.71075E-01	1.41711E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	9.392661929	7.7	1	3.77053E+00	1.97796E+01	1.47038E-01	-1.94178E+00	-1.94178E+00	9.64178E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	9.980448594	15.1	1	2.61595E+00	8.71767E+00	4.17512E-02	1.61739E+00	1.61739E+00	1.34826E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	9.595602773	16	1	2.53223E+01	1.48423E+01	3.25855E-02	5.03212E+00	5.03212E+00	1.09679E+01	MMSB-BWBK-SB-MM107-0110
MMSB	MMSB-BWBK-SB-MM108-0110	9.651815918	9.85	1	2.20581E+00	5.27818E+00	1.54509E-02	-1.48520E+00	-1.48520E+00	1.13352E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	9.786953736	13	1	6.11151E-01	7.26876E-01	1.17426E-04	7.81761E-01	7.81761E-01	1.22182E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	9.735068901	14.3	1	5.86026E+00	4.63356E+00	1.68498E-03	2.42080E+00	2.42080E+00	1.18792E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	9.862665558	11.6	1	1.23870E+00	2.99680E-01	7.49059E-03	-1.11297E+00	-1.11297E+00	1.27130E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	9.880730565	12.05	1	6.09981E-01	9.49259E-03	1.09439E-02	-7.81013E-01	-7.81013E-01	1.28310E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	9.686574551	18.8	1	5.23840E+01	4.42567E+01	8.01792E-03	7.23768E+00	7.23768E+00	1.15623E+01	MMSB-BWBK-SB-MM113-0110
MMSB	MMSB-BWBK-SB-MM114-0110	9.449357272	8.8	1	1.46956E+00	1.12053E+01	1.06772E-01	-1.21225E+00	-1.21225E+00	1.00123E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	9.698920387	9.8	1	3.39663E+00	5.51043E+00	5.95938E-03	-1.84299E+00	-1.84299E+00	1.16430E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	9.655026193	11.65	1	8.63341E-02	2.47437E-01	1.46631E-02	2.93827E-01	2.93827E-01	1.13562E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	9.510444964	6.9	1	1.23301E+01	2.75355E+01	7.05818E-02	-3.51142E+00	-3.51142E+00	1.04114E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	9.609116492	9.5	1	2.42170E+00	7.00889E+00	2.78893E-02	-1.55618E+00	-1.55618E+00	1.10562E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	9.667765219	10.2	1	1.53615E+00	3.79248E+00	1.17402E-02	-1.23942E+00	-1.23942E+00	1.14394E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	9.26860928	6.2	1	6.92309E+00	3.53719E+01	2.57564E-01	-2.63118E+00	-2.63118E+00	8.83118E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	9.786953736	12.1	1	1.39804E-02	2.24960E-03	1.17426E-04	-1.18239E-01	-1.18239E-01	1.22182E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	9.553930076	9.6	1	1.20028E+00	6.48940E+00	4.93672E-02	-1.09557E+00	-1.09557E+00	1.06956E+01	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**FE_log**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MMSS	MMSS-BWBK-SS-MM103-0001	9.764225485	12.2	1	1.69719E-02	2.76361E-03	1.41417E-04	1.30276E-01	1.30276E-01	1.20697E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	9.798127037	12.4	1	1.18267E-02	6.37917E-02	4.84425E-04	1.08751E-01	1.08751E-01	1.22912E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	9.392661929	8.5	1	1.30367E+00	1.33037E+01	1.47038E-01	-1.14178E+00	-1.14178E+00	9.64178E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	9.792555992	15.1	1	8.09490E+00	8.71767E+00	2.70228E-04	2.84515E+00	2.84515E+00	1.22548E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	9.786953736	12.6	1	1.45742E-01	2.04820E-01	1.17426E-04	3.81761E-01	3.81761E-01	1.22182E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	9.642122788	11.9	1	3.94563E-01	6.12216E-02	1.79546E-02	6.28142E-01	6.28142E-01	1.12719E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	9.648595303	11.5	1	3.45397E-02	4.19165E-01	1.62619E-02	1.85848E-01	1.85848E-01	1.13142E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	9.198267791	7.1	1	1.61681E+00	2.54765E+01	3.33910E-01	-1.27154E+00	-1.27154E+00	8.37154E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	9.249561085	7.8	1	8.22120E-01	1.89001E+01	2.77262E-01	-9.06708E-01	-9.06708E-01	8.70671E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9.118225083	6.4	1	2.09818E+00	3.30330E+01	4.32822E-01	-1.44851E+00	-1.44851E+00	7.84851E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	9.553930076	10.2	1	2.45592E-01	3.79248E+00	4.93672E-02	-4.95572E-01	-4.95572E-01	1.06956E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	9.016755623	5.8	1	1.91952E+00	4.02899E+01	5.76630E-01	-1.38547E+00	-1.38547E+00	7.18547E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	9.305650552	7.1	1	3.89359E+00	2.54765E+01	2.21339E-01	-1.97322E+00	-1.97322E+00	9.07322E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	9.230142999	7	1	2.49584E+00	2.64960E+01	2.98088E-01	-1.57982E+00	-1.57982E+00	8.57982E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	9.61580548	10.3	1	6.39824E-01	3.41300E+00	2.56999E-02	-7.99890E-01	-7.99890E-01	1.10999E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	9.480367509	9.4	1	6.64040E-01	7.54837E+00	8.74680E-02	-8.14886E-01	-8.14886E-01	1.02149E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	9.341368634	7.6	1	2.91253E+00	2.06791E+01	1.89006E-01	-1.70661E+00	-1.70661E+00	9.30661E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	9.775654181	12.8	1	4.29807E-01	4.25848E-01	2.14559E-07	6.55597E-01	6.55597E-01	1.21444E+01	
NESB	NESB-BWBK-SB-NE01-0108	10.07323033	14.9	1	6.57915E-01	7.57664E+00	8.82761E-02	8.11120E-01	8.11120E-01	1.40889E+01	
NESB	NESB-BWBK-SB-NE02-0109	10.00784757	13.6	1	3.80000E-03	2.10996E+00	5.36989E-02	-6.16441E-02	-6.16441E-02	1.36616E+01	
NESB	NESB-BWBK-SB-NE03-0105	10.01234196	12.4	1	1.66671E+00	6.37917E-02	5.58020E-02	-1.29101E+00	-1.29101E+00	1.36910E+01	
NESB	NESB-BWBK-SB-NE04-0110	9.903487553	11.9	1	1.16579E+00	6.12216E-02	1.62232E-02	-1.07972E+00	-1.07972E+00	1.29797E+01	
NESB	NESB-BWBK-SB-NE05-0108	10.03889219	13.6	1	6.99611E-02	2.10996E+00	6.90506E-02	-2.64502E-01	-2.64502E-01	1.38645E+01	
NESB	NESB-BWBK-SB-NE06-0109	9.957028319	12	1	1.76776E+00	2.17356E-02	3.27288E-02	-1.32957E+00	-1.32957E+00	1.33296E+01	
NESB	NESB-BWBK-SB-NE07-0107	10.0475879	14.6	1	4.60603E-01	6.01510E+00	7.36962E-02	6.78677E-01	6.78677E-01	1.39213E+01	
NESB	NESB-BWBK-SB-NE08-0104	9.809176873	11.8	1	3.17480E-01	1.20708E-01	1.09293E-03	-5.63453E-01	-5.63453E-01	1.23635E+01	
NESB	NESB-BWBK-SB-NE09-0110	9.928180165	12.4	1	5.49180E-01	6.37917E-02	2.31231E-02	-7.41067E-01	-7.41067E-01	1.31411E+01	
NESB	NESB-BWBK-SB-NE10-0107	9.809176873	13.4	1	1.07443E+00	1.56893E+00	1.09293E-03	1.03655E+00	1.03655E+00	1.23635E+01	
NESB	NESB-BWBK-SB-NE101-0110	9.775654181	11.7	1	1.97494E-01	2.00194E-01	2.14559E-07	-4.44403E-01	-4.44403E-01	1.21444E+01	
NESB	NESB-BWBK-SB-NE102-0110	9.574983486	10	1	6.94128E-01	4.61146E+00	4.04548E-02	-8.33144E-01	-8.33144E-01	1.08331E+01	
NESB	NESB-BWBK-SB-NE103-0110	9.480367509	8.7	1	2.29488E+00	1.18848E+01	8.74680E-02	-1.51489E+00	-1.51489E+00	1.02149E+01	
NESB	NESB-BWBK-SB-NE104-0110	9.37585481	7.7	1	3.35608E+00	1.97796E+01	1.60210E-01	-1.83196E+00	-1.83196E+00	9.53196E+00	
NESB	NESB-BWBK-SB-NE105-0110	9.75846178	11	1	1.06515E+00	1.31660E+00	3.11720E-04	-1.03206E+00	-1.03206E+00	1.20321E+01	
NESB	NESB-BWBK-SB-NE106-0110	9.629050707	10	1	1.40764E+00	4.61146E+00	2.16286E-02	-1.18644E+00	-1.18644E+00	1.11864E+01	
NESB	NESB-BWBK-SB-NE107-0510	9.517825072	7.6	1	8.17759E+00	2.06791E+01	6.67149E-02	-2.85965E+00	-2.85965E+00	1.04596E+01	
NESB	NESB-BWBK-SB-NE108-0110	9.629050707	9.8	1	1.92221E+00	5.51043E+00	2.16286E-02	-1.38644E+00	-1.38644E+00	1.11864E+01	
NESB	NESB-BWBK-SB-NE109-0110	9.609116492	9.6	1	2.12047E+00	6.48940E+00	2.78893E-02	-1.45618E+00	-1.45618E+00	1.10562E+01	
NESB	NESB-BWBK-SB-NE110-0110	9.60238246	10.05	1	9.25788E-01	4.39921E+00	3.01838E-02	-9.62179E-01	-9.62179E-01	1.10122E+01	
NESS	NESS-BKG-SS03-NEB-0016	9.781319919	12	1	3.29151E-02	2.17356E-02	2.70663E-05	-1.81425E-01	-1.81425E-01	1.21814E+01	
NESS	NESS-BKG-SS09-NEB-0018	9.525151112	11.4	1	7.96521E-01	5.58651E-01	6.29841E-02	8.92480E-01	8.92480E-01	1.05075E+01	
NESS	NESS-BWBK-SS-NE01-0001	10.04324949	17.1	1	1.02850E+01	2.45280E+01	7.13596E-02	3.20703E+00	3.20703E+00	1.38930E+01	
NESS	NESS-BWBK-SS-NE02-0001	10.02570519	17	1	1.03791E+01	2.35474E+01	6.22941E-02	3.22167E+00	3.22167E+00	1.37783E+01	
NESS	NESS-BWBK-SS-NE03-0001	9.888373915	14.5	1	2.62130E+00	5.53459E+00	1.26015E-02	1.61904E+00	1.61904E+00	1.28810E+01	
NESS	NESS-BWBK-SS-NE04-0001	9.942708266	15.7	1	6.07130E+00	1.26208E+01	2.77525E-02	2.46400E+00	2.46400E+00	1.32360E+01	
NESS	NESS-BWBK-SS-NE05-0001	9.83091686	16.7	1	1.75937E+01	2.07259E+01	3.00298E-03	4.19449E+00	4.19449E+00	1.25055E+01	NESS-BWBK-SS-NE05-0001
NESS	NESS-BWBK-SS-NE06-0001	9.857443614	15.2	1	6.35621E+00	9.31818E+00	6.61396E-03	2.52115E+00	2.52115E+00	1.26788E+01	
NESS	NESS-BWBK-SS-NE07-0001	9.862665558	14.4	1	2.84607E+00	5.07407E+00	7.49059E-03	1.68703E+00	1.68703E+00	1.27130E+01	
NESS	NESS-BWBK-SS-NE08-0001	9.852194258	14.2	1	2.41944E+00	4.21304E+00	5.78769E-03	1.55545E+00	1.55545E+00	1.26445E+01	
NESS	NESS-BWBK-SS-NE09-0001	9.781319919	13.9	1	2.95350E+00	3.07150E+00	2.70663E-05	1.71857E+00	1.71857E+00	1.21814E+01	
NESS	NESS-BWBK-SS-NE10-0001	9.764225485	12.8	1	5.33304E-01	4.25848E-01	1.41417E-04	7.30276E-01	7.30276E-01	1.20697E+01	
NESS	NESS-BWBK-SS-NE101-0001	9.487972109	10.3	1	1.25474E-03	3.41300E+00	8.30277E-02	3.54223E-02	3.54223E-02	1.02646E+01	
NESS	NESS-BWBK-SS-NE102-0001	9.27799902	7.9	1	9.85121E-01	1.80407E+01	2.48122E-01	-9.92533E-01	-9.92533E-01	8.89253E+00	
NESS	NESS-BWBK-SS-NE103-0001	9.197255132	8.3	1	4.21475E-03	1.48027E+01	3.35082E-01	-6.49211E-02	-6.49211E-02	8.36492E+00	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	FE_log	CR	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	9.417354541	7.9	1	3.62192E+00	1.80407E+01	1.28711E-01	-1.90314E+00	-1.90314E+00	9.80314E+00	
NESS	NESS-BWBK-SS-NE105-0001	9.126958763	6.6	1	1.70453E+00	3.07740E+01	4.21407E-01	-1.30558E+00	-1.30558E+00	7.90558E+00	
NESS	NESS-BWBK-SS-NE106-0001	9.220290703	7.1	1	2.00348E+00	2.54765E+01	3.08943E-01	-1.41544E+00	-1.41544E+00	8.51544E+00	
NESS	NESS-BWBK-SS-NE107-0001	9.139917908	6.6	1	1.93282E+00	3.07740E+01	4.04750E-01	-1.39026E+00	-1.39026E+00	7.99026E+00	
NESS	NESS-BWBK-SS-NE108-0001	9.220290703	7.1	1	2.00348E+00	2.54765E+01	3.08943E-01	-1.41544E+00	-1.41544E+00	8.51544E+00	
NESS	NESS-BWBK-SS-NE109-0001	9.107199613	6.3	1	2.17994E+00	3.41924E+01	4.47451E-01	-1.47646E+00	-1.47646E+00	7.77646E+00	
NESS	NESS-BWBK-SS-NE110-0001	9.167432871	6.6	1	2.46506E+00	3.07740E+01	3.70497E-01	-1.57005E+00	-1.57005E+00	8.17005E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	9.952277717	13.9	1	3.61767E-01	3.07150E+00	3.10325E-02	6.01471E-01	6.01471E-01	1.32985E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	10.56359488	21.3	1	1.60552E+01	8.37695E+01	6.20121E-01	4.00689E+00	4.00689E+00	1.72931E+01	PMSB-BWBK-SB-PM02-0104
PMSB	PMSB-BWBK-SB-PM03-0106	10.46595641	15.7	1	9.12223E-01	1.26208E+01	4.75878E-01	-9.55104E-01	-9.55104E-01	1.66551E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	10.22918769	15	1	1.16566E-02	8.13716E+00	2.05273E-01	-1.07966E-01	-1.07966E-01	1.51080E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	10.22918769	14.85	1	6.65463E-02	7.30389E+00	2.05273E-01	-2.57966E-01	-2.57966E-01	1.51080E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	10.31890299	14.1	1	2.54147E+00	3.81253E+00	2.94616E-01	-1.59420E+00	-1.59420E+00	1.56942E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	10.18866649	13	1	3.39733E+00	7.26876E-01	1.70197E-01	-1.84318E+00	-1.84318E+00	1.48432E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	10.11859893	13.7	1	4.69686E-01	2.41047E+00	1.17294E-01	-6.85336E-01	-6.85336E-01	1.43853E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	9.918376165	11.9	1	1.38534E+00	6.12216E-02	2.02376E-02	-1.17700E+00	-1.17700E+00	1.30770E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	10.15424627	17.2	1	6.66533E+00	2.55285E+01	1.42981E-01	2.58173E+00	2.58173E+00	1.46183E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	10.261162	13.3	1	4.06788E+00	1.32842E+00	2.35268E-01	-2.01690E+00	-2.01690E+00	1.53169E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	9.609116492	14.4	1	1.11811E+01	5.07407E+00	2.78893E-02	3.34382E+00	3.34382E+00	1.10562E+01	PMSB-BWBK-SB-PM12-0105
PMSB	PMSB-BWBK-SB-PM13-0106	10.09823163	15.3	1	1.09778E+00	9.93870E+00	1.03758E-01	1.04775E+00	1.04775E+00	1.42522E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	9.705036614	11.9	1	4.71060E-02	6.12216E-02	5.05248E-03	2.17039E-01	2.17039E-01	1.16830E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	10.04324949	14.2	1	9.42650E-02	4.21304E+00	7.13596E-02	3.07026E-01	3.07026E-01	1.38930E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	9.836278803	12	1	2.92192E-01	2.17356E-02	3.61940E-03	-5.40548E-01	-5.40548E-01	1.25405E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	10.13459927	13.65	1	7.05413E-01	2.25772E+00	1.28509E-01	-8.39889E-01	-8.39889E-01	1.44899E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	10.43705266	15	1	2.14985E+00	8.13716E+00	4.36835E-01	-1.46624E+00	-1.46624E+00	1.64662E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	10.16199825	13.9	1	5.91244E-01	3.07150E+00	1.48904E-01	-7.68924E-01	-7.68924E-01	1.46689E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	10.02349034	13.45	1	9.85081E-02	1.69669E+00	6.11934E-02	-3.13860E-01	-3.13860E-01	1.37639E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	10.2853428	13.1	1	5.64017E+00	9.07390E-01	2.59311E-01	-2.37490E+00	-2.37490E+00	1.54749E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	10.46024211	14.6	1	4.07137E+00	6.01510E+00	4.68027E-01	-2.01776E+00	-2.01776E+00	1.66178E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	10.43117029	14.4	1	4.11196E+00	5.07407E+00	4.29094E-01	-2.02780E+00	-2.02780E+00	1.64278E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	10.49404814	14.7	1	4.57389E+00	6.51561E+00	5.15425E-01	-2.13867E+00	-2.13867E+00	1.68387E+01	
PMSS	PMSS-DABK-S-SO21-0001	9.92329018	12.5	1	3.71019E-01	1.24306E-01	2.16598E-02	-6.09114E-01	-6.09114E-01	1.31091E+01	
PMSS	PMSS-DABK-S-SO22-0001	10.0647557	15	1	9.34115E-01	8.13716E+00	8.33121E-02	9.66496E-01	9.66496E-01	1.40335E+01	
PMSS	PMSS-DABK-S-SO23-0001	9.809176873	13.6	1	1.52905E+00	2.10996E+00	1.09293E-03	1.23655E+00	1.23655E+00	1.23635E+01	
PMSS	PMSS-DABK-S-SO24-0001	10.15424627	14.2	1	1.74949E-01	4.21304E+00	1.42981E-01	-4.18270E-01	-4.18270E-01	1.46183E+01	
PMSS	PMSS-DABK-S-SO25-0001	10.67590791	14.6	1	1.17444E+01	6.01510E+00	8.09623E-01	-3.42701E+00	-3.42701E+00	1.80270E+01	
PMSS	PMSS-DABK-S-SO26-0001	10.11050172	15.2	1	7.52685E-01	9.31818E+00	1.11813E-01	8.67574E-01	8.67574E-01	1.43324E+01	
PMSS	PMSS-DABK-S-SO27-0001	9.680344001	12	1	2.28857E-01	2.17356E-02	9.17254E-03	4.78390E-01	4.78390E-01	1.15216E+01	
PMSS	PMSS-DABK-S-SO28-0001	9.814656339	14	1	2.56237E+00	3.43202E+00	1.48525E-03	1.60074E+00	1.60074E+00	1.23993E+01	
PMSS	PMSS-DABK-S-SO29-0001	9.989665249	16	1	6.03767E+00	1.48423E+01	4.56027E-02	2.45717E+00	2.45717E+00	1.35428E+01	
PMSS	PMSS-DABK-S-SO30-0001	9.798127037	15.2	1	8.46083E+00	9.31818E+00	4.84425E-04	2.90875E+00	2.90875E+00	1.22912E+01	
PMSS	PMSS-DABK-S-SO31-0001	9.71111566	11.6	1	1.50513E-02	2.99680E-01	4.22522E-03	-1.22684E-01	-1.22684E-01	1.17227E+01	
PMSS	PMSS-DABK-S-SO32-0001	10.05190756	15.1	1	1.32354E+00	8.71767E+00	7.60602E-02	1.15045E+00	1.15045E+00	1.39495E+01	
PMSS	PMSS-DABK-S-SO33-0001	9.449357272	13.4	1	1.14768E+01	1.56893E+00	1.06772E-01	3.38775E+00	3.38775E+00	1.00123E+01	PMSS-DABK-S-SO33-0001
PMSS	PMSS-DABK-S-SO34-0001	9.642122788	12	1	5.30191E-01	2.17356E-02	1.79546E-02	7.28142E-01	7.28142E-01	1.12719E+01	
PMSS	PMSS-DABK-S-SO35-0001	9.789758787	13.35	1	1.23973E+00	1.44617E+00	1.86088E-04	1.11343E+00	1.11343E+00	1.22366E+01	
PMSS	PMSS-DABK-S-SO36-0001	9.560997244	12.4	1	2.74979E+00	6.37917E-02	4.62767E-02	1.65825E+00	1.65825E+00	1.07418E+01	
PMSS	PMSS-DABK-S-SO37-0001	9.908475094	13.9	1	7.88000E-01	3.07150E+00	1.75186E-02	8.87694E-01	8.87694E-01	1.30123E+01	
PMSS	PMSS-DABK-S-SO38-0001	9.525151112	11.2	1	4.79529E-01	8.97623E-01	6.29841E-02	6.92480E-01	6.92480E-01	1.05075E+01	
PMSS	PMSS-DABK-S-SO39-0001	9.841612149	12.3	1	7.58440E-02	2.32776E-02	4.28956E-03	-2.75398E-01	-2.75398E-01	1.25754E+01	
PMSS	PMSS-DABK-S-SO40-0001	9.581903928	12.2	1	1.74672E+00	2.76361E-03	3.77189E-02	1.32164E+00	1.32164E+00	1.08784E+01	

APPENDIX F, TABLE F8-5
SUPPORT DATA FOR CHROMIUM REGRESSIONS, PART II
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**FE_log**	**CR**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	10.61888534	16.6	1	1.11176E+00	1.98254E+01	7.10258E-01	-1.05440E+00	-1.05440E+00	1.76544E+01	
SESB	SESB-BWBK-SB-SO04-0108	10.42228135	14.9	1	2.16006E+00	7.57664E+00	4.17528E-01	-1.46971E+00	-1.46971E+00	1.63697E+01	
SESB	SESB-BWBK-SB-SO05-0106	10.3609124	15.8	1	2.84616E-02	1.33413E+01	3.41985E-01	-1.68706E-01	-1.68706E-01	1.59687E+01	
SESB	SESB-BWBK-SB-SO06-0108	10.66078255	16.85	1	1.16246E+00	2.21142E+01	7.82632E-01	-1.07817E+00	-1.07817E+00	1.79282E+01	
SESB	SESB-BWBK-SB-SO07-0106	10.27849345	14.5	1	8.65176E-01	5.53459E+00	2.52382E-01	-9.30149E-01	-9.30149E-01	1.54301E+01	
SESB	SESB-BWBK-SB-SO08-0107	10.5941316	17.3	1	3.71139E-02	2.65490E+01	6.69147E-01	-1.92650E-01	-1.92650E-01	1.74926E+01	
SESB	SESB-BWBK-SB-SO09-0106	10.27505111	15.3	1	1.15896E-02	9.93870E+00	2.48935E-01	-1.07655E-01	-1.07655E-01	1.54077E+01	
SESB	SESB-BWBK-SB-SO11-0106	10.45737267	15.8	1	6.38424E-01	1.33413E+01	4.64109E-01	-7.99014E-01	-7.99014E-01	1.65990E+01	
SESB	SESB-BWBK-SB-SO12-0106	10.46024211	15.05	1	2.45788E+00	8.42491E+00	4.68027E-01	-1.56776E+00	-1.56776E+00	1.66178E+01	
SESB	SESB-BWBK-SB-SO15-0103	10.0301202	13.4	1	1.65797E-01	1.56893E+00	6.45174E-02	-4.07182E-01	-4.07182E-01	1.38072E+01	
SESB	SESB-BWBK-SB-SO16-0105	10.12262308	13.3	1	1.23572E+00	1.32842E+00	1.20066E-01	-1.11163E+00	-1.11163E+00	1.44116E+01	
SESB	SESB-BWBK-SB-SO17-0106	9.803667217	13.1	1	5.96832E-01	9.07390E-01	7.58993E-04	7.72549E-01	7.72549E-01	1.23275E+01	
SESB	SESB-BWBK-SB-SO18-0105	9.61580548	12.6	1	2.25033E+00	2.04820E-01	2.56999E-02	1.50011E+00	1.50011E+00	1.10999E+01	
SESB	SESB-BWBK-SB-SO19-0104	9.705036614	13.1	1	2.00800E+00	9.07390E-01	5.05248E-03	1.41704E+00	1.41704E+00	1.16830E+01	
SESB	SESB-BWBK-SB-SO20-0104	10.29890232	13.7	1	3.47266E+00	2.41047E+00	2.73304E-01	-1.86351E+00	-1.86351E+00	1.55635E+01	
SESS	SESS-DABK-S-SO01-0001	9.83091686	13	1	2.44520E-01	7.26876E-01	3.00298E-03	4.94489E-01	4.94489E-01	1.25055E+01	
SESS	SESS-DABK-S-SO02-0001	10.08996712	28.2	1	1.96049E+02	2.57685E+02	9.85017E-02	1.40018E+01	1.40018E+01	1.41982E+01	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	9.857443614	11.9	1	6.06602E-01	6.12216E-02	6.61396E-03	-7.78847E-01	-7.78847E-01	1.26788E+01	
SESS	SESS-DABK-S-SO04-0001	9.820105944	14.4	1	3.86174E+00	5.07407E+00	1.93499E-03	1.96513E+00	1.96513E+00	1.24349E+01	
SESS	SESS-DABK-S-SO05-0001	9.867860375	11.9	1	7.17263E-01	6.12216E-02	8.41678E-03	-8.46914E-01	-8.46914E-01	1.27469E+01	
SESS	SESS-DABK-S-SO06-0001	10.89488576	15.8	1	1.33802E+01	1.33413E+01	1.25164E+00	-3.65789E+00	-3.65789E+00	1.94579E+01	
SESS	SESS-DABK-S-SO07-0001	9.680344001	13.6	1	4.31971E+00	2.10996E+00	9.17254E-03	2.07839E+00	2.07839E+00	1.15216E+01	
SESS	SESS-DABK-S-SO08-0001	9.928180165	12.7	1	1.94540E-01	3.05334E-01	2.31231E-02	-4.41067E-01	-4.41067E-01	1.31411E+01	
SESS	SESS-DABK-S-SO09-0001	10.04324949	11.2	1	7.25211E+00	8.97623E-01	7.13596E-02	-2.69297E+00	-2.69297E+00	1.38930E+01	
SESS	SESS-DABK-S-SO10-0001	10.07744086	11	1	9.71191E+00	1.31660E+00	9.07958E-02	-3.11639E+00	-3.11639E+00	1.41164E+01	
SESS	SESS-DABK-S-SO11-0001	9.087042156	8.3	1	4.29356E-01	1.48027E+01	4.74825E-01	6.55253E-01	6.55253E-01	7.64475E+00	
SESS	SESS-DABK-S-SO12-0001	9.581903928	11.3	1	1.77777E-01	7.18137E-01	3.77189E-02	4.21636E-01	4.21636E-01	1.08784E+01	
SESS	SESS-DABK-S-SO13-0001	9.836278803	10.9	1	2.69140E+00	1.55608E+00	3.61940E-03	-1.64055E+00	-1.64055E+00	1.25405E+01	
SESS	SESS-DABK-S-SO14-0001	9.798127037	9.8	1	6.20632E+00	5.51043E+00	4.84425E-04	-2.49125E+00	-2.49125E+00	1.22912E+01	
SESS	SESS-DABK-S-SO15-0001	9.76995616	12.8	1	4.80013E-01	4.25848E-01	3.79607E-05	6.92830E-01	6.92830E-01	1.21072E+01	
SESS	SESS-DABK-S-SO16-0001	9.140990294	8.3	1	9.16485E-02	1.48027E+01	4.03386E-01	3.02735E-01	3.02735E-01	7.99726E+00	
SESS	SESS-DABK-S-SO17-0001	9.60238246	9.1	1	3.65643E+00	9.28683E+00	3.01838E-02	-1.91218E+00	-1.91218E+00	1.10122E+01	
SESS	SESS-DABK-S-SO18-0001	9.480367509	9.9	1	9.91534E-02	5.05094E+00	8.74680E-02	-3.14886E-01	-3.14886E-01	1.02149E+01	
SESS	SESS-DABK-S-SO19-0001	9.75846178	14.1	1	4.27637E+00	3.81253E+00	3.11720E-04	2.06794E+00	2.06794E+00	1.20321E+01	
SESS	SESS-DABK-S-SO20-0001	10.0647557	16	1	3.86711E+00	1.48423E+01	8.33121E-02	1.96650E+00	1.96650E+00	1.40335E+01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: BE ^0.5			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: BE predict (from Factor Anal.)			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	174.000000		0.14	0.37	0.34	0.41	-0.44	0.44	0.00	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	3.798776E+00		0.16	0.40	0.35	0.44	-0.44	0.44	0.00	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.653761		0.18	0.42	0.37	0.46	-0.44	0.44	0.00	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	2.727312E+02		0.21	0.44	0.39	0.49	-0.44	0.44	0.00	---- \/ ----
2	SUM(X^2*w^2)	1.740000E+02		0.23	0.46	0.40	0.52	-0.44	0.44	0.00	BASS
	SUM(X*w^2)	4.487531E+02		0.25	0.48	0.42	0.54	-0.44	0.44	0.00	0
	SUM(Y*w^2)	7.555715E+02		0.28	0.50	0.44	0.57	-0.44	0.44	0.00	MASS
	SUM(w^2)	1.370359E+03		0.30	0.53	0.45	0.60	-0.44	0.44	0.00	0
	SUM(Y)	112.477273		0.32	0.55	0.47	0.63	-0.44	0.44	0.00	MMSS
	SUM(X)	7.482200E+01		0.35	0.57	0.48	0.65	-0.44	0.44	0.00	0
	Denominator	3.706306E+04		0.37	0.59	0.50	0.68	-0.44	0.44	0.00	NESS
	Slope	9.355557E-01		0.39	0.61	0.52	0.71	-0.44	0.44	0.00	0
	Intercept	2.450001E-01		0.42	0.63	0.53	0.74	-0.44	0.44	0.00	PMSS
	Minimum X value	1.374762E-01		0.44	0.66	0.55	0.76	-0.44	0.44	0.00	0
	Maximum X value	6.932907E-01		0.46	0.68	0.56	0.79	-0.44	0.44	0.00	SESS
	Minimum Y value	3.464102E-01		0.48	0.70	0.58	0.82	-0.44	0.44	0.00	0
	Maximum Y value	8.888194E-01		0.51	0.72	0.59	0.85	-0.44	0.44	0.00	SESD
	No. of graph points	25		0.53	0.74	0.61	0.87	-0.44	0.44	0.00	0
	SUM(Ypred.- Yobs)^2	5.054726E-01		0.55	0.76	0.63	0.90	-0.44	0.44	0.00	MASB
	SUM(Yobs - Yave)^2	2.114317E+00		0.58	0.79	0.64	0.93	-0.44	0.44	0.00	0
	SUM(X - Xave)^2	2.055872E+00		0.60	0.81	0.66	0.96	-0.44	0.44	0.00	MMSB
	Std. Error of Y-estimate	5.421065E-02		0.62	0.83	0.67	0.98	-0.44	0.44	0.00	1
	R^2	7.609287E-01		0.65	0.85	0.69	1.01	-0.44	0.44	0.00	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/x		0.67	0.87	0.71	1.04	-0.44	0.44	0.00	0
est.M, Std.Err.Y				0.69	0.89	0.72	1.07	-0.44	0.44	0.00	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	0.38	0.60	0.51	0.69	0.36	-29%	34%	0
Inverse Log Transform (Y/N)?		No	50	0.45	0.67	0.55	0.78	0.44	-31%	36%	SESB
Inverse Power Transform (Y/N)?		Yes	75	0.50	0.72	0.59	0.84	0.51	-32%	38%	0
Inverse Power Transform (1/Power):		2	90	0.55	0.76	0.62	0.89	0.57	-33%	39%	<<--Original Units Errors

TEXT BOX ==> (BE ^0.5) = (9.36E-01)x(BE predict (from Factor Anal.)) + (2.45E-01) R^2 = 0.76; Std. Error of Y-estimate = 5.42E-02 +/-3 x IQR of r -0.437925 0.437925

TEXT BOX ==> Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro \/ - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	BE predict	BE ^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	0.168190468	0.412310563	35.35063663	9.91809E-05	5.48077E-02	6.85502E-02	9.95896E-03	5.92124E-02	4.02352E-01	
BASS	BASS-BWBK-SS-BA102-0001	0.150774884	0.374165739	43.98878775	1.41434E-04	7.41230E-02	7.79731E-02	-1.18926E-02	-7.88766E-02	3.86058E-01	
BASS	BASS-BWBK-SS-BA103-0001	0.159447638	0.387298335	39.33361127	4.72500E-05	6.71446E-02	7.32048E-02	-6.87386E-03	-4.31105E-02	3.94172E-01	
BASS	BASS-BWBK-SS-BA104-0001	0.192065137	0.387298335	27.10833976	1.39796E-03	6.71446E-02	5.66185E-02	-3.73893E-02	-1.94670E-01	4.24688E-01	
BASS	BASS-BWBK-SS-BA105-0001	0.148266925	0.387298335	45.48952864	1.28617E-05	6.71446E-02	7.93800E-02	3.58632E-03	2.41882E-02	3.83712E-01	
BASS	BASS-BWBK-SS-BA106-0001	0.195870637	0.4	26.06521599	7.97946E-04	6.07234E-02	5.48219E-02	-2.82479E-02	-1.44217E-01	4.28248E-01	
BASS	BASS-BWBK-SS-BA107-0001	0.155944108	0.374165739	41.12084758	2.79850E-04	7.41230E-02	7.51129E-02	-1.67287E-02	-1.07274E-01	3.90894E-01	
BASS	BASS-BWBK-SS-BA108-0001	0.154637353	0.387298335	41.81876317	5.63385E-06	6.71446E-02	7.58309E-02	-2.37357E-03	-1.53493E-02	3.89672E-01	
BASS	BASS-BWBK-SS-BA109-0001	0.174214719	0.374165739	32.9480952	1.14392E-03	7.41230E-02	6.54320E-02	-3.38219E-02	-1.94139E-01	4.07988E-01	
BASS	BASS-BWBK-SS-BA110-0001	0.212678054	0.4	22.10826407	1.93356E-03	6.07234E-02	4.72338E-02	-4.39722E-02	-2.06755E-01	4.43972E-01	
BASS	BASS-BWBK-SS-BA111-0001	0.168669928	0.374165739	35.14994731	8.19930E-04	7.41230E-02	6.82994E-02	-2.86344E-02	-1.69766E-01	4.02800E-01	
BASS	BASS-BWBK-SS-BA112-0001	0.149357528	0.387298335	44.82762883	6.58434E-06	6.71446E-02	7.87666E-02	2.56600E-03	1.71802E-02	3.84732E-01	
BASS	BASS-BWBK-SS-BA113-0001	0.137476249	0.40620192	52.91083974	1.06179E-03	5.77053E-02	8.55769E-02	3.25852E-02	2.37024E-01	3.73617E-01	
MASB	MASB-BWBK-SB-MA01-0105	0.462836572	0.670820393	4.668148495	5.16824E-05	5.95325E-04	1.07749E-03	-7.18905E-03	-1.55326E-02	6.78009E-01	
MASB	MASB-BWBK-SB-MA02-0107	0.481676031	0.6244998	4.310125622	5.06019E-03	4.80544E-04	2.66922E-03	-7.11350E-02	-1.47682E-01	6.95635E-01	
MASB	MASB-BWBK-SB-MA03-0108	0.455433869	0.6164414	4.821135643	2.98579E-03	8.98783E-04	6.46297E-04	-5.46424E-02	-1.19979E-01	6.71084E-01	
MASB	MASB-BWBK-SB-MA04-0106	0.465231962	0.670820393	4.620201463	8.89262E-05	5.95325E-04	1.24048E-03	-9.43007E-03	-2.02696E-02	6.80250E-01	
MASB	MASB-BWBK-SB-MA05-0108	0.44919863	0.678232998	4.95590707	1.68548E-04	1.01200E-03	3.68146E-04	1.29826E-02	2.89017E-02	6.65250E-01	
MASB	MASB-BWBK-SB-MA06-0105	0.460787995	0.655743852	4.709748187	4.14083E-04	8.69136E-05	9.47193E-04	-2.03490E-02	-4.41614E-02	6.76093E-01	
MASB	MASB-BWBK-SB-MA07-0108	0.406744817	0.595818764	6.044438242	8.82905E-04	2.56060E-03	5.41338E-04	-2.97137E-02	-7.30525E-02	6.25532E-01	
MASB	MASB-BWBK-SB-MA08-0108	0.611320869	0.764852927	2.675848719	2.71148E-03	1.40261E-02	3.28731E-02	-5.20718E-02	-8.51792E-02	8.16925E-01	
MASB	MASB-BWBK-SB-MA09-0108	0.450472757	0.678232998	4.927911915	1.39018E-04	1.01200E-03	4.18663E-04	1.17906E-02	2.61738E-02	6.66442E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	BE predict	BE ^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	0.396037425	0.6	6.375695164	2.40719E-04	2.15492E-03	1.15424E-03	-1.55151E-02	-3.91759E-02	6.15515E-01	
MASB	MASB-BWBK-SB-MA11-0108	0.499781784	0.754983444	4.003493743	1.79858E-03	1.17858E-02	4.86789E-03	4.24097E-02	8.48564E-02	7.12574E-01	
MASB	MASB-BWBK-SB-MA12-0108	0.465018298	0.64807407	4.62444817	1.02250E-03	2.73228E-06	1.22548E-03	-3.19765E-02	-6.87640E-02	6.80051E-01	
MASB	MASB-BWBK-SB-MA13-0105	0.460055916	0.761577311	4.724749212	7.42515E-03	1.32610E-02	9.02667E-04	8.61693E-02	1.87302E-01	6.75408E-01	
MASB	MASB-BWBK-SB-MA14-0104	0.582818071	0.80311892	2.943974083	1.65382E-04	2.45542E-02	2.33498E-02	1.28601E-02	2.20654E-02	7.90259E-01	
MASB	MASB-BWBK-SB-MA15-0105	0.5667352	0.883176087	3.113433719	1.16562E-02	5.60529E-02	1.86934E-02	1.07964E-01	1.90501E-01	7.75212E-01	
MASB	MASB-BWBK-SB-MA16-0104	0.447275497	0.748331477	4.998616123	7.20466E-03	1.03857E-02	2.98046E-04	8.48803E-02	1.89772E-01	6.63451E-01	
MASB	MASB-BWBK-SB-MA17-0104	0.469853243	0.734846923	4.529763644	2.52737E-03	7.81912E-03	1.58736E-03	5.02730E-02	1.06997E-01	6.84574E-01	
MASB	MASB-BWBK-SB-MA18-0104	0.519923364	0.761577311	3.699315162	9.09625E-04	1.32610E-02	8.08414E-03	3.01600E-02	5.80085E-02	7.31417E-01	
MASB	MASB-BWBK-SB-MA19-0103	0.417572132	0.68556546	5.735047064	2.49035E-03	1.53228E-03	1.54738E-04	4.99034E-02	1.19509E-01	6.35662E-01	
MASB	MASB-BWBK-SB-MA20-0103	0.446189313	0.692820323	5.022982588	9.23268E-04	2.15289E-03	2.61722E-04	3.03853E-02	6.80996E-02	6.62435E-01	
MASS	MASS-BWBK-SS-MA01-0001	0.337454094	0.5	8.781538242	3.68536E-03	2.14391E-02	8.56687E-03	-6.07072E-02	-1.79898E-01	5.60707E-01	
MASS	MASS-BWBK-SS-MA02-0001	0.43854248	0.663324958	5.199680546	6.47058E-05	2.85740E-04	7.27777E-05	8.04399E-03	1.83426E-02	6.55281E-01	
MASS	MASS-BWBK-SS-MA03-0001	0.381083516	0.6	6.885883549	2.32534E-06	2.15492E-03	2.39395E-03	-1.52491E-03	-4.00150E-03	6.01525E-01	
MASS	MASS-BWBK-SS-MA04-0001	0.386230371	0.565685425	6.703585567	1.65280E-03	6.51825E-03	1.91679E-03	-4.06547E-02	-1.05260E-01	6.06340E-01	
MASS	MASS-BWBK-SS-MA05-0001	0.470256832	0.670820393	4.521991827	1.99688E-04	5.95325E-04	1.61969E-03	-1.41311E-02	-3.00498E-02	6.84952E-01	
MASS	MASS-BWBK-SS-MA06-0001	0.536719249	0.721110255	3.471407979	6.77069E-04	5.57847E-03	1.13865E-02	-2.60205E-02	-4.84807E-02	7.47131E-01	
MASS	MASS-BWBK-SS-MA07-0001	0.252484731	0.346410162	15.68663387	1.81720E-02	9.00066E-02	3.15158E-02	-1.34803E-01	-5.33907E-01	4.81214E-01	
MASS	MASS-BWBK-SS-MA08-0001	0.464281896	0.565685425	4.639129549	1.29223E-02	6.51825E-03	1.17446E-03	-1.13676E-01	-2.44843E-01	6.79362E-01	
MASS	MASS-BWBK-SS-MA09-0001	0.64694474	0.787400787	2.389272188	3.95039E-03	1.98753E-02	4.70600E-02	-6.28521E-02	-9.71522E-02	8.50253E-01	
MASS	MASS-BWBK-SS-MA10-0001	0.572383183	0.728010989	3.052293344	2.75472E-03	6.65691E-03	2.02697E-02	-5.24854E-02	-9.16963E-02	7.80496E-01	
MASS	MASS-BWBK-SS-MA11-0001	0.632222228	0.7	2.501845454	1.86266E-02	2.87070E-03	4.08892E-02	-1.36479E-01	-2.15872E-01	8.36479E-01	
MASS	MASS-BWBK-SS-MA12-0001	0.3966255	0.529150262	6.356802754	7.55422E-03	1.37525E-02	1.11462E-03	-8.69150E-02	-2.19136E-01	6.16065E-01	
MASS	MASS-BWBK-SS-MA13-0001	0.539571501	0.655743852	3.434804273	8.84642E-03	8.69136E-05	1.20034E-02	-9.40554E-02	-1.74315E-01	7.49799E-01	
MASS	MASS-BWBK-SS-MA14-0001	0.453492069	0.556776436	4.862511129	1.26542E-02	8.03617E-03	5.51337E-04	-1.12491E-01	-2.48054E-01	6.69267E-01	
MASS	MASS-BWBK-SS-MA15-0001	0.479679811	0.556776436	4.346074038	1.87665E-02	8.03617E-03	2.46694E-03	-1.36991E-01	-2.85588E-01	6.93767E-01	
MASS	MASS-BWBK-SS-MA16-0001	0.463245403	0.632455532	4.659912517	2.11015E-03	1.95037E-04	1.10449E-03	-4.59364E-02	-9.91621E-02	6.78392E-01	
MASS	MASS-BWBK-SS-MA17-0001	0.485839459	0.6244998	4.236570433	5.62952E-03	4.80544E-04	3.11676E-03	-7.50301E-02	-1.54434E-01	6.99530E-01	
MASS	MASS-BWBK-SS-MA18-0001	0.46675591	0.583095189	4.590081	9.71822E-03	4.01017E-03	1.35015E-03	-9.85810E-02	-2.11205E-01	6.81676E-01	
MASS	MASS-BWBK-SS-MA19-0001	0.49904476	0.663324958	4.01532775	2.35800E-03	2.85740E-04	4.76559E-03	-4.85593E-02	-9.73044E-02	7.11884E-01	
MASS	MASS-BWBK-SS-MA20-0001	0.458328865	0.655743852	4.76042339	3.25744E-04	8.69136E-05	8.01874E-04	-1.80484E-02	-3.93787E-02	6.73792E-01	
MMSB	MMSB-BWBK-SB-MM101-0110	0.332337792	0.612372436	9.05400103	3.18681E-03	1.15931E-03	9.54015E-03	5.64519E-02	1.69863E-01	5.55921E-01	
MMSB	MMSB-BWBK-SB-MM102-0109	0.370981656	0.6164414	7.265995566	5.93768E-04	8.98783E-04	3.48452E-03	2.43673E-02	6.56834E-02	5.92074E-01	
MMSB	MMSB-BWBK-SB-MM103-0107	0.367727708	0.574456265	7.39515516	2.12388E-04	5.17894E-03	3.87927E-03	-1.45735E-02	-3.96313E-02	5.89030E-01	
MMSB	MMSB-BWBK-SB-MM104-0110	0.441031358	0.64807407	5.14115929	9.09235E-05	2.73228E-06	1.21437E-04	-9.53538E-03	-2.16206E-02	6.57609E-01	
MMSB	MMSB-BWBK-SB-MM105-0110	0.284076741	0.842614977	12.39163599	1.10121E-01	3.84920E-02	2.12970E-02	3.31845E-01	1.16815E+00	5.10770E-01	MMSB-BWBK-SB-MM105-0110
MMSB	MMSB-BWBK-SB-MM106-0110	0.458802147	0.692820323	4.750607134	3.45414E-04	2.15289E-03	8.28902E-04	1.85853E-02	4.05083E-02	6.74235E-01	
MMSB	MMSB-BWBK-SB-MM107-0110	0.397835362	0.608276253	6.318198029	7.95831E-05	1.45503E-03	1.03530E-03	-8.92094E-03	-2.24237E-02	6.17197E-01	
MMSB	MMSB-BWBK-SB-MM108-0110	0.345482007	0.644204936	8.378169301	5.77406E-03	4.91141E-06	7.14523E-03	7.59872E-02	2.19946E-01	5.68218E-01	
MMSB	MMSB-BWBK-SB-MM109-0110	0.452111805	0.748331477	4.89224621	6.45703E-03	1.03857E-02	4.88424E-04	8.03557E-02	1.77734E-01	6.67976E-01	
MMSB	MMSB-BWBK-SB-MM110-0109	0.422196625	0.583095189	5.610098489	3.23685E-03	4.01017E-03	6.10722E-05	-5.68933E-02	-1.34756E-01	6.39989E-01	
MMSB	MMSB-BWBK-SB-MM111-0110	0.39760132	0.632455532	6.325638453	2.39547E-04	1.95037E-04	1.05042E-03	1.54773E-02	3.89267E-02	6.16978E-01	
MMSB	MMSB-BWBK-SB-MM112-0110	0.428955288	0.612372436	5.434704647	1.15187E-03	1.15931E-03	1.11557E-06	-3.39392E-02	-7.91206E-02	6.46312E-01	
MMSB	MMSB-BWBK-SB-MM113-0110	0.43972388	0.574456265	5.171778262	6.71252E-03	5.17894E-03	9.43304E-05	-8.19300E-02	-1.86321E-01	6.56386E-01	
MMSB	MMSB-BWBK-SB-MM114-0110	0.316137967	0.565685425	10.00568182	6.21041E-04	6.51825E-03	1.29672E-02	2.49207E-02	7.88286E-02	5.40765E-01	
MMSB	MMSB-BWBK-SB-MM115-0110	0.388763199	0.574456265	6.616521171	1.17330E-03	5.17894E-03	1.70142E-03	-3.42534E-02	-8.81087E-02	6.08710E-01	
MMSB	MMSB-BWBK-SB-MM116-0110	0.347807468	0.556776436	8.266509978	1.85419E-04	8.03617E-03	6.75750E-03	-1.36169E-02	-3.91506E-02	5.70393E-01	
MMSB	MMSB-BWBK-SB-MM117-0110	0.281160219	0.529150262	12.65005039	4.45597E-04	1.37525E-02	2.21567E-02	2.11092E-02	7.50788E-02	5.08041E-01	
MMSB	MMSB-BWBK-SB-MM118-0110	0.337540872	0.6	8.777023538	1.53755E-03	2.15492E-03	8.55082E-03	3.92117E-02	1.16169E-01	5.60788E-01	
MMSB	MMSB-BWBK-SB-MM119-0110	0.324382005	0.556776436	9.503563774	6.88726E-05	8.03617E-03	1.11576E-02	8.29895E-03	2.55839E-02	5.48477E-01	
MMSB	MMSB-BWBK-SB-MM120-0110	0.242972917	0.529150262	16.93886338	3.23028E-03	1.37525E-02	3.49834E-02	5.68355E-02	2.33917E-01	4.72315E-01	
MMSS	MMSS-BWBK-SS-MM101-0001	0.533885213	0.761577311	3.508360522	2.92338E-04	1.32610E-02	1.07897E-02	1.70979E-02	3.20254E-02	7.44479E-01	
MMSS	MMSS-BWBK-SS-MM102-0001	0.419505773	0.678232998	5.682299458	1.66154E-03	1.01200E-03	1.10370E-04	4.07619E-02	9.71666E-02	6.37471E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	BE predict	BE ^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	0.526259199	0.721110255	3.610776438	2.63562E-04	5.57847E-03	9.26362E-03	-1.62346E-02	-3.08490E-02	7.37345E-01	
MMSS	MMSS-BWBK-SS-MM104-0001	0.518098513	0.741619849	3.725420574	1.41843E-04	9.06280E-03	7.75932E-03	1.19098E-02	2.29875E-02	7.29710E-01	
MMSS	MMSS-BWBK-SS-MM105-0001	0.398979655	0.6164414	6.282008214	3.33552E-06	8.98783E-04	9.62975E-04	-1.82634E-03	-4.57753E-03	6.18268E-01	
MMSS	MMSS-BWBK-SS-MM106-0001	0.547703315	0.721110255	3.333567554	1.31745E-03	5.57847E-03	1.38514E-02	-3.62968E-02	-6.62708E-02	7.57407E-01	
MMSS	MMSS-BWBK-SS-MM107-0001	0.521377508	0.741619849	3.678708845	7.81827E-05	9.06280E-03	8.34775E-03	8.84210E-03	1.69591E-02	7.32778E-01	
MMSS	MMSS-BWBK-SS-MM108-0001	0.548297776	0.761577311	3.326343011	1.30621E-05	1.32610E-02	1.39916E-02	3.61415E-03	6.59158E-03	7.57963E-01	
MMSS	MMSS-BWBK-SS-MM109-0001	0.50150669	0.714142843	3.97600149	1.99358E-09	4.58623E-03	5.11156E-03	-4.46495E-05	-8.90308E-05	7.14187E-01	
MMSS	MMSS-BWBK-SS-MM110-0001	0.366959099	0.509901951	7.426166439	6.14794E-03	1.86375E-02	3.97560E-03	-7.84088E-02	-2.13672E-01	5.88311E-01	
MMSS	MMSS-BWBK-SS-MM111-0001	0.378635662	0.529150262	6.975204867	4.91184E-03	1.37525E-02	2.63948E-03	-7.00845E-02	-1.85098E-01	5.99235E-01	
MMSS	MMSS-BWBK-SS-MM112-0001	0.332042105	0.519615242	9.070133562	1.29807E-03	1.60797E-02	9.59800E-03	-3.60287E-02	-1.08506E-01	5.55644E-01	
MMSS	MMSS-BWBK-SS-MM113-0001	0.488652116	0.6164414	4.187939828	7.34791E-03	8.98783E-04	3.43872E-03	-8.57199E-02	-1.75421E-01	7.02161E-01	
MMSS	MMSS-BWBK-SS-MM114-0001	0.302283306	0.547722558	10.94388885	3.96792E-04	9.74140E-03	1.63145E-02	1.99196E-02	6.58972E-02	5.27803E-01	
MMSS	MMSS-BWBK-SS-MM115-0001	0.362641162	0.6164414	7.604064725	1.03493E-03	8.98783E-04	4.53876E-03	3.21703E-02	8.87112E-02	5.84271E-01	
MMSS	MMSS-BWBK-SS-MM116-0001	0.353123495	0.556776436	8.019490377	3.45600E-04	8.03617E-03	5.91176E-03	-1.85903E-02	-5.26454E-02	5.75367E-01	
MMSS	MMSS-BWBK-SS-MM117-0001	0.460575922	0.632455532	4.714086417	1.88694E-03	1.95037E-04	9.34184E-04	-4.34389E-02	-9.43144E-02	6.75894E-01	
MMSS	MMSS-BWBK-SS-MM118-0001	0.351296745	0.565685425	8.103110258	6.35575E-05	6.51825E-03	6.19601E-03	-7.97230E-03	-2.26939E-02	5.73658E-01	
MMSS	MMSS-BWBK-SS-MM119-0001	0.313558598	0.583095189	10.17097462	2.00199E-03	4.01017E-03	1.35613E-02	4.47436E-02	1.42696E-01	5.38352E-01	
MMSS	MMSS-BWBK-SS-MM120-0001	0.417461617	0.7	5.738083945	4.15269E-03	2.87070E-03	1.57499E-04	6.44414E-02	1.54365E-01	6.35559E-01	
NESB	NESB-BWBK-SB-NE01-0108	0.451918595	0.632455532	4.896430293	1.24888E-03	1.95037E-04	4.79921E-04	-3.53395E-02	-7.81989E-02	6.67795E-01	
NESB	NESB-BWBK-SB-NE02-0109	0.431330614	0.591607978	5.375011936	3.24056E-03	3.00448E-03	1.74008E-06	-5.69259E-02	-1.31977E-01	6.48534E-01	
NESB	NESB-BWBK-SB-NE03-0105	0.421293361	0.64807407	5.63418067	7.97559E-05	2.73228E-06	7.60058E-05	8.93061E-03	2.11981E-02	6.39143E-01	
NESB	NESB-BWBK-SB-NE04-0110	0.396947349	0.64807407	6.346498601	1.00538E-03	2.73228E-06	1.09324E-03	3.17077E-02	7.98788E-02	6.16366E-01	
NESB	NESB-BWBK-SB-NE05-0108	0.431704522	0.632455532	5.365705159	2.69884E-04	1.95037E-04	2.86634E-06	-1.64281E-02	-3.80541E-02	6.48884E-01	
NESB	NESB-BWBK-SB-NE06-0109	0.400917235	0.655743852	6.221434709	1.27188E-03	8.69136E-05	8.46476E-04	3.56634E-02	8.89545E-02	6.20080E-01	
NESB	NESB-BWBK-SB-NE07-0107	0.452726339	0.64807407	4.8789737	4.19295E-04	2.73228E-06	5.15964E-04	-2.04767E-02	-4.52297E-02	6.68551E-01	
NESB	NESB-BWBK-SB-NE08-0104	0.401066176	0.663324958	6.216814739	1.85805E-03	2.85740E-04	8.37831E-04	4.31052E-02	1.07476E-01	6.20220E-01	
NESB	NESB-BWBK-SB-NE09-0110	0.395082728	0.620483682	6.406545456	3.43599E-05	6.72750E-04	1.22002E-03	5.86173E-03	1.48367E-02	6.14622E-01	
NESB	NESB-BWBK-SB-NE10-0107	0.455609969	0.714142843	4.817409491	1.83992E-03	4.58623E-03	6.55282E-04	4.28943E-02	9.41470E-02	6.71249E-01	
NESB	NESB-BWBK-SB-NE101-0110	0.448932989	0.692820323	4.961773788	7.73867E-04	2.15289E-03	3.58023E-04	2.78185E-02	6.19657E-02	6.65002E-01	
NESB	NESB-BWBK-SB-NE102-0110	0.401942036	0.6244998	6.1897505	1.19757E-05	4.80544E-04	7.87894E-04	3.46059E-03	8.60967E-03	6.21039E-01	
NESB	NESB-BWBK-SB-NE103-0110	0.356287729	0.570087713	7.877678796	6.78870E-05	5.82679E-03	5.43519E-03	-8.23935E-03	-2.31256E-02	5.78327E-01	
NESB	NESB-BWBK-SB-NE104-0110	0.319139223	0.556776436	9.818375382	1.74342E-04	8.03617E-03	1.22927E-02	1.32039E-02	4.13734E-02	5.43573E-01	
NESB	NESB-BWBK-SB-NE105-0110	0.421511771	0.678232998	5.628343373	1.51206E-03	1.01200E-03	7.22453E-05	3.88852E-02	9.22518E-02	6.39348E-01	
NESB	NESB-BWBK-SB-NE106-0110	0.390694691	0.6164414	6.551262191	3.51021E-05	8.98783E-04	1.54581E-03	5.92471E-03	1.51645E-02	6.10517E-01	
NESB	NESB-BWBK-SB-NE107-0510	0.30844607	0.547722558	10.51093902	2.00337E-04	9.74140E-03	1.47782E-02	1.41540E-02	4.58882E-02	5.33569E-01	
NESB	NESB-BWBK-SB-NE108-0110	0.403834722	0.583095189	6.131866409	1.57726E-03	4.01017E-03	6.85223E-04	-3.97147E-02	-9.83440E-02	6.22810E-01	
NESB	NESB-BWBK-SB-NE109-0110	0.388331614	0.6	6.631236302	6.89881E-05	2.15492E-03	1.73721E-03	-8.30591E-03	-2.13887E-02	6.08306E-01	
NESB	NESB-BWBK-SB-NE110-0110	0.384922133	0.595818764	6.749230064	8.64413E-05	2.56060E-03	2.03305E-03	-9.29738E-03	-2.41539E-02	6.05116E-01	
NESS	NESS-BKG-SS03-NEB-0016	0.538638176	0.714142843	3.446717887	1.20987E-03	4.58623E-03	1.17998E-02	-3.47832E-02	-6.45762E-02	7.48926E-01	
NESS	NESS-BKG-SS09-NEB-0018	0.466222655	0.6	4.60058706	6.58976E-03	2.15492E-03	1.31125E-03	-8.11773E-02	-1.74117E-01	6.81177E-01	
NESS	NESS-BWBK-SS-NE01-0001	0.599425869	0.8	2.783101447	3.35975E-05	2.35865E-02	2.87012E-02	-5.79634E-03	-9.66982E-03	8.05796E-01	
NESS	NESS-BWBK-SS-NE02-0001	0.517645235	0.728010989	3.731947781	1.62565E-06	6.65691E-03	7.67967E-03	-1.27501E-03	-2.46310E-03	7.29286E-01	
NESS	NESS-BWBK-SS-NE03-0001	0.5557762	0.768114575	3.237427935	9.95360E-06	1.48093E-02	1.58168E-02	3.15493E-03	5.67662E-03	7.64960E-01	
NESS	NESS-BWBK-SS-NE04-0001	0.576513729	0.748331477	3.008712515	1.29811E-03	1.03857E-02	2.14629E-02	-3.60293E-02	-6.24951E-02	7.84361E-01	
NESS	NESS-BWBK-SS-NE05-0001	0.54791533	0.761577311	3.330988215	1.57764E-05	1.32610E-02	1.39013E-02	3.97195E-03	7.24920E-03	7.57605E-01	
NESS	NESS-BWBK-SS-NE06-0001	0.541767974	0.781024968	3.407009491	8.50936E-04	1.81182E-02	1.24895E-02	2.91708E-02	5.38437E-02	7.51854E-01	
NESS	NESS-BWBK-SS-NE07-0001	0.557698909	0.774596669	3.215143861	6.14378E-05	1.64290E-02	1.63041E-02	7.83823E-03	1.40546E-02	7.66758E-01	
NESS	NESS-BWBK-SS-NE08-0001	0.540184628	0.781024968	3.427011459	9.39552E-04	1.81182E-02	1.21381E-02	3.06521E-02	5.67438E-02	7.50373E-01	
NESS	NESS-BWBK-SS-NE09-0001	0.594155343	0.888819442	2.832696112	7.73590E-03	5.87570E-02	2.69432E-02	8.79540E-02	1.48032E-01	8.00865E-01	
NESS	NESS-BWBK-SS-NE10-0001	0.510213493	0.748331477	3.841458284	6.75911E-04	1.03857E-02	6.43236E-03	2.59983E-02	5.09557E-02	7.22333E-01	
NESS	NESS-BWBK-SS-NE101-0001	0.47531006	0.678232998	4.426352401	1.31013E-04	1.01200E-03	2.05196E-03	-1.14461E-02	-2.40813E-02	6.89679E-01	
NESS	NESS-BWBK-SS-NE102-0001	0.386493887	0.6	6.694447515	4.33834E-05	2.15492E-03	1.89378E-03	-6.58661E-03	-1.70419E-02	6.06587E-01	
NESS	NESS-BWBK-SS-NE103-0001	0.365854145	0.529150262	7.471091226	3.37872E-03	1.37525E-02	4.11617E-03	-5.81267E-02	-1.58879E-01	5.87277E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!J	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	BE predict	BE ^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	0.382356515	0.538516481	6.840108822	4.12156E-03	1.16434E-02	2.27100E-03	-6.41994E-02	-1.67905E-01	6.02716E-01	
NESS	NESS-BWBK-SS-NE105-0001	0.335249683	0.632455532	8.897402734	5.44802E-03	1.95037E-04	8.97980E-03	7.38107E-02	2.20166E-01	5.58645E-01	
NESS	NESS-BWBK-SS-NE106-0001	0.361416666	0.608276253	7.655677855	6.32562E-04	1.45503E-03	4.70525E-03	2.51508E-02	6.95894E-02	5.83125E-01	
NESS	NESS-BWBK-SS-NE107-0001	0.366664621	0.678232998	7.438099519	8.13564E-03	1.01200E-03	4.01283E-03	9.01978E-02	2.45995E-01	5.88035E-01	
NESS	NESS-BWBK-SS-NE108-0001	0.371129272	0.64807407	7.260216668	3.12055E-03	2.73228E-06	3.46712E-03	5.58619E-02	1.50519E-01	5.92212E-01	
NESS	NESS-BWBK-SS-NE109-0001	0.334473847	0.632455532	8.938726899	5.55570E-03	1.95037E-04	9.12744E-03	7.45366E-02	2.22847E-01	5.57919E-01	
NESS	NESS-BWBK-SS-NE110-0001	0.365590547	0.547722558	7.481868739	1.54510E-03	9.74140E-03	4.15006E-03	-3.93078E-02	-1.07519E-01	5.87030E-01	
PMSB	PMSB-BWBK-SB-PM01-0105	0.510386018	0.707106781	3.838861671	2.36785E-04	3.68275E-03	6.46006E-03	-1.53878E-02	-3.01494E-02	7.22495E-01	
PMSB	PMSB-BWBK-SB-PM02-0104	0.693290733	0.871779789	2.080507138	4.76652E-04	5.07865E-02	6.93160E-02	-2.18324E-02	-3.14909E-02	8.93612E-01	
PMSB	PMSB-BWBK-SB-PM03-0106	0.545068429	0.692820323	3.365874702	3.85909E-03	2.15289E-03	1.32381E-02	-6.21216E-02	-1.13970E-01	7.54942E-01	
PMSB	PMSB-BWBK-SB-PM04-0105	0.483976646	0.734846923	4.269246091	1.37343E-03	7.81912E-03	2.91224E-03	3.70598E-02	7.65735E-02	6.97787E-01	
PMSB	PMSB-BWBK-SB-PM05-0105	0.497842299	0.707106781	4.03474798	1.33405E-05	3.68275E-03	4.60102E-03	-3.65247E-03	-7.33660E-03	7.10759E-01	
PMSB	PMSB-BWBK-SB-PM06-0105	0.489146772	0.678232998	4.179473881	5.94926E-04	1.01200E-03	3.49698E-03	-2.43911E-02	-4.98646E-02	7.02624E-01	
PMSB	PMSB-BWBK-SB-PM07-0105	0.498979512	0.8	4.016377926	7.77515E-03	2.35865E-02	4.75659E-03	8.81768E-02	1.76714E-01	7.11823E-01	
PMSB	PMSB-BWBK-SB-PM08-0106	0.487137706	0.728010989	4.214019176	7.43461E-04	6.65691E-03	3.26340E-03	2.72665E-02	5.59728E-02	7.00745E-01	
PMSB	PMSB-BWBK-SB-PM09-0106	0.398830083	0.6244998	6.286720943	4.06023E-05	4.80544E-04	9.72280E-04	6.37199E-03	1.59767E-02	6.18128E-01	
PMSB	PMSB-BWBK-SB-PM10-0105	0.583067879	0.824621125	2.941452006	1.16476E-03	3.17552E-02	2.34263E-02	3.41286E-02	5.85328E-02	7.90493E-01	
PMSB	PMSB-BWBK-SB-PM11-0104	0.50755438	0.734846923	3.881815057	2.25044E-04	7.81912E-03	6.01290E-03	1.50015E-02	2.95564E-02	7.19845E-01	
PMSB	PMSB-BWBK-SB-PM12-0105	0.413730073	0.663324958	5.842057401	9.77024E-04	2.85740E-04	2.65085E-04	3.12574E-02	7.55502E-02	6.32068E-01	
PMSB	PMSB-BWBK-SB-PM13-0106	0.529347743	0.81240384	3.568764323	5.20844E-03	2.75503E-02	9.86769E-03	7.21695E-02	1.36337E-01	7.40234E-01	
PMSB	PMSB-BWBK-SB-PM14-0106	0.414244032	0.7	5.827569735	4.54972E-03	2.87070E-03	2.48613E-04	6.74516E-02	1.62831E-01	6.32548E-01	
PMSB	PMSB-BWBK-SB-PM15-0105	0.474553486	0.721110255	4.440477396	1.03291E-03	5.57847E-03	1.98399E-03	3.21390E-02	6.77247E-02	6.88971E-01	
PMSB	PMSB-BWBK-SB-PM16-0106	0.420959378	0.741619849	5.643124359	1.05655E-02	9.06280E-03	8.19408E-05	1.02789E-01	2.44178E-01	6.38831E-01	
PMSB	PMSB-BWBK-SB-PM17-0105	0.510256869	0.774596669	3.840805199	2.72723E-03	1.64290E-02	6.43932E-03	5.22229E-02	1.02346E-01	7.22374E-01	
PMSB	PMSB-BWBK-SB-PM18-0105	0.491267295	0.714142843	4.143470917	9.09138E-05	4.58623E-03	3.75227E-03	9.53488E-03	1.94087E-02	7.04608E-01	
PMSB	PMSB-BWBK-SB-PM19-0105	0.477216505	0.692820323	4.39105713	1.84322E-06	2.15289E-03	2.22831E-03	1.35765E-03	2.84494E-03	6.91463E-01	
PMSB	PMSB-BWBK-SB-PM20-0106	0.456346517	0.7	4.801871344	7.87496E-04	2.87070E-03	6.93533E-04	2.80624E-02	6.14935E-02	6.71938E-01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	0.478355167	0.734846923	4.370177349	1.79090E-03	7.81912E-03	2.33711E-03	4.23190E-02	8.84677E-02	6.92528E-01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	0.504350267	0.663324958	3.931293698	2.86470E-03	2.85740E-04	5.52625E-03	-5.35229E-02	-1.06122E-01	7.16848E-01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	0.527415948	0.707106781	3.594955214	9.80959E-04	3.68275E-03	9.48763E-03	-3.13203E-02	-5.93844E-02	7.38427E-01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	0.508883891	0.670820393	3.861558271	2.52696E-03	5.95325E-04	6.22086E-03	-5.02689E-02	-9.87826E-02	7.21089E-01	
SESB	SESB-BWBK-SB-SO03-0108	0.581890511	0.774596669	2.953367218	2.18873E-04	1.64290E-02	2.30672E-02	-1.47944E-02	-2.54247E-02	7.89391E-01	
SESB	SESB-BWBK-SB-SO04-0108	0.501634784	0.707106781	3.973971186	5.18479E-05	3.68275E-03	5.12990E-03	-7.20055E-03	-1.43542E-02	7.14307E-01	
SESB	SESB-BWBK-SB-SO05-0106	0.525319836	0.781024968	3.623701374	1.98550E-03	1.81182E-02	9.08368E-03	4.45590E-02	8.48225E-02	7.36466E-01	
SESB	SESB-BWBK-SB-SO06-0108	0.58439846	0.754983444	2.928072825	1.35085E-03	1.17858E-02	2.38353E-02	-3.67539E-02	-6.28919E-02	7.91737E-01	
SESB	SESB-BWBK-SB-SO07-0106	0.504780789	0.71902712	3.924590636	3.15604E-06	5.27163E-03	5.59045E-03	1.77653E-03	3.51940E-03	7.17251E-01	
SESB	SESB-BWBK-SB-SO08-0107	0.581315539	0.774596669	2.959212385	2.03246E-04	1.64290E-02	2.28929E-02	-1.42564E-02	-2.45245E-02	7.88853E-01	
SESB	SESB-BWBK-SB-SO09-0106	0.503621198	0.728010989	3.942684231	1.40310E-04	6.65691E-03	5.41839E-03	1.18453E-02	2.35202E-02	7.16166E-01	
SESB	SESB-BWBK-SB-SO11-0106	0.52968584	0.7	3.564209915	1.64436E-03	2.87070E-03	9.93498E-03	-4.05507E-02	-7.65561E-02	7.40551E-01	
SESB	SESB-BWBK-SB-SO12-0106	0.503635376	0.674536878	3.942462251	1.73407E-03	7.90497E-04	5.42048E-03	-4.16421E-02	-8.26831E-02	7.16179E-01	
SESB	SESB-BWBK-SB-SO15-0103	0.491443803	0.721110255	4.14049509	2.66903E-04	5.57847E-03	3.77393E-03	1.63372E-02	3.32432E-02	7.04773E-01	
SESB	SESB-BWBK-SB-SO16-0105	0.447404035	0.68556546	4.995744364	4.83737E-04	1.53228E-03	3.02500E-04	2.19940E-02	4.91592E-02	6.63571E-01	
SESB	SESB-BWBK-SB-SO17-0106	0.424286302	0.714142843	5.554973321	5.21274E-03	4.58623E-03	3.27778E-05	7.21993E-02	1.70167E-01	6.41944E-01	
SESB	SESB-BWBK-SB-SO18-0105	0.413102428	0.663324958	5.859823106	1.01408E-03	2.85740E-04	2.85917E-04	3.18446E-02	7.70864E-02	6.31480E-01	
SESB	SESB-BWBK-SB-SO19-0104	0.452557529	0.748331477	4.882614207	6.39019E-03	1.03857E-02	5.08324E-04	7.99387E-02	1.76638E-01	6.68393E-01	
SESB	SESB-BWBK-SB-SO20-0104	0.457163517	0.7	4.784723767	7.45182E-04	2.87070E-03	7.37232E-04	2.72980E-02	5.97117E-02	6.72702E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: BE ^0.5
X variable name used on graph: AL

	N	174.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	9.134546E-01
0.10	t-Value: 2-tail, 0.100 alpha	1.653761
degrees freedom	SUM(XY*w^2)	1.220663E+06
2	SUM(X^2*w^2)	2.051183E+10
	SUM(X*w^2)	1.826135E+06
	SUM(Y*w^2)	1.124773E+02
	SUM(w^2)	1.740000E+02
	SUM(Y)	112.477273
	SUM(X)	1.826135E+06
	Denominator	2.342889E+11
	Slope	2.986382E-05
	Intercept	3.329994E-01
	Minimum X value	3.710000E+03
	Maximum X value	1.790000E+04
	Minimum Y value	3.464102E-01
	Maximum Y value	8.888194E-01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	9.134546E-01
	SUM(Yobs - Yave)^2	2.114317E+00
	SUM(X - Xave)^2	1.346488E+09
	Std. Error of Y-estimate	7.287511E-02
	R^2	5.679670E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1
est.M, Std.Err.Y		
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		
Inverse Log Transform (Y/N)?		No
Inverse Power Transform (Y/N)?		Yes
Inverse Power Transform (1/Power):		2

	********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	3710.00	0.44	0.32	0.57	-0.27	0.27	-0.01	No. of Exceedances
	4301.25	0.46	0.34	0.58	-0.27	0.27	-0.01	of Upper 95% Limit
	4892.50	0.48	0.36	0.60	-0.27	0.27	-0.01	for Each Soil Type:
	5483.75	0.50	0.37	0.62	-0.27	0.27	-0.01	---- V ----
	6075.00	0.51	0.39	0.64	-0.27	0.27	-0.01	BASS
	6666.25	0.53	0.41	0.65	-0.27	0.27	-0.01	0
	7257.50	0.55	0.43	0.67	-0.27	0.27	-0.01	MASS
	7848.75	0.57	0.45	0.69	-0.27	0.27	-0.01	0
	8440.00	0.59	0.46	0.71	-0.27	0.27	-0.01	MMSS
	9031.25	0.60	0.48	0.72	-0.27	0.27	-0.01	0
	9622.50	0.62	0.50	0.74	-0.27	0.27	-0.01	NESS
	10213.75	0.64	0.52	0.76	-0.27	0.27	-0.01	0
	10805.00	0.66	0.53	0.78	-0.27	0.27	-0.01	PMSS
	11396.25	0.67	0.55	0.79	-0.27	0.27	-0.01	0
	11987.50	0.69	0.57	0.81	-0.27	0.27	-0.01	SESS
	12578.75	0.71	0.59	0.83	-0.27	0.27	-0.01	0
	13170.00	0.73	0.61	0.85	-0.27	0.27	-0.01	SESD
	13761.25	0.74	0.62	0.87	-0.27	0.27	-0.01	0
	14352.50	0.76	0.64	0.88	-0.27	0.27	-0.01	MASB
	14943.75	0.78	0.66	0.90	-0.27	0.27	-0.01	3
	15535.00	0.80	0.67	0.92	-0.27	0.27	-0.01	MMSB
	16126.25	0.81	0.69	0.94	-0.27	0.27	-0.01	1
	16717.50	0.83	0.71	0.95	-0.27	0.27	-0.01	NESB
	17308.75	0.85	0.73	0.97	-0.27	0.27	-0.01	0
	17900.00	0.87	0.74	0.99	-0.27	0.27	-0.01	PMSB
25	9252.50	0.61	0.49	0.73	0.37	-36%	44%	5
50	10500.00	0.65	0.53	0.77	0.42	-34%	41%	SESB
75	11750.00	0.68	0.56	0.80	0.47	-32%	38%	1
90	14185.00	0.76	0.64	0.88	0.57	-30%	35%	<<--Original Units Errors

TEXT BOX ==> (BE ^0.5) = (2.99E-05)x(AL) + (3.33E-01) R^2 = 0.57; Std. Error of Y-estimate = 7.29E-02 +/-3 x IQR of r -0.274602 0.274602

TEXT BOX ==> 95% Confidence Limits on a Y-value predicted from one X-valu

Indexed value lookups: X data column ref. Y data column ref.

Specify X-col., Y-col. as: "DA!" + column DA!D DA!K

GROUP	SAMPLE	AL	BE ^0.5	V - wt.descrip. Regression Wt.	TEXT BOX==> (Pred. - Obs.)^2	Residuals Plot: (Y - Ymean)^2	(Observed - Predicted) Versus Y-Pred. (X - Xmean)^2	Obs-Pred	served - Predic Wt'd.Residuals	Y-Pred.	Spl. IDs>upper 95% C.L. Candidate High Outliers
				---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	BASS-BWBK-SS-BA101-0001	4760	0.412310563	1	3.94895E-03	5.48077E-02	3.28906E+07	-6.28407E-02	-6.28407E-02	4.75151E-01	
BASS	BASS-BWBK-SS-BA102-0001	3730	0.374165739	1	4.93166E-03	7.41230E-02	4.57656E+07	-7.02257E-02	-7.02257E-02	4.44391E-01	
BASS	BASS-BWBK-SS-BA103-0001	4130	0.387298335	1	4.76634E-03	6.71446E-02	4.05136E+07	-6.90387E-02	-6.90387E-02	4.56337E-01	
BASS	BASS-BWBK-SS-BA104-0001	4790	0.387298335	1	7.87635E-03	6.71446E-02	3.25474E+07	-8.87488E-02	-8.87488E-02	4.76047E-01	
BASS	BASS-BWBK-SS-BA105-0001	3920	0.387298335	1	3.93973E-03	6.71446E-02	4.32310E+07	-6.27673E-02	-6.27673E-02	4.50066E-01	
BASS	BASS-BWBK-SS-BA106-0001	4800	0.4	1	5.82868E-03	6.07234E-02	3.24334E+07	-7.63458E-02	-7.63458E-02	4.76346E-01	
BASS	BASS-BWBK-SS-BA107-0001	3810	0.374165739	1	5.27292E-03	7.41230E-02	4.46896E+07	-7.26149E-02	-7.26149E-02	4.46781E-01	
BASS	BASS-BWBK-SS-BA108-0001	3870	0.387298335	1	3.75451E-03	6.71446E-02	4.38910E+07	-6.12741E-02	-6.12741E-02	4.48572E-01	
BASS	BASS-BWBK-SS-BA109-0001	4160	0.374165739	1	6.90016E-03	7.41230E-02	4.01326E+07	-8.30672E-02	-8.30672E-02	4.57233E-01	
BASS	BASS-BWBK-SS-BA110-0001	5290	0.4	1	8.27719E-03	6.07234E-02	2.70923E+07	-9.09790E-02	-9.09790E-02	4.90979E-01	
BASS	BASS-BWBK-SS-BA111-0001	4250	0.374165739	1	7.35391E-03	7.41230E-02	3.90004E+07	-8.57549E-02	-8.57549E-02	4.59921E-01	
BASS	BASS-BWBK-SS-BA112-0001	4230	0.387298335	1	5.18761E-03	6.71446E-02	3.92506E+07	-7.20251E-02	-7.20251E-02	4.59323E-01	
BASS	BASS-BWBK-SS-BA113-0001	3710	0.40620192	1	1.41318E-03	5.77053E-02	4.60366E+07	-3.75923E-02	-3.75923E-02	4.43794E-01	
MASB	MASB-BWBK-SB-MA01-0105	10600	0.670820393	1	4.52177E-04	5.95325E-04	1.10190E+04	2.12644E-02	2.12644E-02	6.49556E-01	
MASB	MASB-BWBK-SB-MA02-0107	11400	0.6244998	1	2.39583E-03	4.80544E-04	8.18973E+05	-4.89472E-02	-4.89472E-02	6.73447E-01	
MASB	MASB-BWBK-SB-MA03-0108	9390	0.6164414	1	9.12448E-06	8.98783E-04	1.22109E+06	3.02068E-03	3.02068E-03	6.13421E-01	
MASB	MASB-BWBK-SB-MA04-0106	11400	0.670820393	1	6.89911E-06	5.95325E-04	8.18973E+05	-2.62662E-03	-2.62662E-03	6.73447E-01	
MASB	MASB-BWBK-SB-MA05-0108	10500	0.678232998	1	1.00257E-03	1.01200E-03	2.47135E+01	3.16634E-02	3.16634E-02	6.46570E-01	
MASB	MASB-BWBK-SB-MA06-0105	10700	0.655743852	1	1.02497E-05	8.69136E-05	4.20132E+04	3.20152E-03	3.20152E-03	6.52542E-01	
MASB	MASB-BWBK-SB-MA07-0108	10300	0.595818764	1	2.00507E-03	2.56060E-03	3.80362E+04	-4.47780E-02	-4.47780E-02	6.40597E-01	
MASB	MASB-BWBK-SB-MA08-0108	14150	0.764852927	1	8.61259E-05	1.40261E-02	1.33588E+07	9.28040E-03	9.28040E-03	7.55573E-01	
MASB	MASB-BWBK-SB-MA09-0108	11000	0.678232998	1	2.79944E-04	1.01200E-03	2.54996E+05	1.67315E-02	1.67315E-02	6.61501E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**AL**	**BE ^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	8630	0.6	1	8.60401E-05	2.15492E-03	3.47833E+06	9.27578E-03	9.27578E-03	5.90724E-01	
MASB	MASB-BWBK-SB-MA11-0108	11300	0.754983444	1	7.14411E-03	1.17858E-02	6.47979E+05	8.45228E-02	8.45228E-02	6.70461E-01	
MASB	MASB-BWBK-SB-MA12-0108	10900	0.64807407	1	1.09015E-04	2.73228E-06	1.64002E+05	-1.04410E-02	-1.04410E-02	6.58515E-01	
MASB	MASB-BWBK-SB-MA13-0105	9000	0.761577311	1	2.55372E-02	1.32610E-02	2.23511E+06	1.59803E-01	1.59803E-01	6.01774E-01	MASB-BWBK-SB-MA13-0105
MASB	MASB-BWBK-SB-MA14-0104	11900	0.80311892	1	1.31653E-02	2.45542E-02	1.97394E+06	1.14740E-01	1.14740E-01	6.88379E-01	
MASB	MASB-BWBK-SB-MA15-0105	12000	0.883176087	1	3.67914E-02	5.60529E-02	2.26494E+06	1.91811E-01	1.91811E-01	6.91365E-01	MASB-BWBK-SB-MA15-0105
MASB	MASB-BWBK-SB-MA16-0104	8820	0.748331477	1	2.30837E-02	1.03857E-02	2.80572E+06	1.51933E-01	1.51933E-01	5.96398E-01	MASB-BWBK-SB-MA16-0104
MASB	MASB-BWBK-SB-MA17-0104	10900	0.734846923	1	5.82655E-03	7.81912E-03	1.64002E+05	7.63318E-02	7.63318E-02	6.58515E-01	
MASB	MASB-BWBK-SB-MA18-0104	10700	0.761577311	1	1.18886E-02	1.32610E-02	4.20132E+04	1.09035E-01	1.09035E-01	6.52542E-01	
MASB	MASB-BWBK-SB-MA19-0103	9000	0.68556546	1	7.02104E-03	1.53228E-03	2.23511E+06	8.37916E-02	8.37916E-02	6.01774E-01	
MASB	MASB-BWBK-SB-MA20-0103	9610	0.692820323	1	5.30414E-03	2.15289E-03	7.83276E+05	7.28296E-02	7.28296E-02	6.19991E-01	
MASS	MASS-BWBK-SS-MA01-0001	8580	0.5	1	7.96218E-03	2.14391E-02	3.66734E+06	-8.92310E-02	-8.92310E-02	5.89231E-01	
MASS	MASS-BWBK-SS-MA02-0001	12700	0.663324958	1	2.39562E-03	2.85740E-04	4.86190E+06	-4.89450E-02	-4.89450E-02	7.12270E-01	
MASS	MASS-BWBK-SS-MA03-0001	9270	0.6	1	9.67679E-05	2.15492E-03	1.50070E+06	-9.83707E-03	-9.83707E-03	6.09837E-01	
MASS	MASS-BWBK-SS-MA04-0001	10400	0.565685425	1	6.06806E-03	6.51825E-03	9.03046E+03	-7.78978E-02	-7.78978E-02	6.43583E-01	
MASS	MASS-BWBK-SS-MA05-0001	12200	0.670820393	1	7.03187E-04	5.95325E-04	2.90693E+06	-2.65177E-02	-2.65177E-02	6.97338E-01	
MASS	MASS-BWBK-SS-MA06-0001	13800	0.721110255	1	5.76477E-04	5.57847E-03	1.09228E+07	-2.40099E-02	-2.40099E-02	7.45120E-01	
MASS	MASS-BWBK-SS-MA07-0001	5470	0.346410162	1	2.24833E-02	9.00066E-02	2.52509E+07	-1.49944E-01	-1.49944E-01	4.96355E-01	
MASS	MASS-BWBK-SS-MA08-0001	11000	0.565685425	1	9.18072E-03	6.51825E-03	2.54996E+05	-9.58161E-02	-9.58161E-02	6.61501E-01	
MASS	MASS-BWBK-SS-MA09-0001	16800	0.787400787	1	2.23832E-03	1.98753E-02	3.97527E+07	-4.73109E-02	-4.73109E-02	8.34712E-01	
MASS	MASS-BWBK-SS-MA10-0001	14300	0.728010989	1	1.02663E-03	6.65691E-03	1.44778E+07	-3.20411E-02	-3.20411E-02	7.60052E-01	
MASS	MASS-BWBK-SS-MA11-0001	14300	0.7	1	3.60625E-03	2.87070E-03	1.44778E+07	-6.00521E-02	-6.00521E-02	7.60052E-01	
MASS	MASS-BWBK-SS-MA12-0001	10500	0.529150262	1	1.37873E-02	1.37525E-02	2.47135E+01	-1.17419E-01	-1.17419E-01	6.46570E-01	
MASS	MASS-BWBK-SS-MA13-0001	12500	0.655743852	1	2.55564E-03	8.69136E-05	4.01991E+06	-5.05534E-02	-5.05534E-02	7.06297E-01	
MASS	MASS-BWBK-SS-MA14-0001	9980	0.556776436	1	5.51513E-03	8.03617E-03	2.65255E+05	-7.42639E-02	-7.42639E-02	6.31040E-01	
MASS	MASS-BWBK-SS-MA15-0001	11500	0.556776436	1	1.43178E-02	8.03617E-03	1.00997E+06	-1.19657E-01	-1.19657E-01	6.76433E-01	
MASS	MASS-BWBK-SS-MA16-0001	9940	0.632455532	1	6.81056E-06	1.95037E-04	3.08057E+05	2.60970E-03	2.60970E-03	6.29846E-01	
MASS	MASS-BWBK-SS-MA17-0001	11300	0.6244998	1	2.11240E-03	4.80544E-04	6.47979E+05	-4.59608E-02	-4.59608E-02	6.70461E-01	
MASS	MASS-BWBK-SS-MA18-0001	10400	0.583095189	1	3.65880E-03	4.01017E-03	9.03046E+03	-6.04880E-02	-6.04880E-02	6.43583E-01	
MASS	MASS-BWBK-SS-MA19-0001	11100	0.663324958	1	1.35235E-06	2.85740E-04	3.65990E+05	-1.16290E-03	-1.16290E-03	6.64488E-01	
MASS	MASS-BWBK-SS-MA20-0001	10100	0.655743852	1	4.46047E-04	8.69136E-05	1.56048E+05	2.11198E-02	2.11198E-02	6.34624E-01	
MMSB	MMSB-BWBK-SB-MM101-0110	7735	0.612372436	1	2.34027E-03	1.15931E-03	7.61776E+06	4.83763E-02	4.83763E-02	5.63996E-01	
MMSB	MMSB-BWBK-SB-MM102-0109	9150	0.6164414	1	1.03795E-04	8.98783E-04	1.80910E+06	1.01880E-02	1.01880E-02	6.06253E-01	
MMSB	MMSB-BWBK-SB-MM103-0107	8050	0.574456265	1	1.10894E-06	5.17894E-03	5.97817E+06	1.05306E-03	1.05306E-03	5.73403E-01	
MMSB	MMSB-BWBK-SB-MM104-0110	11300	0.64807407	1	5.01158E-04	2.73228E-06	6.47979E+05	-2.23866E-02	-2.23866E-02	6.70461E-01	
MMSB	MMSB-BWBK-SB-MM105-0110	6760	0.842614977	1	9.47015E-02	3.84920E-02	1.39504E+07	3.07736E-01	3.07736E-01	5.34879E-01	MMSB-BWBK-SB-MM105-0110
MMSB	MMSB-BWBK-SB-MM106-0110	12000	0.692820323	1	2.11708E-06	2.15289E-03	2.26494E+06	1.45502E-03	1.45502E-03	6.91365E-01	
MMSB	MMSB-BWBK-SB-MM107-0110	7650	0.608276253	1	2.19198E-03	1.45503E-03	8.09419E+06	4.68186E-02	4.68186E-02	5.61458E-01	
MMSB	MMSB-BWBK-SB-MM108-0110	8775	0.644204936	1	2.41577E-03	4.91141E-06	2.95850E+06	4.91505E-02	4.91505E-02	5.95054E-01	
MMSB	MMSB-BWBK-SB-MM109-0110	10800	0.748331477	1	8.61235E-03	1.03857E-02	9.30075E+04	9.28028E-02	9.28028E-02	6.55529E-01	
MMSB	MMSB-BWBK-SB-MM110-0109	9490	0.583095189	1	1.10968E-03	4.01017E-03	1.01008E+06	-3.33119E-02	-3.33119E-02	6.16407E-01	
MMSB	MMSB-BWBK-SB-MM111-0110	10000	0.632455532	1	6.68920E-07	1.95037E-04	2.45053E+05	8.17875E-04	8.17875E-04	6.31638E-01	
MMSB	MMSB-BWBK-SB-MM112-0110	10350	0.612372436	1	8.83133E-04	1.15931E-03	2.10333E+04	-2.97176E-02	-2.97176E-02	6.42090E-01	
MMSB	MMSB-BWBK-SB-MM113-0110	8890	0.574456265	1	5.77563E-04	5.17894E-03	2.57612E+06	-2.40325E-02	-2.40325E-02	5.98489E-01	
MMSB	MMSB-BWBK-SB-MM114-0110	8040	0.565685425	1	5.50436E-05	6.51825E-03	6.02717E+06	-7.41914E-03	-7.41914E-03	5.73105E-01	
MMSB	MMSB-BWBK-SB-MM115-0110	10700	0.574456265	1	6.09743E-03	5.17894E-03	4.20132E+04	-7.80861E-02	-7.80861E-02	6.52542E-01	
MMSB	MMSB-BWBK-SB-MM116-0110	8475	0.556776436	1	8.59597E-04	8.03617E-03	4.08052E+06	-2.93189E-02	-2.93189E-02	5.86095E-01	
MMSB	MMSB-BWBK-SB-MM117-0110	7070	0.529150262	1	2.24592E-04	1.37525E-02	1.17308E+07	-1.49864E-02	-1.49864E-02	5.44137E-01	
MMSB	MMSB-BWBK-SB-MM118-0110	7890	0.6	1	9.84391E-04	2.15492E-03	6.78617E+06	3.13750E-02	3.13750E-02	5.68625E-01	
MMSB	MMSB-BWBK-SB-MM119-0110	7940	0.556776436	1	1.78002E-04	8.03617E-03	6.52817E+06	-1.33417E-02	-1.33417E-02	5.70118E-01	
MMSB	MMSB-BWBK-SB-MM120-0110	5520	0.529150262	1	9.79849E-04	1.37525E-02	2.47509E+07	3.13025E-02	3.13025E-02	4.97848E-01	
MMSS	MMSS-BWBK-SS-MM101-0001	15200	0.761577311	1	6.42735E-04	1.32610E-02	2.21368E+07	-2.53522E-02	-2.53522E-02	7.86930E-01	
MMSS	MMSS-BWBK-SS-MM102-0001	11400	0.678232998	1	2.29057E-05	1.01200E-03	8.18973E+05	4.78599E-03	4.78599E-03	6.73447E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**AL**	**BE ^0.5**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MMSS	MMSS-BWBK-SS-MM103-0001	14200	0.721110255	1	1.29280E-03	5.57847E-03	1.37268E+07	-3.59555E-02	-3.59555E-02	7.57066E-01	
MMSS	MMSS-BWBK-SS-MM104-0001	14100	0.741619849	1	1.55239E-04	9.06280E-03	1.29958E+07	-1.24595E-02	-1.24595E-02	7.54079E-01	
MMSS	MMSS-BWBK-SS-MM105-0001	10400	0.6164414	1	7.36677E-04	8.98783E-04	9.03046E+03	-2.71418E-02	-2.71418E-02	6.43583E-01	
MMSS	MMSS-BWBK-SS-MM106-0001	14000	0.721110255	1	8.98962E-04	5.57847E-03	1.22848E+07	-2.99827E-02	-2.99827E-02	7.51093E-01	
MMSS	MMSS-BWBK-SS-MM107-0001	15100	0.741619849	1	1.79126E-03	9.06280E-03	2.12058E+07	-4.23233E-02	-4.23233E-02	7.83943E-01	
MMSS	MMSS-BWBK-SS-MM108-0001	15500	0.761577311	1	1.17727E-03	1.32610E-02	2.50497E+07	-3.43114E-02	-3.43114E-02	7.95889E-01	
MMSS	MMSS-BWBK-SS-MM109-0001	14300	0.714142843	1	2.10766E-03	4.58623E-03	1.44778E+07	-4.59093E-02	-4.59093E-02	7.60052E-01	
MMSS	MMSS-BWBK-SS-MM110-0001	9610	0.509901951	1	1.21195E-02	1.86375E-02	7.83276E+05	-1.10089E-01	-1.10089E-01	6.19991E-01	
MMSS	MMSS-BWBK-SS-MM111-0001	10900	0.529150262	1	1.67353E-02	1.37525E-02	1.64002E+05	-1.29365E-01	-1.29365E-01	6.58515E-01	
MMSS	MMSS-BWBK-SS-MM112-0001	9430	0.519615242	1	9.02501E-03	1.60797E-02	1.13429E+06	-9.50000E-02	-9.50000E-02	6.14615E-01	
MMSS	MMSS-BWBK-SS-MM113-0001	13500	0.6164414	1	1.43328E-02	8.98783E-04	9.02985E+06	-1.19720E-01	-1.19720E-01	7.36161E-01	
MMSS	MMSS-BWBK-SS-MM114-0001	8540	0.547722558	1	1.62521E-03	9.74140E-03	3.82214E+06	-4.03139E-02	-4.03139E-02	5.88036E-01	
MMSS	MMSS-BWBK-SS-MM115-0001	10200	0.6164414	1	4.48127E-04	8.98783E-04	8.70420E+04	-2.11690E-02	-2.11690E-02	6.37610E-01	
MMSS	MMSS-BWBK-SS-MM116-0001	9520	0.556776436	1	3.66347E-03	8.03617E-03	9.50681E+05	-6.05266E-02	-6.05266E-02	6.17303E-01	
MMSS	MMSS-BWBK-SS-MM117-0001	12800	0.632455532	1	6.85598E-03	1.95037E-04	5.31289E+06	-8.28008E-02	-8.28008E-02	7.15256E-01	
MMSS	MMSS-BWBK-SS-MM118-0001	9250	0.565685425	1	1.89698E-03	6.51825E-03	1.55010E+06	-4.35544E-02	-4.35544E-02	6.09240E-01	
MMSS	MMSS-BWBK-SS-MM119-0001	8300	0.583095189	1	4.95522E-06	4.01017E-03	4.81815E+06	2.22603E-03	2.22603E-03	5.80869E-01	
MMSS	MMSS-BWBK-SS-MM120-0001	8900	0.7	1	1.02440E-02	2.87070E-03	2.54412E+06	1.01213E-01	1.01213E-01	5.98787E-01	
NESB	NESB-BWBK-SB-NE01-0108	12300	0.632455532	1	4.60619E-03	1.95037E-04	3.25792E+06	-6.78689E-02	-6.78689E-02	7.00324E-01	
NESB	NESB-BWBK-SB-NE02-0109	11100	0.591607978	1	5.31148E-03	3.00448E-03	3.65990E+05	-7.28799E-02	-7.28799E-02	6.64488E-01	
NESB	NESB-BWBK-SB-NE03-0105	11100	0.64807407	1	2.69413E-04	2.73228E-06	3.65990E+05	-1.64138E-02	-1.64138E-02	6.64488E-01	
NESB	NESB-BWBK-SB-NE04-0110	10700	0.64807407	1	1.99654E-05	2.73228E-06	4.20132E+04	-4.46826E-03	-4.46826E-03	6.52542E-01	
NESB	NESB-BWBK-SB-NE05-0108	11550	0.632455532	1	2.06762E-03	1.95037E-04	1.11296E+06	-4.54711E-02	-4.54711E-02	6.77927E-01	
NESB	NESB-BWBK-SB-NE06-0109	10500	0.655743852	1	8.41675E-05	8.69136E-05	2.47135E+01	9.17428E-03	9.17428E-03	6.46570E-01	
NESB	NESB-BWBK-SB-NE07-0107	12300	0.64807407	1	2.73010E-03	2.73228E-06	3.25792E+06	-5.22504E-02	-5.22504E-02	7.00324E-01	
NESB	NESB-BWBK-SB-NE08-0104	10300	0.663324958	1	5.16569E-04	2.85740E-04	3.80362E+04	2.27282E-02	2.27282E-02	6.40597E-01	
NESB	NESB-BWBK-SB-NE09-0110	10350	0.620483682	1	4.66833E-04	6.72750E-04	2.10333E+04	-2.16063E-02	-2.16063E-02	6.42090E-01	
NESB	NESB-BWBK-SB-NE10-0107	11300	0.714142843	1	1.90814E-03	4.58623E-03	6.47979E+05	4.36822E-02	4.36822E-02	6.70461E-01	
NESB	NESB-BWBK-SB-NE101-0110	11800	0.692820323	1	5.51720E-05	2.15289E-03	1.70295E+06	7.42778E-03	7.42778E-03	6.85393E-01	
NESB	NESB-BWBK-SB-NE102-0110	10800	0.6244998	1	9.62794E-04	4.80544E-04	9.30075E+04	-3.10289E-02	-3.10289E-02	6.55529E-01	
NESB	NESB-BWBK-SB-NE103-0110	9340	0.570087713	1	1.75057E-03	5.82679E-03	1.33409E+06	-4.18398E-02	-4.18398E-02	6.11928E-01	
NESB	NESB-BWBK-SB-NE104-0110	8090	0.556776436	1	3.17599E-04	8.03617E-03	5.78416E+06	-1.78213E-02	-1.78213E-02	5.74598E-01	
NESB	NESB-BWBK-SB-NE105-0110	10800	0.678232998	1	5.15484E-04	1.01200E-03	9.30075E+04	2.27043E-02	2.27043E-02	6.55529E-01	
NESB	NESB-BWBK-SB-NE106-0110	10200	0.6164414	1	4.48127E-04	8.98783E-04	8.70420E+04	-2.11690E-02	-2.11690E-02	6.37610E-01	
NESB	NESB-BWBK-SB-NE107-0510	8220	0.547722558	1	9.46023E-04	9.74140E-03	5.17576E+06	-3.07575E-02	-3.07575E-02	5.78480E-01	
NESB	NESB-BWBK-SB-NE108-0110	10500	0.583095189	1	4.02900E-03	4.01017E-03	2.47135E+01	-6.34744E-02	-6.34744E-02	6.46570E-01	
NESB	NESB-BWBK-SB-NE109-0110	10400	0.6	1	1.89949E-03	2.15492E-03	9.03046E+03	-4.35832E-02	-4.35832E-02	6.43583E-01	
NESB	NESB-BWBK-SB-NE110-0110	10300	0.595818764	1	2.00507E-03	2.56060E-03	3.80362E+04	-4.47780E-02	-4.47780E-02	6.40597E-01	
NESS	NESS-BKG-SS03-NEB-0016	15300	0.714142843	1	5.74156E-03	4.58623E-03	2.30877E+07	-7.57731E-02	-7.57731E-02	7.89916E-01	
NESS	NESS-BKG-SS09-NEB-0018	12900	0.6	1	1.39813E-02	2.15492E-03	5.78389E+06	-1.18243E-01	-1.18243E-01	7.18243E-01	
NESS	NESS-BWBK-SS-NE01-0001	17100	0.8	1	1.90714E-03	2.35865E-02	4.36256E+07	-4.36708E-02	-4.36708E-02	8.43671E-01	
NESS	NESS-BWBK-SS-NE02-0001	15500	0.728010989	1	4.60738E-03	6.65691E-03	2.50497E+07	-6.78777E-02	-6.78777E-02	7.95889E-01	
NESS	NESS-BWBK-SS-NE03-0001	16100	0.768114575	1	2.08780E-03	1.48093E-02	3.14157E+07	-4.56924E-02	-4.56924E-02	8.13807E-01	
NESS	NESS-BWBK-SS-NE04-0001	16000	0.748331477	1	3.90489E-03	1.03857E-02	3.03047E+07	-6.24891E-02	-6.24891E-02	8.10821E-01	
NESS	NESS-BWBK-SS-NE05-0001	14600	0.761577311	1	5.52634E-05	1.32610E-02	1.68508E+07	-7.43393E-03	-7.43393E-03	7.69011E-01	
NESS	NESS-BWBK-SS-NE06-0001	14900	0.781024968	1	9.33044E-06	1.81182E-02	1.94038E+07	3.05458E-03	3.05458E-03	7.77970E-01	
NESS	NESS-BWBK-SS-NE07-0001	15000	0.774596669	1	4.04509E-05	1.64290E-02	2.02948E+07	-6.36010E-03	-6.36010E-03	7.80957E-01	
NESS	NESS-BWBK-SS-NE08-0001	15300	0.781024968	1	7.90490E-05	1.81182E-02	2.30877E+07	-8.89095E-03	-8.89095E-03	7.89916E-01	
NESS	NESS-BWBK-SS-NE09-0001	17900	0.888819442	1	4.51885E-04	5.87570E-02	5.48336E+07	2.12576E-02	2.12576E-02	8.67562E-01	
NESS	NESS-BWBK-SS-NE10-0001	13600	0.748331477	1	8.43469E-05	1.03857E-02	9.64085E+06	9.18406E-03	9.18406E-03	7.39147E-01	
NESS	NESS-BWBK-SS-NE101-0001	14000	0.678232998	1	5.30857E-03	1.01200E-03	1.22848E+07	-7.28600E-02	-7.28600E-02	7.51093E-01	
NESS	NESS-BWBK-SS-NE102-0001	10700	0.6	1	2.76070E-03	2.15492E-03	4.20132E+04	-5.25423E-02	-5.25423E-02	6.52542E-01	
NESS	NESS-BWBK-SS-NE103-0001	9330	0.529150262	1	6.80272E-03	1.37525E-02	1.35729E+06	-8.24786E-02	-8.24786E-02	6.11629E-01	

APPENDIX F, TABLE F8-6
SUPPORT DATA FOR BERYLLIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!K	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	BE ^0.5	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	11000	0.538516481	1	1.51253E-02	1.16434E-02	2.54996E+05	-1.22985E-01	-1.22985E-01	6.61501E-01	
NESS	NESS-BWBK-SS-NE105-0001	9580	0.632455532	1	1.78508E-04	1.95037E-04	8.37278E+05	1.33607E-02	1.33607E-02	6.19095E-01	
NESS	NESS-BWBK-SS-NE106-0001	10300	0.608276253	1	1.04462E-03	1.45503E-03	3.80362E+04	-3.23206E-02	-3.23206E-02	6.40597E-01	
NESS	NESS-BWBK-SS-NE107-0001	10700	0.678232998	1	6.60010E-04	1.01200E-03	4.20132E+04	2.56907E-02	2.56907E-02	6.52542E-01	
NESS	NESS-BWBK-SS-NE108-0001	10500	0.64807407	1	2.26352E-06	2.73228E-06	2.47135E+01	1.50450E-03	1.50450E-03	6.46570E-01	
NESS	NESS-BWBK-SS-NE109-0001	9720	0.632455532	1	8.42677E-05	1.95037E-04	6.00670E+05	9.17975E-03	9.17975E-03	6.23276E-01	
NESS	NESS-BWBK-SS-NE110-0001	9260	0.547722558	1	3.82120E-03	9.74140E-03	1.52530E+06	-6.18159E-02	-6.18159E-02	6.09538E-01	
PMSB	PMSB-BWBK-SB-PM01-0105	12300	0.707106781	1	4.60000E-05	3.68275E-03	3.25792E+06	6.78233E-03	6.78233E-03	7.00324E-01	
PMSB	PMSB-BWBK-SB-PM02-0104	13200	0.871779789	1	2.09028E-02	5.07865E-02	7.31687E+06	1.44578E-01	1.44578E-01	7.27202E-01	PMSB-BWBK-SB-PM02-0104
PMSB	PMSB-BWBK-SB-PM03-0106	11400	0.692820323	1	3.75325E-04	2.15289E-03	8.18973E+05	1.93733E-02	1.93733E-02	6.73447E-01	
PMSB	PMSB-BWBK-SB-PM04-0105	11100	0.734846923	1	4.95040E-03	7.81912E-03	3.65990E+05	7.03591E-02	7.03591E-02	6.64488E-01	
PMSB	PMSB-BWBK-SB-PM05-0105	10900	0.707106781	1	2.36115E-03	3.68275E-03	1.64002E+05	4.85917E-02	4.85917E-02	6.58515E-01	
PMSB	PMSB-BWBK-SB-PM06-0105	11200	0.678232998	1	1.15751E-04	1.01200E-03	4.96984E+05	1.07588E-02	1.07588E-02	6.67474E-01	
PMSB	PMSB-BWBK-SB-PM07-0105	9280	0.8	1	3.60485E-02	2.35865E-02	1.47629E+06	1.89864E-01	1.89864E-01	6.10136E-01	PMSB-BWBK-SB-PM07-0105
PMSB	PMSB-BWBK-SB-PM08-0106	10500	0.728010989	1	6.63270E-03	6.65691E-03	2.47135E+01	8.14414E-02	8.14414E-02	6.46570E-01	
PMSB	PMSB-BWBK-SB-PM09-0106	8390	0.6244998	1	1.67632E-03	4.80544E-04	4.43115E+06	4.09429E-02	4.09429E-02	5.83557E-01	
PMSB	PMSB-BWBK-SB-PM10-0105	9830	0.824621125	1	3.92279E-02	3.17552E-02	4.42263E+05	1.98060E-01	1.98060E-01	6.26561E-01	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	9700	0.734846923	1	1.25818E-02	7.81912E-03	6.32071E+05	1.12168E-01	1.12168E-01	6.22679E-01	
PMSB	PMSB-BWBK-SB-PM12-0105	8620	0.663324958	1	5.31432E-03	2.85740E-04	3.51573E+06	7.28994E-02	7.28994E-02	5.90426E-01	
PMSB	PMSB-BWBK-SB-PM13-0106	10600	0.81240384	1	2.65194E-02	2.75503E-02	1.10190E+04	1.62848E-01	1.62848E-01	6.49556E-01	PMSB-BWBK-SB-PM13-0106
PMSB	PMSB-BWBK-SB-PM14-0106	8860	0.7	1	1.04872E-02	2.87070E-03	2.67332E+06	1.02407E-01	1.02407E-01	5.97593E-01	
PMSB	PMSB-BWBK-SB-PM15-0105	10300	0.721110255	1	6.48242E-03	5.57847E-03	3.80362E+04	8.05135E-02	8.05135E-02	6.40597E-01	
PMSB	PMSB-BWBK-SB-PM16-0106	9740	0.741619849	1	1.38643E-02	9.06280E-03	5.70068E+05	1.17747E-01	1.17747E-01	6.23873E-01	
PMSB	PMSB-BWBK-SB-PM17-0105	10550	0.774596669	1	1.60108E-02	1.64290E-02	3.02184E+03	1.26534E-01	1.26534E-01	6.48063E-01	PMSB-BWBK-SB-PM17-0105
PMSB	PMSB-BWBK-SB-PM18-0105	11300	0.714142843	1	1.90814E-03	4.58623E-03	6.47979E+05	4.36822E-02	4.36822E-02	6.70461E-01	
PMSB	PMSB-BWBK-SB-PM19-0105	10900	0.692820323	1	1.17685E-03	2.15289E-03	1.64002E+05	3.43052E-02	3.43052E-02	6.58515E-01	
PMSB	PMSB-BWBK-SB-PM20-0106	10400	0.7	1	3.18286E-03	2.87070E-03	9.03046E+03	5.64168E-02	5.64168E-02	6.43583E-01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	11500	0.734846923	1	3.41214E-03	7.81912E-03	1.00997E+06	5.84135E-02	5.84135E-02	6.76433E-01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	11800	0.663324958	1	4.86978E-04	2.85740E-04	1.70295E+06	-2.20676E-02	-2.20676E-02	6.85393E-01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	9910	0.707106781	1	6.10850E-03	3.68275E-03	3.42259E+05	7.81569E-02	7.81569E-02	6.28950E-01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	11300	0.670820393	1	1.29432E-07	5.95325E-04	6.47979E+05	3.59766E-04	3.59766E-04	6.70461E-01	
SESB	SESB-BWBK-SB-SO03-0108	14000	0.774596669	1	5.52425E-04	1.64290E-02	1.22848E+07	2.35037E-02	2.35037E-02	7.51093E-01	
SESB	SESB-BWBK-SB-SO04-0108	10600	0.707106781	1	3.31210E-03	3.68275E-03	1.10190E+04	5.75508E-02	5.75508E-02	6.49556E-01	
SESB	SESB-BWBK-SB-SO05-0106	12400	0.781024968	1	6.03949E-03	1.81182E-02	3.62892E+06	7.77141E-02	7.77141E-02	7.03311E-01	
SESB	SESB-BWBK-SB-SO06-0108	13450	0.754983444	1	4.12723E-04	1.17858E-02	8.73186E+06	2.03156E-02	2.03156E-02	7.34668E-01	
SESB	SESB-BWBK-SB-SO07-0106	10400	0.71902712	1	5.69179E-03	5.27163E-03	9.03046E+03	7.54439E-02	7.54439E-02	6.43583E-01	
SESB	SESB-BWBK-SB-SO08-0107	13100	0.774596669	1	2.53826E-03	1.64290E-02	6.78588E+06	5.03812E-02	5.03812E-02	7.24216E-01	
SESB	SESB-BWBK-SB-SO09-0106	11600	0.728010989	1	2.36111E-03	6.65691E-03	1.22096E+06	4.85912E-02	4.85912E-02	6.79420E-01	
SESB	SESB-BWBK-SB-SO11-0106	12600	0.7	1	8.61852E-05	2.87070E-03	4.43090E+06	-9.28360E-03	-9.28360E-03	7.09284E-01	
SESB	SESB-BWBK-SB-SO12-0106	10750	0.674536878	1	4.20306E-04	7.90497E-04	6.50103E+04	2.05014E-02	2.05014E-02	6.54036E-01	
SESB	SESB-BWBK-SB-SO15-0103	11000	0.721110255	1	3.55321E-03	5.57847E-03	2.54996E+05	5.96088E-02	5.96088E-02	6.61501E-01	
SESB	SESB-BWBK-SB-SO16-0105	9090	0.68556546	1	6.57784E-03	1.53228E-03	1.97411E+06	8.11039E-02	8.11039E-02	6.04462E-01	
SESB	SESB-BWBK-SB-SO17-0106	9140	0.714142843	1	1.17047E-02	4.58623E-03	1.83610E+06	1.08188E-01	1.08188E-01	6.05955E-01	
SESB	SESB-BWBK-SB-SO18-0105	9300	0.663324958	1	2.76592E-03	2.85740E-04	1.42809E+06	5.25920E-02	5.25920E-02	6.10733E-01	
SESB	SESB-BWBK-SB-SO19-0104	9060	0.748331477	1	2.09571E-02	1.03857E-02	2.05931E+06	1.44766E-01	1.44766E-01	6.03566E-01	SESB-BWBK-SB-SO19-0104
SESB	SESB-BWBK-SB-SO20-0104	9300	0.7	1	7.96860E-03	2.87070E-03	1.42809E+06	8.92670E-02	8.92670E-02	6.10733E-01	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: MN_log	
	X variable name used on graph: MN_log predict (from Factor Anal.)	
	N	214.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	4.277007E+01
0.10	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	6.323473E+03
2	SUM(X^2*w^2)	6.330103E+03
	SUM(X*w^2)	1.157169E+03
	SUM(Y*w^2)	1.157169E+03
	SUM(w^2)	2.140000E+02
	SUM(Y)	1157.169109
	SUM(X)	1.157169E+03
	Denominator	1.560180E+04
	Slope	9.090505E-01
	Intercept	4.917942E-01
	Minimum X value	3.703928E+00
	Maximum X value	6.718903E+00
	Minimum Y value	3.328627E+00
	Maximum Y value	7.467371E+00
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	4.277007E+01
	SUM(Yobs - Yave)^2	1.030173E+02
	SUM(X - Xave)^2	7.290559E+01
	Std. Error of Y-estimate	4.491610E-01
	R^2	5.848262E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1
est.M, Std.Err.Y		
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		
Inverse Log Transform (Y/N)?		Yes
Inverse Power Transform (Y/N)?		No
Inverse Power Transform (1/Power):		1

25	
50	
75	
90	

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
3.70	3.86	3.10	4.62	-1.33	1.33	0.02	No. of Exceedances
3.83	3.97	3.22	4.73	-1.33	1.33	0.02	of Upper 95% Limit
3.96	4.09	3.33	4.84	-1.33	1.33	0.02	for Each Soil Type:
4.08	4.20	3.45	4.95	-1.33	1.33	0.02	---- \/ ----
4.21	4.32	3.56	5.07	-1.33	1.33	0.02	BASS
4.33	4.43	3.68	5.18	-1.33	1.33	0.02	0
4.46	4.54	3.80	5.29	-1.33	1.33	0.02	MASS
4.58	4.66	3.91	5.41	-1.33	1.33	0.02	0
4.71	4.77	4.03	5.52	-1.33	1.33	0.02	MMSS
4.83	4.89	4.14	5.63	-1.33	1.33	0.02	0
4.96	5.00	4.26	5.75	-1.33	1.33	0.02	NESS
5.09	5.12	4.37	5.86	-1.33	1.33	0.02	1
5.21	5.23	4.49	5.97	-1.33	1.33	0.02	PMSS
5.34	5.34	4.60	6.09	-1.33	1.33	0.02	5
5.46	5.46	4.71	6.20	-1.33	1.33	0.02	SESS
5.59	5.57	4.83	6.32	-1.33	1.33	0.02	0
5.71	5.69	4.94	6.43	-1.33	1.33	0.02	SESD
5.84	5.80	5.06	6.54	-1.33	1.33	0.02	0
5.97	5.91	5.17	6.66	-1.33	1.33	0.02	MASB
6.09	6.03	5.28	6.77	-1.33	1.33	0.02	1
6.22	6.14	5.40	6.89	-1.33	1.33	0.02	MMSB
6.34	6.26	5.51	7.01	-1.33	1.33	0.02	1
6.47	6.37	5.62	7.12	-1.33	1.33	0.02	NESB
6.59	6.49	5.73	7.24	-1.33	1.33	0.02	0
6.72	6.60	5.85	7.35	-1.33	1.33	0.02	PMSB
5.02	5.06	4.31	5.80	157.13	-53%	111%	5
5.42	5.42	4.67	6.16	225.06	-52%	110%	SESB
5.84	5.80	5.05	6.54	329.23	-53%	111%	1
6.23	6.15	5.40	6.90	469.57	-53%	111%	<<--Original Units Errors

TEXT BOX ==> (MN_log) = (9.09E-01)x(MN_log predict (from Factor Anal.)) + (4.92E-01) R^2 = 0.58; Std. Error of Y-estimate = 4.49E- +/-3 x IQR of r -1.333752 1.333752

TEXT BOX ==> 95% Confidence Limits on a Y-value predicted from one X-value

Indexed value lookups:		X data column ref.	Y data column ref.	\/ - wt.descrip.	TEXT BOX==> Residuals Plot: (Observed - Predicted) Versus Y-Pred.					Y-Pred.	Spl. IDs>upper 95% C.L.
Specify X-col., Y-col. as: "DA!" + column		DA!U	DA!V	---- \/ ----	(Pred. - Obs.)^2 ---- \/ ----	(Y - Ymean)^2 ---- \/ ----	(X - Xmean)^2 ---- \/ ----	Obs-Pred ---- \/ ----	served - Predic ---- \/ ----	---- \/ ----	---- \/ ----
BASS	SAMPLE	MN_log predict	MN_log	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	4.915124425	4.905274778	1	2.98288E-03	2.52062E-01	2.42269E-01	-5.46157E-02	-5.46157E-02	4.95989E+00	
BASS	BASS-BWBK-SS-BA102-0001	4.727330636	4.634728988	1	2.38540E-02	5.96916E-01	4.62402E-01	-1.54447E-01	-1.54447E-01	4.78918E+00	
BASS	BASS-BWBK-SS-BA103-0001	4.808845592	4.700480366	1	2.65030E-02	4.99640E-01	3.58186E-01	-1.62797E-01	-1.62797E-01	4.86328E+00	
BASS	BASS-BWBK-SS-BA104-0001	5.022925634	4.727387819	1	1.09230E-01	4.62324E-01	1.47768E-01	-3.30499E-01	-3.30499E-01	5.05789E+00	
BASS	BASS-BWBK-SS-BA105-0001	4.95903662	4.812184355	1	3.52030E-02	3.54201E-01	2.00969E-01	-1.87625E-01	-1.87625E-01	4.99981E+00	
BASS	BASS-BWBK-SS-BA106-0001	5.128226442	4.8978398	1	6.54189E-02	2.59583E-01	7.79001E-02	-2.55771E-01	-2.55771E-01	5.15361E+00	
BASS	BASS-BWBK-SS-BA107-0001	4.716151428	4.682131227	1	9.38627E-03	5.25917E-01	4.77731E-01	-9.68828E-02	-9.68828E-02	4.77901E+00	
BASS	BASS-BWBK-SS-BA108-0001	4.769402137	4.663439094	1	2.68903E-02	5.53377E-01	4.06955E-01	-1.63982E-01	-1.63982E-01	4.82742E+00	
BASS	BASS-BWBK-SS-BA109-0001	5.119215512	4.709530201	1	1.90000E-01	4.86928E-01	8.30113E-02	-4.35889E-01	-4.35889E-01	5.14542E+00	
BASS	BASS-BWBK-SS-BA110-0001	5.082341737	4.875197323	1	5.60279E-02	2.83168E-01	1.05619E-01	-2.36702E-01	-2.36702E-01	5.11190E+00	
BASS	BASS-BWBK-SS-BA111-0001	4.823163069	4.779123493	1	9.44191E-03	3.94646E-01	3.41254E-01	-9.71695E-02	-9.71695E-02	4.87629E+00	
BASS	BASS-BWBK-SS-BA112-0001	4.756514239	4.736198448	1	6.32142E-03	4.50421E-01	4.23564E-01	-7.95074E-02	-7.95074E-02	4.81571E+00	
BASS	BASS-BWBK-SS-BA113-0001	5.010338365	4.629374875	1	1.73947E-01	6.05218E-01	1.57604E-01	-4.17070E-01	-4.17070E-01	5.04644E+00	
MASB	MASB-BWBK-SB-MA01-0105	6.228849079	7.467371067	1	1.72460E+00	4.24376E+00	6.74890E-01	1.31324E+00	1.31324E+00	6.15413E+00	MASB-BWBK-SB-MA01-0105
MASB	MASB-BWBK-SB-MA02-0107	6.321428162	6.368187186	1	1.68729E-02	9.23242E-01	8.35571E-01	1.29896E-01	1.29896E-01	6.23829E+00	
MASB	MASB-BWBK-SB-MA03-0108	6.492063537	6.88857246	1	2.45188E-01	2.19407E+00	1.17664E+00	4.95165E-01	4.95165E-01	6.39341E+00	
MASB	MASB-BWBK-SB-MA04-0106	6.398658576	6.637258031	1	1.08083E-01	1.51272E+00	9.82728E-01	3.28760E-01	3.28760E-01	6.30850E+00	
MASB	MASB-BWBK-SB-MA05-0108	6.220396416	6.107022888	1	1.55439E-03	4.89567E-01	6.61073E-01	-3.94257E-02	-3.94257E-02	6.14645E+00	
MASB	MASB-BWBK-SB-MA06-0105	6.219915705	6.035481433	1	1.22169E-02	3.94571E-01	6.60292E-01	-1.10530E-01	-1.10530E-01	6.14601E+00	
MASB	MASB-BWBK-SB-MA07-0108	6.090336357	5.598421959	1	1.84724E-01	3.65153E-02	4.66495E-01	-4.29796E-01	-4.29796E-01	6.02822E+00	
MASB	MASB-BWBK-SB-MA08-0108	6.438421803	6.225548038	1	1.41840E-02	6.69477E-01	1.06315E+00	-1.19097E-01	-1.19097E-01	6.34464E+00	
MASB	MASB-BWBK-SB-MA09-0108	6.24981219	6.259581464	1	7.46365E-03	7.26329E-01	7.09772E-01	8.63924E-02	8.63924E-02	6.17319E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**MN_log predict**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	5.947995432	5.459585514	1	1.92929E-01	2.73040E-03	2.92317E-01	-4.39237E-01	-4.39237E-01	5.89882E+00	
MASB	MASB-BWBK-SB-MA11-0108	6.287171244	6.049733455	1	2.47801E-02	4.12679E-01	7.74117E-01	-1.57417E-01	-1.57417E-01	6.20715E+00	
MASB	MASB-BWBK-SB-MA12-0108	6.401118378	6.278521424	1	1.03765E-03	7.58971E-01	9.87611E-01	-3.22126E-02	-3.22126E-02	6.31073E+00	
MASB	MASB-BWBK-SB-MA13-0105	5.461716874	5.056245805	1	1.60420E-01	1.23262E-01	2.95768E-03	-4.00525E-01	-4.00525E-01	5.45677E+00	
MASB	MASB-BWBK-SB-MA14-0104	5.878661505	6.061456919	1	5.09236E-02	4.27879E-01	2.22151E-01	2.25663E-01	2.25663E-01	5.83579E+00	
MASB	MASB-BWBK-SB-MA15-0105	5.621416958	5.942799375	1	1.16181E-01	2.86725E-01	4.58322E-02	3.40853E-01	3.40853E-01	5.60195E+00	
MASB	MASB-BWBK-SB-MA16-0104	5.723957497	6.08221891	1	1.49814E-01	4.55472E-01	1.00252E-01	3.87058E-01	3.87058E-01	5.69516E+00	
MASB	MASB-BWBK-SB-MA17-0104	5.507751224	5.802118375	1	9.21124E-02	1.55856E-01	1.00840E-02	3.03500E-01	3.03500E-01	5.49862E+00	
MASB	MASB-BWBK-SB-MA18-0104	5.496686205	5.252273428	1	5.58311E-02	2.40432E-02	7.98412E-03	-2.36286E-01	-2.36286E-01	5.48856E+00	
MASB	MASB-BWBK-SB-MA19-0103	5.421954677	5.905361848	1	2.34970E-01	2.48033E-01	2.13814E-04	4.84737E-01	4.84737E-01	5.42062E+00	
MASB	MASB-BWBK-SB-MA20-0103	6.169834258	5.65248918	1	2.00700E-01	6.01019E-02	5.81409E-01	-4.47996E-01	-4.47996E-01	6.10049E+00	
MASS	MASS-BWBK-SS-MA01-0001	4.430757805	3.877431561	1	4.12350E-01	2.34060E+00	9.53698E-01	-6.42145E-01	-6.42145E-01	4.51958E+00	
MASS	MASS-BWBK-SS-MA02-0001	4.841960043	4.154184563	1	5.46410E-01	1.57038E+00	3.19646E-01	-7.39196E-01	-7.39196E-01	4.89338E+00	
MASS	MASS-BWBK-SS-MA03-0001	4.916705778	4.424846632	1	2.87812E-01	9.65278E-01	2.40714E-01	-5.36481E-01	-5.36481E-01	4.96133E+00	
MASS	MASS-BWBK-SS-MA04-0001	5.179913248	4.762173935	1	1.92215E-01	4.16229E-01	5.17194E-02	-4.38423E-01	-4.38423E-01	5.20060E+00	
MASS	MASS-BWBK-SS-MA05-0001	5.555592694	4.836281907	1	4.98191E-01	3.26099E-01	2.19811E-02	-7.05827E-01	-7.05827E-01	5.54211E+00	
MASS	MASS-BWBK-SS-MA06-0001	5.376364803	5.288267031	1	8.26540E-03	1.41765E-02	9.58985E-04	-9.09142E-02	-9.09142E-02	5.37918E+00	
MASS	MASS-BWBK-SS-MA07-0001	3.703927738	3.328626689	1	2.81138E-01	4.32102E+00	2.90159E+00	-5.30225E-01	-5.30225E-01	3.85885E+00	
MASS	MASS-BWBK-SS-MA08-0001	5.127110441	5.003946306	1	2.20969E-02	1.62720E-01	7.85243E-02	-1.48650E-01	-1.48650E-01	5.15260E+00	
MASS	MASS-BWBK-SS-MA09-0001	5.468527775	5.497168225	1	1.17006E-03	8.07050E-03	3.74489E-03	3.42062E-02	3.42062E-02	5.46296E+00	
MASS	MASS-BWBK-SS-MA10-0001	5.468700911	5.564520407	1	1.02822E-02	2.47081E-02	3.76611E-03	1.01401E-01	1.01401E-01	5.46312E+00	
MASS	MASS-BWBK-SS-MA11-0001	5.444560336	5.655991811	1	4.61465E-02	6.18316E-02	1.38593E-03	2.14817E-01	2.14817E-01	5.44117E+00	
MASS	MASS-BWBK-SS-MA12-0001	5.3636941	4.570578741	1	6.35343E-01	7.00156E-01	1.90429E-03	-7.97084E-01	-7.97084E-01	5.36766E+00	
MASS	MASS-BWBK-SS-MA13-0001	4.937713774	4.615120517	1	1.33448E-01	6.27599E-01	2.20542E-01	-3.65305E-01	-3.65305E-01	4.98043E+00	
MASS	MASS-BWBK-SS-MA14-0001	4.612046408	4.471638793	1	4.52577E-02	8.75522E-01	6.32480E-01	-2.12738E-01	-2.12738E-01	4.68438E+00	
MASS	MASS-BWBK-SS-MA15-0001	4.622605963	4.053522568	1	4.10181E-01	1.83280E+00	6.15795E-01	-6.40454E-01	-6.40454E-01	4.69398E+00	
MASS	MASS-BWBK-SS-MA16-0001	4.971055442	4.388257184	1	3.87478E-01	1.03851E+00	1.90337E-01	-6.22477E-01	-6.22477E-01	5.01073E+00	
MASS	MASS-BWBK-SS-MA17-0001	5.026070438	5.030437921	1	9.18581E-04	1.42049E-01	1.45361E-01	-3.03081E-02	-3.03081E-02	5.06075E+00	
MASS	MASS-BWBK-SS-MA18-0001	4.789667242	4.189654742	1	4.30584E-01	1.48274E+00	3.81510E-01	-6.56189E-01	-6.56189E-01	4.84584E+00	
MASS	MASS-BWBK-SS-MA19-0001	5.02174254	4.912654886	1	2.07812E-02	2.44706E-01	1.48679E-01	-1.44157E-01	-1.44157E-01	5.05681E+00	
MASS	MASS-BWBK-SS-MA20-0001	5.400654564	5.225746674	1	3.08056E-02	3.29733E-02	4.45919E-05	-1.75515E-01	-1.75515E-01	5.40126E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	5.563297508	5.700443573	1	2.29011E-02	8.59142E-02	2.43252E-02	1.51331E-01	1.51331E-01	5.54911E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	5.8392511	5.572154032	1	5.18993E-02	2.71662E-02	1.86554E-01	-2.27814E-01	-2.27814E-01	5.79997E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	5.642018943	5.799092654	1	3.18331E-02	1.53476E-01	5.50778E-02	1.78418E-01	1.78418E-01	5.62067E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	5.798965446	5.814130532	1	2.57901E-03	1.65485E-01	1.53377E-01	5.07839E-02	5.07839E-02	5.76335E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	5.285415051	5.347107531	1	2.56078E-03	3.62702E-03	1.48638E-02	5.06042E-02	5.06042E-02	5.29650E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	5.910324085	6.109247583	1	5.98636E-02	4.92685E-01	2.53001E-01	2.44670E-01	2.44670E-01	5.86458E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	5.518734855	5.501258211	1	5.39437E-05	8.82208E-03	1.24105E-02	-7.34464E-03	-7.34464E-03	5.50860E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	5.465356368	5.459585514	1	2.43633E-07	2.73040E-03	3.36679E-03	-4.93592E-04	-4.93592E-04	5.46008E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	5.578569408	5.669880923	1	1.14245E-02	6.89318E-02	2.93222E-02	1.06885E-01	1.06885E-01	5.56300E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	5.507240233	5.480638923	1	3.06766E-04	5.37386E-03	9.98160E-03	-1.75147E-02	-1.75147E-02	5.49815E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	5.64208913	5.634789603	1	1.97444E-04	5.17368E-02	5.51108E-02	1.40515E-02	1.40515E-02	5.62074E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	5.658245412	6.506531165	1	7.58826E-01	1.20824E+00	6.29574E-02	8.71106E-01	8.71106E-01	5.63542E+00	MMSB-BWBK-SB-MM112-0110
MMSB	MMSB-BWBK-SB-MM113-0110	5.753544747	5.590986981	1	1.71793E-02	3.37290E-02	1.19863E-01	-1.31070E-01	-1.31070E-01	5.72206E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	5.346198827	5.666426688	1	9.90158E-02	6.71299E-02	3.73730E-03	3.14668E-01	3.14668E-01	5.35176E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	5.36682323	5.746203191	1	1.41147E-01	1.14833E-01	1.64098E-03	3.75696E-01	3.75696E-01	5.37051E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	5.648253561	5.766757274	1	1.97165E-02	1.29186E-01	5.80431E-02	1.40415E-01	1.40415E-01	5.62634E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	5.412591892	5.537334267	1	1.56802E-02	1.69005E-02	2.76635E-05	1.25221E-01	1.25221E-01	5.41211E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	6.028834196	6.289715571	1	1.00747E-01	7.78600E-01	3.86265E-01	3.17407E-01	3.17407E-01	5.97231E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	5.577988071	5.710427017	1	2.18922E-02	9.18664E-02	2.91234E-02	1.47960E-01	1.47960E-01	5.56247E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	5.048163991	5.262690189	1	3.30731E-02	2.09213E-02	1.29002E-01	1.81860E-01	1.81860E-01	5.08083E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	4.95770433	5.093750201	1	9.05398E-03	9.83337E-02	2.02165E-01	9.51524E-02	9.51524E-02	4.99860E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	4.846719568	5.099866428	1	4.08684E-02	9.45353E-02	3.14287E-01	2.02159E-01	2.02159E-01	4.89771E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**MN_log predict**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MMSS	MMSS-BWBK-SS-MM103-0001	4.898331172	5.036952602	1	8.52447E-03	1.37181E-01	2.59082E-01	9.23280E-02	9.23280E-02	4.94462E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	5.095560614	5.247024072	1	1.51556E-02	2.56987E-02	9.72016E-02	1.23108E-01	1.23108E-01	5.12392E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	4.632502653	4.912654886	1	4.39665E-02	2.44706E-01	6.00361E-01	2.09682E-01	2.09682E-01	4.70297E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	5.096511914	5.267858159	1	2.04711E-02	1.94530E-02	9.66093E-02	1.43077E-01	1.43077E-01	5.12478E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	5.069902516	5.170483995	1	4.88495E-03	5.60971E-02	1.13859E-01	6.98924E-02	6.98924E-02	5.10059E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	4.718479938	4.727387819	1	2.88830E-03	4.62324E-01	4.74518E-01	-5.37429E-02	-5.37429E-02	4.78113E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	4.76662034	4.844187086	1	3.72270E-04	3.17133E-01	4.10512E-01	1.92943E-02	1.92943E-02	4.82489E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	4.21627074	4.411585437	1	7.56695E-03	9.91512E-01	1.41863E+00	8.69882E-02	8.69882E-02	4.32460E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	4.352008377	4.579852378	1	1.73878E-02	6.84723E-01	1.11371E+00	1.31863E-01	1.31863E-01	4.44799E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	4.257314446	4.387014176	1	6.30320E-04	1.04105E+00	1.32254E+00	2.51062E-02	2.51062E-02	4.36191E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	4.622799124	4.787491743	1	8.71230E-03	3.84202E-01	6.15492E-01	9.33397E-02	9.33397E-02	4.69415E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	4.24954936	4.543294782	1	3.55118E-02	7.46561E-01	1.34046E+00	1.88446E-01	1.88446E-01	4.35485E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	4.427568968	4.94875989	1	1.86695E-01	2.10289E-01	9.59936E-01	4.32082E-01	4.32082E-01	4.51668E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	4.340414773	4.727387819	1	8.40637E-02	4.62324E-01	1.13831E+00	2.89937E-01	2.89937E-01	4.43745E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	4.850214888	4.927253685	1	6.95337E-04	2.30475E-01	3.10380E-01	2.63692E-02	2.63692E-02	4.90088E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	5.100473705	5.18178355	1	2.85169E-03	5.08722E-02	9.41622E-02	5.34012E-02	5.34012E-02	5.12838E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	5.060916336	5.204006687	1	1.24510E-02	4.13413E-02	1.20004E-01	1.11584E-01	1.11584E-01	5.09242E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	5.179726574	5.141663557	1	3.45317E-03	7.05799E-02	5.18044E-02	-5.87636E-02	-5.87636E-02	5.20043E+00	
NESB	NESB-BWBK-SB-NE01-0108	6.048873859	5.883322388	1	1.14926E-02	2.26567E-01	4.11576E-01	-1.07204E-01	-1.07204E-01	5.99053E+00	
NESB	NESB-BWBK-SB-NE02-0109	5.98291713	6.452048954	1	2.71942E-01	1.09143E+00	3.31298E-01	5.21481E-01	5.21481E-01	5.93057E+00	
NESB	NESB-BWBK-SB-NE03-0105	5.804830016	5.707110265	1	3.79056E-03	8.98668E-02	1.58004E-01	-6.15675E-02	-6.15675E-02	5.76868E+00	
NESB	NESB-BWBK-SB-NE04-0110	5.825134022	5.840641657	1	2.86295E-03	1.87757E-01	1.74558E-01	5.35065E-02	5.35065E-02	5.78714E+00	
NESB	NESB-BWBK-SB-NE05-0108	5.977989815	5.834810737	1	8.33168E-03	1.82738E-01	3.25650E-01	-9.12781E-02	-9.12781E-02	5.92609E+00	
NESB	NESB-BWBK-SB-NE06-0109	5.909137406	5.765191103	1	9.66434E-03	1.28063E-01	2.51808E-01	-9.83074E-02	-9.83074E-02	5.86350E+00	
NESB	NESB-BWBK-SB-NE07-0107	6.003691531	5.703782475	1	6.03540E-02	8.78827E-02	3.55644E-01	-2.45670E-01	-2.45670E-01	5.94945E+00	
NESB	NESB-BWBK-SB-NE08-0104	5.755013805	5.541263545	1	3.31709E-02	1.79376E-02	1.20882E-01	-1.82129E-01	-1.82129E-01	5.72339E+00	
NESB	NESB-BWBK-SB-NE09-0110	5.857620469	5.777652323	1	1.52214E-03	1.37137E-01	2.02759E-01	-3.90147E-02	-3.90147E-02	5.81667E+00	
NESB	NESB-BWBK-SB-NE10-0107	5.543978589	5.517452896	1	1.98747E-04	1.21265E-02	1.86722E-02	-1.40978E-02	-1.40978E-02	5.53155E+00	
NESB	NESB-BWBK-SB-NE101-0110	5.474624856	5.493061443	1	6.03037E-04	7.34949E-03	4.52829E-03	2.45568E-02	2.45568E-02	5.46850E+00	
NESB	NESB-BWBK-SB-NE102-0110	5.326162462	5.433722004	1	1.00355E-02	6.96417E-04	6.58854E-03	1.00177E-01	1.00177E-01	5.33354E+00	
NESB	NESB-BWBK-SB-NE103-0110	5.223725914	5.318119994	1	6.03654E-03	7.95883E-03	3.37113E-02	7.76952E-02	7.76952E-02	5.24042E+00	
NESB	NESB-BWBK-SB-NE104-0110	5.148607775	5.170483995	1	2.73786E-06	5.60971E-02	6.69384E-02	-1.65465E-03	-1.65465E-03	5.17214E+00	
NESB	NESB-BWBK-SB-NE105-0110	5.44877735	5.774551546	1	1.08599E-01	1.34850E-01	1.71769E-03	3.29544E-01	3.29544E-01	5.44501E+00	
NESB	NESB-BWBK-SB-NE106-0110	5.435922338	5.509388337	1	5.78607E-03	1.04154E-02	8.17391E-04	7.60663E-02	7.60663E-02	5.43332E+00	
NESB	NESB-BWBK-SB-NE107-0510	5.234800058	5.298317367	1	2.28729E-03	1.18843E-02	2.97674E-02	4.78256E-02	4.78256E-02	5.25049E+00	
NESB	NESB-BWBK-SB-NE108-0110	5.289669062	5.332718793	1	1.04641E-03	5.56717E-03	1.38446E-02	3.23483E-02	3.23483E-02	5.30037E+00	
NESB	NESB-BWBK-SB-NE109-0110	5.296000153	5.365976015	1	3.58205E-03	1.71034E-03	1.23948E-02	5.98503E-02	5.98503E-02	5.30613E+00	
NESB	NESB-BWBK-SB-NE110-0110	5.293641765	5.413875707	1	1.20767E-02	4.28164E-05	1.29255E-02	1.09894E-01	1.09894E-01	5.30398E+00	
NESS	NESS-BKG-SS03-NEB-0016	5.171000212	5.318119994	1	1.57818E-02	7.95883E-03	5.58528E-02	1.25625E-01	1.25625E-01	5.19249E+00	
NESS	NESS-BKG-SS09-NEB-0018	4.732866321	5.187385806	1	1.54588E-01	4.83765E-02	4.54904E-01	3.93177E-01	3.93177E-01	4.79421E+00	
NESS	NESS-BWBK-SS-NE01-0001	5.520063564	5.669880923	1	2.56225E-02	6.89318E-02	1.27083E-02	1.60070E-01	1.60070E-01	5.50981E+00	
NESS	NESS-BWBK-SS-NE02-0001	5.777079116	5.402677382	1	1.16127E-01	2.16681E-05	1.36713E-01	-3.40773E-01	-3.40773E-01	5.74345E+00	
NESS	NESS-BWBK-SS-NE03-0001	5.210293593	5.257495372	1	8.57389E-04	2.24511E-02	3.88242E-02	2.92812E-02	2.92812E-02	5.22821E+00	
NESS	NESS-BWBK-SS-NE04-0001	5.44613257	5.533389489	1	8.24206E-03	1.58904E-02	1.50546E-03	9.07858E-02	9.07858E-02	5.44260E+00	
NESS	NESS-BWBK-SS-NE05-0001	5.31491663	5.33753808	1	2.02103E-04	4.87123E-03	8.54065E-03	1.42163E-02	1.42163E-02	5.32332E+00	
NESS	NESS-BWBK-SS-NE06-0001	5.461965399	5.214935758	1	5.85934E-02	3.70164E-02	2.98478E-03	-2.42061E-01	-2.42061E-01	5.45700E+00	
NESS	NESS-BWBK-SS-NE07-0001	5.208262645	5.176149733	1	2.52187E-03	5.34454E-02	3.96287E-02	-5.02182E-02	-5.02182E-02	5.22637E+00	
NESS	NESS-BWBK-SS-NE08-0001	5.307681157	5.220355825	1	9.29075E-03	3.49602E-02	9.93035E-03	-9.63886E-02	-9.63886E-02	5.31674E+00	
NESS	NESS-BWBK-SS-NE09-0001	4.986044576	5.38907173	1	1.33014E-01	3.33448E-04	1.77483E-01	3.64711E-01	3.64711E-01	5.02436E+00	
NESS	NESS-BWBK-SS-NE10-0001	5.236611583	5.262690189	1	1.11337E-04	2.09213E-02	2.91456E-02	1.05516E-02	1.05516E-02	5.25214E+00	
NESS	NESS-BWBK-SS-NE101-0001	4.748668764	4.983606622	1	3.06365E-02	1.79543E-01	4.33838E-01	1.75033E-01	1.75033E-01	4.80857E+00	
NESS	NESS-BWBK-SS-NE102-0001	4.559525214	4.852030264	1	4.63960E-02	3.08360E-01	7.18777E-01	2.15397E-01	2.15397E-01	4.63663E+00	
NESS	NESS-BWBK-SS-NE103-0001	4.525075491	4.644390899	1	1.52682E-03	5.82080E-01	7.78377E-01	3.90746E-02	3.90746E-02	4.60532E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**MN_log predict**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
NESS	NESS-BWBK-SS-NE104-0001	4.680428142	4.890349128	1	2.06811E-02	2.67272E-01	5.28390E-01	1.43809E-01	1.43809E-01	4.74654E+00	
NESS	NESS-BWBK-SS-NE105-0001	4.376775793	4.779123493	1	9.52457E-02	3.94646E-01	1.06205E+00	3.08619E-01	3.08619E-01	4.47050E+00	
NESS	NESS-BWBK-SS-NE106-0001	4.375380178	4.86753445	1	1.58642E-01	2.91382E-01	1.06493E+00	3.98299E-01	3.98299E-01	4.46924E+00	
NESS	NESS-BWBK-SS-NE107-0001	4.236472349	5.099866428	1	5.72905E-01	9.45353E-02	1.37091E+00	7.56905E-01	7.56905E-01	4.34296E+00	NESS-BWBK-SS-NE107-0001
NESS	NESS-BWBK-SS-NE108-0001	4.449637735	4.859812404	1	1.04376E-01	2.99778E-01	9.17179E-01	3.23073E-01	3.23073E-01	4.53674E+00	
NESS	NESS-BWBK-SS-NE109-0001	4.269313414	4.779123493	1	1.65086E-01	3.94646E-01	1.29509E+00	4.06308E-01	4.06308E-01	4.37282E+00	
NESS	NESS-BWBK-SS-NE110-0001	4.216754541	4.448516376	1	1.52472E-02	9.19328E-01	1.41748E+00	1.23479E-01	1.23479E-01	4.32504E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	5.967803698	6.329720906	1	1.70480E-01	8.50801E-01	3.14128E-01	4.12892E-01	4.12892E-01	5.91683E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	6.011850667	6.480044562	1	2.73712E-01	1.15071E+00	3.65442E-01	5.23175E-01	5.23175E-01	5.95687E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	6.340693421	6.040254711	1	4.64618E-02	4.00591E-01	8.71163E-01	-2.15550E-01	-2.15550E-01	6.25580E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	6.122737163	6.246106765	1	3.55079E-02	7.03543E-01	5.11804E-01	1.88435E-01	1.88435E-01	6.05767E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	6.075936413	6.483107351	1	2.19005E-01	1.15729E+00	4.47031E-01	4.67980E-01	4.67980E-01	6.01513E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	6.062289255	7.326465614	1	1.75230E+00	3.68307E+00	4.28969E-01	1.32374E+00	1.32374E+00	6.00272E+00	PMSB-BWBK-SB-PM06-0105
PMSB	PMSB-BWBK-SB-PM07-0105	5.79045069	6.745236349	1	9.79368E-01	1.78999E+00	1.46780E-01	9.89630E-01	9.89630E-01	5.75561E+00	PMSB-BWBK-SB-PM07-0105
PMSB	PMSB-BWBK-SB-PM08-0106	5.963555874	6.400257445	1	2.37451E-01	9.85900E-01	3.09385E-01	4.87290E-01	4.87290E-01	5.91297E+00	
PMSB	PMSB-BWBK-SB-PM09-0106	5.869166064	6.073044534	1	6.04580E-02	4.43173E-01	2.13290E-01	2.45882E-01	2.45882E-01	5.82716E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	5.762555995	6.317164687	1	3.44471E-01	8.27795E-01	1.26184E-01	5.86916E-01	5.86916E-01	5.73025E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	6.109845271	7.222566019	1	1.38442E+00	3.29507E+00	4.93524E-01	1.17661E+00	1.17661E+00	6.04595E+00	PMSB-BWBK-SB-PM11-0104
PMSB	PMSB-BWBK-SB-PM12-0105	5.541461461	5.877735782	1	1.21434E-01	2.21279E-01	1.79906E-02	3.48473E-01	3.48473E-01	5.52926E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	5.433471533	6.390240667	1	9.19962E-01	9.66109E-01	6.83260E-04	9.59146E-01	9.59146E-01	5.43109E+00	PMSB-BWBK-SB-PM13-0106
PMSB	PMSB-BWBK-SB-PM14-0106	5.450943184	6.34738921	1	8.10743E-01	8.83707E-01	1.90191E-03	9.00412E-01	9.00412E-01	5.44698E+00	PMSB-BWBK-SB-PM14-0106
PMSB	PMSB-BWBK-SB-PM15-0105	5.770480392	5.981414211	1	5.95174E-02	3.29570E-01	1.31877E-01	2.43962E-01	2.43962E-01	5.73745E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	5.600157328	6.070737728	1	2.38259E-01	4.40107E-01	3.71815E-02	4.88118E-01	4.88118E-01	5.58262E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	5.931290871	6.149536102	1	7.07023E-02	5.50867E-01	2.74533E-01	2.65899E-01	2.65899E-01	5.88364E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	6.211772277	5.918893854	1	4.82747E-02	2.61695E-01	6.47124E-01	-2.19715E-01	-2.19715E-01	6.13861E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	5.962641436	6.12249281	1	4.42498E-02	5.11455E-01	3.08368E-01	2.10356E-01	2.10356E-01	5.91214E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	5.858650056	5.905361848	1	7.70163E-03	2.48033E-01	2.03688E-01	8.77589E-02	8.77589E-02	5.81760E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	6.259843336	5.493061443	1	4.75061E-01	7.34949E-03	7.26775E-01	-6.89246E-01	-6.89246E-01	6.18231E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	6.185206633	5.680172609	1	1.88605E-01	7.44418E-02	6.05089E-01	-4.34287E-01	-4.34287E-01	6.11446E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	6.372757243	5.365976015	1	8.44517E-01	1.71034E-03	9.32045E-01	-9.18976E-01	-9.18976E-01	6.28495E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	6.465000227	5.641907071	1	5.28382E-01	5.50253E-02	1.11866E+00	-7.26899E-01	-7.26899E-01	6.36881E+00	
PMSS	PMSS-DABK-S-SO21-0001	5.498958537	5.283203729	1	4.30237E-02	1.54079E-02	8.39537E-03	-2.07421E-01	-2.07421E-01	5.49063E+00	
PMSS	PMSS-DABK-S-SO22-0001	5.606010617	5.703782475	1	1.34193E-02	8.78827E-02	3.94731E-02	1.15842E-01	1.15842E-01	5.58794E+00	
PMSS	PMSS-DABK-S-SO23-0001	5.408116452	5.283203729	1	1.55854E-02	1.54079E-02	6.14919E-07	-1.24841E-01	-1.24841E-01	5.40805E+00	
PMSS	PMSS-DABK-S-SO24-0001	5.342877421	5.529429088	1	3.26487E-02	1.49076E-02	4.15443E-03	1.80690E-01	1.80690E-01	5.34874E+00	
PMSS	PMSS-DABK-S-SO25-0001	5.380247003	6.11699527	1	5.39174E-01	5.03622E-01	7.33612E-04	7.34285E-01	7.34285E-01	5.38271E+00	
PMSS	PMSS-DABK-S-SO26-0001	5.674175076	5.533389489	1	1.35761E-02	1.58904E-02	7.12051E-02	-1.16516E-01	-1.16516E-01	5.64991E+00	
PMSS	PMSS-DABK-S-SO27-0001	5.262050408	5.068904202	1	4.25843E-02	1.14534E-01	2.11068E-02	-2.06360E-01	-2.06360E-01	5.27526E+00	
PMSS	PMSS-DABK-S-SO28-0001	5.483028111	5.765191103	1	8.35485E-02	1.28063E-01	5.72986E-03	2.89047E-01	2.89047E-01	5.47614E+00	
PMSS	PMSS-DABK-S-SO29-0001	5.322497555	4.94875989	1	1.45507E-01	2.10289E-01	7.19693E-03	-3.81453E-01	-3.81453E-01	5.33021E+00	
PMSS	PMSS-DABK-S-SO30-0001	5.345864402	5.549076085	1	3.90541E-02	2.00913E-02	3.77830E-03	1.97621E-01	1.97621E-01	5.35145E+00	
PMSS	PMSS-DABK-S-SO31-0001	5.020894241	6.03787092	1	9.63991E-01	3.97579E-01	1.49334E-01	9.81830E-01	9.81830E-01	5.05604E+00	PMSS-DABK-S-SO31-0001
PMSS	PMSS-DABK-S-SO32-0001	5.535106594	6.167516491	1	4.14776E-01	5.77880E-01	1.63263E-02	6.44031E-01	6.44031E-01	5.52349E+00	
PMSS	PMSS-DABK-S-SO33-0001	5.157986454	4.94875989	1	5.37797E-02	2.10289E-01	6.21733E-02	-2.31904E-01	-2.31904E-01	5.18066E+00	
PMSS	PMSS-DABK-S-SO34-0001	5.0537284	6.070737728	1	9.69928E-01	4.40107E-01	1.25036E-01	9.84849E-01	9.84849E-01	5.08589E+00	PMSS-DABK-S-SO34-0001
PMSS	PMSS-DABK-S-SO35-0001	5.224907267	5.558756703	1	1.00653E-01	2.29294E-02	3.32789E-02	3.17258E-01	3.17258E-01	5.24150E+00	
PMSS	PMSS-DABK-S-SO36-0001	4.846164502	4.615120517	1	7.95702E-02	6.27599E-01	3.14909E-01	-2.82082E-01	-2.82082E-01	4.89720E+00	
PMSS	PMSS-DABK-S-SO37-0001	5.066366307	5.739792912	1	4.12698E-01	1.10530E-01	1.16258E-01	6.42416E-01	6.42416E-01	5.09738E+00	
PMSS	PMSS-DABK-S-SO38-0001	4.869615231	5.834810737	1	8.39588E-01	1.82738E-01	2.89140E-01	9.16290E-01	9.16290E-01	4.91852E+00	PMSS-DABK-S-SO38-0001
PMSS	PMSS-DABK-S-SO39-0001	5.07810423	5.92157842	1	6.61833E-01	2.64449E-01	1.08391E-01	8.13531E-01	8.13531E-01	5.10805E+00	PMSS-DABK-S-SO39-0001
PMSS	PMSS-DABK-S-SO40-0001	4.969551042	5.996452089	1	9.74337E-01	3.47062E-01	1.91652E-01	9.87085E-01	9.87085E-01	5.00937E+00	PMSS-DABK-S-SO40-0001

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**MN_log predict**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	6.718902856	6.11146734	1	2.38289E-01	4.95806E-01	1.72022E+00	-4.88149E-01	-4.88149E-01	6.59962E+00	
SESB	SESB-BWBK-SB-SO04-0108	6.446366898	5.579729826	1	5.96196E-01	2.97209E-02	1.07959E+00	-7.72137E-01	-7.72137E-01	6.35187E+00	
SESB	SESB-BWBK-SB-SO05-0106	6.266235859	5.793013608	1	1.56108E-01	1.48750E-01	7.37715E-01	-3.95105E-01	-3.95105E-01	6.18812E+00	
SESB	SESB-BWBK-SB-SO06-0108	6.545618607	5.547128665	1	8.00959E-01	1.95430E-02	1.29570E+00	-8.94963E-01	-8.94963E-01	6.44209E+00	
SESB	SESB-BWBK-SB-SO07-0106	6.47271373	6.946975992	1	3.26222E-01	2.37050E+00	1.13504E+00	5.71158E-01	5.71158E-01	6.37582E+00	
SESB	SESB-BWBK-SB-SO08-0107	6.575978888	6.280395839	1	3.58327E-02	7.62240E-01	1.36573E+00	-1.89295E-01	-1.89295E-01	6.46969E+00	
SESB	SESB-BWBK-SB-SO09-0106	6.233176405	5.278114659	1	7.74315E-01	1.66972E-02	6.82019E-01	-8.79952E-01	-8.79952E-01	6.15807E+00	
SESB	SESB-BWBK-SB-SO11-0106	6.421844964	7.192934221	1	7.45388E-01	3.18837E+00	1.02924E+00	8.63359E-01	8.63359E-01	6.32958E+00	SESB-BWBK-SB-SO11-0106
SESB	SESB-BWBK-SB-SO12-0106	6.453177007	6.068425588	1	8.38869E-02	4.37044E-01	1.09379E+00	-2.89632E-01	-2.89632E-01	6.35806E+00	
SESB	SESB-BWBK-SB-SO15-0103	5.741229041	6.045005314	1	1.11652E-01	4.06627E-01	1.11487E-01	3.34144E-01	3.34144E-01	5.71086E+00	
SESB	SESB-BWBK-SB-SO16-0105	6.122981814	5.758901774	1	8.93963E-02	1.23601E-01	5.12154E-01	-2.98992E-01	-2.98992E-01	6.05789E+00	
SESB	SESB-BWBK-SB-SO17-0106	5.914552329	5.252273428	1	3.79638E-01	2.40432E-02	2.57272E-01	-6.16147E-01	-6.16147E-01	5.86842E+00	
SESB	SESB-BWBK-SB-SO18-0105	5.718883107	5.513428746	1	3.13711E-02	1.12565E-02	9.70639E-02	-1.77119E-01	-1.77119E-01	5.69055E+00	
SESB	SESB-BWBK-SB-SO19-0104	5.923784169	5.811140993	1	4.31283E-03	1.63061E-01	2.66723E-01	-6.56721E-02	-6.56721E-02	5.87681E+00	
SESB	SESB-BWBK-SB-SO20-0104	6.265737857	6.333279628	1	2.12032E-02	8.57378E-01	7.36860E-01	1.45613E-01	1.45613E-01	6.18767E+00	
SESS	SESS-DABK-S-SO01-0001	5.230672991	4.536891345	1	5.03885E-01	7.57667E-01	3.12085E-02	-7.09849E-01	-7.09849E-01	5.24674E+00	
SESS	SESS-DABK-S-SO02-0001	6.105457509	5.690359454	1	1.23625E-01	8.01044E-02	4.87379E-01	-3.51604E-01	-3.51604E-01	6.04196E+00	
SESS	SESS-DABK-S-SO03-0001	4.985235053	4.229749199	1	6.30238E-01	1.38670E+00	1.78166E-01	-7.93875E-01	-7.93875E-01	5.02362E+00	
SESS	SESS-DABK-S-SO04-0001	5.240173834	4.219507705	1	1.07302E+00	1.41093E+00	2.79419E-02	-1.03587E+00	-1.03587E+00	5.25538E+00	
SESS	SESS-DABK-S-SO05-0001	5.109359277	5.099866428	1	1.33907E-03	9.45353E-02	8.87879E-02	-3.65933E-02	-3.65933E-02	5.13646E+00	
SESS	SESS-DABK-S-SO06-0001	5.741643152	5.92157842	1	4.42432E-02	2.64449E-01	1.11764E-01	2.10341E-01	2.10341E-01	5.71124E+00	
SESS	SESS-DABK-S-SO07-0001	5.492518091	4.506454213	1	9.57103E-01	8.11581E-01	7.25662E-03	-9.78316E-01	-9.78316E-01	5.48477E+00	
SESS	SESS-DABK-S-SO08-0001	5.43072349	5.327876169	1	1.01445E-02	6.31327E-03	5.47148E-04	-1.00720E-01	-1.00720E-01	5.42860E+00	
SESS	SESS-DABK-S-SO09-0001	5.219760568	4.53044664	1	4.98963E-01	7.68928E-01	3.51831E-02	-7.06373E-01	-7.06373E-01	5.23682E+00	
SESS	SESS-DABK-S-SO10-0001	5.021469767	4.445001434	1	3.74008E-01	9.26081E-01	1.48890E-01	-6.11562E-01	-6.11562E-01	5.05656E+00	
SESS	SESS-DABK-S-SO11-0001	4.767003485	3.921973336	1	8.15893E-01	2.20629E+00	4.10021E-01	-9.03268E-01	-9.03268E-01	4.82524E+00	
SESS	SESS-DABK-S-SO12-0001	5.041293786	4.415219602	1	4.34762E-01	9.84288E-01	1.33984E-01	-6.59365E-01	-6.59365E-01	5.07458E+00	
SESS	SESS-DABK-S-SO13-0001	5.546276798	4.462453884	1	1.14744E+00	8.92795E-01	1.93056E-02	-1.07119E+00	-1.07119E+00	5.53364E+00	
SESS	SESS-DABK-S-SO14-0001	5.235156581	4.234106505	1	1.03370E+00	1.37646E+00	2.96445E-02	-1.01671E+00	-1.01671E+00	5.25082E+00	
SESS	SESS-DABK-S-SO15-0001	5.027056834	4.700480366	1	1.30438E-01	4.99640E-01	1.44609E-01	-3.61162E-01	-3.61162E-01	5.06164E+00	
SESS	SESS-DABK-S-SO16-0001	4.541257324	3.912023005	1	5.01269E-01	2.23595E+00	7.50086E-01	-7.08003E-01	-7.08003E-01	4.62003E+00	
SESS	SESS-DABK-S-SO17-0001	4.459716005	4.744932128	1	3.96133E-02	4.38774E-01	8.97977E-01	1.99031E-01	1.99031E-01	4.54590E+00	
SESS	SESS-DABK-S-SO18-0001	5.146321085	4.300002799	1	7.56999E-01	1.22618E+00	6.81268E-02	-8.70057E-01	-8.70057E-01	5.17006E+00	
SESS	SESS-DABK-S-SO19-0001	5.530749987	5.513428746	1	3.71668E-05	1.12565E-02	1.52319E-02	-6.09646E-03	-6.09646E-03	5.51953E+00	
SESS	SESS-DABK-S-SO20-0001	5.509571697	5.214935758	1	8.14174E-02	3.70164E-02	1.04529E-02	-2.85337E-01	-2.85337E-01	5.50027E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: MN_log
X variable name used on graph: FE_log

	N	214.000000
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	5.206589E+01
0.10	**t-Value: 2-tail, 0.100 alpha**	1.652073
degrees freedom	SUM(XY*w^2)	1.135696E+04
2	SUM(X^2*w^2)	2.049109E+04
	SUM(X*w^2)	2.092089E+03
	SUM(Y*w^2)	1.157169E+03
	SUM(w^2)	2.140000E+02
	SUM(Y)	1157.169109
	SUM(X)	2.092089E+03
	Denominator	8.255834E+03
	Slope	**1.149223E+00**
	Intercept	**-5.827609E+00**
	Minimum X value	8.689464E+00
	Maximum X value	1.089489E+01
	Minimum Y value	3.328627E+00
	Maximum Y value	7.467371E+00
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	5.206589E+01
	SUM(Yobs - Yave)^2	1.030173E+02
	SUM(X - Xave)^2	3.857866E+01
	Std. Error of Y-estimate	**4.955742E-01**
	R^2	**4.945907E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**
est.M, Std.Err.Y		

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:

Inverse Log Transform (Y/N)?	**Yes**	**25**
Inverse Power Transform (Y/N)?	**No**	**50**
Inverse Power Transform (1/Power):	**1**	**75**
		90

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
8.69	4.16	3.33	4.99	-1.71	1.71	0.04	**No. of Exceedances**
8.78	4.26	3.43	5.10	-1.71	1.71	0.04	**of Upper 95% Limit**
8.87	4.37	3.54	5.20	-1.71	1.71	0.04	**for Each Soil Type:**
8.97	4.48	3.65	5.30	-1.71	1.71	0.04	---- \/ ----
9.06	4.58	3.75	5.41	-1.71	1.71	0.04	BASS
9.15	4.69	3.86	5.51	-1.71	1.71	0.04	0
9.24	4.79	3.97	5.62	-1.71	1.71	0.04	MASS
9.33	4.90	4.08	5.72	-1.71	1.71	0.04	0
9.42	5.00	4.18	5.83	-1.71	1.71	0.04	MMSS
9.52	5.11	4.29	5.93	-1.71	1.71	0.04	0
9.61	5.21	4.39	6.04	-1.71	1.71	0.04	NESS
9.70	5.32	4.50	6.14	-1.71	1.71	0.04	0
9.79	5.43	4.61	6.25	-1.71	1.71	0.04	PMSS
9.88	5.53	4.71	6.35	-1.71	1.71	0.04	0
9.98	5.64	4.82	6.46	-1.71	1.71	0.04	SESS
10.07	5.74	4.92	6.56	-1.71	1.71	0.04	0
10.16	5.85	5.03	6.67	-1.71	1.71	0.04	SESD
10.25	5.95	5.13	6.78	-1.71	1.71	0.04	0
10.34	6.06	5.24	6.88	-1.71	1.71	0.04	MASB
10.44	6.17	5.34	6.99	-1.71	1.71	0.04	2
10.53	6.27	5.44	7.10	-1.71	1.71	0.04	MMSB
10.62	6.38	5.55	7.20	-1.71	1.71	0.04	2
10.71	6.48	5.65	7.31	-1.71	1.71	0.04	NESB
10.80	6.59	5.76	7.42	-1.71	1.71	0.04	0
10.89	6.69	5.86	7.53	-1.71	1.71	0.04	PMSB
9.55	5.15	4.33	5.97	172.77	**-56%**	**127%**	4
9.79	5.42	4.60	6.24	225.83	**-56%**	**127%**	SESB
10.06	5.74	4.91	6.56	309.62	**-56%**	**127%**	2
10.29	6.00	5.18	6.83	404.82	**-56%**	**128%**	<<--Original Units Errors

TEXT BOX ==> (MN_log) = (1.15E+00)x(FE_log) + (-5.83E+00) R^2 = 0.49; Std. Error of Y-estimate = 4.96E-01 **+/-3 x IQR of r** -1.712521 1.712521

TEXT BOX ==> 95% Confidence Limits on a Y-value predicted from one X-valu **\/ - wt.descrip.** **TEXT BOX==> Residuals Plot: (Observed - Predicted) Versus Y-Pred.** **Y-Pred.**

					(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Indexed value lookups:	**X data column ref.**	**Y data column ref.**								
	Specify X-col., Y-col. as: "DA!" + column	**DA!O**	**DA!V**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**FE_log**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	9.119320974	4.905274778	1	6.38817E-02	2.52062E-01	4.31382E-01	2.52748E-01	2.52748E-01	4.65253E+00	
BASS	BASS-BWBK-SS-BA102-0001	8.909235279	4.634728988	1	5.00139E-02	5.96916E-01	7.51485E-01	2.23638E-01	2.23638E-01	4.41109E+00	
BASS	BASS-BWBK-SS-BA103-0001	8.959311617	4.700480366	1	5.37499E-02	4.99640E-01	6.67172E-01	2.31840E-01	2.31840E-01	4.46864E+00	
BASS	BASS-BWBK-SS-BA104-0001	9.082507	4.727387819	1	1.37285E-02	4.62324E-01	4.81095E-01	1.17169E-01	1.17169E-01	4.61022E+00	
BASS	BASS-BWBK-SS-BA105-0001	9.04192172	4.812184355	1	6.18053E-02	3.54201E-01	5.39043E-01	2.48607E-01	2.48607E-01	4.56358E+00	
BASS	BASS-BWBK-SS-BA106-0001	9.102198213	4.8978398	1	7.02203E-02	2.59583E-01	4.54167E-01	2.64991E-01	2.64991E-01	4.63285E+00	
BASS	BASS-BWBK-SS-BA107-0001	8.907883014	4.682131227	1	7.43075E-02	5.25917E-01	7.53831E-01	2.72594E-01	2.72594E-01	4.40954E+00	
BASS	BASS-BWBK-SS-BA108-0001	8.879054662	4.663439094	1	8.23875E-02	5.53377E-01	8.04722E-01	2.87032E-01	2.87032E-01	4.37641E+00	
BASS	BASS-BWBK-SS-BA109-0001	8.969541885	4.709530201	1	5.25020E-02	4.86928E-01	6.50564E-01	2.29133E-01	2.29133E-01	4.48040E+00	
BASS	BASS-BWBK-SS-BA110-0001	9.2023082	4.875197323	1	1.62053E-02	2.83168E-01	3.29257E-01	1.27300E-01	1.27300E-01	4.74790E+00	
BASS	BASS-BWBK-SS-BA111-0001	8.992184362	4.779123493	1	7.43682E-02	3.94646E-01	6.14551E-01	2.72705E-01	2.72705E-01	4.50642E+00	
BASS	BASS-BWBK-SS-BA112-0001	8.987196821	4.736198448	1	5.54659E-02	4.50421E-01	6.22396E-01	2.35512E-01	2.35512E-01	4.50069E+00	
BASS	BASS-BWBK-SS-BA113-0001	8.968905551	4.629374875	1	2.24128E-02	6.05218E-01	6.51591E-01	1.49709E-01	1.49709E-01	4.47967E+00	
MASB	MASB-BWBK-SB-MA01-0105	10.20359214	7.467371067	1	2.46105E+00	4.24376E+00	1.82735E-01	1.56877E+00	1.56877E+00	5.89860E+00	MASB-BWBK-SB-MA01-0105
MASB	MASB-BWBK-SB-MA02-0107	10.27505111	6.368187186	1	1.50132E-01	9.23242E-01	2.48935E-01	3.87469E-01	3.87469E-01	5.98072E+00	
MASB	MASB-BWBK-SB-MA03-0108	10.2853428	6.88857246	1	8.02863E-01	2.19407E+00	2.59311E-01	8.96026E-01	8.96026E-01	5.99255E+00	MASB-BWBK-SB-MA03-0108
MASB	MASB-BWBK-SB-MA04-0106	10.2327913	6.637258031	1	4.97174E-01	1.51272E+00	2.08551E-01	7.05105E-01	7.05105E-01	5.93215E+00	
MASB	MASB-BWBK-SB-MA05-0108	10.21097225	6.107022888	1	3.99781E-02	4.89567E-01	1.89099E-01	1.99945E-01	1.99945E-01	5.90708E+00	
MASB	MASB-BWBK-SB-MA06-0105	10.15812977	6.035481433	1	3.57708E-02	3.94571E-01	1.45933E-01	1.89132E-01	1.89132E-01	5.84635E+00	
MASB	MASB-BWBK-SB-MA07-0108	10.23995979	5.598421959	1	1.16943E-01	3.65153E-02	2.15150E-01	-3.41969E-01	-3.41969E-01	5.94039E+00	
MASB	MASB-BWBK-SB-MA08-0108	10.85321306	6.225548038	1	1.76071E-01	6.69477E-01	1.16014E+00	-4.19608E-01	-4.19608E-01	6.64516E+00	
MASB	MASB-BWBK-SB-MA09-0108	10.46310334	6.259581464	1	3.93743E-03	7.26329E-01	4.71950E-01	6.27490E-02	6.27490E-02	6.19683E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**FE_log**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	10.19988157	5.459585514	1	1.89004E-01	2.73040E-03	1.79576E-01	-4.34746E-01	-4.34746E-01	5.89433E+00	
MASB	MASB-BWBK-SB-MA11-0108	10.38899537	6.049733455	1	3.83563E-03	4.12679E-01	3.75619E-01	-6.19325E-02	-6.19325E-02	6.11167E+00	
MASB	MASB-BWBK-SB-MA12-0108	10.42228135	6.278521424	1	1.65386E-02	7.58971E-01	4.17528E-01	1.28602E-01	1.28602E-01	6.14992E+00	
MASB	MASB-BWBK-SB-MA13-0105	9.667765219	5.056245805	1	5.13320E-02	1.23262E-01	1.17402E-02	-2.26566E-01	-2.26566E-01	5.28281E+00	
MASB	MASB-BWBK-SB-MA14-0104	10.35296955	6.061456919	1	7.75681E-05	4.27879E-01	3.32758E-01	-8.80728E-03	-8.80728E-03	6.07026E+00	
MASB	MASB-BWBK-SB-MA15-0105	10.10233841	5.942799375	1	2.57815E-02	2.86725E-01	1.06420E-01	1.60566E-01	1.60566E-01	5.78223E+00	
MASB	MASB-BWBK-SB-MA16-0104	9.966462352	6.08221891	1	2.08062E-01	4.55472E-01	3.62312E-02	4.56138E-01	4.56138E-01	5.62608E+00	
MASB	MASB-BWBK-SB-MA17-0104	9.942708266	5.802118375	1	4.13455E-02	1.55856E-01	2.77525E-02	2.03336E-01	2.03336E-01	5.59878E+00	
MASB	MASB-BWBK-SB-MA18-0104	9.752664663	5.252273428	1	1.64113E-02	2.40432E-02	5.50030E-04	-1.28106E-01	-1.28106E-01	5.38038E+00	
MASB	MASB-BWBK-SB-MA19-0103	9.622450023	5.905361848	1	4.55122E-01	2.48033E-01	2.36137E-02	6.74628E-01	6.74628E-01	5.23073E+00	
MASB	MASB-BWBK-SB-MA20-0103	10.11050172	5.65248918	1	1.93559E-02	6.01019E-02	1.11813E-01	-1.39125E-01	-1.39125E-01	5.79161E+00	
MASS	MASS-BWBK-SS-MA01-0001	8.86644062	3.877431561	1	2.34720E-01	2.34060E+00	8.27512E-01	-4.84479E-01	-4.84479E-01	4.36191E+00	
MASS	MASS-BWBK-SS-MA02-0001	9.038365107	4.154184563	1	1.64273E-01	1.57038E+00	5.44278E-01	-4.05306E-01	-4.05306E-01	4.55949E+00	
MASS	MASS-BWBK-SS-MA03-0001	9.37585481	4.424846632	1	2.73001E-01	9.65278E-01	1.60210E-01	-5.22495E-01	-5.22495E-01	4.94734E+00	
MASS	MASS-BWBK-SS-MA04-0001	9.384293679	4.762173935	1	3.79725E-02	4.16229E-01	1.53526E-01	-1.94865E-01	-1.94865E-01	4.95704E+00	
MASS	MASS-BWBK-SS-MA05-0001	9.781319919	4.836281907	1	3.32963E-01	3.26099E-01	2.70663E-05	-5.77029E-01	-5.77029E-01	5.41331E+00	
MASS	MASS-BWBK-SS-MA06-0001	9.92329018	5.288267031	1	8.30590E-02	1.41765E-02	2.16598E-02	-2.88200E-01	-2.88200E-01	5.57647E+00	
MASS	MASS-BWBK-SS-MA07-0001	8.689464412	3.328626689	1	6.88732E-01	4.32102E+00	1.18081E+00	-8.29899E-01	-8.29899E-01	4.15853E+00	
MASS	MASS-BWBK-SS-MA08-0001	9.846917201	5.003946306	1	2.34983E-01	1.62720E-01	5.01261E-03	-4.84751E-01	-4.84751E-01	5.48870E+00	
MASS	MASS-BWBK-SS-MA09-0001	9.942708266	5.497168225	1	1.03254E-02	8.07050E-03	2.77525E-02	-1.01614E-01	-1.01614E-01	5.59878E+00	
MASS	MASS-BWBK-SS-MA10-0001	9.980448594	5.564520407	1	6.02705E-03	2.47081E-02	4.17512E-02	-7.76341E-02	-7.76341E-02	5.64215E+00	
MASS	MASS-BWBK-SS-MA11-0001	10.18866649	5.655991811	1	5.08284E-02	6.18316E-02	1.70197E-01	-2.25451E-01	-2.25451E-01	5.88144E+00	
MASS	MASS-BWBK-SS-MA12-0001	9.609116492	4.570578741	1	4.15809E-01	7.00156E-01	2.78893E-02	-6.44832E-01	-6.44832E-01	5.21541E+00	
MASS	MASS-BWBK-SS-MA13-0001	9.635608107	4.615120517	1	3.97827E-01	6.27599E-01	1.97429E-02	-6.30735E-01	-6.30735E-01	5.24586E+00	
MASS	MASS-BWBK-SS-MA14-0001	9.152711259	4.471638793	1	4.80752E-02	8.75522E-01	3.88635E-01	-2.19261E-01	-2.19261E-01	4.69090E+00	
MASS	MASS-BWBK-SS-MA15-0001	9.259130536	4.053522568	1	5.77108E-01	1.83280E+00	2.67275E-01	-7.59676E-01	-7.59676E-01	4.81320E+00	
MASS	MASS-BWBK-SS-MA16-0001	9.61580548	4.388257184	1	6.96959E-01	1.03851E+00	2.56999E-02	-8.34841E-01	-8.34841E-01	5.22310E+00	
MASS	MASS-BWBK-SS-MA17-0001	9.609116492	5.030437921	1	3.42150E-02	1.42049E-01	2.78893E-02	-1.84973E-01	-1.84973E-01	5.21541E+00	
MASS	MASS-BWBK-SS-MA18-0001	9.472704636	4.189654742	1	7.55141E-01	1.48274E+00	9.20593E-02	-8.68989E-01	-8.68989E-01	5.05864E+00	
MASS	MASS-BWBK-SS-MA19-0001	9.629050707	4.912654886	1	1.06058E-01	2.44706E-01	2.16286E-02	-3.25665E-01	-3.25665E-01	5.23832E+00	
MASS	MASS-BWBK-SS-MA20-0001	9.764225485	5.225746674	1	2.81968E-02	3.29733E-02	1.41417E-04	-1.67919E-01	-1.67919E-01	5.39367E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	9.729134165	5.700443573	1	1.20482E-01	8.59142E-02	2.20742E-03	3.47105E-01	3.47105E-01	5.35334E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	9.667765219	5.572154032	1	8.37191E-02	2.71662E-02	1.17402E-02	2.89343E-01	2.89343E-01	5.28281E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	9.609116492	5.799092654	1	3.40684E-01	1.53476E-01	2.78893E-02	5.83682E-01	5.83682E-01	5.21541E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	10.08580911	5.814130532	1	2.59013E-03	1.65485E-01	9.59090E-02	5.08933E-02	5.08933E-02	5.76324E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	9.392661929	5.347107531	1	1.44743E-01	3.62702E-03	1.47038E-01	3.80451E-01	3.80451E-01	4.96666E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	9.980448594	6.109247583	1	2.18176E-01	4.92685E-01	4.17512E-02	4.67093E-01	4.67093E-01	5.64215E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	9.595602773	5.501258211	1	9.08284E-02	8.82208E-03	3.25855E-02	3.01378E-01	3.01378E-01	5.19988E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	9.651815918	5.459585514	1	3.80653E-02	2.73040E-03	1.54509E-02	1.95103E-01	1.95103E-01	5.26448E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	9.786953736	5.669880923	1	6.25476E-02	6.89318E-02	1.17426E-04	2.50095E-01	2.50095E-01	5.41979E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	9.735068901	5.480638923	1	1.45156E-02	5.37386E-03	1.68498E-03	1.20481E-01	1.20481E-01	5.36016E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	9.862665558	5.634789603	1	1.63825E-02	5.17368E-02	7.49059E-03	1.27994E-01	1.27994E-01	5.50680E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	9.880730565	6.506531165	1	9.58392E-01	1.20824E+00	1.09439E-02	9.78975E-01	9.78975E-01	5.52756E+00	MMSB-BWBK-SB-MM112-0110
MMSB	MMSB-BWBK-SB-MM113-0110	9.686574551	5.590986981	1	8.21163E-02	3.37290E-02	8.01792E-03	2.86559E-01	2.86559E-01	5.30443E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	9.449357272	5.666426688	1	4.02736E-01	6.71299E-02	1.06772E-01	6.34615E-01	6.34615E-01	5.03181E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	9.698920387	5.746203191	1	1.82831E-01	1.14833E-01	5.95938E-03	4.27587E-01	4.27587E-01	5.31862E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	9.655026193	5.766757274	1	2.48588E-01	1.29186E-01	1.46631E-02	4.98586E-01	4.98586E-01	5.26817E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	9.510444964	5.537334267	1	1.89503E-01	1.69005E-02	7.05818E-02	4.35319E-01	4.35319E-01	5.10202E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	9.609116492	6.289715571	1	1.15413E+00	7.78600E-01	2.78893E-02	1.07430E+00	1.07430E+00	5.21541E+00	MMSB-BWBK-SB-MM118-0110
MMSB	MMSB-BWBK-SB-MM119-0110	9.667765219	5.710427017	1	1.82855E-01	9.18664E-02	1.17402E-02	4.27616E-01	4.27616E-01	5.28281E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	9.26860928	5.262690189	1	1.92368E-01	2.09213E-02	2.57564E-01	4.38598E-01	4.38598E-01	4.82409E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	9.786953736	5.093750201	1	1.06299E-01	9.83337E-02	1.17426E-04	-3.26035E-01	-3.26035E-01	5.41979E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	9.553930076	5.099866428	1	2.71681E-03	9.45353E-02	4.93672E-02	-5.21230E-02	-5.21230E-02	5.15199E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!V	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**FE_log**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MMSS	MMSS-BWBK-SS-MM103-0001	9.764225485	5.036952602	1	1.27244E-01	1.37181E-01	1.41417E-04	-3.56713E-01	-3.56713E-01	5.39367E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	9.798127037	5.247024072	1	3.44482E-02	2.56987E-02	4.84425E-04	-1.85602E-01	-1.85602E-01	5.43263E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	9.392661929	4.912654886	1	2.91616E-03	2.44706E-01	1.47038E-01	-5.40015E-02	-5.40015E-02	4.96666E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	9.792555992	5.267858159	1	2.50797E-02	1.94530E-02	2.70228E-04	-1.58366E-01	-1.58366E-01	5.42622E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	9.786953736	5.170483995	1	6.21513E-02	5.60971E-02	1.17426E-04	-2.49302E-01	-2.49302E-01	5.41979E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	9.642122788	4.727387819	1	2.76628E-01	4.62324E-01	1.79546E-02	-5.25955E-01	-5.25955E-01	5.25334E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	9.648595303	4.844187086	1	1.73550E-01	3.17133E-01	1.62619E-02	-4.16594E-01	-4.16594E-01	5.26078E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	9.198267791	4.411585437	1	1.10004E-01	9.91512E-01	3.33910E-01	-3.31669E-01	-3.31669E-01	4.74325E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	9.249561085	4.579852378	1	4.94392E-02	6.84723E-01	2.77262E-01	-2.22349E-01	-2.22349E-01	4.80220E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9.118225083	4.387014176	1	6.98296E-02	1.04105E+00	4.32822E-01	-2.64253E-01	-2.64253E-01	4.65127E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	9.553930076	4.787491743	1	1.32859E-01	3.84202E-01	4.93672E-02	-3.64498E-01	-3.64498E-01	5.15199E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	9.016755623	4.543294782	1	7.46269E-05	7.46561E-01	5.76630E-01	8.63869E-03	8.63869E-03	4.53466E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	9.305650552	4.94875989	1	6.74025E-03	2.10289E-01	2.21339E-01	8.20990E-02	8.20990E-02	4.86666E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	9.230142999	4.727387819	1	2.75604E-03	4.62324E-01	2.98088E-01	-5.24980E-02	-5.24980E-02	4.77989E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	9.61580548	4.927253685	1	8.75239E-02	2.30475E-01	2.56999E-02	-2.95844E-01	-2.95844E-01	5.22310E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	9.480367509	5.18178355	1	1.30722E-02	5.08722E-02	8.74680E-02	1.14334E-01	1.14334E-01	5.06745E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	9.341368634	5.204006687	1	8.77924E-02	4.13413E-02	1.89006E-01	2.96298E-01	2.96298E-01	4.90771E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	9.775654181	5.141663557	1	7.02973E-02	7.05799E-02	2.14559E-07	-2.65136E-01	-2.65136E-01	5.40680E+00	
NESB	NESB-BWBK-SB-NE01-0108	10.07323033	5.883322388	1	1.81013E-02	2.26567E-01	8.82761E-02	1.34541E-01	1.34541E-01	5.74878E+00	
NESB	NESB-BWBK-SB-NE02-0109	10.00784757	6.452048954	1	6.05917E-01	1.09143E+00	5.36989E-02	7.78407E-01	7.78407E-01	5.67364E+00	
NESB	NESB-BWBK-SB-NE03-0105	10.01234196	5.707110265	1	8.01072E-04	8.98668E-02	5.58020E-02	2.83032E-02	2.83032E-02	5.67881E+00	
NESB	NESB-BWBK-SB-NE04-0110	9.903487553	5.840641657	1	8.23303E-02	1.87757E-01	1.62232E-02	2.86933E-01	2.86933E-01	5.55371E+00	
NESB	NESB-BWBK-SB-NE05-0108	10.03889219	5.834810737	1	1.57481E-02	1.82738E-01	6.90506E-02	1.25492E-01	1.25492E-01	5.70932E+00	
NESB	NESB-BWBK-SB-NE06-0109	9.957028319	5.765191103	1	2.24855E-02	1.28063E-01	3.27288E-02	1.49952E-01	1.49952E-01	5.61524E+00	
NESB	NESB-BWBK-SB-NE07-0107	10.0475879	5.703782475	1	2.41182E-04	8.78827E-02	7.36962E-02	-1.55300E-02	-1.55300E-02	5.71931E+00	
NESB	NESB-BWBK-SB-NE08-0104	9.809176873	5.541263545	1	9.20420E-03	1.79376E-02	1.09293E-03	9.59385E-02	9.59385E-02	5.44533E+00	
NESB	NESB-BWBK-SB-NE09-0110	9.928180165	5.777652323	1	3.82460E-02	1.37137E-01	2.31231E-02	1.95566E-01	1.95566E-01	5.58209E+00	
NESB	NESB-BWBK-SB-NE10-0107	9.809176873	5.517452896	1	5.20243E-03	1.21265E-02	1.09293E-03	7.21279E-02	7.21279E-02	5.44533E+00	
NESB	NESB-BWBK-SB-NE101-0110	9.775654181	5.493061443	1	7.44104E-03	7.34949E-03	2.14559E-07	8.62615E-02	8.62615E-02	5.40680E+00	
NESB	NESB-BWBK-SB-NE102-0110	9.574983486	5.433722004	1	6.63256E-02	6.96417E-04	4.04548E-02	2.57537E-01	2.57537E-01	5.17618E+00	
NESB	NESB-BWBK-SB-NE103-0110	9.480367509	5.318119994	1	6.28356E-02	7.95883E-03	8.74680E-02	2.50670E-01	2.50670E-01	5.06745E+00	
NESB	NESB-BWBK-SB-NE104-0110	9.37585481	5.170483995	1	4.97927E-02	5.60971E-02	1.60210E-01	2.23143E-01	2.23143E-01	4.94734E+00	
NESB	NESB-BWBK-SB-NE105-0110	9.75846178	5.774551546	1	1.50164E-01	1.34850E-01	3.11720E-04	3.87509E-01	3.87509E-01	5.38704E+00	
NESB	NESB-BWBK-SB-NE106-0110	9.629050707	5.509388337	1	7.34781E-02	1.04154E-02	2.16286E-02	2.71068E-01	2.71068E-01	5.23832E+00	
NESB	NESB-BWBK-SB-NE107-0510	9.517825072	5.298317367	1	3.52766E-02	1.18843E-02	6.67149E-02	1.87821E-01	1.87821E-01	5.11050E+00	
NESB	NESB-BWBK-SB-NE108-0110	9.629050707	5.332718793	1	8.91116E-03	5.56717E-03	2.16286E-02	9.43990E-02	9.43990E-02	5.23832E+00	
NESB	NESB-BWBK-SB-NE109-0110	9.609116492	5.365976015	1	2.26698E-02	1.71034E-03	2.78893E-02	1.50565E-01	1.50565E-01	5.21541E+00	
NESB	NESB-BWBK-SB-NE110-0110	9.60238246	5.413875707	1	4.25199E-02	4.28164E-05	3.01838E-02	2.06204E-01	2.06204E-01	5.20767E+00	
NESS	NESS-BKG-SS03-NEB-0016	9.781319919	5.318119994	1	9.06136E-03	7.95883E-03	2.70663E-05	-9.51912E-02	-9.51912E-02	5.41331E+00	
NESS	NESS-BKG-SS09-NEB-0018	9.525151112	5.187385806	1	4.68811E-03	4.83765E-02	6.29841E-02	6.84698E-02	6.84698E-02	5.11892E+00	
NESS	NESS-BWBK-SS-NE01-0001	10.04324949	5.669880923	1	1.97543E-03	6.89318E-02	7.13596E-02	-4.44458E-02	-4.44458E-02	5.71433E+00	
NESS	NESS-BWBK-SS-NE02-0001	10.02570519	5.402677382	1	8.49647E-02	2.16681E-05	6.22941E-02	-2.91487E-01	-2.91487E-01	5.69416E+00	
NESS	NESS-BWBK-SS-NE03-0001	9.888373915	5.257495372	1	7.77544E-02	2.24511E-02	1.26015E-02	-2.78845E-01	-2.78845E-01	5.53634E+00	
NESS	NESS-BWBK-SS-NE04-0001	9.942708266	5.533389489	1	4.27623E-03	1.58904E-02	2.77525E-02	-6.53929E-02	-6.53929E-02	5.59878E+00	
NESS	NESS-BWBK-SS-NE05-0001	9.83091686	5.33753808	1	1.76281E-02	4.87123E-03	3.00298E-03	-1.32771E-01	-1.32771E-01	5.47031E+00	
NESS	NESS-BWBK-SS-NE06-0001	9.857443614	5.214935758	1	8.17151E-02	3.70164E-02	6.61396E-03	-2.85859E-01	-2.85859E-01	5.50079E+00	
NESS	NESS-BWBK-SS-NE07-0001	9.862665558	5.176149733	1	1.09327E-01	5.34454E-02	7.49059E-03	-3.30646E-01	-3.30646E-01	5.50680E+00	
NESS	NESS-BWBK-SS-NE08-0001	9.852194258	5.220355825	1	7.52985E-02	3.49602E-02	5.78769E-03	-2.74406E-01	-2.74406E-01	5.49476E+00	
NESS	NESS-BWBK-SS-NE09-0001	9.781319919	5.38907173	1	5.87550E-04	3.33448E-04	2.70663E-05	-2.42394E-02	-2.42394E-02	5.41331E+00	
NESS	NESS-BWBK-SS-NE10-0001	9.764225485	5.262690189	1	1.71546E-02	2.09213E-02	1.41417E-04	-1.30976E-01	-1.30976E-01	5.39367E+00	
NESS	NESS-BWBK-SS-NE101-0001	9.487972109	4.983606622	1	8.57150E-03	1.79543E-01	8.30277E-02	-9.25824E-02	-9.25824E-02	5.07619E+00	
NESS	NESS-BWBK-SS-NE102-0001	9.27799902	4.852030264	1	2.94026E-04	3.08360E-01	2.48122E-01	1.71472E-02	1.71472E-02	4.83488E+00	
NESS	NESS-BWBK-SS-NE103-0001	9.197255132	4.644390899	1	9.54518E-03	5.82080E-01	3.35082E-01	-9.76994E-02	-9.76994E-02	4.74209E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**FE_log**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
NESS	NESS-BWBK-SS-NE104-0001	9.417354541	4.890349128	1	1.09589E-02	2.67272E-01	1.28711E-01	-1.04685E-01	-1.04685E-01	4.99503E+00	
NESS	NESS-BWBK-SS-NE105-0001	9.126958763	4.779123493	1	1.38814E-02	3.94646E-01	4.21407E-01	1.17819E-01	1.17819E-01	4.66130E+00	
NESS	NESS-BWBK-SS-NE106-0001	9.220290703	4.86753445	1	9.79528E-03	2.91382E-01	3.08943E-01	9.89711E-02	9.89711E-02	4.76856E+00	
NESS	NESS-BWBK-SS-NE107-0001	9.139917908	5.099866428	1	1.79496E-01	9.45353E-02	4.04750E-01	4.23669E-01	4.23669E-01	4.67620E+00	
NESS	NESS-BWBK-SS-NE108-0001	9.220290703	4.859812404	1	8.32639E-03	2.99778E-01	3.08943E-01	9.12491E-02	9.12491E-02	4.76856E+00	
NESS	NESS-BWBK-SS-NE109-0001	9.107199613	4.779123493	1	1.97479E-02	3.94646E-01	4.47451E-01	1.40527E-01	1.40527E-01	4.63860E+00	
NESS	NESS-BWBK-SS-NE110-0001	9.167432871	4.448516376	1	6.72373E-02	9.19328E-01	3.70497E-01	-2.59302E-01	-2.59302E-01	4.70782E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	9.952277717	6.329720906	1	5.18315E-01	8.50801E-01	3.10325E-02	7.19941E-01	7.19941E-01	5.60978E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	10.56359488	6.480044562	1	2.81316E-02	1.15071E+00	6.20121E-01	1.67725E-01	1.67725E-01	6.31232E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	10.46595641	6.040254711	1	2.55541E-02	4.00591E-01	4.75878E-01	-1.59857E-01	-1.59857E-01	6.20011E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	10.22918769	6.246106765	1	1.01185E-01	7.03543E-01	2.05273E-01	3.18096E-01	3.18096E-01	5.92801E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	10.22918769	6.483107351	1	3.08132E-01	1.15729E+00	2.05273E-01	5.55096E-01	5.55096E-01	5.92801E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	10.31890299	7.326465614	1	1.67794E+00	3.68307E+00	2.94616E-01	1.29535E+00	1.29535E+00	6.03111E+00	PMSB-BWBK-SB-PM06-0105
PMSB	PMSB-BWBK-SB-PM07-0105	10.18866649	6.745236349	1	7.46138E-01	1.78999E+00	1.70197E-01	8.63793E-01	8.63793E-01	5.88144E+00	PMSB-BWBK-SB-PM07-0105
PMSB	PMSB-BWBK-SB-PM08-0106	10.11859893	6.400257445	1	3.59205E-01	9.85900E-01	1.17294E-01	5.99337E-01	5.99337E-01	5.80092E+00	
PMSB	PMSB-BWBK-SB-PM09-0106	9.918376165	6.073044534	1	2.52230E-01	4.43173E-01	2.02376E-02	5.02225E-01	5.02225E-01	5.57082E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	10.15424627	6.317164687	1	2.25889E-01	8.27795E-01	1.42981E-01	4.75278E-01	4.75278E-01	5.84189E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	10.261162	7.222566019	1	1.58208E+00	3.29507E+00	2.35268E-01	1.25781E+00	1.25781E+00	5.96476E+00	PMSB-BWBK-SB-PM11-0104
PMSB	PMSB-BWBK-SB-PM12-0105	9.609116492	5.877735782	1	4.38674E-01	2.21279E-01	2.78893E-02	6.62325E-01	6.62325E-01	5.21541E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	10.09823163	6.390240667	1	3.75435E-01	9.66109E-01	1.03758E-01	6.12727E-01	6.12727E-01	5.77751E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	9.705036614	6.34738921	1	1.04396E+00	8.83707E-01	5.05248E-03	1.02174E+00	1.02174E+00	5.32564E+00	PMSB-BWBK-SB-PM14-0106
PMSB	PMSB-BWBK-SB-PM15-0105	10.04324949	5.981414211	1	7.13357E-02	3.29570E-01	7.13596E-02	2.67087E-01	2.67087E-01	5.71433E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	9.836278803	6.070737728	1	3.53153E-01	4.40107E-01	3.61940E-03	5.94267E-01	5.94267E-01	5.47647E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	10.13459927	6.149536102	1	1.09051E-01	5.50867E-01	1.28509E-01	3.30228E-01	3.30228E-01	5.81931E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	10.43705266	5.918893854	1	6.15043E-02	2.61695E-01	4.36835E-01	-2.48001E-01	-2.48001E-01	6.16689E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	10.16199825	6.12249281	1	7.38194E-02	5.11455E-01	1.48904E-01	2.71697E-01	2.71697E-01	5.85080E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	10.02349034	5.905361848	1	4.56860E-02	2.48033E-01	6.11934E-02	2.13743E-01	2.13743E-01	5.69162E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	10.2853428	5.493061443	1	2.49485E-01	7.34949E-03	2.59311E-01	-4.99485E-01	-4.99485E-01	5.99255E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	10.46024211	5.680172609	1	2.63551E-01	7.44418E-02	4.68027E-01	-5.13372E-01	-5.13372E-01	6.19354E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	10.43117029	5.365976015	1	6.30687E-01	1.71034E-03	4.29094E-01	-7.94158E-01	-7.94158E-01	6.16013E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	10.49404814	5.641907071	1	3.48676E-01	5.50253E-02	5.15425E-01	-5.90488E-01	-5.90488E-01	6.23240E+00	
PMSS	PMSS-DABK-S-SO21-0001	9.92329018	5.283203729	1	8.60032E-02	1.54079E-02	2.16598E-02	-2.93263E-01	-2.93263E-01	5.57647E+00	
PMSS	PMSS-DABK-S-SO22-0001	10.0647557	5.703782475	1	1.24324E-03	8.78827E-02	8.33121E-02	-3.52597E-02	-3.52597E-02	5.73904E+00	
PMSS	PMSS-DABK-S-SO23-0001	9.809176873	5.283203729	1	2.62833E-02	1.54079E-02	1.09293E-03	-1.62121E-01	-1.62121E-01	5.44533E+00	
PMSS	PMSS-DABK-S-SO24-0001	10.15424627	5.529429088	1	9.76298E-02	1.49076E-02	1.42981E-01	-3.12458E-01	-3.12458E-01	5.84189E+00	
PMSS	PMSS-DABK-S-SO25-0001	10.67590791	6.11699527	1	1.05234E-01	5.03622E-01	8.09623E-01	-3.24397E-01	-3.24397E-01	6.44139E+00	
PMSS	PMSS-DABK-S-SO26-0001	10.11050172	5.533389489	1	6.66802E-02	1.58904E-02	1.11813E-01	-2.58225E-01	-2.58225E-01	5.79161E+00	
PMSS	PMSS-DABK-S-SO27-0001	9.680344001	5.068904202	1	5.21497E-02	1.14534E-01	9.17254E-03	-2.28363E-01	-2.28363E-01	5.29727E+00	
PMSS	PMSS-DABK-S-SO28-0001	9.814656339	5.765191103	1	9.83255E-02	1.28063E-01	1.48525E-03	3.13569E-01	3.13569E-01	5.45162E+00	
PMSS	PMSS-DABK-S-SO29-0001	9.989665249	4.94875989	1	4.95597E-01	2.10289E-01	4.56027E-02	-7.03987E-01	-7.03987E-01	5.65275E+00	
PMSS	PMSS-DABK-S-SO30-0001	9.798127037	5.549076085	1	1.35606E-02	2.00913E-02	4.84425E-04	1.16450E-01	1.16450E-01	5.43263E+00	
PMSS	PMSS-DABK-S-SO31-0001	9.71111566	6.03787092	1	4.97364E-01	3.97579E-01	4.22522E-03	7.05240E-01	7.05240E-01	5.33263E+00	
PMSS	PMSS-DABK-S-SO32-0001	10.05190756	6.167516491	1	1.96461E-01	5.77880E-01	7.60602E-02	4.43240E-01	4.43240E-01	5.72428E+00	
PMSS	PMSS-DABK-S-SO33-0001	9.449357272	4.94875989	1	6.89765E-03	2.10289E-01	1.06772E-01	-8.30521E-02	-8.30521E-02	5.03181E+00	
PMSS	PMSS-DABK-S-SO34-0001	9.642122788	6.070737728	1	6.68135E-01	4.40107E-01	1.79546E-02	8.17395E-01	8.17395E-01	5.25334E+00	
PMSS	PMSS-DABK-S-SO35-0001	9.789758787	5.558756703	1	1.84274E-02	2.29294E-02	1.86088E-04	1.35747E-01	1.35747E-01	5.42301E+00	
PMSS	PMSS-DABK-S-SO36-0001	9.560997244	4.615120517	1	2.97015E-01	6.27599E-01	4.62767E-02	-5.44991E-01	-5.44991E-01	5.16011E+00	
PMSS	PMSS-DABK-S-SO37-0001	9.908475094	5.739792912	1	3.25269E-02	1.10530E-01	1.75186E-02	1.80352E-01	1.80352E-01	5.55944E+00	
PMSS	PMSS-DABK-S-SO38-0001	9.525151112	5.834810737	1	5.12505E-01	1.82738E-01	6.29841E-02	7.15895E-01	7.15895E-01	5.11892E+00	
PMSS	PMSS-DABK-S-SO39-0001	9.841612149	5.92157842	1	1.92702E-01	2.64449E-01	4.28956E-03	4.38978E-01	4.38978E-01	5.48260E+00	
PMSS	PMSS-DABK-S-SO40-0001	9.581903928	5.996452089	1	6.59855E-01	3.47062E-01	3.77189E-02	8.12314E-01	8.12314E-01	5.18414E+00	

APPENDIX F, TABLE F8-7
SUPPORT DATA FOR MANGANESE REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!O	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**FE_log**	**MN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	10.61888534	6.11146734	1	6.99039E-02	4.95806E-01	7.10258E-01	-2.64393E-01	-2.64393E-01	6.37586E+00	
SESB	SESB-BWBK-SB-SO04-0108	10.42228135	5.579729826	1	3.25116E-01	2.97209E-02	4.17528E-01	-5.70189E-01	-5.70189E-01	6.14992E+00	
SESB	SESB-BWBK-SB-SO05-0106	10.3609124	5.793013608	1	8.20128E-02	1.48750E-01	3.41985E-01	-2.86379E-01	-2.86379E-01	6.07939E+00	
SESB	SESB-BWBK-SB-SO06-0108	10.66078255	5.547128665	1	7.68921E-01	1.95430E-02	7.82632E-01	-8.76881E-01	-8.76881E-01	6.42401E+00	
SESB	SESB-BWBK-SB-SO07-0106	10.27849345	6.946975992	1	9.26024E-01	2.37050E+00	2.52382E-01	9.62301E-01	9.62301E-01	5.98467E+00	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	10.5941316	6.280395839	1	4.49133E-03	7.62240E-01	6.69147E-01	-6.70174E-02	-6.70174E-02	6.34741E+00	
SESB	SESB-BWBK-SB-SO09-0106	10.27505111	5.278114659	1	4.93652E-01	1.66972E-02	2.48935E-01	-7.02604E-01	-7.02604E-01	5.98072E+00	
SESB	SESB-BWBK-SB-SO11-0106	10.45737267	7.192934221	1	1.00538E+00	3.18837E+00	4.64109E-01	1.00269E+00	1.00269E+00	6.19025E+00	SESB-BWBK-SB-SO11-0106
SESB	SESB-BWBK-SB-SO12-0106	10.46024211	6.068425588	1	1.56547E-02	4.37044E-01	4.68027E-01	-1.25119E-01	-1.25119E-01	6.19354E+00	
SESB	SESB-BWBK-SB-SO15-0103	10.0301202	6.045005314	1	1.19555E-01	4.06627E-01	6.45174E-02	3.45767E-01	3.45767E-01	5.69924E+00	
SESB	SESB-BWBK-SB-SO16-0105	10.12262308	5.758901774	1	2.17556E-03	1.23601E-01	1.20066E-01	-4.66429E-02	-4.66429E-02	5.80554E+00	
SESB	SESB-BWBK-SB-SO17-0106	9.803667217	5.252273428	1	3.48643E-02	2.40432E-02	7.58993E-04	-1.86720E-01	-1.86720E-01	5.43899E+00	
SESB	SESB-BWBK-SB-SO18-0105	9.61580548	5.513428746	1	8.42919E-02	1.12565E-02	2.56999E-02	2.90331E-01	2.90331E-01	5.22310E+00	
SESB	SESB-BWBK-SB-SO19-0104	9.705036614	5.811140993	1	2.35707E-01	1.63061E-01	5.05248E-03	4.85496E-01	4.85496E-01	5.32564E+00	
SESB	SESB-BWBK-SB-SO20-0104	10.29890232	6.333279628	1	1.05723E-01	8.57378E-01	2.73304E-01	3.25151E-01	3.25151E-01	6.00813E+00	
SESS	SESS-DABK-S-SO01-0001	9.83091686	4.536891345	1	8.71269E-01	7.57667E-01	3.00298E-03	-9.33418E-01	-9.33418E-01	5.47031E+00	
SESS	SESS-DABK-S-SO02-0001	10.08996712	5.690359454	1	6.03049E-03	8.01044E-02	9.85017E-02	-7.76562E-02	-7.76562E-02	5.76802E+00	
SESS	SESS-DABK-S-SO03-0001	9.857443614	4.229749199	1	1.61556E+00	1.38670E+00	6.61396E-03	-1.27105E+00	-1.27105E+00	5.50079E+00	
SESS	SESS-DABK-S-SO04-0001	9.820105944	4.219507705	1	1.53358E+00	1.41093E+00	1.93499E-03	-1.23838E+00	-1.23838E+00	5.45788E+00	
SESS	SESS-DABK-S-SO05-0001	9.867860375	5.099866428	1	1.70486E-01	9.45353E-02	8.41678E-03	-4.12899E-01	-4.12899E-01	5.51277E+00	
SESS	SESS-DABK-S-SO06-0001	10.89488576	5.92157842	1	5.95164E-01	2.64449E-01	1.25164E+00	-7.71468E-01	-7.71468E-01	6.69305E+00	
SESS	SESS-DABK-S-SO07-0001	9.680344001	4.506454213	1	6.25385E-01	8.11581E-01	9.17254E-03	-7.90813E-01	-7.90813E-01	5.29727E+00	
SESS	SESS-DABK-S-SO08-0001	9.928180165	5.327876169	1	6.46228E-02	6.31327E-03	2.31231E-02	-2.54210E-01	-2.54210E-01	5.58209E+00	
SESS	SESS-DABK-S-SO09-0001	10.04324949	4.53044664	1	1.40157E+00	7.68928E-01	7.13596E-02	-1.18388E+00	-1.18388E+00	5.71433E+00	
SESS	SESS-DABK-S-SO10-0001	10.07744086	4.445001434	1	1.71248E+00	9.26081E-01	9.07958E-02	-1.30862E+00	-1.30862E+00	5.75362E+00	
SESS	SESS-DABK-S-SO11-0001	9.087042156	3.921973336	1	4.80884E-01	2.20629E+00	4.74825E-01	-6.93458E-01	-6.93458E-01	4.61543E+00	
SESS	SESS-DABK-S-SO12-0001	9.581903928	4.415219602	1	5.91235E-01	9.84288E-01	3.77189E-02	-7.68918E-01	-7.68918E-01	5.18414E+00	
SESS	SESS-DABK-S-SO13-0001	9.836278803	4.462453884	1	1.02823E+00	8.92795E-01	3.61940E-03	-1.01402E+00	-1.01402E+00	5.47647E+00	
SESS	SESS-DABK-S-SO14-0001	9.798127037	4.234106505	1	1.43645E+00	1.37646E+00	4.84425E-04	-1.19852E+00	-1.19852E+00	5.43263E+00	
SESS	SESS-DABK-S-SO15-0001	9.76995616	4.700480366	1	4.89680E-01	4.99640E-01	3.79607E-05	-6.99771E-01	-6.99771E-01	5.40025E+00	
SESS	SESS-DABK-S-SO16-0001	9.140990294	3.912023005	1	5.85847E-01	2.23595E+00	4.03386E-01	-7.65406E-01	-7.65406E-01	4.67743E+00	
SESS	SESS-DABK-S-SO17-0001	9.60238246	4.744932128	1	2.14128E-01	4.38774E-01	3.01838E-02	-4.62740E-01	-4.62740E-01	5.20767E+00	
SESS	SESS-DABK-S-SO18-0001	9.480367509	4.300002799	1	5.88975E-01	1.22618E+00	8.74680E-02	-7.67447E-01	-7.67447E-01	5.06745E+00	
SESS	SESS-DABK-S-SO19-0001	9.75846178	5.513428746	1	1.59736E-02	1.12565E-02	3.11720E-04	1.26387E-01	1.26387E-01	5.38704E+00	
SESS	SESS-DABK-S-SO20-0001	10.0647557	5.214935758	1	2.74688E-01	3.70164E-02	8.33121E-02	-5.24106E-01	-5.24106E-01	5.73904E+00	

APPENDIX F, TABLE F8-8
SUPPORT DATA FOR MERCURY REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: HG			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: CU			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	62.000000		1.60	0.01	-0.04	0.06	-0.09	0.09	0.00	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	5.997977E-02		2.38	0.01	-0.04	0.07	-0.09	0.09	0.00	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.670649		3.16	0.02	-0.03	0.07	-0.09	0.09	0.00	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	3.422270E+01		3.94	0.03	-0.03	0.08	-0.09	0.09	0.00	---- \/ ----
2	SUM(X^2*w^2)	4.787140E+03		4.72	0.03	-0.02	0.09	-0.09	0.09	0.00	BASS
	SUM(X*w^2)	4.752000E+02		5.50	0.04	-0.02	0.09	-0.09	0.09	0.00	0
	SUM(Y*w^2)	3.356500E+00		6.28	0.04	-0.01	0.10	-0.09	0.09	0.00	MASS
	SUM(w^2)	6.200000E+01		7.05	0.05	0.00	0.10	-0.09	0.09	0.00	0
	SUM(Y)	3.356500		7.83	0.06	0.00	0.11	-0.09	0.09	0.00	MMSS
	SUM(X)	4.752000E+02		8.61	0.06	0.01	0.11	-0.09	0.09	0.00	0
	Denominator	7.098764E+04		9.39	0.07	0.01	0.12	-0.09	0.09	0.00	NESS
	Slope	**7.420990E-03**		10.17	0.07	0.02	0.13	-0.09	0.09	0.00	3
	Intercept	**-2.741204E-03**		10.95	0.08	0.03	0.13	-0.09	0.09	0.00	PMSS
	Minimum X value	1.600000E+00		11.73	0.08	0.03	0.14	-0.09	0.09	0.00	0
	Maximum X value	2.030000E+01		12.51	0.09	0.04	0.14	-0.09	0.09	0.00	SESS
	Minimum Y value	7.000000E-03		13.29	0.10	0.04	0.15	-0.09	0.09	0.00	0
	Maximum Y value	2.400000E-01		14.07	0.10	0.05	0.16	-0.09	0.09	0.00	SESD
	No. of graph points	25		14.85	0.11	0.05	0.16	-0.09	0.09	0.00	0
	SUM(Ypred.- Yobs)^2	5.997977E-02		15.63	0.11	0.06	0.17	-0.09	0.09	0.00	MASB
	SUM(Yobs - Yave)^2	1.230341E-01		16.40	0.12	0.06	0.17	-0.09	0.09	0.00	0
	SUM(X - Xave)^2	1.144962E+03		17.18	0.12	0.07	0.18	-0.09	0.09	0.00	MMSB
	Std. Error of Y-estimate	**3.161745E-02**		17.96	0.13	0.07	0.19	-0.09	0.09	0.00	0
	R^2	**5.124947E-01**		18.74	0.14	0.08	0.19	-0.09	0.09	0.00	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**		19.52	0.14	0.09	0.20	-0.09	0.09	0.00	0
est.M, Std.Err.Y				20.30	0.15	0.09	0.20	-0.09	0.09	0.00	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			**25**	4.35	0.03	-0.02	0.08	0.03	**-181%**	**181%**	0
Inverse Log Transform (Y/N)?		**No**	**50**	6.50	0.05	-0.01	0.10	0.05	**-117%**	**117%**	SESB
Inverse Power Transform (Y/N)?		**No**	**75**	9.33	0.07	0.01	0.12	0.07	**-80%**	**80%**	0
Inverse Power Transform (1/Power):		**1**	**90**	13.49	0.10	0.04	0.15	0.10	**-55%**	**55%**	<<--Original Units Errors

TEXT BOX ==> (HG) = (7.42E-03)x(CU) + (-2.74E-03) R^2 = 0.51; Std. Error of Y-estimate = 3.16E-02 | **+/-3 x IQR of r** | -0.092654 | 0.092654

TEXT BOX ==> 95% Confidence Limits on a Y-value predicted from one X-value

				\/ - wt.descrip.	TEXT BOX==>	Residuals Plot:	(Observed - Predicted)	Versus Y-Pred.		Y-Pred.	
	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!P	DA!Z	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**CU**	**HG**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASS	MASS-BWBK-SS-MA01-0001	1.6	0.044	1	1.21575E-03	1.02761E-04	3.67784E+01	3.48676E-02	3.48676E-02	9.13238E-03	
MASS	MASS-BWBK-SS-MA02-0001	3.6	0.077	1	2.81172E-03	5.22712E-04	1.65203E+01	5.30256E-02	5.30256E-02	2.39744E-02	
MASS	MASS-BWBK-SS-MA03-0001	4.3	0.042	1	1.64633E-04	1.47309E-04	1.13200E+01	1.28309E-02	1.28309E-02	2.91691E-02	
MASS	MASS-BWBK-SS-MA04-0001	4.9	0.052	1	3.37764E-04	4.56718E-06	7.64255E+00	1.83784E-02	1.83784E-02	3.36216E-02	
MASS	MASS-BWBK-SS-MA05-0001	9.4	0.019	1	2.30555E-03	1.23462E-03	3.01190E+00	-4.80161E-02	-4.80161E-02	6.70161E-02	
MASS	MASS-BWBK-SS-MA06-0001	9	0.04	1	5.78292E-04	1.99858E-04	1.78352E+00	-2.40477E-02	-2.40477E-02	6.40477E-02	
MASS	MASS-BWBK-SS-MA07-0001	1.8	0.03	1	3.75717E-04	5.82599E-04	3.43925E+01	1.93834E-02	1.93834E-02	1.06166E-02	
MASS	MASS-BWBK-SS-MA08-0001	6.3	0.06	1	2.55647E-04	3.43736E-05	1.86190E+00	1.59890E-02	1.59890E-02	4.40110E-02	
MASS	MASS-BWBK-SS-MA09-0001	10.6	0.1	1	5.79784E-04	2.10341E-03	8.61707E+00	2.40787E-02	2.40787E-02	7.59213E-02	
MASS	MASS-BWBK-SS-MA10-0001	6.7	0.075	1	7.85152E-04	4.35261E-04	9.30291E-01	2.80206E-02	2.80206E-02	4.69794E-02	
MASS	MASS-BWBK-SS-MA11-0001	6.7	0.034	1	1.68466E-04	4.05503E-04	9.30291E-01	-1.29794E-02	-1.29794E-02	4.69794E-02	
MASS	MASS-BWBK-SS-MA12-0001	4.2	0.018	1	1.08721E-04	1.30589E-03	1.20029E+01	-1.04270E-02	-1.04270E-02	2.84270E-02	
MASS	MASS-BWBK-SS-MA13-0001	4.6	0.037	1	3.14121E-05	2.93680E-04	9.39126E+00	5.60465E-03	5.60465E-03	3.13954E-02	
MASS	MASS-BWBK-SS-MA14-0001	6.5	0.067	1	4.62455E-04	1.65454E-04	1.35610E+00	2.15048E-02	2.15048E-02	4.54952E-02	

APPENDIX F, TABLE F8-8
SUPPORT DATA FOR MERCURY REGRESSIONS IN SURFACE SOIL
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!P**	**DA!Z**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**CU**	**HG**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASS	MASS-BWBK-SS-MA15-0001	3.7	0.049	1	5.89690E-04	2.63898E-05	1.57174E+01	2.42835E-02	2.42835E-02	2.47165E-02	
MASS	MASS-BWBK-SS-MA16-0001	7.1	0.04	1	9.89593E-05	1.99858E-04	3.18678E-01	-9.94783E-03	-9.94783E-03	4.99478E-02	
MASS	MASS-BWBK-SS-MA17-0001	5.8	0.051	1	1.14478E-04	9.84138E-06	3.47642E+00	1.06995E-02	1.06995E-02	4.03005E-02	
MASS	MASS-BWBK-SS-MA18-0001	4.2	0.043	1	2.12374E-04	1.24035E-04	1.20029E+01	1.45730E-02	1.45730E-02	2.84270E-02	
MASS	MASS-BWBK-SS-MA19-0001	5.6	0.043	1	1.75030E-05	1.24035E-04	4.26223E+00	4.18366E-03	4.18366E-03	3.88163E-02	
MASS	MASS-BWBK-SS-MA20-0001	9.7	0.036	1	1.10506E-03	3.28954E-04	4.14319E+00	-3.32424E-02	-3.32424E-02	6.92424E-02	
MMSS	MMSS-BWBK-SS-MM101-0001	9.1	0.038	1	7.17694E-04	2.60406E-04	2.06061E+00	-2.67898E-02	-2.67898E-02	6.47898E-02	
MMSS	MMSS-BWBK-SS-MM102-0001	5.5	0.021	1	2.91530E-04	1.09807E-03	4.68513E+00	-1.70742E-02	-1.70742E-02	3.80742E-02	
MMSS	MMSS-BWBK-SS-MM103-0001	8.4	0.041	1	3.45778E-04	1.72583E-04	5.40937E-01	-1.85951E-02	-1.85951E-02	5.95951E-02	
MMSS	MMSS-BWBK-SS-MM104-0001	11.3	0.028	1	2.82131E-03	6.83148E-04	1.32167E+01	-5.31160E-02	-5.31160E-02	8.11160E-02	
MMSS	MMSS-BWBK-SS-MM105-0001	6.5	0.039	1	4.21881E-05	2.29132E-04	1.35610E+00	-6.49523E-03	-6.49523E-03	4.54952E-02	
MMSS	MMSS-BWBK-SS-MM106-0001	10.3	0.028	1	2.08803E-03	6.83148E-04	6.94578E+00	-4.56950E-02	-4.56950E-02	7.36950E-02	
MMSS	MMSS-BWBK-SS-MM107-0001	8.6	0.056	1	2.57994E-05	3.47041E-06	8.75130E-01	-5.07931E-03	-5.07931E-03	6.10793E-02	
MMSS	MMSS-BWBK-SS-MM108-0001	7.7	0.034	1	4.16177E-04	4.05503E-04	1.25911E-03	-2.04004E-02	-2.04004E-02	5.44004E-02	
MMSS	MMSS-BWBK-SS-MM109-0001	5.7	0.025	1	2.11948E-04	8.48970E-04	3.85932E+00	-1.45584E-02	-1.45584E-02	3.95584E-02	
MMSS	MMSS-BWBK-SS-MM110-0001	4.2	0.033	1	2.09127E-05	4.46777E-04	1.20029E+01	4.57304E-03	4.57304E-03	2.84270E-02	
MMSS	MMSS-BWBK-SS-MM111-0001	3.7	0.017	1	5.95438E-05	1.37916E-03	1.57174E+01	-7.71646E-03	-7.71646E-03	2.47165E-02	
MMSS	MMSS-BWBK-SS-MM112-0001	4.3	0.028	1	1.36669E-06	6.83148E-04	1.13200E+01	-1.16905E-03	-1.16905E-03	2.91691E-02	
MMSS	MMSS-BWBK-SS-MM113-0001	7	0.04	1	8.47454E-05	1.99858E-04	4.41582E-01	-9.20573E-03	-9.20573E-03	4.92057E-02	
MMSS	MMSS-BWBK-SS-MM114-0001	3.6	0.019	1	2.47443E-05	1.23462E-03	1.65203E+01	-4.97436E-03	-4.97436E-03	2.39744E-02	
MMSS	MMSS-BWBK-SS-MM115-0001	4.5	0.025	1	3.19593E-05	8.48970E-04	1.00142E+01	-5.65325E-03	-5.65325E-03	3.06533E-02	
MMSS	MMSS-BWBK-SS-MM116-0001	3.8	0.022	1	1.19616E-05	1.03279E-03	1.49345E+01	-3.45856E-03	-3.45856E-03	2.54586E-02	
MMSS	MMSS-BWBK-SS-MM117-0001	7.8	0.018	1	1.37957E-03	1.30589E-03	1.83559E-02	-3.71425E-02	-3.71425E-02	5.51425E-02	
MMSS	MMSS-BWBK-SS-MM118-0001	8.2	0.0075	1	2.56146E-03	2.17502E-03	2.86743E-01	-5.06109E-02	-5.06109E-02	5.81109E-02	
MMSS	MMSS-BWBK-SS-MM119-0001	7.4	0.007	1	2.04070E-03	2.22191E-03	6.99688E-02	-4.51741E-02	-4.51741E-02	5.21741E-02	
MMSS	MMSS-BWBK-SS-MM120-0001	9.1	0.016	1	2.38045E-03	1.45444E-03	2.06061E+00	-4.87898E-02	-4.87898E-02	6.47898E-02	
NESS	NESS-BKG-SS03-NEB-0016	14	0.1	1	1.32863E-06	2.10341E-03	4.01384E+01	-1.15266E-03	-1.15266E-03	1.01153E-01	
NESS	NESS-BKG-SS09-NEB-0018	9.1	0.13	1	4.25237E-03	5.75518E-03	2.06061E+00	6.52102E-02	6.52102E-02	6.47898E-02	NESS-BKG-SS09-NEB-0018
NESS	NESS-BWBK-SS-NE01-0001	17.6	0.24	1	1.25735E-02	3.45450E-02	9.87138E+01	1.12132E-01	1.12132E-01	1.27868E-01	NESS-BWBK-SS-NE01-0001
NESS	NESS-BWBK-SS-NE02-0001	19.4	0.11	1	9.75064E-04	3.12066E-03	1.37722E+02	-3.12260E-02	-3.12260E-02	1.41226E-01	
NESS	NESS-BWBK-SS-NE03-0001	10.7	0.13	1	2.84479E-03	5.75518E-03	9.21416E+00	5.33366E-02	5.33366E-02	7.66634E-02	
NESS	NESS-BWBK-SS-NE04-0001	13.6	0.084	1	2.01193E-04	8.91793E-04	3.52300E+01	-1.41843E-02	-1.41843E-02	9.81843E-02	
NESS	NESS-BWBK-SS-NE05-0001	14.5	0.14	1	1.23460E-03	7.37244E-03	4.67238E+01	3.51368E-02	3.51368E-02	1.04863E-01	
NESS	NESS-BWBK-SS-NE06-0001	12.4	0.081	1	6.85431E-05	7.21616E-04	2.24248E+01	-8.27908E-03	-8.27908E-03	8.92791E-02	
NESS	NESS-BWBK-SS-NE07-0001	20.2	0.16	1	1.64794E-04	1.12070E-02	1.57138E+02	1.28372E-02	1.28372E-02	1.47163E-01	
NESS	NESS-BWBK-SS-NE08-0001	11.2	0.062	1	3.37600E-04	6.18252E-05	1.24996E+01	-1.83739E-02	-1.83739E-02	8.03739E-02	
NESS	NESS-BWBK-SS-NE09-0001	12.5	0.18	1	8.09619E-03	1.58415E-02	2.33819E+01	8.99788E-02	8.99788E-02	9.00212E-02	NESS-BWBK-SS-NE09-0001
NESS	NESS-BWBK-SS-NE10-0001	20.3	0.12	1	7.78684E-04	4.33792E-03	1.59655E+02	-2.79049E-02	-2.79049E-02	1.47905E-01	
NESS	NESS-BWBK-SS-NE101-0001	5.7	0.021	1	3.44416E-04	1.09807E-03	3.85932E+00	-1.85584E-02	-1.85584E-02	3.95584E-02	
NESS	NESS-BWBK-SS-NE102-0001	4.7	0.038	1	3.43695E-05	2.60406E-04	8.78836E+00	5.86255E-03	5.86255E-03	3.21375E-02	
NESS	NESS-BWBK-SS-NE103-0001	4.7	0.041	1	7.85448E-05	1.72583E-04	8.78836E+00	8.86255E-03	8.86255E-03	3.21375E-02	
NESS	NESS-BWBK-SS-NE104-0001	3.9	0.022	1	1.76455E-05	1.03279E-03	1.41716E+01	-4.20066E-03	-4.20066E-03	2.62007E-02	
NESS	NESS-BWBK-SS-NE105-0001	3.3	0.025	1	1.05751E-05	8.48970E-04	1.90490E+01	3.25194E-03	3.25194E-03	2.17481E-02	
NESS	NESS-BWBK-SS-NE106-0001	4.3	0.027	1	4.70480E-06	7.36422E-04	1.13200E+01	-2.16905E-03	-2.16905E-03	2.91691E-02	
NESS	NESS-BWBK-SS-NE107-0001	4.7	0.041	1	7.85448E-05	1.72583E-04	8.78836E+00	8.86255E-03	8.86255E-03	3.21375E-02	
NESS	NESS-BWBK-SS-NE108-0001	5.7	0.041	1	2.07809E-06	1.72583E-04	3.85932E+00	1.44156E-03	1.44156E-03	3.95584E-02	
NESS	NESS-BWBK-SS-NE109-0001	3.8	0.024	1	2.12740E-06	9.08245E-04	1.49345E+01	-1.45856E-03	-1.45856E-03	2.54586E-02	
NESS	NESS-BWBK-SS-NE110-0001	5.9	0.04	1	1.08710E-06	1.99858E-04	3.11352E+00	-1.04264E-03	-1.04264E-03	4.10426E-02	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: BA			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: BA predict (from Factor Anal.)			X-Points	Y Predicted	Lower 97%	Upper 97%	-3 x IQR	+3 x IQR	Median	
	N	214.000000		10.01	11.31	1.57	21.06	-6.12	6.12	0.04	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	5.013271E+02		11.80	12.88	3.16	22.60	-6.12	6.12	0.04	of Upper 95% Limit
0.07	t-Value: 2-tail, 0.070 alpha	1.821108		13.59	14.46	4.76	24.15	-6.12	6.12	0.04	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	8.072954E+03		15.37	16.03	6.35	25.71	-6.12	6.12	0.04	---- V ----
2	SUM(X^2*w^2)	8.327770E+03		17.16	17.60	7.87	27.32	-6.12	6.12	0.04	BASS
	SUM(X*w^2)	2.990003E+02		18.95	19.17	9.14	29.20	-6.12	6.12	0.04	0
	SUM(Y*w^2)	2.926433E+02		20.74	20.74	10.43	31.05	-6.12	6.12	0.04	MASS
	SUM(w^2)	1.184804E+01		22.52	22.32	11.74	32.89	-6.12	6.12	0.04	5
	SUM(Y)	5929.650000		24.31	23.89	12.70	35.07	-6.12	6.12	0.04	MMSS
	SUM(X)	5.929650E+03		26.10	25.46	13.70	37.22	-6.12	6.12	0.04	0
	Denominator	9.266555E+03		27.89	27.03	14.71	39.35	-6.12	6.12	0.04	NESS
	Slope	8.793152E-01		29.67	28.60	15.75	41.45	-6.12	6.12	0.04	0
	Intercept	2.509094E+00		31.46	30.17	16.81	43.54	-6.12	6.12	0.04	PMSS
	Minimum X value	1.001183E+01		33.25	31.75	17.89	45.60	-6.12	6.12	0.04	1
	Maximum X value	5.291307E+01		35.04	33.32	18.98	47.66	-6.12	6.12	0.04	SESS
	Minimum Y value	6.300000E+00		36.83	34.89	20.09	49.69	-6.12	6.12	0.04	3
	Maximum Y value	6.100000E+01		38.61	36.46	21.20	51.72	-6.12	6.12	0.04	SESD
	No. of graph points	25		40.40	38.03	22.33	53.73	-6.12	6.12	0.04	0
	SUM(Ypred.- Yobs)^2	1.103006E+04		42.19	39.61	23.47	55.74	-6.12	6.12	0.04	MASB
	SUM(Yobs - Yave)^2	2.339563E+04		43.98	41.18	24.62	57.73	-6.12	6.12	0.04	1
	SUM(X - Xave)^2	1.626789E+04		45.76	42.75	25.78	59.72	-6.12	6.12	0.04	MMSB
	Std. Error of Y-estimate	7.213083E+00		47.55	44.32	26.94	61.70	-6.12	6.12	0.04	0
	R^2	5.285421E-01		49.34	45.89	28.12	63.67	-6.12	6.12	0.04	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)		51.13	47.46	29.30	65.63	-6.12	6.12	0.04	0
est.M, Std.Err.Y	0.879	11		52.91	49.04	30.49	67.59	-6.12	6.12	0.04	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	21.96	21.82	11.33	32.31	21.82	-48%	48%	1
Inverse Log Transform (Y/N)?		No	50	26.92	26.18	14.16	38.20	26.18	-46%	46%	SESB
Inverse Power Transform (Y/N)?		No	75	32.99	31.52	17.73	45.30	31.52	-44%	44%	0
Inverse Power Transform (1/Power):		1	90	39.59	37.32	21.82	52.82	37.32	-42%	42%	<<--Original Units Errors

TEXT BOX ==> (BA) = (8.79E-01)x(BA predict (from Factor Anal.)) + (2.51E+00) R^2 = 0.53; Std. Error of Y-estimate = 7.21E+00 +/-3 x IQR of r -6.121250 6.121250

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,12.5)*MAX(y-Ymin,11.0)). 97% Co V - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,12.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!H	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	BA predict	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	11.10474575	7.5	0.085231818	2.27879E+01	4.08389E+02	2.75689E+02	-4.77367E+00	-1.39365E+00	1.22737E+01	
BASS	BASS-BWBK-SS-BA102-0001	10.01182518	6.4	0.085231818	2.41341E+01	4.54058E+02	3.13177E+02	-4.91264E+00	-1.43422E+00	1.13126E+01	
BASS	BASS-BWBK-SS-BA103-0001	11.25973897	8	0.085231818	1.94477E+01	3.88431E+02	2.70567E+02	-4.40995E+00	-1.28746E+00	1.24100E+01	
BASS	BASS-BWBK-SS-BA104-0001	15.36867746	8.9	0.085231818	5.07372E+01	3.53765E+02	1.52275E+02	-7.12300E+00	-2.07952E+00	1.60230E+01	
BASS	BASS-BWBK-SS-BA105-0001	11.46701119	6.3	0.085231818	3.95919E+01	4.58330E+02	2.63791E+02	-6.29221E+00	-1.83698E+00	1.25922E+01	
BASS	BASS-BWBK-SS-BA106-0001	13.79548297	7.1	0.085231818	5.68466E+01	4.24716E+02	1.93576E+02	-7.53967E+00	-2.20117E+00	1.46397E+01	
BASS	BASS-BWBK-SS-BA107-0001	10.94325451	7.3	0.085231818	2.33450E+01	4.16513E+02	2.81078E+02	-4.83166E+00	-1.41058E+00	1.21317E+01	
BASS	BASS-BWBK-SS-BA108-0001	12.15981142	6.6	0.085231818	4.35785E+01	4.45575E+02	2.41766E+02	-6.60140E+00	-1.92725E+00	1.32014E+01	
BASS	BASS-BWBK-SS-BA109-0001	11.26336659	6.5	0.085231818	3.49653E+01	4.49807E+02	2.70447E+02	-5.91314E+00	-1.72631E+00	1.24131E+01	
BASS	BASS-BWBK-SS-BA110-0001	13.17058285	14.5	0.085231818	1.67947E-01	1.74468E+02	2.11355E+02	4.09813E-01	1.19643E-01	1.40902E+01	
BASS	BASS-BWBK-SS-BA111-0001	12.02632231	6.7	0.085231818	4.07557E+01	4.41363E+02	2.45935E+02	-6.38402E+00	-1.86378E+00	1.30840E+01	
BASS	BASS-BWBK-SS-BA112-0001	11.74977424	7.2	0.085231818	3.18192E+01	4.20605E+02	2.54686E+02	-5.64085E+00	-1.64682E+00	1.28408E+01	
BASS	BASS-BWBK-SS-BA113-0001	15.36806818	7	0.085231818	8.14049E+01	4.28848E+02	1.52290E+02	-9.02247E+00	-2.63406E+00	1.60225E+01	
MASB	MASB-BWBK-SB-MA01-0105	26.98091318	21.2	0.062889424	2.53393E+01	4.23625E+01	5.29593E-01	-5.03382E+00	-1.26237E+00	2.62338E+01	
MASB	MASB-BWBK-SB-MA02-0107	25.92079154	25.9	0.056630576	3.58036E-01	3.27120E+00	3.19642E+00	5.98361E-01	1.42393E-01	2.53016E+01	
MASB	MASB-BWBK-SB-MA03-0108	24.83039654	27.1	0.056959368	7.60194E+00	3.70449E-01	8.28431E+00	2.75716E+00	6.58029E-01	2.43428E+01	
MASB	MASB-BWBK-SB-MA04-0106	30.75565723	28.3	0.046810595	1.57003E+00	3.49701E-01	9.28428E+00	-1.25301E+00	-2.71098E-01	2.95530E+01	
MASB	MASB-BWBK-SB-MA05-0108	22.76369373	24.9	0.064931676	5.63799E+00	7.88849E+00	2.44525E+01	2.37445E+00	6.05049E-01	2.25256E+01	
MASB	MASB-BWBK-SB-MA06-0105	24.9337997	23.9	0.061706444	2.84902E-01	1.45058E+01	7.69977E+00	-5.33762E-01	-1.32591E-01	2.44338E+01	
MASB	MASB-BWBK-SB-MA07-0108	13.82313026	18.2	0.081945407	1.25034E+01	9.04143E+01	1.92808E+02	3.53602E+00	1.01222E+00	1.46640E+01	
MASB	MASB-BWBK-SB-MA08-0108	23.99760695	17.55	0.0797224	3.67303E+01	1.03198E+02	1.37718E+01	-6.06055E+00	-1.71121E+00	2.36106E+01	
MASB	MASB-BWBK-SB-MA09-0108	15.82271191	21.6	0.072269056	2.68092E+01	3.73155E+01	1.41275E+02	5.17776E+00	1.39193E+00	1.64222E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,12.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!H	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	BA predict	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	12.12731725	13.6	0.085231818	1.82476E-01	1.99054E+02	2.42778E+02	4.27172E-01	1.24711E-01	1.31728E+01	
MASB	MASB-BWBK-SB-MA11-0108	23.0574104	23.2	0.067348025	1.73202E-01	2.03279E+01	2.16340E+01	4.16176E-01	1.08004E-01	2.27838E+01	
MASB	MASB-BWBK-SB-MA12-0108	20.9070037	23.9	0.067381669	9.04242E+00	1.45058E+01	4.62623E+01	3.00706E+00	7.80572E-01	2.08929E+01	
MASB	MASB-BWBK-SB-MA13-0105	29.32381823	34.4	0.042927272	3.72836E+01	4.47742E+01	2.60879E+00	6.10603E+00	1.26510E+00	2.82940E+01	
MASB	MASB-BWBK-SB-MA14-0104	24.31623344	41.15	0.044788205	2.97883E+02	1.80670E+02	1.15085E+01	1.72593E+01	3.65262E+00	2.38907E+01	MASB-BWBK-SB-MA14-0104
MASB	MASB-BWBK-SB-MA15-0105	28.38442956	39.7	0.040368388	1.49623E+02	1.43793E+02	4.56685E-01	1.22320E+01	2.45765E+00	2.74680E+01	
MASB	MASB-BWBK-SB-MA16-0104	24.04277688	29.7	0.055188489	3.65992E+01	3.96550E+00	1.34386E+01	6.04973E+00	1.42122E+00	2.36503E+01	
MASB	MASB-BWBK-SB-MA17-0104	27.9544501	34	0.044855647	4.77500E+01	3.95811E+01	6.04202E-02	6.91013E+00	1.46351E+00	2.70899E+01	
MASB	MASB-BWBK-SB-MA18-0104	35.66166144	27.5	0.042883455	4.05378E+01	4.35327E-02	6.32505E+01	-6.36693E+00	-1.31849E+00	3.38669E+01	
MASB	MASB-BWBK-SB-MA19-0103	27.50936534	30.3	0.048798433	1.29708E+01	6.71512E+00	3.97123E-02	3.60150E+00	7.95586E-01	2.66985E+01	
MASB	MASB-BWBK-SB-MA20-0103	21.19373675	24.9	0.06554531	1.40995E+01	7.88849E+00	4.24440E+01	3.75493E+00	9.61331E-01	2.11451E+01	
MASS	MASS-BWBK-SS-MA01-0001	30.84950557	32.5	0.042798118	8.20518E+00	2.29571E+01	9.86501E+00	2.86447E+00	5.92593E-01	2.96355E+01	
MASS	MASS-BWBK-SS-MA02-0001	37.96931528	50.8	0.028351165	2.22127E+02	5.33211E+02	1.05281E+02	1.49039E+01	2.50949E+00	3.58961E+01	
MASS	MASS-BWBK-SS-MA03-0001	22.54719439	35.7	0.052090409	1.78618E+02	6.38618E+01	2.66406E+01	1.33648E+01	3.05030E+00	2.23352E+01	MASS-BWBK-SS-MA03-0001
MASS	MASS-BWBK-SS-MA04-0001	27.50225734	36.9	0.0432254	1.04198E+02	8.44810E+01	4.25958E-02	1.02078E+01	2.12227E+00	2.66922E+01	
MASS	MASS-BWBK-SS-MA05-0001	31.09135518	33.5	0.041762365	1.33357E+01	3.35398E+01	1.14427E+01	3.65181E+00	7.46277E-01	2.98482E+01	
MASS	MASS-BWBK-SS-MA06-0001	29.89844652	61	0.030319765	1.03689E+03	1.10831E+03	4.79523E+00	3.22007E+01	5.60698E+00	2.87993E+01	MASS-BWBK-SS-MA06-0001
MASS	MASS-BWBK-SS-MA07-0001	15.09186395	15	0.085231818	6.07774E-01	1.61510E+02	1.59183E+02	-7.79599E-01	-2.27600E-01	1.57796E+01	
MASS	MASS-BWBK-SS-MA08-0001	25.06699383	34.6	0.048446674	1.00985E+02	4.74908E+01	6.97832E+00	1.00491E+01	2.21187E+00	2.45509E+01	
MASS	MASS-BWBK-SS-MA09-0001	49.67688715	53.7	0.02306252	5.63891E+01	6.75551E+02	4.82604E+02	7.50927E+00	1.14038E+00	4.61907E+01	
MASS	MASS-BWBK-SS-MA10-0001	40.65623656	39.9	0.031164109	2.69374E+00	1.48629E+02	1.67640E+02	1.64126E+00	2.89738E-01	3.82587E+01	
MASS	MASS-BWBK-SS-MA11-0001	37.90711518	50.3	0.028543565	2.09051E+02	5.10369E+02	1.04009E+02	1.44586E+01	2.44276E+00	3.58414E+01	
MASS	MASS-BWBK-SS-MA12-0001	18.14703594	30.2	0.057822804	1.37685E+02	6.20685E+00	9.14244E+01	1.17339E+01	2.82159E+00	1.84661E+01	MASS-BWBK-SS-MA12-0001
MASS	MASS-BWBK-SS-MA13-0001	33.8627859	55.3	0.029251559	5.29683E+02	7.61283E+02	3.78735E+01	2.30148E+01	3.93625E+00	3.22852E+01	MASS-BWBK-SS-MA13-0001
MASS	MASS-BWBK-SS-MA14-0001	36.04392929	42.6	0.032530598	7.05085E+01	2.21752E+02	6.94770E+01	8.39693E+00	1.51449E+00	3.42031E+01	
MASS	MASS-BWBK-SS-MA15-0001	34.59356654	44.2	0.032762277	1.27064E+02	2.71965E+02	4.74021E+01	1.12723E+01	2.04032E+00	3.29277E+01	
MASS	MASS-BWBK-SS-MA16-0001	23.23447789	33.7	0.052537018	1.15788E+02	3.58963E+01	2.00182E+01	1.07605E+01	2.46640E+00	2.29395E+01	
MASS	MASS-BWBK-SS-MA17-0001	33.42556468	33.8	0.039409258	3.60734E+00	3.71046E+01	3.26832E+01	1.89930E+00	3.77045E-01	3.19007E+01	
MASS	MASS-BWBK-SS-MA18-0001	27.0982433	31.9	0.047813937	3.09471E+01	1.75675E+01	3.72590E-01	5.56301E+00	1.21643E+00	2.63370E+01	
MASS	MASS-BWBK-SS-MA19-0001	33.09735983	37.2	0.037441289	3.12246E+01	9.00858E+01	2.90382E+01	5.58790E+00	1.08124E+00	3.16121E+01	
MASS	MASS-BWBK-SS-MA20-0001	24.41325989	35.5	0.048764715	1.32802E+02	6.07052E+01	1.08596E+01	1.15240E+01	2.54480E+00	2.39760E+01	MASS-BWBK-SS-MA20-0001
MMSB	MMSB-BWBK-SB-MM101-0110	21.26397074	22.9	0.069381558	2.86684E+00	2.31231E+01	4.15338E+01	1.69317E+00	4.45989E-01	2.12068E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	26.19256682	22.2	0.062345086	1.11597E+01	3.03452E+01	2.29849E+00	-3.34061E+00	-8.34118E-01	2.55406E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	33.59076018	20.9	0.053896614	1.24232E+02	4.63576E+01	3.45993E+01	-1.11460E+01	-2.58761E+00	3.20460E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	34.34886941	24.3	0.047778205	7.07714E+01	1.16189E+01	4.40926E+01	-8.41258E+00	-1.83884E+00	3.27126E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	19.43785994	16.5	0.085231818	9.61681E+00	1.25634E+02	6.84059E+01	-3.10110E+00	-9.05350E-01	1.96011E+01	
MMSB	MMSB-BWBK-SB-MM106-0110	39.2551284	32.6	0.036058604	1.95959E+01	2.39254E+01	1.33321E+02	-4.42672E+00	-8.40595E-01	3.70267E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	30.35872889	21.7	0.056492458	5.63098E+01	3.61038E+01	7.02295E+00	-7.50398E+00	-1.78356E+00	2.92040E+01	
MMSB	MMSB-BWBK-SB-MM108-0110	26.55098376	21.2	0.063701574	2.16763E+01	4.23625E+01	1.34018E+00	-4.65578E+00	-1.17508E+00	2.58558E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	31.99915441	33.9	0.040593754	1.05857E+01	3.83329E+01	1.84085E+01	3.25356E+00	6.55525E-01	3.06464E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	28.55624	23.8	0.055510407	1.45850E+01	1.52775E+01	7.18418E-01	-3.81903E+00	-8.99788E-01	2.76190E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	25.65889168	29.6	0.052372774	2.05087E+01	3.57722E+00	4.20149E+00	4.52865E+00	1.03639E+00	2.50713E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	28.18138849	27.7	0.050713183	1.68579E-01	7.47336E-05	2.23487E-01	4.10584E-01	9.24618E-02	2.72894E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	32.66371489	21.6	0.053715802	9.27522E+01	3.73155E+01	2.45527E+01	-9.63079E+00	-2.23210E+00	3.12308E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	23.03799131	23.1	0.067598499	1.11056E-01	2.12396E+01	2.18150E+01	3.33251E-01	8.66443E-02	2.27667E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	34.65580039	42.9	0.033296921	9.83575E+01	2.30777E+02	4.82630E+01	9.91754E+00	1.80970E+00	3.29825E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	26.21734063	25.75	0.056325982	3.51942E-02	3.83629E+00	2.22399E+00	1.87601E-01	4.45235E-02	2.55624E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	21.52740492	18.9	0.079636621	6.44382E+00	7.75922E+01	3.82077E+01	-2.53847E+00	-7.16354E-01	2.14385E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	21.86743371	21.3	0.072988168	1.91371E-01	4.10707E+01	3.41197E+01	-4.37460E-01	-1.18186E-01	2.17375E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	24.32632061	21.4	0.068017945	6.24798E+00	3.97990E+01	1.14401E+01	-2.49960E+00	-6.51901E-01	2.38996E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	20.07990792	14.6	0.085231818	3.09766E+01	1.71837E+02	5.81976E+01	-5.56566E+00	-1.62487E+00	2.01657E+01	
MMSS	MMSS-BWBK-SS-MM101-0001	29.74006416	31	0.045300956	5.47568E+00	1.08330E+01	4.12666E+00	2.34002E+00	4.98050E-01	2.86600E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	18.91724357	19	0.079322471	2.05386E-02	7.58405E+01	7.72887E+01	-1.43313E-01	-4.03630E-02	1.91433E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,12.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!H	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**BA predict**	**BA**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MMSS	MMSS-BWBK-SS-MM103-0001	27.46429207	25	0.055354226	2.75182E+00	7.33676E+00	5.97083E-02	-1.65886E+00	-3.90288E-01	2.66589E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	30.14261245	31.7	0.044223464	7.21486E+00	1.59309E+01	5.92420E+00	2.68605E+00	5.64860E-01	2.90139E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	22.86968334	18.5	0.079842802	1.69641E+01	8.47991E+01	2.34155E+01	-4.11875E+00	-1.16381E+00	2.26188E+01	
MMSS	MMSS-BWBK-SS-MM106-0001	34.52589113	29.6	0.041842186	1.06813E+01	3.57722E+00	4.64748E+01	-3.26823E+00	-6.68529E-01	3.28682E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	30.2855457	29.7	0.045911908	3.14011E-01	3.96550E+00	6.64042E+00	5.60367E-01	1.20070E-01	2.91396E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	29.71099338	27.5	0.048933708	1.28691E+00	4.35327E-02	4.00940E+00	-1.13442E+00	-2.50945E-01	2.86344E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	27.00422728	20.2	0.065067663	3.66548E+01	5.63797E+01	4.96204E-01	-6.05432E+00	-1.54436E+00	2.62543E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	17.83078399	18.9	0.079636621	5.06983E-01	7.75922E+01	9.75721E+01	7.12028E-01	2.00934E-01	1.81880E+01	
MMSS	MMSS-BWBK-SS-MM111-0001	21.88333966	17.8	0.083358363	1.56139E+01	9.81812E+01	3.39342E+01	-3.95145E+00	-1.14086E+00	2.17514E+01	
MMSS	MMSS-BWBK-SS-MM112-0001	15.67280305	16.5	0.085231818	4.39208E-02	1.25634E+02	1.44861E+02	2.09573E-01	6.11837E-02	1.62904E+01	
MMSS	MMSS-BWBK-SS-MM113-0001	26.68665177	25.7	0.055599191	7.56642E-02	4.03465E+00	1.04447E+00	-2.75071E-01	-6.48604E-02	2.59751E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	17.61748867	16	0.085231818	4.00167E+00	1.37092E+02	1.01831E+02	-2.00042E+00	-5.84012E-01	1.80004E+01	
MMSS	MMSS-BWBK-SS-MM115-0001	14.05038363	21.3	0.072988168	4.14246E+01	4.10707E+01	1.86548E+02	6.43619E+00	1.73882E+00	1.48638E+01	
MMSS	MMSS-BWBK-SS-MM116-0001	19.43503502	18.2	0.081945407	1.95612E+00	9.04143E+01	6.84526E+01	-1.39861E+00	-4.00369E-01	1.95986E+01	
MMSS	MMSS-BWBK-SS-MM117-0001	24.39333586	27.7	0.0570021	1.39986E+01	7.47336E-05	1.09913E+01	3.74148E+00	8.93282E-01	2.39585E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	24.96017135	19.4	0.071460784	2.55728E+01	6.90336E+01	7.55411E+00	-5.05695E+00	-1.35183E+00	2.44570E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	20.63896506	19	0.079322471	2.74647E+00	7.58405E+01	4.99804E+01	-1.65725E+00	-4.66752E-01	2.06572E+01	
MMSS	MMSS-BWBK-SS-MM120-0001	16.84329293	15.6	0.085231818	2.95722E+00	1.46619E+02	1.18056E+02	-1.71966E+00	-5.02045E-01	1.73197E+01	
NESB	NESB-BWBK-SB-NE01-0108	30.05843726	18.5	0.063943969	1.08992E+02	8.47991E+01	5.52152E+00	-1.04399E+01	-2.63996E+00	2.89399E+01	
NESB	NESB-BWBK-SB-NE02-0109	27.41435853	36.6	0.043548425	9.97011E+01	7.90562E+01	8.66044E-02	9.98505E+00	2.08371E+00	2.66150E+01	
NESB	NESB-BWBK-SB-NE03-0105	21.90560917	19.1	0.07901201	7.13439E+00	7.41088E+01	3.36752E+01	-2.67103E+00	-7.50801E-01	2.17710E+01	
NESB	NESB-BWBK-SB-NE04-0110	26.29463088	20.4	0.065997248	2.73567E+01	5.34163E+01	1.99944E+00	-5.23036E+00	-1.34368E+00	2.56304E+01	
NESB	NESB-BWBK-SB-NE05-0108	26.8621787	16.7	0.073451243	8.89139E+01	1.21190E+02	7.16505E-01	-9.42941E+00	-2.55555E+00	2.61294E+01	
NESB	NESB-BWBK-SB-NE06-0109	23.98842742	17.4	0.080285609	3.84708E+01	1.06268E+02	1.38400E+01	-6.20248E+00	-1.75746E+00	2.36025E+01	
NESB	NESB-BWBK-SB-NE07-0107	27.80218988	20.2	0.063591662	4.56433E+01	5.63797E+01	8.75067E-03	-6.75598E+00	-1.70368E+00	2.69560E+01	
NESB	NESB-BWBK-SB-NE08-0104	25.93845327	16.4	0.075551265	7.95159E+01	1.27885E+02	3.13358E+00	-8.91717E+00	-2.45103E+00	2.53172E+01	
NESB	NESB-BWBK-SB-NE09-0110	24.41837369	17.25	0.079437155	4.53002E+01	1.09383E+02	1.08259E+01	-6.73054E+00	-1.89698E+00	2.39805E+01	
NESB	NESB-BWBK-SB-NE10-0107	31.22694385	23.1	0.052969104	4.71614E+01	2.12396E+01	1.23784E+01	-6.86742E+00	-1.58054E+00	2.99674E+01	
NESB	NESB-BWBK-SB-NE101-0110	31.56233647	37.5	0.038565051	5.23838E+01	9.58706E+01	1.48509E+01	7.23767E+00	1.42133E+00	3.02623E+01	
NESB	NESB-BWBK-SB-NE102-0110	30.29143006	39.6	0.038481159	1.09311E+02	1.41404E+02	6.67078E+00	1.04552E+01	2.05095E+00	2.91448E+01	
NESB	NESB-BWBK-SB-NE103-0110	25.8068846	31.35	0.050273081	3.78043E+01	1.32595E+01	3.61669E+00	6.14852E+00	1.37860E+00	2.52015E+01	
NESB	NESB-BWBK-SB-NE104-0110	24.27176809	26.2	0.059362826	5.51485E+00	2.27601E+00	1.18121E+01	2.34837E+00	5.72169E-01	2.38516E+01	
NESB	NESB-BWBK-SB-NE105-0110	28.97603008	38.7	0.040342255	1.14744E+02	1.20810E+02	1.60627E+00	1.07118E+01	2.15151E+00	2.79882E+01	
NESB	NESB-BWBK-SB-NE106-0110	28.41567747	34.7	0.043740774	5.19058E+01	4.88790E+01	4.99895E-01	7.20457E+00	1.50679E+00	2.74954E+01	
NESB	NESB-BWBK-SB-NE107-0510	23.36362267	25	0.063286245	3.79049E+00	7.33676E+00	1.88792E+01	1.94692E+00	4.89782E-01	2.30531E+01	
NESB	NESB-BWBK-SB-NE108-0110	30.92027596	30.7	0.044273531	1.00448E+00	8.94821E+00	1.03146E+01	1.00224E+00	2.10884E-01	2.96978E+01	
NESB	NESB-BWBK-SB-NE109-0110	28.91344881	33.4	0.044184078	2.98867E+01	3.23915E+01	1.45155E+00	5.46687E+00	1.14914E+00	2.79331E+01	
NESB	NESB-BWBK-SB-NE110-0110	31.4999833	27	0.047414943	1.02881E+01	5.02178E-01	1.43742E+01	-3.20751E+00	-6.98434E-01	3.02075E+01	
NESS	NESS-BKG-SS03-NEB-0016	39.33071314	32.6	0.036012094	2.01887E+01	2.39254E+01	1.35072E+02	-4.49319E+00	-8.52665E-01	3.70932E+01	
NESS	NESS-BKG-SS09-NEB-0018	33.57064562	21.1	0.053554056	1.19427E+02	4.36742E+01	3.43631E+01	-1.09283E+01	-2.52899E+00	3.20283E+01	
NESS	NESS-BWBK-SS-NE01-0001	42.44817554	34.6	0.03300584	2.73991E+01	4.74908E+01	2.17254E+02	-5.23442E+00	-9.50963E-01	3.98344E+01	
NESS	NESS-BWBK-SS-NE02-0001	35.51235399	25.2	0.045550642	7.28572E+01	6.29330E+00	6.08979E+01	-8.53565E+00	-1.82173E+00	3.37356E+01	
NESS	NESS-BWBK-SS-NE03-0001	31.45842845	26.8	0.047691811	1.13634E+01	8.25635E-01	1.40609E+01	-3.37097E+00	-7.36167E-01	3.01710E+01	
NESS	NESS-BWBK-SS-NE04-0001	40.10445716	27	0.040066808	1.16069E+02	5.02178E-01	1.53656E+02	-1.07736E+01	-2.15651E+00	3.77736E+01	
NESS	NESS-BWBK-SS-NE05-0001	35.60697907	26.9	0.043549936	4.78705E+01	6.53907E-01	6.23837E+01	-6.91885E+00	-1.44387E+00	3.38189E+01	
NESS	NESS-BWBK-SS-NE06-0001	35.19977572	23.6	0.047904966	9.72352E+01	1.68810E+01	5.61170E+01	-9.86079E+00	-2.15825E+00	3.34608E+01	
NESS	NESS-BWBK-SS-NE07-0001	34.21965155	29.3	0.04237973	1.08831E+01	2.53241E+00	4.23932E+01	-3.29895E+00	-6.79133E-01	3.25990E+01	
NESS	NESS-BWBK-SS-NE08-0001	30.96715674	27.2	0.047783679	6.44644E+00	2.58720E-01	1.06179E+01	-2.53898E+00	-5.55009E-01	2.97390E+01	
NESS	NESS-BWBK-SS-NE09-0001	37.94120973	36.3	0.034546869	1.83720E-01	7.38114E+01	1.04705E+02	4.28625E-01	7.96677E-02	3.58714E+01	
NESS	NESS-BWBK-SS-NE10-0001	32.1838311	28.4	0.045175334	5.80244E+00	4.77972E-01	2.00273E+01	-2.40882E+00	-5.11983E-01	3.08088E+01	
NESS	NESS-BWBK-SS-NE101-0001	31.0643067	27	0.047903052	7.97729E+00	5.02178E-01	1.12605E+01	-2.82441E+00	-6.18172E-01	2.98244E+01	
NESS	NESS-BWBK-SS-NE102-0001	24.56761217	22.5	0.065121538	2.59780E+00	2.71300E+01	9.86609E+00	-1.61177E+00	-4.11306E-01	2.41118E+01	
NESS	NESS-BWBK-SS-NE103-0001	20.99824631	20.2	0.075821207	5.97792E-01	5.63797E+01	4.50294E+01	-7.73170E-01	-2.12897E-01	2.09732E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,12.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!H	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	BA predict	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	20.94475441	18.2	0.081945407	7.43181E+00	9.04143E+01	4.57502E+01	-2.72613E+00	-7.80386E-01	2.09261E+01	
NESS	NESS-BWBK-SS-NE105-0001	19.78489435	19.6	0.077512595	9.37899E-02	6.57501E+01	6.27858E+01	-3.06251E-01	-8.52637E-02	1.99063E+01	
NESS	NESS-BWBK-SS-NE106-0001	24.19832778	20	0.071730201	1.43417E+01	5.94232E+01	1.23223E+01	-3.78705E+00	-1.01427E+00	2.37871E+01	
NESS	NESS-BWBK-SS-NE107-0001	23.36890877	21.5	0.070181458	2.42652E+00	3.85473E+01	1.88333E+01	-1.55773E+00	-4.12670E-01	2.30577E+01	
NESS	NESS-BWBK-SS-NE108-0001	24.84727686	26.1	0.058346797	3.03568E+00	2.58774E+00	8.18743E+00	1.74232E+00	4.20859E-01	2.43577E+01	
NESS	NESS-BWBK-SS-NE109-0001	20.23769331	21	0.073729184	4.83853E-01	4.50059E+01	5.58151E+01	6.95596E-01	1.88876E-01	2.03044E+01	
NESS	NESS-BWBK-SS-NE110-0001	22.37401407	19.6	0.077512595	6.67139E+00	6.57501E+01	2.84583E+01	-2.58290E+00	-7.19108E-01	2.21829E+01	
PMSB	PMSB-BWBK-SB-PM01-0105	34.2646271	32.4	0.03974649	5.68822E-02	2.20088E+01	4.29809E+01	-2.38500E-01	-4.75486E-02	3.26385E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	34.71764134	30.7	0.040729163	5.46083E+00	8.94821E+00	4.91260E+01	-2.33684E+00	-4.71609E-01	3.30368E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	26.38156247	18.8	0.069907559	4.77039E+01	7.93640E+01	1.76115E+00	-6.90680E+00	-1.82616E+00	2.57068E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	26.50177914	23.3	0.059726328	6.31271E+00	1.94361E+01	1.45652E+00	-2.51251E+00	-6.14032E-01	2.58125E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	28.89696065	25.35	0.052722071	6.59786E+00	5.56321E+00	1.41209E+00	-2.56863E+00	-5.89790E-01	2.79186E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	24.33557386	27.6	0.057250839	1.36328E+01	1.18037E-02	1.13776E+01	3.69227E+00	8.83454E-01	2.39077E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	25.6627744	29.4	0.052592482	1.87077E+01	2.86068E+00	4.18559E+00	4.32524E+00	9.91909E-01	2.50748E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	29.67127579	25.2	0.051878022	1.15566E+01	6.29330E+00	3.85192E+00	-3.39950E+00	-7.74295E-01	2.85995E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	21.93638901	18.2	0.081945407	1.29463E+01	9.04143E+01	3.33189E+01	-3.59809E+00	-1.02999E+00	2.17981E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	35.04123016	25.6	0.045498396	5.96197E+01	4.44638E+00	5.37668E+01	-7.72138E+00	-1.64700E+00	3.33214E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	22.13202611	33.2	0.054503194	1.26110E+02	3.01550E+01	3.10987E+01	1.12299E+01	2.62172E+00	2.19701E+01	PMSB-BWBK-SB-PM11-0104
PMSB	PMSB-BWBK-SB-PM12-0105	31.2003353	20.9	0.056855615	8.17943E+01	4.63576E+01	1.21919E+01	-9.04402E+00	-2.15649E+00	2.99440E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	25.39210067	33.4	0.048981637	7.33292E+01	3.23915E+01	5.36638E+00	8.56325E+01	1.89520E+00	2.48368E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	28.31755572	24.9	0.054193849	6.29583E+00	7.88849E+00	3.70772E-01	-2.50915E+00	-5.84119E-01	2.74091E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	25.50798955	27.8	0.054785883	8.18729E+00	8.34576E-03	4.84288E+00	2.86134E+00	6.69737E-01	2.49387E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	23.9701979	23.7	0.064166445	1.28931E-02	1.60692E+01	1.39760E+01	1.13548E-01	2.87629E-02	2.35865E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	35.46168404	25.05	0.045777985	7.46684E+01	7.06839E+00	6.01096E+01	-8.64109E+00	-1.84883E+00	3.36911E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	16.4429415	23.4	0.068359683	4.13755E+01	1.85644E+01	1.26916E+02	6.43238E+00	1.68179E+00	1.69676E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	22.02372991	29.1	0.059201222	5.22022E+01	1.93587E+00	3.23183E+01	7.22511E+00	1.75796E+00	2.18749E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	24.47421918	25.95	0.059319657	3.68776E+00	3.09283E+00	1.04615E+01	1.92035E+00	4.67714E-01	2.40296E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	20.1763199	22.4	0.070450675	4.62062E+00	2.81817E+01	5.67359E+01	2.14956E+00	5.70549E-01	2.02504E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	17.34547602	19.8	0.076936285	4.15657E+00	6.25467E+01	1.07395E+02	2.03877E+00	5.65501E-01	1.77612E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	17.18021997	25.8	0.064014858	6.69791E+01	3.64293E+00	1.10848E+02	8.18408E+00	2.07067E+00	1.76159E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	17.49260669	26.8	0.062434001	7.93773E+01	8.25635E-01	1.04367E+02	8.90939E+00	2.22617E+00	1.78906E+01	
PMSS	PMSS-DABK-S-SO21-0001	28.72662607	37.4	0.041450254	9.27590E+01	9.39224E+01	1.03629E+00	9.63115E+00	1.96084E+00	2.77689E+01	
PMSS	PMSS-DABK-S-SO22-0001	43.49538509	40.8	0.029422166	2.00297E-03	1.71384E+02	2.49221E+02	4.47545E-02	7.67670E-03	4.07552E+01	
PMSS	PMSS-DABK-S-SO23-0001	39.69870945	39.4	0.031900956	3.93320E+00	1.36688E+02	1.43762E+02	1.98323E+00	3.54221E-01	3.74168E+01	
PMSS	PMSS-DABK-S-SO24-0001	33.48521317	41.9	0.034592911	9.89398E+01	2.01395E+02	3.33687E+01	9.94685E+00	1.85003E+00	3.19531E+01	
PMSS	PMSS-DABK-S-SO25-0001	25.74733743	40.9	0.042856974	2.48090E+02	1.74012E+02	3.84673E+00	1.57509E+01	3.26074E+00	2.51491E+01	PMSS-DABK-S-SO25-0001
PMSS	PMSS-DABK-S-SO26-0001	38.3953803	45.3	0.030056216	8.15276E+01	3.09456E+02	1.14206E+02	9.02927E+00	1.56538E+00	3.62707E+01	
PMSS	PMSS-DABK-S-SO27-0001	38.0013029	37.9	0.03362475	3.90372E+00	1.03864E+02	1.05939E+02	1.97578E+00	3.62301E-01	3.59242E+01	
PMSS	PMSS-DABK-S-SO28-0001	48.59441857	43.9	0.0262549	1.79266E+00	2.62160E+02	4.36216E+02	-1.33890E+00	-2.16947E-01	4.52389E+01	
PMSS	PMSS-DABK-S-SO29-0001	46.06962466	48.5	0.02563564	3.00434E+01	4.32280E+02	3.37126E+02	5.48119E+00	8.77600E-01	4.30188E+01	
PMSS	PMSS-DABK-S-SO30-0001	49.87423456	53.1	0.023152362	4.53701E+01	6.44721E+02	4.91313E+02	6.73574E+00	1.02490E+00	4.63643E+01	
PMSS	PMSS-DABK-S-SO31-0001	40.43724408	28.2	0.038740004	9.73414E+01	2.41430E-01	1.62017E+02	-9.86618E+00	-1.94191E+00	3.80662E+01	
PMSS	PMSS-DABK-S-SO32-0001	52.20357971	48.7	0.023643038	8.26602E-02	4.40637E+02	6.00002E+02	2.87507E-01	4.42079E-02	4.84125E+01	
PMSS	PMSS-DABK-S-SO33-0001	52.9130671	48.4	0.023530113	4.04949E-01	4.28132E+02	6.35263E+02	-6.36356E-01	-9.76140E-02	4.90364E+01	
PMSS	PMSS-DABK-S-SO34-0001	42.0470575	36.4	0.032203481	9.49693E+00	7.55397E+01	2.05590E+02	-3.08171E+00	-5.53023E-01	3.94817E+01	
PMSS	PMSS-DABK-S-SO35-0001	40.26331797	38.2	0.032190762	8.22314E-02	1.10069E+02	1.57620E+02	2.86760E-01	5.14499E-02	3.79132E+01	
PMSS	PMSS-DABK-S-SO36-0001	38.89590332	32.1	0.036632022	2.12600E+01	1.92840E+01	1.25155E+02	-4.61085E+00	-8.82494E-01	3.67109E+01	
PMSS	PMSS-DABK-S-SO37-0001	39.98821899	32.5	0.03568286	2.67428E+01	2.29571E+01	1.50788E+02	-5.17134E+00	-9.76862E-01	3.76713E+01	
PMSS	PMSS-DABK-S-SO38-0001	43.44410125	28.1	0.037041518	1.59016E+02	1.53159E-01	2.47605E+02	-1.26102E+01	-2.42697E+00	4.07102E+01	
PMSS	PMSS-DABK-S-SO39-0001	32.6190474	37.2	0.037835298	3.61019E+01	9.00858E+01	2.41121E+01	6.00848E+00	1.16873E+00	3.11915E+01	
PMSS	PMSS-DABK-S-SO40-0001	43.75223457	35.3	0.031968763	3.22749E+01	5.76287E+01	2.57397E+02	-5.68110E+00	-1.01577E+00	4.09811E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,12.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!H	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	**SAMPLE**	**BA predict**	**BA**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	23.81954197	29.9	0.055396594	4.15512E+01	4.80204E+00	1.51251E+01	6.44602E+00	1.51717E+00	2.34540E+01	
SESB	SESB-BWBK-SB-SO04-0108	17.84663675	26.9	0.062282277	7.56567E+01	6.53907E-01	9.72592E+01	8.69809E+00	2.17073E+00	1.82019E+01	
SESB	SESB-BWBK-SB-SO05-0106	21.75692279	28.7	0.059727465	4.98396E+01	9.82785E-01	3.54230E+01	7.05971E+00	1.72534E+00	2.16403E+01	
SESB	SESB-BWBK-SB-SO06-0108	22.94873166	23.45	0.067135576	5.80246E-01	1.81361E+01	2.26568E+01	7.61739E-01	1.97371E-01	2.26883E+01	
SESB	SESB-BWBK-SB-SO07-0106	26.69042111	20.7	0.064526634	2.78614E+01	4.91211E+01	1.03678E+00	-5.27839E+00	-1.34082E+00	2.59784E+01	
SESB	SESB-BWBK-SB-SO08-0107	26.18109593	28.5	0.052781083	8.81776E+00	6.26243E-01	2.33341E+00	2.96947E+00	6.82210E-01	2.55305E+01	
SESB	SESB-BWBK-SB-SO09-0106	22.43089024	30.2	0.057822804	6.34744E+01	6.20685E+00	2.78547E+01	7.96708E+00	1.91579E+00	2.22329E+01	
SESB	SESB-BWBK-SB-SO11-0106	27.50732313	24.7	0.055734991	3.98681E+00	9.05194E+00	4.05304E-02	-1.99670E+00	-4.71386E-01	2.66967E+01	
SESB	SESB-BWBK-SB-SO12-0106	18.60211622	20.75	0.074364245	3.54864E+00	4.84227E+01	8.29289E+01	1.88378E+00	5.13704E-01	1.88662E+01	
SESB	SESB-BWBK-SB-SO15-0103	27.77698916	25.4	0.054287358	2.35261E+00	5.32984E+00	4.67094E-03	-1.53382E+00	-3.57375E-01	2.69338E+01	
SESB	SESB-BWBK-SB-SO16-0105	19.04490568	21.6	0.072269056	5.49636E+00	3.73155E+01	7.50604E+01	2.34443E+00	6.30251E-01	1.92556E+01	
SESB	SESB-BWBK-SB-SO17-0106	26.68492509	24.8	0.056938492	1.37723E+00	8.46021E+00	1.04800E+00	-1.17355E+00	-2.80031E-01	2.59736E+01	
SESB	SESB-BWBK-SB-SO18-0105	34.31839609	24.2	0.047941502	7.20085E+01	1.23106E+01	4.36888E+01	-8.48578E+00	-1.85801E+00	3.26858E+01	
SESB	SESB-BWBK-SB-SO19-0104	43.40893668	26	0.038986337	2.15480E+02	2.91947E+00	2.46499E+02	-1.46792E+01	-2.89841E+00	4.06792E+01	
SESB	SESB-BWBK-SB-SO20-0104	18.80332259	22.6	0.070017128	1.26513E+01	2.60983E+01	7.93048E+01	3.55686E+00	9.41172E-01	1.90431E+01	
SESS	SESS-DABK-S-SO01-0001	32.5023343	21.1	0.054811224	9.97779E+01	4.36742E+01	2.29795E+01	-9.98889E+00	-2.33858E+00	3.10889E+01	
SESS	SESS-DABK-S-SO02-0001	47.63066214	60.6	0.02212572	2.62717E+02	1.08184E+03	3.96887E+02	1.62085E+01	2.41097E+00	4.43915E+01	
SESS	SESS-DABK-S-SO03-0001	32.59380373	28.4	0.04476338	7.66913E+00	4.77972E-01	2.38648E+01	-2.76932E+00	-5.85915E-01	3.11693E+01	
SESS	SESS-DABK-S-SO04-0001	42.32149124	32.7	0.034239846	4.93228E+01	2.49136E+01	2.13535E+02	-7.02302E+00	-1.29954E+00	3.97230E+01	
SESS	SESS-DABK-S-SO05-0001	32.5232465	23.8	0.050382477	5.33963E+01	1.52775E+01	2.31804E+01	-7.30728E+00	-1.64019E+00	3.11073E+01	
SESS	SESS-DABK-S-SO06-0001	26.71404184	48.5	0.037666626	5.06288E+02	4.32280E+02	9.89235E-01	2.25008E+01	4.36694E+00	2.59992E+01	SESS-DABK-S-SO06-0001
SESS	SESS-DABK-S-SO07-0001	38.01235257	46.9	0.029658821	1.20255E+02	3.68308E+02	1.06166E+02	1.09661E+01	1.88855E+00	3.59339E+01	
SESS	SESS-DABK-S-SO08-0001	31.47714841	42.2	0.036023347	1.44302E+02	2.09999E+02	1.42016E+01	1.20126E+01	2.27996E+00	3.01874E+01	
SESS	SESS-DABK-S-SO09-0001	20.95490744	23.6	0.067963392	7.10190E+00	1.68810E+01	4.56130E+01	2.66494E+00	6.94744E-01	2.09351E+01	
SESS	SESS-DABK-S-SO10-0001	14.5480745	27.7	0.061107035	1.53724E+02	7.47336E-05	1.73201E+02	1.23986E+01	3.06490E+00	1.53014E+01	SESS-DABK-S-SO10-0001
SESS	SESS-DABK-S-SO11-0001	31.54026416	31.55	0.042890691	1.70844E+00	1.47560E+01	1.46813E+01	1.30707E+00	2.70696E-01	3.02429E+01	
SESS	SESS-DABK-S-SO12-0001	35.16306645	42.9	0.032959434	8.97091E+01	2.30777E+02	5.55684E+01	9.47149E+00	1.71952E+00	3.34285E+01	
SESS	SESS-DABK-S-SO13-0001	16.76623621	26.8	0.062434001	9.11662E+01	8.25635E-01	1.19736E+02	9.54810E+00	2.38576E+00	1.72519E+01	
SESS	SESS-DABK-S-SO14-0001	17.79379441	15.1	0.085231818	9.33576E+00	1.58978E+02	9.83043E+01	-3.05545E+00	-8.92022E-01	1.81554E+01	
SESS	SESS-DABK-S-SO15-0001	29.46579859	25.2	0.052151276	1.03608E+01	6.29330E+00	3.08759E+00	-3.21882E+00	-7.35070E-01	2.84188E+01	
SESS	SESS-DABK-S-SO16-0001	29.88143049	30.1	0.045985075	1.73110E+00	5.71858E+00	4.72100E+00	1.31571E+00	2.82143E-01	2.87843E+01	
SESS	SESS-DABK-S-SO17-0001	32.61626371	47.3	0.032848172	2.59562E+02	3.83821E+02	2.40847E+01	1.61109E+01	2.91996E+00	3.11891E+01	SESS-DABK-S-SO17-0001
SESS	SESS-DABK-S-SO18-0001	33.14365037	34.4	0.039223098	7.54706E+00	4.47742E+01	2.95393E+01	2.74719E+00	5.44076E-01	3.16528E+01	
SESS	SESS-DABK-S-SO19-0001	43.68921515	44.7	0.027807707	1.42455E+01	2.88706E+02	2.55379E+02	3.77432E+00	6.29392E-01	4.09257E+01	
SESS	SESS-DABK-S-SO20-0001	41.83914838	45.8	0.028203395	4.22644E+01	3.27297E+02	1.99671E+02	6.50111E+00	1.09179E+00	3.92989E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: BA			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: AL			X-Points	Y Predicted	Lower 97%	Upper 97%	-3 x IQR	+3 x IQR	Median	
	N	214.000000		3710.00	7.61	2.26	12.97	0.00	0.00	0.00	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.223724E-04		4301.25	9.33	3.22	15.45	0.00	0.00	0.00	of Upper 95% Limit
0.07	t-Value: 2-tail, 0.070 alpha	1.821108		4892.50	11.06	4.16	17.95	0.00	0.00	0.00	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	5.532377E-01		5483.75	12.78	5.10	20.45	0.00	0.00	0.00	---- \/ ----
2	SUM(X^2*w^2)	2.140000E+02		6075.00	14.50	6.02	22.97	0.00	0.00	0.00	BASS
	SUM(X*w^2)	2.185966E-02		6666.25	16.22	6.94	25.49	0.00	0.00	0.00	0
	SUM(Y*w^2)	5.545304E-05		7257.50	17.94	7.85	28.02	0.00	0.00	0.00	MASS
	SUM(w^2)	2.565515E-06		7848.75	19.66	8.76	30.55	0.00	0.00	0.00	3
	SUM(Y)	5929.650000		8440.00	21.38	9.67	33.09	0.00	0.00	0.00	MMSS
	SUM(X)	2.291560E+06		9031.25	23.10	10.57	35.63	0.00	0.00	0.00	0
	Denominator	7.117525E-05		9622.50	24.82	11.48	38.17	0.00	0.00	0.00	NESS
	Slope	2.910486E-03		10213.75	26.54	12.38	40.71	0.00	0.00	0.00	0
	Intercept	-3.184237E+00		10805.00	28.26	13.28	43.25	0.00	0.00	0.00	PMSS
	Minimum X value	3.710000E+03		11396.25	29.98	14.17	45.79	0.00	0.00	0.00	5
	Maximum X value	1.790000E+04		11987.50	31.71	15.07	48.34	0.00	0.00	0.00	SESS
	Minimum Y value	6.300000E+00		12578.75	33.43	15.97	50.88	0.00	0.00	0.00	2
	Maximum Y value	6.100000E+01		13170.00	35.15	16.86	53.43	0.00	0.00	0.00	SESD
	No. of graph points	25		13761.25	36.87	17.76	55.98	0.00	0.00	0.00	0
	SUM(Ypred.- Yobs)^2	1.662352E+04		14352.50	38.59	18.65	58.52	0.00	0.00	0.00	MASB
	SUM(Yobs - Yave)^2	2.339563E+04		14943.75	40.31	19.55	61.07	0.00	0.00	0.00	0
	SUM(X - Xave)^2	1.535208E+09		15535.00	42.03	20.44	63.62	0.00	0.00	0.00	MMSB
	Std. Error of Y-estimate	8.855103E+00		16126.25	43.75	21.33	66.17	0.00	0.00	0.00	1
	R^2	2.894604E-01		16717.50	45.47	22.23	68.72	0.00	0.00	0.00	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/x		17308.75	47.19	23.12	71.27	0.00	0.00	0.00	0
est.M, Std.Err.Y				17900.00	48.91	24.01	73.82	0.00	0.00	0.00	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	9300.00	23.88	10.99	36.78	23.88	-54%	54%	0
Inverse Log Transform (Y/N)?		No	50	10700.00	27.96	13.12	42.80	27.96	-53%	53%	SESB
Inverse Power Transform (Y/N)?		No	75	12175.00	32.25	15.36	49.15	32.25	-52%	52%	0
Inverse Power Transform (1/Power):		1	90	14270.00	38.35	18.53	58.17	38.35	-52%	52%	<<--Original Units Errors

TEXT BOX ==> (BA) = (2.91E-03)x(AL) + (-3.18E+00) R^2 = 0.29; Std. Error of Y-estimate = 8.86E+00 +/-3 x IQR of r -0.003401 0.003401

TEXT BOX ==> Weighted 1/x. 97% Confidence Limits on a Y-value predicted fro \/ - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!I	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	SAMPLE	AL	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	4760	7.5	4.41353E-08	1.00469E+01	4.08389E+02	3.53814E+07	-3.16968E+00	-6.65899E-04	1.06697E+01	
BASS	BASS-BWBK-SS-BA102-0001	3730	6.4	7.18757E-08	1.61767E+00	4.54058E+02	4.86956E+07	-1.27188E+00	-3.40986E-04	7.67188E+00	
BASS	BASS-BWBK-SS-BA103-0001	4130	8	5.86273E-08	6.99015E-01	3.88431E+02	4.32730E+07	-8.36071E-01	-2.02438E-04	8.83607E+00	
BASS	BASS-BWBK-SS-BA104-0001	4790	8.9	4.35842E-08	3.44842E+00	3.53765E+02	3.50254E+07	-1.85699E+00	-3.87681E-04	1.07570E+01	
BASS	BASS-BWBK-SS-BA105-0001	3920	6.3	6.50771E-08	3.70512E+00	4.58330E+02	4.60800E+07	-1.92487E+00	-4.91038E-04	8.22487E+00	
BASS	BASS-BWBK-SS-BA106-0001	4800	7.1	4.34028E-08	1.35873E+01	4.24716E+02	3.49071E+07	-3.68610E+00	-7.67937E-04	1.07861E+01	
BASS	BASS-BWBK-SS-BA107-0001	3810	7.3	6.8889E-08	3.65681E-01	4.16513E+02	4.75855E+07	-6.04715E-01	-1.58718E-04	7.90472E+00	
BASS	BASS-BWBK-SS-BA108-0001	3870	6.6	6.67695E-08	2.18846E+00	4.45575E+02	4.67613E+07	-1.47934E+00	-3.82260E-04	8.07934E+00	
BASS	BASS-BWBK-SS-BA109-0001	4160	6.5	5.77848E-08	5.87280E+00	4.49807E+02	4.28792E+07	-2.42339E+00	-5.82545E-04	8.92339E+00	
BASS	BASS-BWBK-SS-BA110-0001	5290	14.5	3.57346E-08	5.23387E+00	1.74468E+02	2.93572E+07	2.28777E+00	4.32470E-04	1.22122E+01	
BASS	BASS-BWBK-SS-BA111-0001	4250	6.7	5.53633E-08	6.17686E+00	4.41363E+02	4.17087E+07	-2.48533E+00	-5.84783E-04	9.18533E+00	
BASS	BASS-BWBK-SS-BA112-0001	4230	7.2	5.58881E-08	3.71379E+00	4.20605E+02	4.19674E+07	-1.92712E+00	-4.55584E-04	9.12712E+00	
BASS	BASS-BWBK-SS-BA113-0001	3710	7	7.26528E-08	3.76587E-01	4.28848E+02	4.89751E+07	-6.13667E-01	-1.65409E-04	7.61367E+00	
MASB	MASB-BWBK-SB-MA01-0105	10600	21.2	8.89996E-09	4.18210E+01	4.23625E+01	1.17125E+04	-6.46692E+00	-6.10086E-04	2.76669E+01	
MASB	MASB-BWBK-SB-MA02-0107	11400	25.9	7.69468E-09	1.67715E+01	3.27120E+00	4.78554E+05	-4.09531E+00	-3.59237E-04	2.99953E+01	
MASB	MASB-BWBK-SB-MA03-0108	9390	27.1	1.13415E-08	8.73068E+00	3.70449E-01	1.73772E+06	2.95477E+00	3.14672E-04	2.41452E+01	
MASB	MASB-BWBK-SB-MA04-0106	11400	28.3	7.69468E-09	2.87406E+00	3.49701E-01	4.78554E+05	-1.69531E+00	-1.48711E-04	2.99953E+01	
MASB	MASB-BWBK-SB-MA05-0108	10500	24.9	9.07029E-09	6.12992E+00	7.88849E+00	4.33574E+04	-2.47587E+00	-2.35797E-04	2.73759E+01	
MASB	MASB-BWBK-SB-MA06-0105	10700	23.9	8.73439E-09	1.64671E+01	1.45058E+01	6.76391E+01	-4.05797E+00	-3.79249E-04	2.79580E+01	
MASB	MASB-BWBK-SB-MA07-0108	10300	18.2	9.42596E-09	7.38529E+01	9.04143E+01	1.66647E+05	-8.59377E+00	-8.34347E-04	2.67938E+01	
MASB	MASB-BWBK-SB-MA08-0108	14150	17.55	4.99444E-09	4.18167E+02	1.03198E+02	1.18458E+07	-2.04491E+01	-1.44517E-03	3.79991E+01	
MASB	MASB-BWBK-SB-MA09-0108	11000	21.6	8.26446E-09	5.22890E+01	3.73155E+01	8.51331E+04	-7.23111E+00	-6.57374E-04	2.88311E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!I	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**AL**	**BA**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
MASB	MASB-BWBK-SB-MA10-0104	8630	13.6	1.3427E-08	6.94432E+01	1.99054E+02	4.31902E+06	-8.33326E+00	-9.65615E-04	2.19333E+01	
MASB	MASB-BWBK-SB-MA11-0108	11300	23.2	7.83147E-09	4.23054E+01	2.03279E+01	3.50198E+05	-6.50426E+00	-5.75598E-04	2.97043E+01	
MASB	MASB-BWBK-SB-MA12-0108	10900	23.9	8.4168E-09	2.15302E+01	1.45058E+01	3.67779E+04	-4.64006E+00	-4.25694E-04	2.85401E+01	
MASB	MASB-BWBK-SB-MA13-0105	9000	34.4	1.23457E-08	1.29729E+02	4.47742E+01	2.91803E+06	1.13899E+01	1.26554E-03	2.30101E+01	
MASB	MASB-BWBK-SB-MA14-0104	11900	41.15	7.06165E-09	9.40794E+01	1.80670E+02	1.42033E+06	9.69945E+00	8.15080E-04	3.14505E+01	
MASB	MASB-BWBK-SB-MA15-0105	12000	39.7	6.94444E-09	6.33362E+01	1.43793E+02	1.66868E+06	7.95840E+00	6.63200E-04	3.17416E+01	
MASB	MASB-BWBK-SB-MA16-0104	8820	29.7	1.28547E-08	5.20382E+01	3.96550E+00	3.56539E+06	7.21375E+00	8.17885E-04	2.24863E+01	
MASB	MASB-BWBK-SB-MA17-0104	10900	34	8.4168E-09	2.98109E+01	3.95811E+01	3.67779E+04	5.45994E+00	5.00912E-04	2.85401E+01	
MASB	MASB-BWBK-SB-MA18-0104	10700	27.5	8.73439E-09	2.09732E-01	4.35327E-02	6.76391E+01	-4.57965E-01	-4.28005E-05	2.79580E+01	
MASB	MASB-BWBK-SB-MA19-0103	9000	30.3	1.23457E-08	5.31421E+01	6.71512E+00	2.91803E+06	7.28986E+00	8.09985E-04	2.30101E+01	
MASB	MASB-BWBK-SB-MA20-0103	9610	24.9	1.08281E-08	1.31022E-02	7.88849E+00	1.20610E+06	1.14465E-01	1.19110E-05	2.47855E+01	
MASS	MASS-BWBK-SS-MA01-0001	8580	32.5	1.35839E-08	1.14753E+02	2.29571E+01	4.52934E+06	1.07123E+01	1.24852E-03	2.17877E+01	
MASS	MASS-BWBK-SS-MA02-0001	12700	50.8	6.20001E-09	2.89717E+02	5.33211E+02	3.96717E+06	1.70211E+01	1.34024E-03	3.37789E+01	
MASS	MASS-BWBK-SS-MA03-0001	9270	35.7	1.1637E-08	1.41706E+02	6.38618E+01	2.06849E+06	1.19040E+01	1.28415E-03	2.37960E+01	
MASS	MASS-BWBK-SS-MA04-0001	10400	36.9	9.24556E-09	9.63378E+01	8.44810E+01	9.50022E+04	9.81518E+00	9.43767E-04	2.70848E+01	
MASS	MASS-BWBK-SS-MA05-0001	12200	33.5	6.71862E-09	1.38369E+00	3.35398E+01	2.22539E+06	1.17631E+00	9.64185E-05	3.23237E+01	
MASS	MASS-BWBK-SS-MA06-0001	13800	61	5.251E-09	5.76938E+02	1.10831E+03	9.55908E+06	2.40195E+01	1.74055E-03	3.69805E+01	MASS-BWBK-SS-MA06-0001
MASS	MASS-BWBK-SS-MA07-0001	5470	15	3.34215E-08	5.12514E+00	1.61510E+02	2.74390E+07	2.26388E+00	4.13872E-04	1.27361E+01	
MASS	MASS-BWBK-SS-MA08-0001	11000	34.6	8.26446E-09	3.32801E+01	4.74908E+01	8.51331E+04	5.76889E+00	5.24444E-04	2.88311E+01	
MASS	MASS-BWBK-SS-MA09-0001	16800	53.7	3.54308E-09	6.38092E+01	6.75551E+02	3.71097E+07	7.98807E+00	4.75480E-04	4.57119E+01	
MASS	MASS-BWBK-SS-MA10-0001	14300	39.9	4.89021E-09	2.14413E+00	1.48629E+02	1.29009E+07	1.46428E+00	1.02398E-04	3.84357E+01	
MASS	MASS-BWBK-SS-MA11-0001	14300	50.3	4.89021E-09	1.40761E+02	5.10369E+02	1.29009E+07	1.18643E+01	8.29670E-04	3.84357E+01	
MASS	MASS-BWBK-SS-MA12-0001	10500	30.2	9.07029E-09	7.97572E+00	6.20685E+00	4.33574E+04	2.82413E+00	2.68965E-04	2.73759E+01	
MASS	MASS-BWBK-SS-MA13-0001	12500	55.3	6.4E-09	4.88550E+02	7.61283E+02	3.21046E+06	2.21032E+01	1.76825E-03	3.31968E+01	MASS-BWBK-SS-MA13-0001
MASS	MASS-BWBK-SS-MA14-0001	9980	42.6	1.00401E-08	2.80147E+02	2.21752E+02	5.30311E+05	1.67376E+01	1.67711E-03	2.58624E+01	MASS-BWBK-SS-MA14-0001
MASS	MASS-BWBK-SS-MA15-0001	11500	44.2	7.56144E-09	1.93590E+02	2.71965E+02	6.26909E+05	1.39136E+01	1.20988E-03	3.02864E+01	
MASS	MASS-BWBK-SS-MA16-0001	9940	33.7	1.01211E-08	6.32662E+01	3.58963E+01	5.90169E+05	7.95400E+00	8.00202E-04	2.57460E+01	
MASS	MASS-BWBK-SS-MA17-0001	11300	33.8	7.83147E-09	1.67751E+01	3.71046E+01	3.50198E+05	4.09574E+00	3.62455E-04	2.97043E+01	
MASS	MASS-BWBK-SS-MA18-0001	10400	31.9	9.24556E-09	2.31860E+01	1.75675E+01	9.50022E+04	4.81518E+00	4.62998E-04	2.70848E+01	
MASS	MASS-BWBK-SS-MA19-0001	11100	37.2	8.11622E-09	6.52515E+01	9.00858E+01	1.53488E+05	8.07784E+00	7.27733E-04	2.91222E+01	
MASS	MASS-BWBK-SS-MA20-0001	10100	35.5	9.80296E-09	8.62730E+01	6.07052E+01	3.69937E+05	9.28833E+00	9.19636E-04	2.62117E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	7735	22.9	1.6714E-08	1.27565E+01	2.31231E+01	8.84006E+06	3.57163E+00	4.61749E-04	1.93284E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	9150	22.2	1.19442E-08	1.55429E+00	3.03452E+01	2.42806E+06	-1.24671E+00	-1.36253E-04	2.34467E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	8050	20.9	1.54315E-08	4.28793E-01	4.63576E+01	7.06616E+06	6.54823E-01	8.13445E-05	2.02452E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	11300	24.3	7.83147E-09	2.92060E+01	1.16189E+01	3.50198E+05	-5.40426E+00	-4.78253E-04	2.97043E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	6760	16.5	2.1883E-08	8.74289E-05	1.25634E+02	1.55885E+07	9.35034E-03	1.38319E-06	1.64906E+01	
MMSB	MMSB-BWBK-SB-MM106-0110	12000	32.6	6.94444E-09	7.36855E-01	2.39254E+01	1.66868E+06	8.58403E-01	7.15336E-05	3.17416E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	7650	21.7	1.70874E-08	6.85925E+00	3.61038E+01	9.35274E+06	2.61902E+00	3.42355E-04	1.90810E+01	
MMSB	MMSB-BWBK-SB-MM108-0110	8775	21.2	1.29869E-08	1.33467E+00	4.23625E+01	3.73736E+06	-1.15528E+00	-1.31656E-04	2.23553E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	10800	33.9	8.57339E-09	3.19336E+01	3.83329E+01	8.42278E+03	5.65099E+00	5.23239E-04	2.82490E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	9490	23.8	1.11037E-08	4.04848E-01	1.52775E+01	1.48407E+06	-6.36277E-01	-6.70471E-05	2.44363E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	10000	29.6	0.00000001	1.35378E+01	3.57722E+00	5.01582E+05	3.67938E+00	3.67938E-04	2.59206E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	10350	27.7	9.33511E-09	5.78672E-01	7.47336E-05	1.28325E+05	7.60705E-01	7.34981E-05	2.69393E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	8890	21.6	1.26531E-08	1.18807E+00	3.73155E+01	3.30594E+06	-1.08999E+00	-1.22608E-04	2.26900E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	8040	23.1	1.54699E-08	8.31704E+00	2.12396E+01	7.11942E+06	2.88393E+00	3.58698E-04	2.02161E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	10700	42.9	8.73439E-09	2.23264E+02	2.30777E+02	6.76391E+01	1.49420E+01	1.39645E-03	2.79580E+01	MMSB-BWBK-SB-MM115-0110
MMSB	MMSB-BWBK-SB-MM116-0110	8475	25.75	1.39226E-08	1.82147E+01	3.83629E+00	4.98729E+06	4.26787E+00	5.03583E-04	2.14821E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	7070	18.9	2.0006E-08	2.27135E+00	7.75922E+01	1.32367E+07	1.50710E+00	2.13168E-04	1.73929E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	7890	21.3	1.60637E-08	2.31192E+00	4.10707E+01	7.94239E+06	1.52050E+00	1.92712E-04	1.97795E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	7940	21.4	1.5862E-08	2.17556E+00	3.97990E+01	7.66307E+06	1.47498E+00	1.85765E-04	1.99250E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	5520	14.6	3.28187E-08	2.95274E+00	1.71837E+02	2.69177E+07	1.71835E+00	3.11296E-04	1.28816E+01	
MMSS	MMSS-BWBK-SS-MM101-0001	15200	31	4.32825E-09	1.01106E+02	1.08330E+01	2.01760E+07	-1.00552E+01	-6.61523E-04	4.10552E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	11400	19	7.69468E-09	1.20897E+02	7.58405E+01	4.78554E+05	-1.09953E+01	-9.64500E-04	2.99953E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	AL	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	14200	25	4.95933E-09	1.72782E+02	7.33676E+00	1.21925E+07	-1.31447E+01	-9.25681E-04	3.81447E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	14100	31.7	5.02993E-09	3.78670E+01	1.59309E+01	1.15041E+07	-6.15362E+00	-4.36427E-04	3.78536E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	10400	18.5	9.24556E-09	7.36991E+01	8.47991E+01	9.50022E+04	-8.58482E+00	-8.25463E-04	2.70848E+01	
MMSS	MMSS-BWBK-SS-MM106-0001	14000	29.6	5.10204E-09	6.34025E+01	3.57722E+00	1.08358E+07	-7.96257E+00	-5.68755E-04	3.75626E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	15100	29.7	4.38577E-09	1.22414E+02	3.96550E+00	1.92877E+07	-1.10641E+01	-7.32722E-04	4.07641E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	15500	27.5	4.16233E-09	2.08176E+02	4.35327E-02	2.29611E+07	-1.44283E+01	-9.30858E-04	4.19283E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	14300	20.2	4.89021E-09	3.32541E+02	5.63797E+01	1.29009E+07	-1.82357E+01	-1.27522E-03	3.84357E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	9610	18.9	1.08281E-08	3.46395E+01	7.75922E+01	1.20610E+06	-5.88554E+00	-6.12439E-04	2.47855E+01	
MMSS	MMSS-BWBK-SS-MM111-0001	10900	17.8	8.4168E-09	1.15349E+02	9.81812E+01	3.67779E+04	-1.07401E+01	-9.85327E-04	2.85401E+01	
MMSS	MMSS-BWBK-SS-MM112-0001	9430	16.5	1.12454E-08	6.02432E+01	1.25634E+02	1.63386E+06	-7.76165E+00	-8.23080E-04	2.42616E+01	
MMSS	MMSS-BWBK-SS-MM113-0001	13500	25.7	5.48697E-09	1.08312E+02	4.03465E+00	7.79401E+06	-1.04073E+01	-7.70913E-04	3.61073E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	8540	16	1.37115E-08	3.21638E+01	1.37092E+02	4.70120E+06	-5.67132E+00	-6.64088E-04	2.16713E+01	
MMSS	MMSS-BWBK-SS-MM115-0001	10200	21.3	9.61169E-09	2.70683E+01	4.10707E+01	2.58292E+05	-5.20272E+00	-5.10071E-04	2.65027E+01	
MMSS	MMSS-BWBK-SS-MM116-0001	9520	18.2	1.10338E-08	3.99878E+01	9.04143E+01	1.41188E+06	-6.32359E+00	-6.64243E-04	2.45236E+01	
MMSS	MMSS-BWBK-SS-MM117-0001	12800	27.7	6.10352E-09	4.05767E+01	7.47336E-05	4.37553E+06	-6.36999E+00	-4.97655E-04	3.40700E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	9250	19.4	1.16874E-08	1.88162E+01	6.90336E+01	2.12642E+06	-4.33776E+00	-4.68947E-04	2.37378E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	8300	19	1.45159E-08	3.89193E+00	7.58405E+01	5.79954E+06	-1.97280E+00	-2.37687E-04	2.09728E+01	
MMSS	MMSS-BWBK-SS-MM120-0001	8900	15.6	1.26247E-08	5.06814E+01	1.46619E+02	3.26968E+06	-7.11909E+00	-7.99898E-04	2.27191E+01	
NESB	NESB-BWBK-SB-NE01-0108	12300	18.5	6.60982E-09	1.99226E+02	8.47991E+01	2.53375E+06	-1.41147E+01	-1.14754E-03	3.26147E+01	
NESB	NESB-BWBK-SB-NE02-0109	11100	36.6	8.11622E-09	5.59181E+01	7.90562E+01	1.53488E+05	7.47784E+00	6.73679E-04	2.91222E+01	
NESB	NESB-BWBK-SB-NE03-0105	11100	19.1	8.11622E-09	1.00444E+02	7.41088E+01	1.53488E+05	-1.00222E+01	-9.02897E-04	2.91222E+01	
NESB	NESB-BWBK-SB-NE04-0110	10700	20.4	8.73439E-09	5.71228E+01	5.34163E+01	6.76391E+01	-7.55797E+00	-7.06352E-04	2.79580E+01	
NESB	NESB-BWBK-SB-NE05-0108	11550	16.7	7.49611E-09	1.88564E+02	1.21190E+02	7.08586E+05	-1.37319E+01	-1.18891E-03	3.04319E+01	
NESB	NESB-BWBK-SB-NE06-0109	10500	17.4	9.07029E-09	9.95179E+01	1.06268E+02	4.33574E+04	-9.97587E+00	-9.50083E-04	2.73759E+01	
NESB	NESB-BWBK-SB-NE07-0107	12300	20.2	6.60982E-09	1.54126E+02	5.63797E+01	2.53375E+06	-1.24147E+01	-1.00933E-03	3.26147E+01	
NESB	NESB-BWBK-SB-NE08-0104	10300	16.4	9.42596E-09	1.08030E+02	1.27885E+02	1.66647E+05	-1.03938E+01	-1.00910E-03	2.67938E+01	
NESB	NESB-BWBK-SB-NE09-0110	10350	17.25	9.33511E-09	9.38824E+01	1.09383E+02	1.28325E+05	-9.68930E+00	-9.36164E-04	2.69393E+01	
NESB	NESB-BWBK-SB-NE10-0107	11300	23.1	7.83147E-09	4.36162E+01	2.12396E+01	3.50198E+05	-6.60426E+00	-5.84448E-04	2.97043E+01	
NESB	NESB-BWBK-SB-NE101-0110	11800	37.5	7.18184E-09	4.02019E+01	9.58706E+01	1.19197E+06	6.34050E+00	5.37330E-04	3.11595E+01	
NESB	NESB-BWBK-SB-NE102-0110	10800	39.6	8.57339E-09	1.28845E+02	1.41404E+02	8.42278E+03	1.13510E+01	1.05102E-03	2.82490E+01	
NESB	NESB-BWBK-SB-NE103-0110	9340	31.35	1.14632E-08	5.40269E+01	1.32595E+01	1.87204E+06	7.35030E+00	7.86970E-04	2.39997E+01	
NESB	NESB-BWBK-SB-NE104-0110	8090	26.2	1.52793E-08	3.40870E+01	2.27601E+00	6.85510E+06	5.83840E+00	7.21682E-04	2.03616E+01	
NESB	NESB-BWBK-SB-NE105-0110	10800	38.7	8.57339E-09	1.09223E+02	1.20810E+02	8.42278E+03	1.04510E+01	9.67684E-04	2.82490E+01	
NESB	NESB-BWBK-SB-NE106-0110	10200	34.7	9.61169E-09	6.71954E+01	4.88790E+01	2.58292E+05	8.19728E+00	8.03655E-04	2.65027E+01	
NESB	NESB-BWBK-SB-NE107-0510	8220	25	1.47998E-08	1.81479E+01	7.33676E+00	6.19126E+06	4.26004E+00	5.18253E-04	2.07400E+01	
NESB	NESB-BWBK-SB-NE108-0110	10500	30.7	9.07029E-09	1.10499E+01	8.94821E+00	4.33574E+04	3.32413E+00	3.16584E-04	2.73759E+01	
NESB	NESB-BWBK-SB-NE109-0110	10400	33.4	9.24556E-09	3.98815E+01	3.23915E+01	9.50022E+04	6.31518E+00	6.07229E-04	2.70848E+01	
NESB	NESB-BWBK-SB-NE110-0110	10300	27	9.42596E-09	4.25305E-02	5.02178E-01	1.66647E+05	2.06229E-01	2.00222E-05	2.67938E+01	
NESS	NESS-BKG-SS03-NEB-0016	15300	32.6	4.27186E-09	7.64960E+01	2.39254E+01	2.10844E+07	-8.74620E+00	-5.71647E-04	4.13462E+01	
NESS	NESS-BKG-SS09-NEB-0018	12900	21.1	6.00925E-09	1.75855E+02	4.36742E+01	4.80388E+06	-1.32610E+01	-1.02799E-03	3.43610E+01	
NESS	NESS-BWBK-SS-NE01-0001	17100	34.6	3.41986E-09	1.43642E+02	4.74908E+01	4.08548E+07	-1.19851E+01	-7.00882E-04	4.65851E+01	
NESS	NESS-BWBK-SS-NE02-0001	15500	25.2	4.16233E-09	2.79836E+02	6.29330E+00	2.29611E+07	-1.67283E+01	-1.07925E-03	4.19283E+01	
NESS	NESS-BWBK-SS-NE03-0001	16100	26.8	3.85788E-09	2.84752E+02	8.25635E-01	2.90712E+07	-1.68746E+01	-1.04811E-03	4.36746E+01	
NESS	NESS-BWBK-SS-NE04-0001	16000	27	3.90625E-09	2.68420E+02	5.02178E-01	2.80029E+07	-1.63835E+01	-1.02397E-03	4.33835E+01	
NESS	NESS-BWBK-SS-NE05-0001	14600	26.9	4.69131E-09	1.53980E+02	6.53907E-01	1.51459E+07	-1.24089E+01	-8.49922E-04	3.93089E+01	
NESS	NESS-BWBK-SS-NE06-0001	14900	23.6	4.5043E-09	2.74963E+02	1.68810E+01	1.75710E+07	-1.65820E+01	-1.11289E-03	4.01820E+01	
NESS	NESS-BWBK-SS-NE07-0001	15000	29.3	4.44444E-09	1.24837E+02	2.53241E+00	1.84193E+07	-1.11731E+01	-7.44870E-04	4.04731E+01	
NESS	NESS-BWBK-SS-NE08-0001	15300	27.2	4.27186E-09	2.00115E+02	2.58720E-01	2.10844E+07	-1.41462E+01	-9.24588E-04	4.13462E+01	
NESS	NESS-BWBK-SS-NE09-0001	17900	36.3	3.121E-09	1.59100E+02	7.38114E+01	5.17216E+07	-1.26135E+01	-7.04663E-04	4.89135E+01	
NESS	NESS-BWBK-SS-NE10-0001	13600	28.4	5.40657E-09	6.39740E+01	4.77972E-01	8.36237E+06	-7.99838E+00	-5.88116E-04	3.63984E+01	
NESS	NESS-BWBK-SS-NE101-0001	14000	27	5.10204E-09	1.11568E+02	5.02178E-01	1.08358E+07	-1.05626E+01	-7.54469E-04	3.75626E+01	
NESS	NESS-BWBK-SS-NE102-0001	10700	22.5	8.73439E-09	2.97894E+01	2.71300E+01	6.76391E+01	-5.45797E+00	-5.10090E-04	2.79580E+01	
NESS	NESS-BWBK-SS-NE103-0001	9330	20.2	1.14878E-08	1.42174E+01	5.63797E+01	1.89950E+06	-3.77060E+00	-4.04137E-04	2.39706E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!I	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
BASS	SAMPLE	AL	BA	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	11000	18.2	8.26446E-09	1.13021E+02	9.04143E+01	8.51331E+04	-1.06311E+01	-9.66465E-04	2.88311E+01	
NESS	NESS-BWBK-SS-NE105-0001	9580	19.6	1.0896E-08	2.59919E+01	6.57501E+01	1.27289E+06	-5.09822E+00	-5.32173E-04	2.46982E+01	
NESS	NESS-BWBK-SS-NE106-0001	10300	20	9.42596E-09	4.61553E+01	5.94232E+01	1.66647E+05	-6.79377E+00	-6.59589E-04	2.67938E+01	
NESS	NESS-BWBK-SS-NE107-0001	10700	21.5	8.73439E-09	4.17053E+01	3.85473E+01	6.76391E+01	-6.45797E+00	-6.03548E-04	2.79580E+01	
NESS	NESS-BWBK-SS-NE108-0001	10500	26.1	9.07029E-09	1.62784E+00	2.58774E+00	4.33574E+04	-1.27587E+00	-1.21511E-04	2.73759E+01	
NESS	NESS-BWBK-SS-NE109-0001	9720	21	1.05844E-08	1.68567E+01	4.50059E+01	9.76587E+05	-4.10569E+00	-4.22396E-04	2.51057E+01	
NESS	NESS-BWBK-SS-NE110-0001	9260	19.6	1.16621E-08	1.73628E+01	6.57501E+01	2.09735E+06	-4.16687E+00	-4.49985E-04	2.37669E+01	
PMSB	PMSB-BWBK-SB-PM01-0105	12300	32.4	6.60982E-09	4.61147E-02	2.20088E+01	2.53375E+06	-2.14743E-01	-1.74588E-05	3.26147E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	13200	30.7	5.73921E-09	2.05588E+01	8.94821E+00	6.20895E+06	-4.53418E+00	-3.43499E-04	3.52342E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	11400	18.8	7.69468E-09	1.25335E+02	7.93640E+01	4.78554E+05	-1.11953E+01	-9.82044E-04	2.99953E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	11100	23.3	8.11622E-09	3.38975E+01	1.94361E+01	1.53488E+05	-5.82216E+00	-5.24519E-04	2.91222E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	10900	25.35	8.4168E-09	1.01765E+01	5.56321E+00	3.67779E+04	-3.19006E+00	-2.92666E-04	2.85401E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	11200	27.6	7.97194E-09	3.28772E+00	1.18037E-02	2.41843E+05	-1.81321E+00	-1.61894E-04	2.94132E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	9280	29.4	1.16119E-08	3.10798E+01	2.86068E+00	2.03982E+06	5.57493E+00	6.00746E-04	2.38251E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	10500	25.2	9.07029E-09	4.73440E+00	6.29330E+00	4.33574E+04	-2.17587E+00	-2.07226E-04	2.73759E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	8390	18.2	1.42061E-08	9.20966E+00	9.04143E+01	5.37416E+06	-3.03474E+00	-3.61709E-04	2.12347E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	9830	25.6	1.03489E-08	3.03309E-02	4.44638E+00	7.71278E+05	1.74158E-01	1.77170E-05	2.54258E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	9700	33.2	1.06281E-08	6.64636E+01	3.01550E+01	1.01652E+06	8.15252E+00	8.40466E-04	2.50475E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	8620	20.9	1.34582E-08	1.00833E+00	4.63576E+01	4.36068E+06	-1.00415E+00	-1.16491E-04	2.19042E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	10600	33.4	8.89996E-09	3.28682E+01	3.23915E+01	1.17125E+04	5.73308E+00	5.40857E-04	2.76669E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	8860	24.9	1.27389E-08	5.27772E+00	7.88849E+00	3.41593E+06	2.29733E+00	2.59292E-04	2.26027E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	10300	27.8	9.42596E-09	1.01250E+00	8.34576E-03	1.66647E+05	1.00623E+00	9.76922E-05	2.67938E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	9740	23.7	1.0541E-08	2.14300E+00	1.60692E+01	9.37458E+05	-1.46390E+00	-1.50298E-04	2.51639E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	10550	25.05	8.98452E-09	6.10778E+00	7.06839E+00	2.50349E+04	-2.47139E+00	-2.34255E-04	2.75214E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	11300	23.4	7.83147E-09	3.97437E+01	1.85644E+01	3.50198E+05	-6.30426E+00	-5.57899E-04	2.97043E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	10900	29.1	8.4168E-09	3.13530E-01	1.93587E+00	3.67779E+04	5.59937E-01	5.13704E-05	2.85401E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	10400	25.95	9.24556E-09	1.28782E+00	3.09283E+00	9.50022E+04	-1.13482E+00	-1.09117E-04	2.70848E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	11500	22.4	7.56144E-09	6.21946E+01	2.81817E+01	6.26909E+05	-7.88635E+00	-6.85770E-04	3.02864E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	11800	19.8	7.18184E-09	1.29038E+02	6.25467E+01	1.19197E+06	-1.13595E+01	-9.62670E-04	3.11595E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	9910	25.8	1.01825E-08	1.99710E-02	3.64293E+00	6.37162E+05	1.41319E-01	1.42602E-05	2.56587E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	11300	26.8	7.83147E-09	8.43471E+00	8.25635E-01	3.50198E+05	-2.90426E+00	-2.57014E-04	2.97043E+01	
PMSS	PMSS-DABK-S-SO21-0001	9290	37.4	1.15869E-08	1.83489E+02	9.39224E+01	2.01136E+06	1.35458E+01	1.45811E-03	2.38542E+01	PMSS-DABK-S-SO21-0001
PMSS	PMSS-DABK-S-SO22-0001	12100	40.8	6.83013E-09	7.68665E+01	1.71384E+02	1.93704E+06	8.76735E+00	7.24575E-04	3.20326E+01	
PMSS	PMSS-DABK-S-SO23-0001	12100	39.4	6.83013E-09	5.42779E+01	1.36688E+02	1.93704E+06	7.36735E+00	6.08872E-04	3.20326E+01	
PMSS	PMSS-DABK-S-SO24-0001	11700	41.9	7.30514E-09	1.21695E+02	2.01395E+02	9.83619E+05	1.10315E+01	9.42867E-04	3.08685E+01	
PMSS	PMSS-DABK-S-SO25-0001	13050	40.9	5.8719E-09	3.72392E+01	1.74012E+02	5.48391E+06	6.10239E+00	4.67616E-04	3.47976E+01	
PMSS	PMSS-DABK-S-SO26-0001	12400	45.3	6.50364E-09	1.53616E+02	3.09456E+02	2.86211E+06	1.23942E+01	9.99533E-04	3.29058E+01	
PMSS	PMSS-DABK-S-SO27-0001	11000	37.9	8.26446E-09	8.22447E+01	1.03864E+02	8.51331E+04	9.06889E+00	8.24444E-04	2.88311E+01	
PMSS	PMSS-DABK-S-SO28-0001	10800	43.9	8.57339E-09	2.44953E+02	2.62160E+02	8.42278E+03	1.56510E+01	1.44917E-03	2.82490E+01	PMSS-DABK-S-SO28-0001
PMSS	PMSS-DABK-S-SO29-0001	14600	48.5	4.69131E-09	8.44770E+01	4.32280E+02	1.51459E+07	9.19114E+00	6.29530E-04	3.93089E+01	
PMSS	PMSS-DABK-S-SO30-0001	14000	53.1	5.10204E-09	2.41412E+02	6.44721E+02	1.08358E+07	1.55374E+01	1.10982E-03	3.75626E+01	
PMSS	PMSS-DABK-S-SO31-0001	9780	28.2	1.0455E-08	8.52454E+00	2.41430E-01	8.61600E+05	2.91968E+00	2.98536E-04	2.52803E+01	
PMSS	PMSS-DABK-S-SO32-0001	11700	48.7	7.30514E-09	3.17964E+02	4.40637E+02	9.83619E+05	1.78315E+01	1.52406E-03	3.08685E+01	PMSS-DABK-S-SO32-0001
PMSS	PMSS-DABK-S-SO33-0001	11200	48.4	7.97194E-09	3.60498E+02	4.28132E+02	2.41843E+05	1.89868E+01	1.69525E-03	2.94132E+01	PMSS-DABK-S-SO33-0001
PMSS	PMSS-DABK-S-SO34-0001	9110	36.4	1.20493E-08	1.70817E+02	7.55397E+01	2.55432E+06	1.30697E+01	1.43466E-03	2.33303E+01	PMSS-DABK-S-SO34-0001
PMSS	PMSS-DABK-S-SO35-0001	9835	38.2	1.03384E-08	1.62808E+02	1.10069E+02	7.62521E+05	1.27596E+01	1.29737E-03	2.54404E+01	
PMSS	PMSS-DABK-S-SO36-0001	10600	32.1	8.89996E-09	1.96522E+01	1.92840E+01	1.17125E+04	4.43308E+00	4.18215E-04	2.76669E+01	
PMSS	PMSS-DABK-S-SO37-0001	11400	32.5	7.69468E-09	6.27349E+00	2.29571E+01	4.78554E+05	2.50469E+00	2.19710E-04	2.99953E+01	
PMSS	PMSS-DABK-S-SO38-0001	9430	28.1	1.12454E-08	1.47329E+01	1.53159E-01	1.63386E+06	3.83835E+00	4.07036E-04	2.42616E+01	
PMSS	PMSS-DABK-S-SO39-0001	9890	37.2	1.02237E-08	1.34549E+02	9.00858E+01	6.69491E+05	1.15995E+01	1.17285E-03	2.56005E+01	
PMSS	PMSS-DABK-S-SO40-0001	10300	35.3	9.42596E-09	7.23559E+01	5.76287E+01	1.66647E+05	8.50623E+00	8.25847E-04	2.67938E+01	

APPENDIX F, TABLE F8-9
SUPPORT DATA FOR BARIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!I	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
BASS	**SAMPLE**	**AL**	**BA**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	14000	29.9	5.10204E-09	5.87150E+01	4.80204E+00	1.08358E+07	-7.66257E+00	-5.47326E-04	3.75626E+01	
SESB	SESB-BWBK-SB-SO04-0108	10600	26.9	8.89996E-09	5.88161E-01	6.53907E-01	1.17125E+04	-7.66917E-01	-7.23506E-05	2.76669E+01	
SESB	SESB-BWBK-SB-SO05-0106	12400	28.7	6.50364E-09	1.76887E+01	9.82785E-01	2.86211E+06	-4.20579E+00	-3.39177E-04	3.29058E+01	
SESB	SESB-BWBK-SB-SO06-0108	13450	23.45	5.52784E-09	1.56545E+02	1.81361E+01	7.51733E+06	-1.25118E+01	-9.30246E-04	3.59618E+01	
SESB	SESB-BWBK-SB-SO07-0106	10400	20.7	9.24556E-09	4.07659E+01	4.91211E+01	9.50022E+04	-6.38482E+00	-6.13925E-04	2.70848E+01	
SESB	SESB-BWBK-SB-SO08-0107	13100	28.5	5.82717E-09	4.15140E+01	6.26243E-01	5.72059E+06	-6.44313E+00	-4.91842E-04	3.49431E+01	
SESB	SESB-BWBK-SB-SO09-0106	11600	30.2	7.43163E-09	1.42433E-01	6.20685E+00	7.95264E+05	-3.77403E-01	-3.25347E-05	3.05774E+01	
SESB	SESB-BWBK-SB-SO11-0106	12600	24.7	6.29882E-09	7.72270E+01	9.05194E+00	3.57882E+06	-8.78789E+00	-6.97452E-04	3.34879E+01	
SESB	SESB-BWBK-SB-SO12-0106	10750	20.75	8.65333E-09	5.40738E+01	4.84227E+01	1.74521E+03	-7.35349E+00	-6.84046E-04	2.81035E+01	
SESB	SESB-BWBK-SB-SO15-0103	11000	25.4	8.26446E-09	1.17725E+01	5.32984E+00	8.51331E+04	-3.43111E+00	-3.11919E-04	2.88311E+01	
SESB	SESB-BWBK-SB-SO16-0105	9090	21.6	1.21024E-08	2.79586E+00	3.73155E+01	2.61865E+06	-1.67208E+00	-1.83947E-04	2.32721E+01	
SESB	SESB-BWBK-SB-SO17-0106	9140	24.8	1.19704E-08	1.91101E+00	8.46021E+00	2.45933E+06	1.38239E+00	1.51247E-04	2.34176E+01	
SESB	SESB-BWBK-SB-SO18-0105	9300	24.2	1.1562E-08	1.00309E-01	1.23106E+01	1.98310E+06	3.16715E-01	3.40554E-05	2.38833E+01	
SESB	SESB-BWBK-SB-SO19-0104	9060	26	1.21827E-08	7.92553E+00	2.91947E+00	2.71664E+06	2.81523E+00	3.10732E-04	2.31848E+01	
SESB	SESB-BWBK-SB-SO20-0104	9300	22.6	1.1562E-08	1.64682E+00	2.60983E+01	1.98310E+06	-1.28328E+00	-1.37988E-04	2.38833E+01	
SESS	SESS-DABK-S-SO01-0001	14300	21.1	4.89021E-09	3.00527E+02	4.36742E+01	1.29009E+07	-1.73357E+01	-1.21229E-03	3.84357E+01	
SESS	SESS-DABK-S-SO02-0001	12500	60.6	6.4E-09	7.50933E+02	1.08184E+03	3.21046E+06	2.74032E+01	2.19225E-03	3.31968E+01	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	12300	28.4	6.60982E-09	1.77641E+01	4.77972E-01	2.53375E+06	-4.21474E+00	-3.42662E-04	3.26147E+01	
SESS	SESS-DABK-S-SO04-0001	16700	32.7	3.58564E-09	1.61821E+02	2.49136E+01	3.59014E+07	-1.27209E+01	-7.61729E-04	4.54209E+01	
SESS	SESS-DABK-S-SO05-0001	13100	23.8	5.82717E-09	1.24169E+02	1.52775E+01	5.72059E+06	-1.11431E+01	-8.50621E-04	3.49431E+01	
SESS	SESS-DABK-S-SO06-0001	14800	48.5	4.56538E-09	7.41156E+01	4.32280E+02	1.67426E+07	8.60904E+00	5.81692E-04	3.98910E+01	
SESS	SESS-DABK-S-SO07-0001	13150	46.9	5.78294E-09	1.39508E+02	3.68308E+02	5.96227E+06	1.18113E+01	8.98201E-04	3.50887E+01	
SESS	SESS-DABK-S-SO08-0001	12300	42.2	6.60982E-09	9.18771E+01	2.09999E+02	2.53375E+06	9.58526E+00	7.79289E-04	3.26147E+01	
SESS	SESS-DABK-S-SO09-0001	11200	23.6	7.97194E-09	3.37934E+01	1.68810E+01	2.41843E+05	-5.81321E+00	-5.19036E-04	2.94132E+01	
SESS	SESS-DABK-S-SO10-0001	12500	27.7	6.4E-09	3.02153E+01	7.47336E-05	3.21046E+06	-5.49684E+00	-4.39747E-04	3.31968E+01	
SESS	SESS-DABK-S-SO11-0001	8240	31.55	1.47281E-08	1.15602E+02	1.47560E+01	6.09213E+06	1.07518E+01	1.30483E-03	2.07982E+01	
SESS	SESS-DABK-S-SO12-0001	11900	42.9	7.06165E-09	1.31090E+02	2.30777E+02	1.42033E+06	1.14495E+01	9.62139E-04	3.14505E+01	
SESS	SESS-DABK-S-SO13-0001	9840	26.8	1.03278E-08	1.80917E+00	8.25635E-01	7.53813E+05	1.34505E+00	1.36692E-04	2.54549E+01	
SESS	SESS-DABK-S-SO14-0001	9250	15.1	1.16874E-08	7.46109E+01	1.58978E+02	2.12642E+06	-8.63776E+00	-9.33812E-04	2.37378E+01	
SESS	SESS-DABK-S-SO15-0001	11700	25.2	7.30514E-09	3.21313E+01	6.29330E+00	9.83619E+05	-5.66845E+00	-4.84483E-04	3.08685E+01	
SESS	SESS-DABK-S-SO16-0001	9020	30.1	1.2291E-08	4.94441E+01	5.71858E+00	2.85010E+06	7.03165E+00	7.79562E-04	2.30683E+01	
SESS	SESS-DABK-S-SO17-0001	11000	47.3	8.26446E-09	3.41100E+02	3.83821E+02	8.51331E+04	1.84689E+01	1.67899E-03	2.88311E+01	SESS-DABK-S-SO17-0001
SESS	SESS-DABK-S-SO18-0001	9140	34.4	1.19704E-08	1.20613E+02	4.47742E+01	2.45933E+06	1.09824E+01	1.20157E-03	2.34176E+01	
SESS	SESS-DABK-S-SO19-0001	13000	44.7	5.91716E-09	1.00961E+02	2.88706E+02	5.25224E+06	1.00479E+01	7.72917E-04	3.46521E+01	
SESS	SESS-DABK-S-SO20-0001	15200	45.8	4.32825E-09	2.25136E+01	3.27297E+02	2.01760E+07	4.74485E+00	3.12161E-04	4.10552E+01	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: CU
X variable name used on graph: CU predict (from Factor Anal.)

	N	174.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.592381E+02
0.10	t-Value: 2-tail, 0.100 alpha	1.653761
degrees freedom	SUM(XY*w^2)	2.404375E+03
2	SUM(X^2*w^2)	2.517743E+03
	SUM(X*w^2)	2.340363E+02
	SUM(Y*w^2)	2.187477E+02
	SUM(w^2)	2.875147E+01
	SUM(Y)	2024.700000
	SUM(X)	2.024700E+03
	Denominator	1.761581E+04
	Slope	1.018085E+00
	Intercept	-6.789619E-01
	Minimum X value	1.920184E+00
	Maximum X value	2.793141E+01
	Minimum Y value	1.600000E+00
	Maximum Y value	4.370000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.767196E+03
	SUM(Yobs - Yave)^2	7.064807E+03
	SUM(X - Xave)^2	5.080527E+03
	Std. Error of Y-estimate	3.205370E+00
	R^2	7.498593E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	1.018	1

Percentiles of Y-Pred.	Domain for Estimating % Err in Y-Pred:	
Inverse Log Transform (Y/N)?	No	25
Inverse Power Transform (Y/N)?	No	50
Inverse Power Transform (1/Power):	1	75
		90

TEXT BOX ==> (CU) = (1.02E+00)x(CU predict (from Factor Anal.)) + (-6.79E-01) R^2 = 0.75; Std. Error of Y-estimate = 3.21E+00

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,1.0)*MAX(y-Ymin,1.0)). 95% Conf

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
1.92	1.28	-0.38	2.94	-3.05	3.05	0.17	No. of Exceedances
3.00	2.38	0.70	4.06	-3.05	3.05	0.17	of Upper 95% Limit
4.09	3.48	1.19	5.78	-3.05	3.05	0.17	for Each Soil Type:
5.17	4.59	1.76	7.42	-3.05	3.05	0.17	---- V ----
6.26	5.69	2.41	8.97	-3.05	3.05	0.17	BASS
7.34	6.79	3.12	10.47	-3.05	3.05	0.17	0
8.42	7.90	3.86	11.93	-3.05	3.05	0.17	MASS
9.51	9.00	4.63	13.37	-3.05	3.05	0.17	0
10.59	10.10	5.43	14.78	-3.05	3.05	0.17	MMSS
11.67	11.21	6.24	16.17	-3.05	3.05	0.17	0
12.76	12.31	7.07	17.55	-3.05	3.05	0.17	NESS
13.84	13.41	7.91	18.92	-3.05	3.05	0.17	2
14.93	14.52	8.76	20.27	-3.05	3.05	0.17	PMSS
16.01	15.62	9.63	21.61	-3.05	3.05	0.17	0
17.09	16.72	10.50	22.95	-3.05	3.05	0.17	SESS
18.18	17.83	11.37	24.28	-3.05	3.05	0.17	0
19.26	18.93	12.26	25.60	-3.05	3.05	0.17	SESD
20.34	20.03	13.15	26.92	-3.05	3.05	0.17	0
21.43	21.14	14.05	28.23	-3.05	3.05	0.17	MASB
22.51	22.24	14.95	29.53	-3.05	3.05	0.17	1
23.60	23.34	15.86	30.83	-3.05	3.05	0.17	MMSB
24.68	24.45	16.77	32.13	-3.05	3.05	0.17	2
25.76	25.55	17.68	33.42	-3.05	3.05	0.17	NESB
26.85	26.65	18.60	34.70	-3.05	3.05	0.17	0
27.93	27.76	19.53	35.99	-3.05	3.05	0.17	PMSB
7.34	6.80	3.12	10.48	6.80	-54%	54%	2
11.20	10.72	5.88	15.56	10.72	-45%	45%	SESB
14.89	14.48	8.74	20.23	14.48	-40%	40%	0
19.54	19.21	12.49	25.94	19.21	-35%	35%	<<--Original Units Errors

+/-3 x IQR of r -3.046004 3.046004

TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 Y-Pred.

Indexed value lookups:		X data column ref.	Y data column ref.	V - wt.descrip.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
Specify X-col., Y-col. as:	"DA!" + column	DA!U	DA!V	(MAX(x-Xmin,1.0)*	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CU predict	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	7.313286601	3.7	0.297146782	9.40395E+00	6.29834E+01	1.86876E+01	-3.06659E+00	-1.67163E+00	6.76659E+00	
BASS	BASS-BWBK-SS-BA102-0001	5.564603139	3.2	0.414119689	3.19079E+00	7.11696E+01	3.68644E+01	-1.78628E+00	-1.14951E+00	4.98628E+00	
BASS	BASS-BWBK-SS-BA103-0001	5.64947344	3.2	0.409380349	3.50694E+00	7.11696E+01	3.58410E+01	-1.87268E+00	-1.19820E+00	5.07268E+00	
BASS	BASS-BWBK-SS-BA104-0001	7.647304736	3.8	0.281721835	1.09339E+01	6.14061E+01	1.59113E+01	-3.30664E+00	-1.75508E+00	7.10664E+00	
BASS	BASS-BWBK-SS-BA105-0001	3.309666257	3.4	0.632320587	5.03306E-01	6.78351E+01	6.93313E+01	7.09440E-01	5.64137E-01	2.69056E+00	
BASS	BASS-BWBK-SS-BA106-0001	7.597025448	4.6	0.242318186	6.02926E+00	4.95082E+01	1.63150E+01	-2.45546E+00	-1.20872E+00	7.05546E+00	
BASS	BASS-BWBK-SS-BA107-0001	5.662066468	2.9	0.453401843	4.77642E+00	7.63213E+01	3.56904E+01	-2.18550E+00	-1.47161E+00	5.08550E+00	
BASS	BASS-BWBK-SS-BA108-0001	5.322111907	3.5	0.393333266	1.53611E+00	6.61979E+01	3.98678E+01	-1.23940E+00	-7.77306E-01	4.73940E+00	
BASS	BASS-BWBK-SS-BA109-0001	6.890861544	5.5	0.227122376	6.99767E-01	3.76530E+01	2.25183E+01	-8.36521E-01	-3.98664E-01	6.33652E+00	
BASS	BASS-BWBK-SS-BA110-0001	8.055156455	4.3	0.245703774	1.03805E+01	5.38199E+01	1.28239E+01	-3.22187E+00	-1.59703E+00	7.52187E+00	
BASS	BASS-BWBK-SS-BA111-0001	5.983089979	2.8	0.452888212	6.82428E+00	7.80786E+01	3.19577E+01	-2.61233E+00	-1.75802E+00	5.41233E+00	
BASS	BASS-BWBK-SS-BA112-0001	4.414101849	2.7	0.603757625	1.24316E+00	7.98558E+01	5.21588E+01	-1.11497E+00	-8.66351E-01	3.81497E+00	
BASS	BASS-BWBK-SS-BA113-0001	7.963337791	10.05	0.139939346	6.87283E+00	2.51605E+00	1.34900E+01	2.62161E+00	9.80703E-01	7.42839E+00	
MASB	MASB-BWBK-SB-MA01-0105	17.25308453	18.3	0.062492747	1.99899E+00	4.44061E+01	3.15493E+01	1.41386E+00	3.53443E-01	1.68861E+01	
MASB	MASB-BWBK-SB-MA02-0107	19.37322796	17.5	0.060029656	2.38588E+00	3.43841E+01	5.98615E+01	-1.54463E+00	-3.78449E-01	1.90446E+01	
MASB	MASB-BWBK-SB-MA03-0108	20.96205302	20.8	0.052299147	1.89918E-02	8.39751E+01	8.69714E+01	1.37811E-01	3.15160E-02	2.06622E+01	
MASB	MASB-BWBK-SB-MA04-0106	21.09019746	18	0.056398412	7.79890E+00	4.04979E+01	8.93779E+01	-2.79265E+00	-6.63209E-01	2.07927E+01	
MASB	MASB-BWBK-SB-MA05-0108	17.50636519	17.3	0.063926411	2.43343E-02	3.20786E+01	3.44588E+01	1.55995E-01	3.94412E-02	1.71440E+01	
MASB	MASB-BWBK-SB-MA06-0105	17.90726933	17.5	0.062721552	2.72065E-03	3.43841E+01	3.93262E+01	-5.21599E-02	-1.30631E-02	1.75522E+01	
MASB	MASB-BWBK-SB-MA07-0108	17.43089084	11.5	0.080698714	3.09933E+01	1.85523E-02	3.35784E+01	-5.56717E+00	-1.58149E+00	1.70672E+01	
MASB	MASB-BWBK-SB-MA08-0108	26.61984877	17.8	0.049991592	7.43442E+01	3.79923E+01	2.24510E+02	-8.62231E+00	-1.92784E+00	2.64223E+01	
MASB	MASB-BWBK-SB-MA09-0108	20.48074255	24.4	0.048611281	1.78745E+01	1.62914E+02	7.82258E+01	4.22783E+00	9.32150E-01	2.01722E+01	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,1.0)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CU predict	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	15.03908252	11.3	0.088647288	1.11029E+01	1.13035E-01	1.15796E+01	-3.33210E+00	-9.92090E-01	1.46321E+01	
MASB	MASB-BWBK-SB-MA11-0108	20.75423585	20.5	0.053002606	2.43901E-03	7.85668E+01	8.31385E+01	4.93863E-02	1.13699E-02	2.04506E+01	
MASB	MASB-BWBK-SB-MA12-0108	21.09463511	19.8	0.05353069	9.94346E-01	6.66475E+01	8.94619E+01	-9.97169E-01	-2.30712E-01	2.07972E+01	
MASB	MASB-BWBK-SB-MA13-0105	6.731681594	10.5	0.152814612	1.87103E+01	1.29097E+00	2.40544E+01	4.32554E+00	1.69092E+00	6.17446E+00	MASB-BWBK-SB-MA13-0105
MASB	MASB-BWBK-SB-MA14-0104	13.63094378	15.75	0.077683584	6.51017E+00	1.69233E+01	3.97898E+00	2.55150E+00	7.11149E-01	1.31985E+01	
MASB	MASB-BWBK-SB-MA15-0105	9.824394646	13.2	0.104433965	1.50303E+01	2.44545E+00	3.28266E+00	3.87689E+00	1.25287E+00	9.32311E+00	
MASB	MASB-BWBK-SB-MA16-0104	10.61370096	12.5	0.102728042	5.63261E+00	7.46139E-01	1.04552E+00	2.37331E+00	7.60675E-01	1.01267E+01	
MASB	MASB-BWBK-SB-MA17-0104	10.28653255	6.1	0.162976797	1.36427E+01	3.06496E+01	1.82162E+00	-3.69360E+00	-1.49112E+00	9.79360E+00	
MASB	MASB-BWBK-SB-MA18-0104	7.777096179	10	0.142569301	7.62432E+00	2.67717E+00	1.48927E+01	2.76122E+00	1.04259E+00	7.23878E+00	
MASB	MASB-BWBK-SB-MA19-0103	7.255047757	6.9	0.188061727	3.71359E-02	2.24317E+01	1.91946E+01	1.92707E-01	8.35694E-02	6.70729E+00	
MASB	MASB-BWBK-SB-MA20-0103	15.76791436	16.9	0.068701306	2.32833E+00	2.77075E+01	1.70710E+01	1.52589E+00	3.99949E-01	1.53741E+01	
MASS	MASS-BWBK-SS-MA01-0001	3.921608524	1.6	0.70685518	2.93632E+00	1.00725E+02	5.95150E+01	-1.71357E+00	-1.44068E+00	3.31357E+00	
MASS	MASS-BWBK-SS-MA02-0001	5.472668488	3.6	0.375162082	1.67102E+00	6.45806E+01	3.79892E+01	-1.29268E+00	-7.91772E-01	4.89268E+00	
MASS	MASS-BWBK-SS-MA03-0001	5.791930566	4.3	0.30928915	8.42202E-01	5.38199E+01	3.41556E+01	-9.17716E-01	-5.10376E-01	5.21772E+00	
MASS	MASS-BWBK-SS-MA04-0001	7.512356156	4.9	0.232783816	4.28182E+00	4.53765E+01	1.70061E+01	-2.06926E+00	-9.98367E-01	6.96926E+00	
MASS	MASS-BWBK-SS-MA05-0001	11.93551382	9.4	0.113141018	4.29486E+00	5.00062E+00	8.95846E-02	-2.07241E+00	-6.97083E-01	1.14724E+01	
MASS	MASS-BWBK-SS-MA06-0001	9.315223392	9	0.135180457	3.81315E-02	6.94959E+00	5.38696E+00	1.95273E-01	7.17958E-02	8.80473E+00	
MASS	MASS-BWBK-SS-MA07-0001	1.920184494	1.8	1.00895986	2.74629E-01	9.67510E+01	9.44011E+01	5.24051E-01	5.26393E-01	1.27595E+00	
MASS	MASS-BWBK-SS-MA08-0001	11.57053647	6.3	0.148483944	2.30479E+01	2.84751E+01	4.31261E-03	-4.80083E+00	-1.84993E+00	1.11008E+01	
MASS	MASS-BWBK-SS-MA09-0001	16.37703506	10.6	0.087668162	2.90979E+01	1.07372E+00	2.24755E+01	-5.39425E+00	-1.59717E+00	1.59943E+01	
MASS	MASS-BWBK-SS-MA10-0001	14.91720421	6.7	0.122826768	6.09652E+01	2.43661E+01	1.07649E+01	-7.80802E+00	-2.73645E+00	1.45080E+01	
MASS	MASS-BWBK-SS-MA11-0001	13.65921127	6.7	0.12924057	4.26053E+01	2.43661E+01	4.09255E+00	-6.52728E+00	-2.34656E+00	1.32273E+01	
MASS	MASS-BWBK-SS-MA12-0001	10.35752456	4.2	0.213506229	3.21022E+01	5.52972E+01	1.63503E+00	-5.66588E+00	-2.61802E+00	9.86588E+00	
MASS	MASS-BWBK-SS-MA13-0001	6.99020875	4.6	0.256409643	3.37701E+00	4.95082E+01	2.15853E+01	-1.83766E+00	-9.30537E-01	6.43766E+00	
MASS	MASS-BWBK-SS-MA14-0001	5.886065622	6.5	0.226846516	1.40766E+00	2.63806E+01	3.30641E+01	1.18645E+00	5.65086E-01	5.31355E+00	
MASS	MASS-BWBK-SS-MA15-0001	5.672803513	3.7	0.35622395	1.95003E+00	6.29834E+01	3.55622E+01	-1.39643E+00	-8.33455E-01	5.09643E+00	
MASS	MASS-BWBK-SS-MA16-0001	7.018410877	7.1	0.188846568	4.01478E-01	2.05772E+01	2.13240E+01	6.33623E-01	2.75350E-01	6.46638E+00	
MASS	MASS-BWBK-SS-MA17-0001	7.616511601	5.8	0.204445659	1.62638E+00	3.40613E+01	1.61580E+01	-1.27529E+00	-5.76633E-01	7.07529E+00	
MASS	MASS-BWBK-SS-MA18-0001	6.598725587	4.2	0.286720075	3.38229E+00	5.52972E+01	2.53762E+01	-1.83910E+00	-9.84770E-01	6.03910E+00	
MASS	MASS-BWBK-SS-MA19-0001	7.434585856	5.6	0.212922138	1.66430E+00	3.64358E+01	1.76536E+01	-1.29008E+00	-5.95287E-01	6.89008E+00	
MASS	MASS-BWBK-SS-MA20-0001	9.771018247	9.7	0.125400596	1.85964E-01	3.74890E+00	3.47893E+00	4.31235E-01	1.52709E-01	9.26876E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	12.01261877	13.5	0.091249093	3.79897E+00	3.47372E+00	1.41686E-01	1.94910E+00	5.88772E-01	1.15509E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	13.31272858	14.7	0.081856655	3.33235E+00	9.38683E+00	2.81072E+00	1.82547E+00	5.22279E-01	1.28745E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	11.61786896	13.5	0.093087742	5.52713E+00	3.47372E+00	3.36280E-04	2.35098E+00	7.17292E-01	1.11490E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	19.56006313	43.7	0.03669536	5.98544E+02	1.02809E+03	6.27875E+01	2.44652E+01	4.68655E+00	1.92348E+01	MMSB-BWBK-SB-MM104-0110
MMSB	MMSB-BWBK-SB-MM105-0110	7.277425006	10.5	0.144821961	1.42123E+01	1.29097E+00	1.89990E+01	3.76992E+00	1.43466E+00	6.73008E+00	MMSB-BWBK-SB-MM105-0110
MMSB	MMSB-BWBK-SB-MM106-0110	18.6367837	16.7	0.062941568	2.54360E+00	2.56420E+01	4.90081E+01	-1.59487E+00	-4.00123E-01	1.82949E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	9.588498565	13.3	0.105574036	1.77836E+01	2.76821E+00	4.19311E+00	4.21706E+00	1.37021E+00	9.08294E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	11.9357378	11.7	0.099426429	5.16956E-02	4.06956E-03	8.97188E-02	2.27367E-01	7.16931E-02	1.14726E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	12.82966251	13.8	0.08667984	2.00867E+00	4.68200E+00	1.42434E+00	1.41728E+00	4.17266E-01	1.23827E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	11.19589139	14	0.093242874	1.07623E+01	5.58752E+00	1.93878E-01	3.28059E+00	1.00175E+00	1.07194E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	14.82130596	13	0.082458198	1.98919E+00	1.85993E+00	1.01449E+01	-1.41039E+00	-4.05000E-01	1.44104E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	13.5683899	9.2	0.106282973	1.54827E+01	5.93510E+00	3.73333E+00	-3.93481E+00	-1.28279E+00	1.31348E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	11.2056677	14.8	0.090325584	1.65701E+01	1.00096E+01	1.85364E-01	4.07064E+00	1.22340E+00	1.07294E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	9.242606584	10	0.127506692	1.61088E+00	2.67717E+00	5.72932E+00	1.26920E+00	4.53208E-01	8.73080E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	15.25507191	9.4	0.098052353	2.97243E+01	5.00062E+00	1.30962E+01	-5.45200E+00	-1.70720E+00	1.48520E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	12.91551299	12.95	0.089515443	2.30277E-01	1.72605E+00	1.63662E+00	4.79872E-01	1.43574E-01	1.24701E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	10.74527501	12.1	0.103883307	3.38324E+00	2.15104E-01	7.93760E-01	1.83936E+00	5.92843E-01	1.02606E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	14.16791189	19.2	0.068110789	2.97551E+01	5.72110E+01	6.40953E+00	5.45482E+00	1.42360E+00	1.37452E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	13.11317621	10.9	0.098013395	3.13774E+00	5.42001E-01	2.18144E+00	-1.77137E+00	-5.54563E-01	1.26714E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	7.585832673	9.6	0.14853548	6.53283E+00	4.14614E+00	1.64055E+01	2.55594E+00	9.85067E-01	7.04406E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	8.948608325	9.1	0.137733758	4.46917E-01	6.43235E+00	7.22319E+00	6.68518E-01	2.48104E-01	8.43148E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	6.081013102	5.5	0.248243441	1.44629E-04	3.76530E+01	3.08602E+01	-1.20262E-02	-5.99192E-03	5.51203E+00	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,1.0)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CU predict	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	8.074034446	8.4	0.154586688	7.37724E-01	1.04730E+01	1.26891E+01	8.58909E-01	3.37702E-01	7.54109E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	9.566860001	11.3	0.116112186	5.01350E+00	1.13035E-01	4.28220E+00	2.23909E+00	7.62974E-01	9.06091E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	5.232089985	6.5	0.248234987	3.43083E+00	2.63806E+01	4.10127E+01	1.85225E+00	9.22850E-01	4.64775E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	8.666445325	10.3	0.130529541	4.64741E+00	1.78545E+00	8.81948E+00	2.15578E+00	7.78860E-01	8.14422E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	9.679603502	8.6	0.135686418	3.31427E-01	9.21855E+00	3.82830E+00	-5.75697E-01	-2.12062E-01	9.17570E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	6.347662163	7.7	0.192422961	3.67298E+00	1.54937E+01	2.79687E+01	1.91650E+00	8.40694E-01	5.78350E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	6.443702541	5.7	0.232204113	3.28606E-02	3.52386E+01	2.69621E+01	-1.81275E-01	-8.73519E-02	5.88127E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	3.518689369	4.2	0.490519575	1.68127E+00	5.52972E+01	6.58941E+01	1.29664E+00	9.08127E-01	2.90336E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	4.285041428	3.7	0.448732904	2.69800E-04	6.29834E+01	5.40396E+01	1.64256E-02	1.10031E-02	3.68357E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	4.204556646	4.3	0.402656477	4.87715E-01	5.38199E+01	5.52294E+01	6.98366E-01	4.43150E-01	3.60163E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	7.308659841	7	0.185383113	5.67036E-02	2.14944E+01	1.87277E+01	2.38125E-01	1.02527E-01	6.76187E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	3.128071841	3.6	0.643386266	1.19753E+00	6.45806E+01	7.23884E+01	1.09432E+00	8.77768E-01	2.50568E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	4.096560658	4.5	0.398046693	1.01670E+00	5.09254E+01	5.68463E+01	1.00832E+00	6.36155E-01	3.49168E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	3.973924231	3.8	0.47045269	1.87636E-01	6.14061E+01	5.87106E+01	4.33169E-01	2.97109E-01	3.36683E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	7.532528326	7.8	0.169524324	6.56437E-01	1.47165E+01	1.68402E+01	8.10208E-01	3.33590E-01	6.98979E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	8.299785662	8.2	0.154110159	1.84105E-01	1.18075E+01	1.11317E+01	4.29075E-01	1.68441E-01	7.77093E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	6.88301444	7.4	0.186389441	1.14804E+00	1.79454E+01	2.25928E+01	1.07147E+00	4.62583E-01	6.32853E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	6.523298425	9.1	0.17019371	9.84510E+00	6.43235E+00	2.61418E+01	3.13769E+00	1.29444E+00	5.96231E+00	
NESB	NESB-BWBK-SB-NE01-0108	16.7637685	16.5	0.067241513	1.25487E-02	2.36565E+01	2.62919E+01	1.12021E-01	2.90482E-02	1.63880E+01	
NESB	NESB-BWBK-SB-NE02-0109	15.21089694	15.3	0.074108084	2.43026E-01	1.34234E+01	1.27784E+01	4.92976E-01	1.34202E-01	1.48070E+01	
NESB	NESB-BWBK-SB-NE03-0105	13.65969876	14.4	0.081577417	1.37412E+00	7.63855E+00	4.09452E+00	1.17223E+00	3.34809E-01	1.32278E+01	
NESB	NESB-BWBK-SB-NE04-0110	13.95461712	14.4	0.08057164	7.60342E-01	7.63855E+00	5.37503E+00	8.71976E-01	2.47512E-01	1.35280E+01	
NESB	NESB-BWBK-SB-NE05-0108	15.69261885	15.9	0.071256851	3.63057E-01	1.81799E+01	1.64545E+01	6.02543E-01	1.60843E-01	1.52975E+01	
NESB	NESB-BWBK-SB-NE06-0109	14.2310761	15	0.077857929	1.41733E+00	1.13151E+01	6.73335E+00	1.19052E+00	3.32190E-01	1.38095E+01	
NESB	NESB-BWBK-SB-NE07-0107	15.97277946	16.3	0.069576579	5.14541E-01	2.17510E+01	1.88059E+01	7.17315E-01	1.89209E-01	1.55827E+01	
NESB	NESB-BWBK-SB-NE08-0104	11.81340623	13	0.094162657	2.72881E+00	1.85993E+00	3.13996E-02	1.65191E+00	5.06904E-01	1.13481E+01	
NESB	NESB-BWBK-SB-NE09-0110	13.65374639	13.95	0.083071411	5.30403E-01	5.35364E+00	4.07047E+00	7.28288E-01	2.09908E-01	1.32217E+01	
NESB	NESB-BWBK-SB-NE10-0107	11.21244888	12.5	0.099363292	3.11077E+00	7.46139E-01	1.79571E-01	1.76374E+00	5.55964E-01	1.07363E+01	
NESB	NESB-BWBK-SB-NE101-0110	13.2472406	11.9	0.092581212	8.24200E-01	6.95868E-02	2.59543E+00	-9.07855E-01	-2.76234E-01	1.28079E+01	
NESB	NESB-BWBK-SB-NE102-0110	11.70941045	10.1	0.109626705	1.30465E+00	2.35993E+00	5.35876E-03	-1.14221E+00	-3.78186E-01	1.12422E+01	
NESB	NESB-BWBK-SB-NE103-0110	10.12027122	9.7	0.122701047	5.72532E-03	3.74890E+00	2.29806E+00	7.56659E-02	2.65048E-02	9.62433E+00	
NESB	NESB-BWBK-SB-NE104-0110	8.984502876	8.5	0.143232088	1.02237E-03	9.83579E+00	7.03153E+00	3.19745E-02	1.21011E-02	8.46803E+00	
NESB	NESB-BWBK-SB-NE105-0110	13.73316422	11.4	0.092940977	3.61976E+00	5.57937E-02	4.39723E+00	-1.90257E+00	-5.80021E-01	1.33026E+01	
NESB	NESB-BWBK-SB-NE106-0110	12.38263089	11.4	0.098757557	2.78371E-01	5.57937E-02	5.57149E-01	-5.27609E-01	-1.65805E-01	1.19276E+01	
NESB	NESB-BWBK-SB-NE107-0510	10.86023661	11	0.109085254	3.87280E-01	4.04759E-01	6.02130E-01	6.22318E-01	2.05540E-01	1.03777E+01	
NESB	NESB-BWBK-SB-NE108-0110	11.38867422	13.9	0.092663156	8.90619E+00	5.12476E+00	6.12724E-02	2.98432E+00	9.08447E-01	1.09157E+01	
NESB	NESB-BWBK-SB-NE109-0110	11.48775337	11.6	0.102234906	3.40417E-01	1.31094E-03	2.20384E-02	5.83453E-01	1.86554E-01	1.10165E+01	
NESB	NESB-BWBK-SB-NE110-0110	11.69411866	11.5	0.101659436	7.47232E-02	1.85523E-02	3.35377E-03	2.73355E-01	8.71569E-02	1.12266E+01	
NESS	NESS-BKG-SS03-NEB-0016	14.80317688	14	0.079118999	1.53609E-01	5.58752E+00	1.00297E+01	-3.91930E-01	-1.10242E-01	1.43919E+01	
NESS	NESS-BKG-SS09-NEB-0018	6.989286991	9.1	0.162182441	7.09303E+00	6.43235E+00	2.15939E+01	2.66327E+00	1.07255E+00	6.43673E+00	
NESS	NESS-BWBK-SS-NE01-0001	15.91423868	17.6	0.066829503	4.31357E+00	3.55668E+01	1.83016E+01	2.07691E+00	5.36912E-01	1.55231E+01	
NESS	NESS-BWBK-SS-NE02-0001	19.09026295	19.4	0.057201031	4.14031E-01	6.02765E+01	5.55630E+01	6.43452E-01	1.53893E-01	1.87565E+01	
NESS	NESS-BWBK-SS-NE03-0001	9.958073121	10.7	0.116925251	1.53958E+00	8.76483E-01	2.81613E+00	1.24080E+00	4.24282E-01	9.45920E+00	
NESS	NESS-BWBK-SS-NE04-0001	11.6050828	13.6	0.092760236	6.07130E+00	3.85648E+00	9.68709E-04	2.46400E+00	7.50450E-01	1.11360E+01	
NESS	NESS-BWBK-SS-NE05-0001	10.88405416	14.5	0.092994525	1.67942E+01	8.20131E+00	5.65734E-01	4.09807E+00	1.24971E+00	1.04019E+01	
NESS	NESS-BWBK-SS-NE06-0001	10.4632663	12.4	0.104107218	5.88775E+00	5.83380E-01	1.37579E+00	2.42647E+00	7.82916E-01	9.97353E+00	
NESS	NESS-BWBK-SS-NE07-0001	11.85790829	20.2	0.073552945	7.75563E+01	7.33386E+01	4.91515E-02	8.80660E+00	2.38841E+00	1.13934E+01	NESS-BWBK-SS-NE07-0001
NESS	NESS-BWBK-SS-NE08-0001	9.795117843	11.2	0.115011413	3.63550E+00	1.90276E-01	3.38961E+00	1.90670E+00	6.46625E-01	9.29330E+00	
NESS	NESS-BWBK-SS-NE09-0001	8.897859548	12.5	0.114665133	1.69759E+01	7.46139E-01	7.49855E+00	4.12018E+00	1.39519E+00	8.37982E+00	
NESS	NESS-BWBK-SS-NE10-0001	11.93080962	20.3	0.073088424	7.80110E+01	7.50613E+01	8.67908E-02	8.83238E+00	2.38782E+00	1.14676E+01	NESS-BWBK-SS-NE10-0001
NESS	NESS-BWBK-SS-NE101-0001	6.147285794	5.7	0.2402076	1.45209E-02	3.52386E+01	3.01283E+01	1.20503E-01	5.90595E-02	5.57950E+00	
NESS	NESS-BWBK-SS-NE102-0001	5.500047021	4.7	0.30018292	4.86438E-02	4.81110E+01	3.76525E+01	-2.20553E-01	-1.20839E-01	4.92055E+00	
NESS	NESS-BWBK-SS-NE103-0001	4.582019518	4.7	0.348119688	5.09905E-01	4.81110E+01	4.97616E+01	7.14077E-01	4.21317E-01	3.98592E+00	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,1.0)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!U	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	CU predict	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	7.816233916	3.9	0.271553575	1.14151E+01	5.98489E+01	1.45922E+01	-3.37863E+00	-1.76063E+00	7.27863E+00	
NESS	NESS-BWBK-SS-NE105-0001	3.850955748	3.3	0.551963204	3.40609E-03	6.94923E+01	6.06101E+01	5.83617E-02	4.33594E-02	3.24164E+00	
NESS	NESS-BWBK-SS-NE106-0001	6.481499314	4.3	0.284952908	2.62361E+00	5.38199E+01	2.65710E+01	-1.61976E+00	-8.64641E-01	5.91976E+00	
NESS	NESS-BWBK-SS-NE107-0001	4.102276443	4.7	0.384487858	1.44600E+00	4.81110E+01	5.67601E+01	1.20250E+00	7.45633E-01	3.49750E+00	
NESS	NESS-BWBK-SS-NE108-0001	5.473850641	5.7	0.261980978	6.49824E-01	3.52386E+01	3.79746E+01	8.06117E-01	4.12603E-01	4.89388E+00	
NESS	NESS-BWBK-SS-NE109-0001	3.788638746	3.8	0.493227662	3.86642E-01	6.14061E+01	6.15843E+01	6.21806E-01	4.36695E-01	3.17819E+00	
NESS	NESS-BWBK-SS-NE110-0001	4.573268953	5.9	0.296067158	3.69787E+00	3.29041E+01	4.98851E+01	1.92299E+00	1.04634E+00	3.97701E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	13.12671972	10.5	0.100131176	4.77490E+00	1.29097E+00	2.22163E+00	-2.18515E+00	-6.91459E-01	1.26852E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	15.25403261	15.3	0.073988115	2.01655E-01	1.34234E+01	1.30887E+01	4.49061E-01	1.22148E-01	1.48509E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	19.6016247	17.8	0.059085875	2.18199E+00	3.79923E+01	6.34479E+01	-1.47716E+00	-3.59061E-01	1.92772E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	16.36545172	16.7	0.067709364	5.14866E-01	2.56420E+01	2.23658E+01	7.17541E-01	1.86712E-01	1.59825E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	15.66132536	14.8	0.074250886	2.16782E-01	1.00096E+01	1.62016E+01	-4.65598E-01	-1.26871E-01	1.52656E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	15.31537123	12.8	0.081642558	4.46641E+00	1.35441E+00	1.35363E+01	-2.11339E+00	-6.03862E-01	1.49134E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	10.40629079	10.2	0.117056771	8.09253E-02	2.06269E+00	1.51269E+00	2.84474E-01	9.73286E-02	9.91553E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	13.43233078	12.3	0.090101073	4.84823E-01	4.40621E-01	3.22606E+00	-6.96292E-01	-2.09005E-01	1.29963E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	10.93602471	10.7	0.110401812	6.01032E-02	8.76483E-01	4.90255E-01	2.45159E-01	8.14586E-02	1.04548E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	10.29692115	15.2	0.093689973	2.91149E+01	1.27006E+01	1.79369E+00	5.39582E+00	1.65160E+00	9.80418E+00	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	13.56184124	14.3	0.082241447	1.37324E+00	7.09579E+00	3.70807E+00	1.17186E+00	3.36062E-01	1.31281E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	7.524077141	9.2	0.153231587	4.92313E+00	5.93510E+00	1.69096E+01	2.21881E+00	8.68550E-01	6.98119E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	8.145752231	6.5	0.181055815	1.24123E+00	2.63806E+01	1.21833E+01	-1.11411E+00	-4.74059E-01	7.61411E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	7.663925128	8.9	0.154433374	3.15572E+00	7.48683E+00	1.57790E+01	1.77643E+00	6.98104E-01	7.12357E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	11.70061885	13.1	0.094291384	3.48471E+00	2.14269E+00	4.14890E-03	1.86674E+00	5.73217E-01	1.12333E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	9.750419408	11.6	0.113008889	5.53288E+00	1.31094E-03	3.55619E+00	2.35221E+00	7.90736E-01	9.24779E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	14.4586077	17.15	0.071616541	9.66508E+00	3.04019E+01	7.96595E+00	3.10887E+00	8.31973E-01	1.40411E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	18.64777144	19.1	0.058447283	6.30350E-01	5.57082E+01	4.91620E+01	7.93946E-01	1.91943E-01	1.83061E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	14.75844448	17.2	0.070661787	8.14310E+00	3.09558E+01	9.74837E+00	2.85361E+00	7.58555E-01	1.43464E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	12.85149062	14.05	0.085719434	2.70620E+00	5.82640E+00	1.47691E+00	1.64505E+00	4.81637E-01	1.24049E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	19.69172932	19.7	0.055756836	1.09633E-01	6.50248E+01	6.48914E+01	3.31108E-01	7.81842E-02	1.93689E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	19.8993224	15.5	0.063256938	1.66484E+01	1.49289E+01	6.82791E+01	-4.08024E+00	-1.02622E+00	1.95802E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	19.32939721	25.8	0.048719492	4.62399E+01	2.00613E+02	5.91852E+01	6.79999E+00	1.50093E+00	1.90000E+01	PMSB-BWBK-SB-SO13-0104-PM
PMSB	PMSB-BWBK-SB-SO14-0105-PM	22.80195664	22.2	0.04821506	1.12471E-01	1.11594E+02	1.24674E+02	-3.35367E-01	-7.36397E-02	2.25354E+01	
SESB	SESB-BWBK-SB-SO03-0108	27.93140928	30.5	0.036472932	7.52083E+00	3.55843E+02	2.65534E+02	2.74241E+00	5.23743E-01	2.77576E+01	
SESB	SESB-BWBK-SB-SO04-0108	21.68012676	23.4	0.048181345	4.02705E+00	1.38387E+02	1.00880E+02	2.00675E+00	4.40487E-01	2.13932E+01	
SESB	SESB-BWBK-SB-SO05-0106	19.48157972	20.5	0.05488954	1.80918E+00	7.85668E+01	6.15499E+01	1.34506E+00	3.15127E-01	1.91549E+01	
SESB	SESB-BWBK-SB-SO06-0108	25.47779829	23.6	0.043926137	2.75428E+00	1.43132E+02	1.91590E+02	-1.65960E+00	-3.47829E-01	2.52596E+01	
SESB	SESB-BWBK-SB-SO07-0106	20.50125104	23.3	0.049800627	9.65312E+00	1.36044E+02	7.85890E+01	3.10695E+00	6.93348E-01	2.01931E+01	
SESB	SESB-BWBK-SB-SO08-0107	25.67081461	26.8	0.040875414	1.80604E+00	2.29941E+02	1.96970E+02	1.34389E+00	2.71704E-01	2.54561E+01	
SESB	SESB-BWBK-SB-SO09-0106	18.59971225	18.7	0.059212046	1.96138E-01	4.98972E+01	4.84904E+01	4.42874E-01	1.07767E-01	1.82571E+01	
SESB	SESB-BWBK-SB-SO11-0106	21.80248013	19.8	0.052569161	2.95089E+00	6.66475E+01	1.03353E+02	-1.71782E+00	-3.93860E-01	2.15178E+01	
SESB	SESB-BWBK-SB-SO12-0106	22.01604571	24.7	0.046413113	8.78978E+00	1.70663E+02	1.07741E+02	2.96476E+00	6.38718E-01	2.17352E+01	
SESB	SESB-BWBK-SB-SO15-0103	12.09368646	11.2	0.101188031	1.87869E-01	1.90276E-01	2.09288E-01	-4.33439E-01	-1.37877E-01	1.16334E+01	
SESB	SESB-BWBK-SB-SO16-0105	14.81313352	13.5	0.080732869	8.13724E-01	3.47372E+00	1.00929E+01	-9.02067E-01	-2.56309E-01	1.44021E+01	
SESB	SESB-BWBK-SB-SO17-0106	11.94165197	12.7	0.094814083	1.49168E+00	1.13166E+00	9.32967E-02	1.22135E+00	3.76075E-01	1.14787E+01	
SESB	SESB-BWBK-SB-SO18-0105	10.17403868	11.1	0.112930123	2.01903E+00	2.87518E-01	2.13794E+00	1.42093E+00	4.77503E-01	9.67907E+00	
SESB	SESB-BWBK-SB-SO19-0104	12.85598362	13	0.089561697	3.48664E-01	1.85993E+00	1.48786E+00	5.90478E-01	1.76712E-01	1.24095E+01	
SESB	SESB-BWBK-SB-SO20-0104	18.30803065	21.1	0.055939909	9.85854E+00	8.95634E+01	4.45132E+01	3.13983E+00	7.42621E-01	1.79602E+01	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: CU
X variable name used on graph: NI

	N	174.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.266508E+02
0.10	t-Value: 2-tail, 0.100 alpha	1.653761
degrees freedom	SUM(XY*w^2)	2.108259E+03
2	SUM(X^2*w^2)	2.500367E+03
	SUM(X*w^2)	1.628414E+02
	SUM(Y*w^2)	1.384284E+02
	SUM(w^2)	1.290306E+01
	SUM(Y)	2024.700000
	SUM(X)	2.359150E+03
	Denominator	5.745045E+03
	Slope	8.113249E-01
	Intercept	4.891190E-01
	Minimum X value	2.800000E+00
	Maximum X value	3.710000E+01
	Minimum Y value	1.600000E+00
	Maximum Y value	4.370000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	2.213188E+03
	SUM(Yobs - Yave)^2	7.064807E+03
	SUM(X - Xave)^2	7.435105E+03
	Std. Error of Y-estimate	3.587112E+00
	R^2	6.867306E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	8.11E-01	11

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		25
Inverse Log Transform (Y/N)?	No	50
Inverse Power Transform (Y/N)?	No	75
Inverse Power Transform (1/Power):	1	90

TEXT BOX ==> (CU) = (8.11E-01)x(NI) + (4.89E-01) R^2 = 0.69; Std. Error of Y-estimate = 3.59E+00

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,13.6)*MAX(y-Ymin,11.0)). 95% C

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
2.80	2.76	-2.26	7.78	-2.60	2.60	-0.02	No. of Exceedances
4.23	3.92	-1.09	8.93	-2.60	2.60	-0.02	of Upper 95% Limit
5.66	5.08	0.08	10.08	-2.60	2.60	-0.02	for Each Soil Type:
7.09	6.24	1.25	11.23	-2.60	2.60	-0.02	---- V ----
8.52	7.40	2.42	12.38	-2.60	2.60	-0.02	BASS
9.95	8.56	3.58	13.54	-2.60	2.60	-0.02	1
11.38	9.72	4.74	14.69	-2.60	2.60	-0.02	MASS
12.80	10.88	5.90	15.85	-2.60	2.60	-0.02	0
14.23	12.04	7.06	17.01	-2.60	2.60	-0.02	MMSS
15.66	13.20	8.15	18.24	-2.60	2.60	-0.02	0
17.09	14.36	9.12	19.59	-2.60	2.60	-0.02	NESS
18.52	15.52	10.03	21.00	-2.60	2.60	-0.02	4
19.95	16.68	10.95	22.40	-2.60	2.60	-0.02	PMSS
21.38	17.83	11.88	23.79	-2.60	2.60	-0.02	0
22.81	18.99	12.81	25.17	-2.60	2.60	-0.02	SESS
24.24	20.15	13.76	26.55	-2.60	2.60	-0.02	0
25.67	21.31	14.70	27.92	-2.60	2.60	-0.02	SESD
27.10	22.47	15.66	29.29	-2.60	2.60	-0.02	0
28.53	23.63	16.61	30.65	-2.60	2.60	-0.02	MASB
29.95	24.79	17.58	32.01	-2.60	2.60	-0.02	1
31.38	25.95	18.54	33.36	-2.60	2.60	-0.02	MMSB
32.81	27.11	19.51	34.71	-2.60	2.60	-0.02	1
34.24	28.27	20.49	36.05	-2.60	2.60	-0.02	NESB
35.67	29.43	21.46	37.40	-2.60	2.60	-0.02	1
37.10	30.59	22.44	38.74	-2.60	2.60	-0.02	PMSB
8.70	7.55	2.57	12.53	7.55	-66%	66%	0
12.20	10.39	5.41	15.36	10.39	-48%	48%	SESB
17.60	14.77	9.44	20.10	14.77	-36%	36%	0
23.19	19.30	13.06	25.54	19.30	-32%	32%	<<--Original Units Errors

+/-3 x IQR of r -2.601838 2.601838

TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 V - wt.descrip. Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,13.6)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	redicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AG	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	5.9	3.7	0.081868671	2.48357E+00	6.29834E+01	5.86501E+01	-1.57594E+00	-4.50918E-01	5.27594E+00	
BASS	BASS-BWBK-SS-BA102-0001	5.2	3.2	0.081868671	2.27409E+00	7.11696E+01	6.98617E+01	-1.50801E+00	-4.31482E-01	4.70801E+00	
BASS	BASS-BWBK-SS-BA103-0001	5.7	3.2	0.081868671	3.66214E+00	7.11696E+01	6.17534E+01	-1.91367E+00	-5.47553E-01	5.11367E+00	
BASS	BASS-BWBK-SS-BA104-0001	7.1	3.8	0.081868671	6.00018E+00	6.14061E+01	4.17101E+01	-2.44953E+00	-7.00876E-01	6.24953E+00	
BASS	BASS-BWBK-SS-BA105-0001	6.4	3.4	0.081868671	5.20569E+00	6.78351E+01	5.12417E+01	-2.28160E+00	-6.52827E-01	5.68160E+00	
BASS	BASS-BWBK-SS-BA106-0001	7.85	4.6	0.081868671	5.09865E+00	4.95082E+01	3.25851E+01	-2.25802E+00	-6.46080E-01	6.85802E+00	
BASS	BASS-BWBK-SS-BA107-0001	5.2	2.9	0.081868671	3.26890E+00	7.63213E+01	6.98617E+01	-1.80801E+00	-5.17320E-01	4.70801E+00	
BASS	BASS-BWBK-SS-BA108-0001	5.6	3.5	0.081868671	2.34867E+00	6.61979E+01	6.33351E+01	-1.53254E+00	-4.38501E-01	5.03254E+00	
BASS	BASS-BWBK-SS-BA109-0001	8.2	5.5	0.081868671	2.69611E+00	3.76530E+01	2.87117E+01	-1.64198E+00	-4.69816E-01	7.14198E+00	
BASS	BASS-BWBK-SS-BA110-0001	7.5	4.3	0.081868671	5.17133E+00	5.38199E+01	3.67034E+01	-2.27406E+00	-6.50669E-01	6.57406E+00	
BASS	BASS-BWBK-SS-BA111-0001	5.7	2.8	0.081868671	5.35307E+00	7.80786E+01	6.17534E+01	-2.31367E+00	-6.62004E-01	5.11367E+00	
BASS	BASS-BWBK-SS-BA112-0001	5.2	2.7	0.081868671	4.03210E+00	7.98558E+01	6.98617E+01	-2.00801E+00	-5.74546E-01	4.70801E+00	
BASS	BASS-BWBK-SS-BA113-0001	5.6	10.05	0.081868671	2.51749E+01	2.51605E+00	6.33351E+01	5.01746E+00	1.43563E+00	5.03254E+00	BASS-BWBK-SS-BA113-0001
MASB	MASB-BWBK-SB-MA01-0105	21.9	18.3	0.055991884	1.83742E-03	4.44061E+01	6.95834E+01	4.28651E-02	1.01430E-02	1.82571E+01	
MASB	MASB-BWBK-SB-MA02-0107	23.5	17.5	0.055120896	4.22407E+00	3.43841E+01	9.88367E+01	-2.05525E+00	-4.82529E-01	1.95553E+01	
MASB	MASB-BWBK-SB-MA03-0108	25.4	20.8	0.048005961	8.80737E-02	8.39751E+01	1.40225E+02	-2.96772E-01	-6.50235E-02	2.10968E+01	
MASB	MASB-BWBK-SB-MA04-0106	24.5	18	0.053008829	5.60070E+00	4.04979E+01	1.19720E+02	-2.36658E+00	-5.44873E-01	2.03666E+01	
MASB	MASB-BWBK-SB-MA05-0108	22.1	17.3	0.057447551	1.25306E+00	3.20786E+01	7.29601E+01	-1.11940E+00	-2.68300E-01	1.84194E+01	
MASB	MASB-BWBK-SB-MA06-0105	21.8	17.5	0.057534009	4.56979E-01	3.43841E+01	6.79251E+01	-6.76002E-01	-1.62148E-01	1.81760E+01	
MASB	MASB-BWBK-SB-MA07-0108	19.1	11.5	0.074680954	2.01190E+01	1.85523E-02	3.07101E+01	-4.48543E+00	-1.22577E+00	1.59854E+01	
MASB	MASB-BWBK-SB-MA08-0108	25.35	17.8	0.052320179	1.06029E+01	3.79923E+01	1.39043E+02	-3.25621E+00	-7.44812E-01	2.10562E+01	
MASB	MASB-BWBK-SB-MA09-0108	21.5	24.4	0.048429699	4.18272E+01	1.62914E+02	6.30701E+01	6.46740E+00	1.42326E+00	1.79326E+01	MASB-BWBK-SB-MA09-0108

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,13.6)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AG	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	15.8	11.3	0.081868671	4.03228E+00	1.13035E-01	5.02507E+00	-2.00805E+00	-5.74558E-01	1.33081E+01	
MASB	MASB-BWBK-SB-MA11-0108	22.7	20.5	0.05156352	2.54022E+00	7.85668E+01	8.35701E+01	1.59381E+00	3.61915E-01	1.89062E+01	
MASB	MASB-BWBK-SB-MA12-0108	24.6	19.8	0.050203739	4.19531E-01	6.66475E+01	1.21918E+02	-6.47712E-01	-1.45128E-01	2.04477E+01	
MASB	MASB-BWBK-SB-MA13-0105	12.3	10.5	0.081868671	9.97577E-04	1.29097E+00	1.58340E+00	3.15844E-02	9.03716E-03	1.04684E+01	
MASB	MASB-BWBK-SB-MA14-0104	17.3	15.75	0.069813238	1.50053E+00	1.69233E+01	1.40001E+01	1.22496E+00	3.23661E-01	1.45250E+01	
MASB	MASB-BWBK-SB-MA15-0105	15.1	13.2	0.079723267	2.11485E-01	2.44545E+00	2.37674E+00	4.59875E-01	1.29847E-01	1.27401E+01	
MASB	MASB-BWBK-SB-MA16-0104	14.3	12.5	0.081868671	1.67227E-01	7.46139E-01	5.50069E-01	4.08935E-01	1.17007E-01	1.20911E+01	
MASB	MASB-BWBK-SB-MA17-0104	11.8	6.1	0.081868671	1.57034E+01	3.06496E+01	3.09174E+00	-3.96275E+00	-1.13385E+00	1.00628E+01	
MASB	MASB-BWBK-SB-MA18-0104	13.4	10	0.081868671	1.85198E+00	2.67717E+00	2.50694E-02	-1.36087E+00	-3.89383E-01	1.13609E+01	
MASB	MASB-BWBK-SB-MA19-0103	12.1	6.9	0.081868671	1.16019E+01	2.24317E+01	2.12674E+00	-3.40615E+00	-9.74592E-01	1.03062E+01	
MASB	MASB-BWBK-SB-MA20-0103	21	16.9	0.059926455	3.93057E-01	2.77075E+01	5.53784E+01	-6.26942E-01	-1.53475E-01	1.75269E+01	
MASS	MASS-BWBK-SS-MA01-0001	5.3	1.6	0.081868671	1.01706E+01	1.00725E+02	6.82001E+01	-3.18914E+00	-9.12499E-01	4.78914E+00	
MASS	MASS-BWBK-SS-MA02-0001	8.7	3.6	0.081868671	1.55839E+01	6.45806E+01	2.36034E+01	-3.94765E+00	-1.12953E+00	7.54765E+00	
MASS	MASS-BWBK-SS-MA03-0001	8	4.3	0.081868671	7.18089E+00	5.38199E+01	3.08951E+01	-2.67972E+00	-7.66740E-01	6.97972E+00	
MASS	MASS-BWBK-SS-MA04-0001	10.3	4.9	0.081868671	1.55691E+01	4.53765E+01	1.06167E+01	-3.94577E+00	-1.12899E+00	8.84577E+00	
MASS	MASS-BWBK-SS-MA05-0001	13.9	9.4	0.081868671	5.60049E+00	5.00062E+00	1.16736E-01	-2.36654E+00	-6.77130E-01	1.17665E+01	
MASS	MASS-BWBK-SS-MA06-0001	13.3	9	0.081868671	5.19722E+00	6.94959E+00	6.67361E-02	-2.27974E+00	-6.52295E-01	1.12797E+01	
MASS	MASS-BWBK-SS-MA07-0001	2.8	1.8	0.081868671	9.23192E-01	9.67510E+01	1.15742E+02	-9.60829E-01	-2.74919E-01	2.76083E+00	
MASS	MASS-BWBK-SS-MA08-0001	9.5	6.3	0.081868671	3.59749E+00	2.84751E+01	1.64701E+01	-1.89671E+00	-5.42699E-01	8.19671E+00	
MASS	MASS-BWBK-SS-MA09-0001	15	10.6	0.081868671	4.23945E+00	1.07372E+00	2.07840E+00	-2.05899E+00	-5.89133E-01	1.26590E+01	
MASS	MASS-BWBK-SS-MA10-0001	13.6	6.7	0.081868671	2.32627E+01	2.43661E+01	1.73611E-03	-4.82314E+00	-1.38003E+00	1.15231E+01	
MASS	MASS-BWBK-SS-MA11-0001	13	6.7	0.081868671	1.88039E+01	2.43661E+01	3.11736E-01	-4.33634E+00	-1.24074E+00	1.10363E+01	
MASS	MASS-BWBK-SS-MA12-0001	11.8	4.2	0.081868671	3.43719E+01	5.52972E+01	3.09174E+00	-5.86275E+00	-1.67749E+00	1.00628E+01	
MASS	MASS-BWBK-SS-MA13-0001	8.7	4.6	0.081868671	8.68862E+00	4.95082E+01	2.36034E+01	-2.94765E+00	-8.43401E-01	7.54765E+00	
MASS	MASS-BWBK-SS-MA14-0001	6.8	6.5	0.081868671	2.43909E-01	2.63806E+01	4.56751E+01	4.93872E-01	1.41310E-01	6.00613E+00	
MASS	MASS-BWBK-SS-MA15-0001	7	3.7	0.081868671	6.09297E+00	6.29834E+01	4.30117E+01	-2.46839E+00	-7.06274E-01	6.16839E+00	
MASS	MASS-BWBK-SS-MA16-0001	8.7	7.1	0.081868671	2.00387E-01	2.05772E+01	2.36034E+01	-4.47646E-01	-1.28084E-01	7.54765E+00	
MASS	MASS-BWBK-SS-MA17-0001	9	5.8	0.081868671	3.96425E+00	3.40613E+01	2.07784E+01	-1.99104E+00	-5.69691E-01	7.79104E+00	
MASS	MASS-BWBK-SS-MA18-0001	7.9	4.2	0.081868671	7.28237E+00	5.52972E+01	3.20167E+01	-2.69859E+00	-7.72138E-01	6.89859E+00	
MASS	MASS-BWBK-SS-MA19-0001	9.2	5.6	0.081868671	5.53806E+00	3.64358E+01	1.89951E+01	-2.35331E+00	-6.73345E-01	7.95331E+00	
MASS	MASS-BWBK-SS-MA20-0001	12.4	9.7	0.081868671	7.21732E-01	3.74890E+00	1.34174E+00	-8.49548E-01	-2.43079E-01	1.05495E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	12	13.5	0.078711938	1.07255E+01	3.47372E+00	2.42840E+00	3.27498E+00	9.18817E-01	1.02250E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	17.7	14.7	0.071576625	2.23712E-02	9.38683E+00	1.71534E+01	-1.49570E-01	-4.00157E-02	1.48496E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	13	13.5	0.078711938	6.06961E+00	3.47372E+00	3.11736E-01	2.46366E+00	6.91195E-01	1.10363E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	12.9	43.7	0.041847839	1.07222E+03	1.02809E+03	4.33403E-01	3.27448E+01	6.69852E+00	1.09552E+01	MMSB-BWBK-SB-MM104-0110
MMSB	MMSB-BWBK-SB-MM105-0110	10.3	10.5	0.081868671	2.73649E+00	1.29097E+00	1.06167E+01	1.65423E+00	4.73321E-01	8.84577E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	15.9	16.7	0.06987561	1.09615E+01	2.56420E+01	5.48340E+00	3.31081E+00	8.75181E-01	1.33892E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	11.4	13.3	0.079381839	1.26863E+01	2.76821E+00	4.65840E+00	3.56178E+00	1.00352E+00	9.73822E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	11	11.7	0.081868671	5.22720E+00	4.06956E-03	6.54507E+00	2.28631E+00	6.54174E-01	9.41369E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	13.4	13.8	0.077738144	5.94934E+00	4.68200E+00	2.50694E-02	2.43913E+00	6.80067E-01	1.13609E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	12	14	0.077108675	1.42505E+01	5.58752E+00	2.42840E+00	3.77498E+00	1.04825E+00	1.02250E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	13.3	13	0.080419554	2.95929E+00	1.85993E+00	6.67361E-02	1.72026E+00	4.87837E-01	1.12797E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	14.15	9.2	0.081868671	7.66939E+00	5.93510E+00	3.50069E-01	-2.76937E+00	-7.92391E-01	1.19694E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	14.6	14.8	0.07473553	6.07887E+00	1.00096E+01	1.08507E+00	2.46554E+00	6.74024E-01	1.23345E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	11.2	10	0.081868671	1.79811E-01	2.67717E+00	5.56174E+00	4.24042E-01	1.21330E-01	9.57596E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	9.7	9.4	0.081868671	1.08374E+00	5.00062E+00	1.48867E+01	1.04103E+00	2.97867E-01	8.35897E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	13	12.95	0.080596495	3.66208E+00	1.72605E+00	3.11736E-01	1.91366E+00	5.43278E-01	1.10363E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	10.6	12.1	0.081868671	9.06514E+00	2.15104E-01	8.75174E+00	3.01084E+00	8.61482E-01	9.08916E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	22.6	19.2	0.053568696	1.40578E-01	5.72110E+01	8.17517E+01	3.74938E-01	8.67790E-02	1.88251E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	11.9	10.9	0.081868671	5.71709E-01	5.42001E-01	2.75007E+00	7.56114E-01	2.16345E-01	1.01439E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	7.6	9.6	0.081868671	8.67192E+00	4.14614E+00	3.55017E+01	2.94481E+00	8.42590E-01	6.65519E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	9.6	9.1	0.081868671	6.75950E-01	6.43235E+00	1.56684E+01	8.22162E-01	2.35243E-01	8.27784E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	8.2	5.5	0.081868671	2.69611E+00	3.76530E+01	2.87117E+01	-1.64198E+00	-4.69816E-01	7.14198E+00	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,13.6)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AG	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	9.2	8.4	0.081868671	1.99533E-01	1.04730E+01	1.89951E+01	4.46692E-01	1.27811E-01	7.95331E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	10.6	11.3	0.081868671	4.88780E+00	1.13035E-01	8.75174E+00	2.21084E+00	6.32580E-01	9.08916E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	6.7	6.5	0.081868671	3.30630E-01	2.63806E+01	4.70367E+01	5.75004E-01	1.64524E-01	5.92500E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	10.1	10.3	0.081868671	2.61307E+00	1.78545E+00	1.19601E+01	1.61650E+00	4.62524E-01	8.68350E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	10.3	8.6	0.081868671	6.04008E-02	9.21855E+00	1.06167E+01	-2.45766E-01	-7.03202E-02	8.84577E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	8.5	7.7	0.081868671	9.89852E-02	1.54937E+01	2.55867E+01	3.14619E-01	9.00210E-02	7.38538E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	8.2	5.7	0.081868671	2.07932E+00	3.52386E+01	2.87117E+01	-1.44198E+00	-4.12590E-01	7.14198E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	4.7	4.2	0.081868671	1.04747E-02	5.52972E+01	7.84701E+01	-1.02346E-01	-2.92840E-02	4.30235E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	5.3	3.7	0.081868671	1.18623E+00	6.29834E+01	6.82001E+01	-1.08914E+00	-3.11633E-01	4.78914E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	4.8	4.3	0.081868671	6.96868E-03	5.38199E+01	7.67084E+01	-8.34786E-02	-2.38855E-02	4.38348E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	7.3	7	0.081868671	3.45990E-01	2.14944E+01	3.91667E+01	5.88209E-01	1.68303E-01	6.41179E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	4.5	3.6	0.081868671	2.91688E-01	6.45806E+01	8.20534E+01	-5.40081E-01	-1.54532E-01	4.14008E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	5.5	4.5	0.081868671	2.03767E-01	5.09254E+01	6.49367E+01	-4.51406E-01	-1.29159E-01	4.95141E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	5	3.8	0.081868671	5.56134E-01	6.14061E+01	7.32451E+01	-7.45744E-01	-2.13377E-01	4.54574E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	8.4	7.8	0.081868671	2.45770E-01	1.47165E+01	2.66084E+01	4.95752E-01	1.41848E-01	7.30425E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	9	8.2	0.081868671	1.67246E-01	1.18075E+01	2.07784E+01	4.08957E-01	1.17014E-01	7.79104E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	9.1	7.4	0.081868671	2.22950E-01	1.79454E+01	1.98767E+01	-4.72176E-01	-1.35102E-01	7.87218E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	8.9	9.1	0.081868671	1.93235E+00	6.43235E+00	2.17001E+01	1.39009E+00	3.97742E-01	7.70991E+00	
NESB	NESB-BWBK-SB-NE01-0108	19	16.5	0.064364938	3.54867E-01	2.36565E+01	2.96117E+01	5.95707E-01	1.51132E-01	1.59043E+01	
NESB	NESB-BWBK-SB-NE02-0109	17.8	15.3	0.069758011	1.36381E-01	1.34234E+01	1.79917E+01	3.69297E-01	9.75379E-02	1.49307E+01	
NESB	NESB-BWBK-SB-NE03-0105	15.6	14.4	0.07589429	1.57305E+00	7.63855E+00	4.16840E+00	1.25421E+00	3.45522E-01	1.31458E+01	
NESB	NESB-BWBK-SB-NE04-0110	15.6	14.4	0.07589429	1.57305E+00	7.63855E+00	4.16840E+00	1.25421E+00	3.45522E-01	1.31458E+01	
NESB	NESB-BWBK-SB-NE05-0108	17.75	15.9	0.068392958	1.01982E+00	1.81799E+01	1.75701E+01	1.00986E+00	2.64100E-01	1.48901E+01	
NESB	NESB-BWBK-SB-NE06-0109	16.9	15	0.072750845	6.39184E-01	1.13151E+01	1.11667E+01	7.99490E-01	2.15641E-01	1.42005E+01	
NESB	NESB-BWBK-SB-NE07-0107	18.8	16.3	0.065205066	3.11333E-01	2.17510E+01	2.74751E+01	5.57972E-01	1.42480E-01	1.57420E+01	
NESB	NESB-BWBK-SB-NE08-0104	15.5	13	0.080419554	4.18031E-03	1.85993E+00	3.77007E+00	-6.46553E-02	-1.83352E-02	1.30647E+01	
NESB	NESB-BWBK-SB-NE09-0110	15.7	13.95	0.077264608	5.22844E-01	5.35364E+00	4.58674E+00	7.23080E-01	2.00991E-01	1.32269E+01	
NESB	NESB-BWBK-SB-NE10-0107	12.9	12.5	0.081868671	2.38637E+00	7.46139E-01	4.33403E-01	1.54479E+00	4.42006E-01	1.09552E+01	
NESB	NESB-BWBK-SB-NE101-0110	12.5	11.9	0.081868671	1.61117E+00	6.95868E-02	1.12007E+00	1.26932E+00	3.63187E-01	1.06307E+01	
NESB	NESB-BWBK-SB-NE102-0110	11	10.1	0.081868671	4.71017E-01	2.35993E+00	6.54507E+00	6.86307E-01	1.96371E-01	9.41369E+00	
NESB	NESB-BWBK-SB-NE103-0110	9.85	9.7	0.081868671	1.48677E+00	3.74890E+00	1.37517E+01	1.21933E+00	3.48883E-01	8.48067E+00	
NESB	NESB-BWBK-SB-NE104-0110	9	8.5	0.081868671	5.02620E-01	9.83579E+00	2.07784E+01	7.08957E-01	2.02852E-01	7.79104E+00	
NESB	NESB-BWBK-SB-NE105-0110	11.7	11.4	0.081868671	2.01180E+00	5.57937E-02	3.45340E+00	1.41838E+00	4.05837E-01	9.98162E+00	
NESB	NESB-BWBK-SB-NE106-0110	11.8	11.4	0.081868671	1.78823E+00	5.57937E-02	3.09174E+00	1.33725E+00	3.82622E-01	1.00628E+01	
NESB	NESB-BWBK-SB-NE107-0510	8.8	11	0.081868671	1.13651E+01	4.04759E-01	2.26417E+01	3.37122E+00	9.64598E-01	7.62878E+00	
NESB	NESB-BWBK-SB-NE108-0110	10.1	13.9	0.077421491	2.72119E+01	5.12476E+00	1.19601E+01	5.21650E+00	1.45148E+00	8.68350E+00	NESB-BWBK-SB-NE108-0110
NESB	NESB-BWBK-SB-NE109-0110	10.2	11.6	0.081868671	8.03930E+00	1.31094E-03	1.12784E+01	2.83537E+00	8.11275E-01	8.76463E+00	
NESB	NESB-BWBK-SB-NE110-0110	9.9	11.5	0.081868671	8.87304E+00	1.85523E-02	1.33834E+01	2.97876E+00	8.52305E-01	8.52124E+00	
NESS	NESS-BKG-SS03-NEB-0016	11.5	14	0.077108675	1.74778E+01	5.58752E+00	4.23674E+00	4.18064E+00	1.16090E+00	9.81936E+00	
NESS	NESS-BKG-SS09-NEB-0018	7.4	9.1	0.081868671	6.79685E+00	6.43235E+00	3.79251E+01	2.60708E+00	7.45955E-01	6.49292E+00	
NESS	NESS-BWBK-SS-NE01-0001	14.3	17.6	0.067881916	3.03484E+01	3.55668E+01	5.50069E-01	5.50893E+00	1.43531E+00	1.20911E+01	NESS-BWBK-SS-NE01-0001
NESS	NESS-BWBK-SS-NE02-0001	16.5	19.4	0.064036814	3.05148E+01	6.02765E+01	8.65340E+00	5.52402E+00	1.39788E+00	1.38760E+01	NESS-BWBK-SS-NE02-0001
NESS	NESS-BWBK-SS-NE03-0001	11.8	10.7	0.081868671	4.06084E-01	8.76483E-01	3.09174E+00	6.37247E-01	1.82334E-01	1.00628E+01	
NESS	NESS-BWBK-SS-NE04-0001	14.1	13.6	0.078383285	2.79291E+00	3.85648E+00	2.93403E-01	1.67120E+00	4.67886E-01	1.19288E+01	
NESS	NESS-BWBK-SS-NE05-0001	12.1	14.5	0.075599553	1.75884E+01	8.20131E+00	2.12674E+00	4.19385E+00	1.15311E+00	1.03062E+01	
NESS	NESS-BWBK-SS-NE06-0001	14.5	12.4	0.081868671	2.15120E-02	5.83380E-01	8.86736E-01	1.46670E-01	4.19661E-02	1.22533E+01	
NESS	NESS-BWBK-SS-NE07-0001	11.6	20.2	0.06295897	1.06080E+02	7.33386E+01	3.83507E+00	1.02995E+01	2.58432E+00	9.90049E+00	NESS-BWBK-SS-NE07-0001
NESS	NESS-BWBK-SS-NE08-0001	13	11.2	0.081868671	2.67836E-02	1.90276E-01	3.11736E-01	1.63657E-01	4.68267E-02	1.10363E+01	
NESS	NESS-BWBK-SS-NE09-0001	10.8	12.5	0.081868671	1.05532E+01	7.46139E-01	7.60840E+00	3.24857E+00	9.29504E-01	9.25143E+00	
NESS	NESS-BWBK-SS-NE10-0001	11.8	20.3	0.062790405	1.04801E+02	7.50613E+01	3.09174E+00	1.02372E+01	2.56525E+00	1.00628E+01	NESS-BWBK-SS-NE10-0001
NESS	NESS-BWBK-SS-NE101-0001	8.1	5.7	0.081868671	1.85192E+00	3.52386E+01	2.97934E+01	-1.36085E+00	-3.89376E-01	7.06085E+00	
NESS	NESS-BWBK-SS-NE102-0001	6.4	4.7	0.081868671	9.63536E-01	4.81110E+01	5.12417E+01	-9.81598E-01	-2.80862E-01	5.68160E+00	
NESS	NESS-BWBK-SS-NE103-0001	6.3	4.7	0.081868671	8.10839E-01	4.81110E+01	5.26834E+01	-9.00466E-01	-2.57648E-01	5.60047E+00	

APPENDIX F, TABLE F8-10
SUPPORT DATA FOR COPPER REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	MAX(x-Xmin,13.6)	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AG	DA!V	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI	CU	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	7.3	3.9	0.081868671	6.30909E+00	5.98489E+01	3.91667E+01	-2.51179E+00	-7.18691E-01	6.41179E+00	
NESS	NESS-BWBK-SS-NE105-0001	5.2	3.3	0.081868671	1.98249E+00	6.94923E+01	6.98617E+01	-1.40801E+00	-4.02869E-01	4.70801E+00	
NESS	NESS-BWBK-SS-NE106-0001	5.4	4.3	0.081868671	3.25212E-01	5.38199E+01	6.65584E+01	-5.70274E-01	-1.63171E-01	4.87027E+00	
NESS	NESS-BWBK-SS-NE107-0001	4.7	4.7	0.081868671	1.58129E-01	4.81110E+01	7.84701E+01	3.97654E-01	1.13780E-01	4.30235E+00	
NESS	NESS-BWBK-SS-NE108-0001	5.6	5.7	0.081868671	4.45505E-01	3.52386E+01	6.33351E+01	6.67461E-01	1.90979E-01	5.03254E+00	
NESS	NESS-BWBK-SS-NE109-0001	4.6	3.8	0.081868671	1.77421E-01	6.14061E+01	8.02517E+01	-4.21214E-01	-1.20521E-01	4.22121E+00	
NESS	NESS-BWBK-SS-NE110-0001	4.7	5.9	0.081868671	2.55250E+00	3.29041E+01	7.84701E+01	1.59765E+00	4.57132E-01	4.30235E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	21.3	10.5	0.070099964	5.28578E+01	1.29097E+00	5.99334E+01	-7.27034E+00	-1.92492E+00	1.77703E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	18.9	15.3	0.067332816	2.73696E-01	1.34234E+01	2.85334E+01	-5.23160E-01	-1.35753E-01	1.58232E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	23.4	17.8	0.054740515	2.80269E+00	3.79923E+01	9.68584E+01	-1.67412E+00	-3.91689E-01	1.94741E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	21.2	16.7	0.059993281	9.78531E-01	2.56420E+01	5.83951E+01	-9.89207E-01	-2.42292E-01	1.76892E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	19.3	14.8	0.067759636	1.81627E+00	1.00096E+01	3.29667E+01	-1.34769E+00	-3.50813E-01	1.61477E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	19	12.8	0.074239234	9.63663E+00	1.35441E+00	2.96117E+01	-3.10429E+00	-8.45823E-01	1.59043E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	15	10.2	0.081868671	6.04665E+00	2.06269E+00	2.07840E+00	-2.45899E+00	-7.03584E-01	1.26590E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	18.3	12.3	0.076583958	9.21951E+00	4.40621E-01	2.24834E+01	-3.03637E+00	-8.40278E-01	1.53364E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	16.6	10.7	0.081164126	1.06088E+01	8.76483E-01	9.25174E+00	-3.25711E+00	-9.27929E-01	1.39571E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	15.1	15.2	0.073628276	6.05098E+00	1.27006E+01	2.37674E+00	2.45987E+00	6.67475E-01	1.27401E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	21.1	14.3	0.065595281	1.09434E+01	7.09579E+00	5.68767E+01	-3.30807E+00	-8.47250E-01	1.76081E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	12.7	9.2	0.081868671	2.53748E+00	5.93510E+00	7.36736E-01	-1.59295E+00	-4.55785E-01	1.07929E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	11.4	6.5	0.081868671	1.04861E+01	2.63806E+01	4.65840E+00	-3.23822E+00	-9.26543E-01	9.73822E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	11.8	8.9	0.081868671	1.35199E+00	7.48683E+00	3.09174E+00	-1.16275E+00	-3.32695E-01	1.00628E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	15.2	13.1	0.08006914	7.76972E-02	2.14269E+00	2.69507E+00	2.78742E-01	7.88742E-02	1.28213E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	13.6	11.6	0.081868671	5.90777E-03	1.31094E-03	1.73611E-03	7.68620E-02	2.19923E-02	1.15231E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	16.75	17.15	0.067896549	9.43220E+00	3.04019E+01	1.01867E+01	3.07119E+00	8.00259E-01	1.40788E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	21.2	19.1	0.055727821	1.99034E+00	5.57082E+01	5.83951E+01	1.41079E+00	3.33042E-01	1.76892E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	18.2	17.2	0.064517472	3.78212E+00	3.09558E+01	2.15451E+01	1.94477E+00	4.93977E-01	1.52552E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	16.75	14.05	0.075880157	8.30102E-04	5.82640E+00	1.01867E+01	-2.88115E-02	-7.93651E-03	1.40788E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	23.6	19.7	0.051538176	4.04658E-03	6.50248E+01	1.00835E+02	6.36128E-02	1.44414E-02	1.96364E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	21.2	15.5	0.062529317	4.79263E+00	1.49289E+01	5.83951E+01	-2.18921E+00	-5.47430E-01	1.76892E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	25.6	25.8	0.042572082	2.06203E+01	2.00613E+02	1.45002E+02	4.54096E+00	9.36937E-01	2.12590E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	27.1	22.2	0.044695444	7.61895E-02	1.11594E+02	1.83377E+02	-2.76024E-01	-5.83552E-02	2.24760E+01	
SESB	SESB-BWBK-SB-SO03-0108	37.1	30.5	0.03176172	7.96980E-03	3.55843E+02	5.54210E+02	-8.92738E-02	-1.59102E-02	3.05893E+01	
SESB	SESB-BWBK-SB-SO04-0108	26.8	23.4	0.043718589	1.36276E+00	1.38387E+02	1.75342E+02	1.16737E+00	2.44086E-01	2.22326E+01	
SESB	SESB-BWBK-SB-SO05-0106	24.6	20.5	0.049265268	2.73402E-03	7.85668E+01	1.21918E+02	5.22878E-02	1.16057E-02	2.04477E+01	
SESB	SESB-BWBK-SB-SO06-0108	30.4	23.6	0.040582063	2.41304E+00	1.43132E+02	2.83642E+02	-1.55340E+00	-3.12932E-01	2.51534E+01	
SESB	SESB-BWBK-SB-SO07-0106	29.1	23.3	0.041859329	6.37881E-01	1.36044E+02	2.41543E+02	-7.98674E-01	-1.63405E-01	2.40987E+01	
SESB	SESB-BWBK-SB-SO08-0107	31	26.8	0.037512428	1.34516E+00	2.29941E+02	3.04212E+02	1.15981E+00	2.24633E-01	2.56402E+01	
SESB	SESB-BWBK-SB-SO09-0106	23.6	18.7	0.05302373	8.76821E-01	4.98972E+01	1.00835E+02	-9.36387E-01	-2.15621E-01	1.96364E+01	
SESB	SESB-BWBK-SB-SO11-0106	27.2	19.8	0.047453625	7.60191E+00	6.66475E+01	1.86095E+02	-2.75716E+00	-6.00615E-01	2.25572E+01	
SESB	SESB-BWBK-SB-SO12-0106	26.6	24.7	0.042648674	6.91500E+00	1.70663E+02	1.70085E+02	2.62964E+00	5.43061E-01	2.20704E+01	
SESB	SESB-BWBK-SB-SO15-0103	15.7	11.2	0.081868671	4.10841E+00	1.90276E-01	4.58674E+00	-2.02692E+00	-5.79957E-01	1.32269E+01	
SESB	SESB-BWBK-SB-SO16-0105	20.5	13.5	0.068903278	1.31137E+01	3.47372E+00	4.81867E+01	-3.62128E+00	-9.50565E-01	1.71213E+01	
SESB	SESB-BWBK-SB-SO17-0106	17.8	12.7	0.077498426	4.97603E+00	1.13166E+00	1.79917E+01	-2.23070E+00	-6.20995E-01	1.49307E+01	
SESB	SESB-BWBK-SB-SO18-0105	15.1	11.1	0.081868671	2.69001E+00	2.87518E-01	2.37674E+00	-1.64013E+00	-4.69284E-01	1.27401E+01	
SESB	SESB-BWBK-SB-SO19-0104	16.5	13	0.080017926	7.67341E-01	1.85993E+00	8.65340E+00	-8.75980E-01	-2.47792E-01	1.38760E+01	
SESB	SESB-BWBK-SB-SO20-0104	21	21.1	0.053081966	1.27667E+01	8.95634E+01	5.53784E+01	3.57306E+00	8.23215E-01	1.75269E+01	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: NI
X variable name used on graph: NI predict (from Factor Anal.)

	N	214.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.132422E+02
0.10	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	3.574848E+03
2	SUM(X^2*w^2)	3.628355E+03
	SUM(X*w^2)	2.930705E+02
	SUM(Y*w^2)	2.992164E+02
	SUM(w^2)	3.059940E+01
	SUM(Y)	2785.400000
	SUM(X)	2.785400E+03
	Denominator	2.513517E+04
	Slope	8.632007E-01
	Intercept	1.511069E+00
	Minimum X value	2.749729E+00
	Maximum X value	3.212627E+01
	Minimum Y value	2.800000E+00
	Maximum Y value	3.710000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.146605E+03
	SUM(Yobs - Yave)^2	8.005421E+03
	SUM(X - Xave)^2	8.426368E+03
	Std. Error of Y-estimate	2.325622E+00
	R^2	8.567714E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	0.863	2.33

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		
Inverse Log Transform (Y/N)?	No	50
Inverse Power Transform (Y/N)?	No	75
Inverse Power Transform (1/Power):	1	90

TEXT BOX ==> (NI) = (8.63E-01)x(NI predict (from Factor Anal.)) + (1.51E+00) R^2 = 0.86; Std. Error of Y-estimate = 2.33E+00

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,2.7)*MAX(y-Ymin,2.3)). 95% Conf

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
2.75	3.88	1.94	5.83	-2.81	2.81	0.13	No. of Exceedances
3.97	4.94	3.00	6.88	-2.81	2.81	0.13	of Upper 95% Limit
5.20	6.00	3.91	8.09	-2.81	2.81	0.13	for Each Soil Type:
6.42	7.05	4.64	9.47	-2.81	2.81	0.13	---- \/ ----
7.65	8.11	5.37	10.85	-2.81	2.81	0.13	BASS
8.87	9.17	6.14	12.19	-2.81	2.81	0.13	0
10.09	10.22	6.94	13.51	-2.81	2.81	0.13	MASS
11.32	11.28	7.75	14.81	-2.81	2.81	0.13	1
12.54	12.34	8.58	16.10	-2.81	2.81	0.13	MMSS
13.77	13.39	9.42	17.37	-2.81	2.81	0.13	1
14.99	14.45	10.27	18.63	-2.81	2.81	0.13	NESS
16.21	15.51	11.13	19.89	-2.81	2.81	0.13	1
17.44	16.56	11.99	21.13	-2.81	2.81	0.13	PMSS
18.66	17.62	12.87	22.37	-2.81	2.81	0.13	0
19.89	18.68	13.75	23.60	-2.81	2.81	0.13	SESS
21.11	19.73	14.64	24.83	-2.81	2.81	0.13	0
22.33	20.79	15.53	26.05	-2.81	2.81	0.13	SESD
23.56	21.85	16.42	27.27	-2.81	2.81	0.13	0
24.78	22.90	17.32	28.48	-2.81	2.81	0.13	MASB
26.01	23.96	18.23	29.69	-2.81	2.81	0.13	0
27.23	25.02	19.13	30.90	-2.81	2.81	0.13	MMSB
28.45	26.07	20.04	32.10	-2.81	2.81	0.13	1
29.68	27.13	20.96	33.30	-2.81	2.81	0.13	NESB
30.90	28.19	21.87	34.50	-2.81	2.81	0.13	0
32.13	29.24	22.79	35.69	-2.81	2.81	0.13	PMSB
8.32	8.69	5.79	11.59	8.69	-33%	33%	0
11.90	11.79	8.14	15.43	11.79	-31%	31%	SESB
17.24	16.39	11.85	20.93	16.39	-28%	28%	2
22.31	20.77	15.51	26.03	20.77	-25%	25%	<<--Original Units Errors

+/-3 x IQR of r -2.807962 2.807962

TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5 Y-Pred.

Indexed value lookups:		X data column ref.	Y data column ref.	\/ - wt.descrip.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
Specify X-col., Y-col. as: "DA!" + column		DA!V	DA!W	(MAX(x-Xmin,2.7)*	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	NI predict	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	8.678175374	5.9	0.233264521	9.62287E+00	5.06359E+01	1.88157E+01	-3.10208E+00	-1.49822E+00	9.00208E+00	
BASS	BASS-BWBK-SS-BA102-0001	7.617127093	5.2	0.292580868	8.33002E+00	6.10881E+01	2.91466E+01	-2.88618E+00	-1.56116E+00	8.08618E+00	
BASS	BASS-BWBK-SS-BA103-0001	7.854069284	5.7	0.259914897	6.71176E+00	5.35222E+01	2.66444E+01	-2.59071E+00	-1.32079E+00	8.29071E+00	
BASS	BASS-BWBK-SS-BA104-0001	8.757712391	7.1	0.196743953	3.88378E+00	3.49977E+01	1.81321E+01	-1.97073E+00	-8.74134E-01	9.07073E+00	
BASS	BASS-BWBK-SS-BA105-0001	8.681016024	6.4	0.216408474	6.78356E+00	4.37700E+01	1.87911E+01	-2.60453E+00	-1.21162E+00	9.00453E+00	
BASS	BASS-BWBK-SS-BA106-0001	9.080694356	7.85	0.176855808	2.24859E+00	2.66864E+01	1.54857E+01	-1.49953E+00	-6.30616E-01	9.34953E+00	
BASS	BASS-BWBK-SS-BA107-0001	7.535536662	5.2	0.295064348	7.92844E+00	6.10881E+01	3.00342E+01	-2.81575E+00	-1.52951E+00	8.01575E+00	
BASS	BASS-BWBK-SS-BA108-0001	7.697375217	5.6	0.268671528	6.53031E+00	5.49954E+01	2.82866E+01	-2.55545E+00	-1.32458E+00	8.15545E+00	
BASS	BASS-BWBK-SS-BA109-0001	8.575278411	8.2	0.17829315	5.08732E-01	2.31928E+01	1.97190E+01	-7.13255E-01	-3.01170E-01	8.91325E+00	
BASS	BASS-BWBK-SS-BA110-0001	8.739407354	7.5	0.188473069	2.41781E+00	3.04250E+01	1.82883E+01	-1.55493E+00	-6.75050E-01	9.05493E+00	
BASS	BASS-BWBK-SS-BA111-0001	7.996156487	5.7	0.256371146	7.36230E+00	5.35222E+01	2.51977E+01	-2.71336E+00	-1.37386E+00	8.41336E+00	
BASS	BASS-BWBK-SS-BA112-0001	7.882567864	5.2	0.284915151	9.70513E+00	6.10881E+01	2.63510E+01	-3.11531E+00	-1.66287E+00	8.31531E+00	
BASS	BASS-BWBK-SS-BA113-0001	10.64047933	5.6	0.212746204	2.59686E+01	5.49954E+01	5.64257E+00	-5.09594E+00	-2.35047E+00	1.06959E+01	
MASB	MASB-BWBK-SB-MA01-0105	24.41080211	21.9	0.04916356	4.65792E-01	7.89274E+01	1.29844E+02	-6.82489E-01	-1.51327E-01	2.25825E+01	
MASB	MASB-BWBK-SB-MA02-0107	23.19318397	23.5	0.048611349	3.87523E+00	1.09917E+02	1.03577E+02	1.96856E+00	4.34028E-01	2.15314E+01	
MASB	MASB-BWBK-SB-MA03-0108	32.126267	25.4	0.038810163	1.47647E+01	1.53366E+02	3.65207E+02	-3.84248E+00	-7.56981E-01	2.92425E+01	
MASB	MASB-BWBK-SB-MA04-0106	24.17623764	24.5	0.046376121	4.49434E+00	1.31885E+02	1.24553E+02	2.11999E+00	4.56542E-01	2.23800E+01	
MASB	MASB-BWBK-SB-MA05-0108	19.25386775	22.1	0.056030553	1.57528E+01	8.25211E+01	3.89124E+01	3.96898E+00	9.39488E-01	1.81310E+01	
MASB	MASB-BWBK-SB-MA06-0105	20.74603881	21.8	0.05407935	5.66886E+00	7.71606E+01	5.97552E+01	2.38094E+00	5.53686E-01	1.94191E+01	
MASB	MASB-BWBK-SB-MA07-0108	17.49542211	19.1	0.064502062	6.18453E+00	3.70164E+01	2.00662E+01	2.48687E+00	6.31597E-01	1.66131E+01	
MASB	MASB-BWBK-SB-MA08-0108	24.25225428	25.35	0.045413188	8.43536E+00	1.52130E+02	1.26256E+02	2.90437E+00	6.18932E-01	2.24456E+01	
MASB	MASB-BWBK-SB-MA09-0108	20.67631325	21.5	0.054617324	4.58441E+00	7.19802E+01	5.86821E+01	2.14112E+00	5.00388E-01	1.93589E+01	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,2.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!V	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI predict	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	17.32132399	15.8	0.07265655	4.39366E-01	7.75128E+00	1.85368E+01	-6.62847E-01	-1.78670E-01	1.64628E+01	
MASB	MASB-BWBK-SB-MA11-0108	22.33275231	22.7	0.050656314	3.65301E+00	9.37820E+01	8.68040E+01	1.91128E+00	4.30172E-01	2.07887E+01	
MASB	MASB-BWBK-SB-MA12-0108	23.45928093	24.6	0.047063736	8.05915E+00	1.34192E+02	1.09064E+02	2.83886E+00	6.15868E-01	2.17611E+01	
MASB	MASB-BWBK-SB-MA13-0105	11.59950161	12.3	0.109061667	6.02539E-01	5.12495E-01	2.00615E+00	7.76234E-01	2.56347E-01	1.15238E+01	
MASB	MASB-BWBK-SB-MA14-0104	17.08998819	17.3	0.069348567	1.07504E+00	1.83536E+01	1.65983E+01	1.03684E+00	2.73043E-01	1.62632E+01	
MASB	MASB-BWBK-SB-MA15-0105	13.43616797	15.1	0.087222982	3.96337E+00	4.34352E+00	1.76635E-01	1.99082E+00	5.87960E-01	1.31092E+01	
MASB	MASB-BWBK-SB-MA16-0104	15.54421863	14.3	0.082440305	3.95451E-01	1.64894E+00	6.39246E+00	-6.28849E-01	-1.80558E-01	1.49288E+01	
MASB	MASB-BWBK-SB-MA17-0104	14.37016353	11.8	0.097783945	4.47493E+00	1.47838E+00	1.83406E+00	-2.11540E+00	-6.61496E-01	1.39154E+01	
MASB	MASB-BWBK-SB-MA18-0104	11.44446387	13.4	0.104164296	4.04035E+00	1.47542E-01	2.46937E+00	2.01006E+00	6.48737E-01	1.13899E+01	
MASB	MASB-BWBK-SB-MA19-0103	11.40970625	12.1	0.111429489	5.47697E-01	8.38851E-01	2.57982E+00	7.40065E-01	2.47042E-01	1.13599E+01	
MASB	MASB-BWBK-SB-MA20-0103	20.28400395	21	0.055978389	3.91947E+00	6.37460E+01	5.28255E+01	1.97977E+00	4.68408E-01	1.90202E+01	
MASS	MASS-BWBK-SS-MA01-0001	5.069420017	5.3	0.384908439	3.44564E-01	5.95349E+01	6.31464E+01	-5.86995E-01	-3.64178E-01	5.88700E+00	
MASS	MASS-BWBK-SS-MA02-0001	6.46761551	8.7	0.213513777	2.57950E+00	1.86269E+01	4.28799E+01	1.60608E+00	7.42131E-01	7.09392E+00	
MASS	MASS-BWBK-SS-MA03-0001	6.778129108	8	0.218490221	4.07102E-01	2.51591E+01	3.89096E+01	6.38046E-01	2.98241E-01	7.36195E+00	
MASS	MASS-BWBK-SS-MA04-0001	8.747444997	10.3	0.149099574	1.53297E+00	7.37605E+00	1.82196E+01	1.23813E+00	4.78085E-01	9.06187E+00	
MASS	MASS-BWBK-SS-MA05-0001	12.3646647	13.9	0.09679776	2.94378E+00	7.81654E-01	4.24092E-01	1.71574E+00	5.33808E-01	1.21843E+01	
MASS	MASS-BWBK-SS-MA06-0001	8.13027058	13.3	0.133043094	2.27613E+01	8.07197E-02	2.38693E+01	4.77088E+00	1.74018E+00	8.52912E+00	MASS-BWBK-SS-MA06-0001
MASS	MASS-BWBK-SS-MA07-0001	2.749728526	2.8	0.398702976	1.17644E+00	1.04364E+02	1.05394E+02	-1.08464E+00	-6.84871E-01	3.88464E+00	
MASS	MASS-BWBK-SS-MA08-0001	8.437828631	9.5	0.16198656	4.97578E-01	1.23615E+01	2.09586E+01	7.05392E-01	2.83903E-01	8.79461E+00	
MASS	MASS-BWBK-SS-MA09-0001	13.11534488	15	0.088924723	4.69917E+00	3.93670E+00	9.89170E-03	2.16776E+00	6.46430E-01	1.28322E+01	
MASS	MASS-BWBK-SS-MA10-0001	12.82761245	13.6	0.0958525	1.03252E+00	3.41187E-01	3.54476E-02	1.01613E+00	3.14594E-01	1.25839E+01	
MASS	MASS-BWBK-SS-MA11-0001	12.34007313	13	0.101107369	7.00522E-01	2.52424E-04	4.56726E-01	8.36972E-01	2.66135E-01	1.21630E+01	
MASS	MASS-BWBK-SS-MA12-0001	9.393985481	11.8	0.129316975	4.75256E+00	1.47838E+00	1.31182E+01	2.18004E+00	7.83956E-01	9.61996E+00	
MASS	MASS-BWBK-SS-MA13-0001	6.666226535	8.7	0.208029555	2.05819E+00	1.86269E+01	4.03182E+01	1.43464E+00	6.54343E-01	7.26536E+00	
MASS	MASS-BWBK-SS-MA14-0001	4.65277892	6.8	0.304296839	1.61964E+00	3.86373E+01	6.99416E+01	1.27265E+00	7.02033E-01	5.52735E+00	
MASS	MASS-BWBK-SS-MA15-0001	4.675875238	7	0.296963308	2.11037E+00	3.61909E+01	6.95558E+01	1.45271E+00	7.91646E-01	5.54729E+00	
MASS	MASS-BWBK-SS-MA16-0001	6.505996129	8.7	0.21242016	2.47418E+00	1.86269E+01	4.23787E+01	1.57295E+00	7.24958E-01	7.12705E+00	
MASS	MASS-BWBK-SS-MA17-0001	8.42676169	9	0.168555698	4.62014E-02	1.61274E+01	2.10601E+01	2.14945E-01	8.82468E-02	8.78505E+00	
MASS	MASS-BWBK-SS-MA18-0001	5.339023463	7.9	0.269489811	3.16941E+00	2.61723E+01	5.89342E+01	1.78028E+00	9.24188E-01	6.11972E+00	
MASS	MASS-BWBK-SS-MA19-0001	7.881542291	9.2	0.174491618	7.84250E-01	1.45610E+01	2.63615E+01	8.85579E-01	3.69926E-01	8.31442E+00	
MASS	MASS-BWBK-SS-MA20-0001	10.1487763	12.4	0.118652384	4.53052E+00	3.79318E-01	8.22033E+00	2.12850E+00	7.33182E-01	1.02715E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	13.73160341	12	0.099487345	1.86104E+00	1.03203E+00	5.12249E-01	-1.36420E+00	-4.30290E-01	1.33642E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	14.3672074	17.7	0.076006533	1.43425E+01	2.19409E+01	1.82606E+00	3.78715E+00	1.04409E+00	1.39129E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	17.74910606	13	0.080846886	1.46851E+01	2.52424E-04	2.24034E+01	-3.83211E+00	-1.08961E+00	1.68321E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	17.92072389	12.9	0.080785288	1.66484E+01	1.34300E-02	2.40574E+01	-4.08025E+00	-1.15972E+00	1.69802E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	10.64489407	10.3	0.12995373	1.59799E-01	7.37605E+00	5.62161E+00	-3.99748E-01	-1.44106E-01	1.06997E+01	
MMSB	MMSB-BWBK-SB-MM106-0110	17.91085977	15.9	0.07095754	1.14862E+00	8.31810E+00	2.39608E+01	-1.07173E+00	-2.85487E-01	1.69717E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	13.02945847	11.4	0.106355492	1.84445E+00	2.61109E+00	1.84162E-04	-1.35811E+00	-4.42908E-01	1.27581E+01	
MMSB	MMSB-BWBK-SB-MM108-0110	13.03641944	11	0.108881784	3.11210E+00	4.06380E+00	4.21546E-04	-1.76411E+00	-5.82109E-01	1.27641E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	13.75798177	13.4	0.092573751	1.69840E-04	1.47542E-01	5.50703E-01	1.30323E-02	3.96519E-03	1.33870E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	12.49886597	12	0.105590049	9.00589E-02	1.03203E+00	2.67312E-01	-3.00098E-01	-9.75158E-02	1.23001E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	13.85182948	13.3	0.092619571	2.82163E-02	8.07197E-02	6.98798E-01	-1.67977E-01	-5.11213E-02	1.34680E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	14.0005638	14.15	0.088493156	3.06512E-01	1.28621E+00	9.69587E-01	5.53635E-01	1.64694E-01	1.35964E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	14.12413233	14.6	0.08631667	8.04557E-01	2.50941E+00	1.22821E+00	8.96971E-01	2.63527E-01	1.37030E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	11.07050661	11.2	0.119613001	1.76525E-02	3.29745E+00	3.78451E+00	1.32863E-01	4.59507E-02	1.10671E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	12.75409716	9.7	0.120359566	7.95473E+00	1.09951E+01	6.85344E-02	-2.82041E+00	-9.78483E-01	1.25204E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	14.14911216	13	0.092738321	5.25033E-01	2.52424E-04	1.28420E+00	-7.24592E-01	-2.20660E-01	1.37246E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	12.9826534	10.6	0.111931624	4.48467E+00	5.83651E+00	1.10453E-03	-2.11770E+00	-7.08503E-01	1.27177E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	16.08989132	22.6	0.061529989	5.18418E+01	9.18552E+01	9.44950E+00	7.20013E+00	1.78601E+00	1.53999E+01	MMSB-BWBK-SB-MM118-0110
MMSB	MMSB-BWBK-SB-MM119-0110	13.41849698	11.9	0.101489744	1.42546E+00	1.24521E+00	1.62094E-01	-1.19392E+00	-3.80354E-01	1.30939E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	9.954075438	7.6	0.170052129	6.26718E+00	2.93318E+01	9.37470E+00	-2.50343E+00	-1.03235E+00	1.01034E+01	
MMSS	MMSS-BWBK-SS-MM101-0001	7.002399783	9.6	0.185957902	4.17980E+00	1.16683E+01	3.61620E+01	2.04446E+00	8.81627E-01	7.55554E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	6.372875224	8.2	0.226078967	1.41101E+00	2.31928E+01	4.41296E+01	1.18786E+00	5.64801E-01	7.01214E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,2.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!V	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI predict	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	6.344736361	9.2	0.208477933	4.89361E+00	1.45610E+01	4.45043E+01	2.21215E+00	1.01005E+00	6.98785E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	8.02638904	10.6	0.1558738	4.66796E+00	5.83651E+00	2.48951E+01	2.16055E+00	8.53002E-01	8.43945E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	5.657235228	6.7	0.296966414	9.33927E-02	3.98904E+01	5.41498E+01	3.05602E-01	1.66537E-01	6.39440E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	8.624916718	10.1	0.152696006	1.30850E+00	8.50240E+00	1.92806E+01	1.14390E+00	4.46993E-01	8.95610E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	7.95043465	10.3	0.160117283	3.70990E+00	7.37605E+00	2.56588E+01	1.92611E+00	7.70727E-01	8.37389E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	5.079281615	8.5	0.254911841	6.78338E+00	2.03932E+01	6.29897E+01	2.60449E+00	1.31498E+00	5.89551E+00	MMSS-BWBK-SS-MM108-0001
MMSS	MMSS-BWBK-SS-MM109-0001	5.88867752	8.2	0.242890758	2.57866E+00	2.31928E+01	5.07971E+01	1.60582E+00	7.91412E-01	6.59418E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	3.63031003	4.7	0.398702976	3.05205E-03	6.91540E+01	8.80891E+01	5.52453E-02	3.48835E-02	4.64475E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	4.475706674	5.3	0.384908439	5.55049E-03	5.95349E+01	7.29347E+01	-7.45016E-02	-4.62215E-02	5.37450E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	4.014801307	4.8	0.398702976	3.12044E-02	6.75008E+01	8.10196E+01	-1.76648E-01	-1.11541E-01	4.97665E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	4.691571549	7.3	0.286893812	3.02469E+00	3.26714E+01	6.92942E+01	1.73916E+00	9.31539E-01	5.56084E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	4.540332604	4.5	0.398702976	8.65433E-01	7.25203E+01	7.18350E+01	-9.30287E-01	-5.87410E-01	5.43029E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	4.579799851	5.5	0.370378318	1.27057E-03	5.64886E+01	7.11676E+01	3.56451E-02	2.16931E-02	5.46435E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	4.522971902	5	0.398702976	1.72475E-01	6.42545E+01	7.21296E+01	-4.15301E-01	-2.62233E-01	5.41530E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	6.377599942	8.4	0.221860529	1.91485E+00	2.13064E+01	4.40669E+01	1.38378E+00	6.51790E-01	7.01622E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	9.410964636	9	0.155606144	4.02742E-01	1.61274E+01	1.29955E+01	-6.34620E-01	-2.50338E-01	9.63462E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	8.638142185	9.1	0.164183901	1.75513E-02	1.53342E+01	1.91647E+01	1.32481E-01	5.36809E-02	8.96752E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	9.41492266	8.9	0.156829833	5.44697E-01	1.69405E+01	1.29670E+01	-7.38036E-01	-2.92275E-01	9.63804E+00	
NESB	NESB-BWBK-SB-NE01-0108	19.05569602	19	0.061527491	1.08169E+00	3.58096E+01	3.64793E+01	1.04004E+00	2.57980E-01	1.79600E+01	
NESB	NESB-BWBK-SB-NE02-0109	18.35800514	17.8	0.06535471	1.95620E-01	2.28877E+01	2.85382E+01	4.42289E-01	1.13069E-01	1.73577E+01	
NESB	NESB-BWBK-SB-NE03-0105	15.70550187	15.6	0.077653913	2.82951E-01	6.67764E+00	7.23402E+00	5.31932E-01	1.48230E-01	1.50681E+01	
NESB	NESB-BWBK-SB-NE04-0110	16.48462965	15.6	0.075419256	1.97717E-02	6.67764E+00	1.20322E+01	-1.40612E-01	-3.86157E-02	1.57406E+01	
NESB	NESB-BWBK-SB-NE05-0108	18.06651668	17.75	0.066083883	4.14610E-01	2.24118E+01	2.55089E+01	6.43902E-01	1.65527E-01	1.71061E+01	
NESB	NESB-BWBK-SB-NE06-0109	17.09321675	16.9	0.07031744	4.02026E-01	1.50863E+01	1.66246E+01	6.34055E-01	1.68135E-01	1.62659E+01	
NESB	NESB-BWBK-SB-NE07-0107	18.01942207	18.8	0.063977144	3.00868E+00	3.34560E+01	2.50354E+01	1.73455E+00	4.38733E-01	1.70654E+01	
NESB	NESB-BWBK-SB-NE08-0104	15.45750466	15.5	0.078716062	4.17320E-01	6.17081E+00	5.96149E+00	6.46003E-01	1.81245E-01	1.48540E+01	
NESB	NESB-BWBK-SB-NE09-0110	16.66281473	15.7	0.074643743	3.77997E-02	7.20446E+00	1.33001E+01	-1.94422E-01	-5.31179E-02	1.58944E+01	
NESB	NESB-BWBK-SB-NE10-0107	13.06864066	12.9	0.097954041	1.16796E-02	1.34300E-02	2.78286E-03	1.08072E-01	3.38239E-02	1.27919E+01	
NESB	NESB-BWBK-SB-NE101-0110	12.54615431	12.5	0.10258416	2.53073E-02	2.66140E-01	2.20650E-01	1.59083E-01	5.09522E-02	1.23409E+01	
NESB	NESB-BWBK-SB-NE102-0110	11.00218328	11	0.121563025	6.65957E-05	4.06380E+00	4.05501E+00	-8.16062E-03	-2.84527E-03	1.10082E+01	
NESB	NESB-BWBK-SB-NE103-0110	10.15182248	9.85	0.138429339	1.79885E-01	1.00228E+01	8.20287E+00	-4.24129E-01	-1.57802E-01	1.02741E+01	
NESB	NESB-BWBK-SB-NE104-0110	9.873929054	9	0.150465207	1.06967E+00	1.61274E+01	9.87191E+00	-1.03425E+00	-4.01184E-01	1.00343E+01	
NESB	NESB-BWBK-SB-NE105-0110	12.15726171	11.7	0.109286651	9.31624E-02	1.73156E+00	7.37239E-01	-3.05225E-01	-1.00903E-01	1.20052E+01	
NESB	NESB-BWBK-SB-NE106-0110	12.01044095	11.8	0.109535916	6.16057E-03	1.47838E+00	1.01092E+00	-7.84893E-02	-2.59770E-02	1.18785E+01	
NESB	NESB-BWBK-SB-NE107-0510	10.86279835	8.8	0.14332824	4.35909E+00	1.77737E+01	4.63579E+00	-2.08784E+00	-7.90431E-01	1.08878E+01	
NESB	NESB-BWBK-SB-NE108-0110	11.47798656	10.1	0.125277991	1.73943E+00	8.50240E+00	2.36514E+00	-1.31887E+00	-4.66811E-01	1.14189E+01	
NESB	NESB-BWBK-SB-NE109-0110	11.23539342	10.2	0.126194725	1.01903E+00	7.92922E+00	3.17016E+00	-1.00947E+00	-3.58602E-01	1.12095E+01	
NESB	NESB-BWBK-SB-NE110-0110	11.87667571	9.9	0.124224729	3.47085E+00	9.70876E+00	1.29780E+00	-1.86302E+00	-6.56632E-01	1.17630E+01	
NESS	NESS-BKG-SS03-NEB-0016	9.060103042	11.5	0.134962404	4.70128E+00	2.29792E+00	1.56482E+01	2.16824E+00	7.96553E-01	9.33176E+00	
NESS	NESS-BKG-SS09-NEB-0018	6.364397515	7.4	0.245237465	1.56167E-01	3.15382E+01	4.42423E+01	3.95179E-01	1.95698E-01	7.00482E+00	
NESS	NESS-BWBK-SS-NE01-0001	14.17868928	14.3	0.087226352	3.02365E-01	1.64894E+00	1.35211E+00	5.49877E-01	1.62401E-01	1.37501E+01	
NESS	NESS-BWBK-SS-NE02-0001	16.48363413	16.5	0.072902545	5.77976E-01	1.21390E+01	1.20253E+01	7.60247E-01	2.05270E-01	1.57398E+01	
NESS	NESS-BWBK-SS-NE03-0001	9.265079153	11.8	0.130589978	5.25010E+00	1.47838E+00	1.40686E+01	2.29131E+00	8.28016E-01	9.50869E+00	
NESS	NESS-BWBK-SS-NE04-0001	12.78958116	14.1	0.093885194	2.39927E+00	1.17530E+00	5.12147E-02	1.54896E+00	4.74611E-01	1.25510E+01	
NESS	NESS-BWBK-SS-NE05-0001	10.39661809	12.1	0.118581275	2.60682E+00	8.38851E-01	6.86057E+00	1.61456E+00	5.55985E-01	1.04854E+01	
NESS	NESS-BWBK-SS-NE06-0001	11.69814499	14.5	0.097731367	8.35837E+00	2.20259E+00	1.73645E+00	2.89108E+00	9.03811E-01	1.16089E+01	
NESS	NESS-BWBK-SS-NE07-0001	8.967675247	11.6	0.135187073	5.51324E+00	2.00474E+00	1.63880E+01	2.34803E+00	8.63318E-01	9.25197E+00	
NESS	NESS-BWBK-SS-NE08-0001	9.785834862	13	0.118041227	9.25250E+00	2.52424E-04	1.04332E+01	3.04179E+00	1.04507E+00	9.95821E+00	
NESS	NESS-BWBK-SS-NE09-0001	7.458902537	10.8	0.16292309	8.12479E+00	4.91016E+00	3.08801E+01	2.85040E+00	1.15053E+00	7.94960E+00	NESS-BWBK-SS-NE09-0001
NESS	NESS-BWBK-SS-NE10-0001	9.019474438	11.8	0.133123208	6.26659E+00	1.47838E+00	1.59713E+01	2.50331E+00	9.13361E-01	9.29669E+00	
NESS	NESS-BWBK-SS-NE101-0001	6.288277989	8.1	0.230913556	1.34766E+00	2.41660E+01	4.52607E+01	1.16089E+00	5.57846E-01	6.93911E+00	
NESS	NESS-BWBK-SS-NE102-0001	5.199639163	6.4	0.320757033	1.60480E-01	4.37700E+01	6.10937E+01	4.00599E-01	2.26881E-01	5.99940E+00	
NESS	NESS-BWBK-SS-NE103-0001	4.781787205	6.3	0.325307005	4.37304E-01	4.51031E+01	6.78004E+01	6.61289E-01	3.77171E-01	5.63871E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,2.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!V	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	NI predict	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	5.271037801	7.3	0.286893812	1.53504E+00	3.26714E+01	5.99827E+01	1.23897E+00	6.63622E-01	6.06103E+00	
NESS	NESS-BWBK-SS-NE105-0001	4.75892177	5.2	0.392845531	1.75538E-01	6.10881E+01	6.81775E+01	-4.18973E-01	-2.62601E-01	5.61897E+00	
NESS	NESS-BWBK-SS-NE106-0001	4.171064129	5.4	0.377433777	8.32127E-02	5.80017E+01	7.82309E+01	2.88466E-01	1.77221E-01	5.11153E+00	
NESS	NESS-BWBK-SS-NE107-0001	4.111178788	4.7	0.398702976	1.29485E-01	6.91540E+01	7.92938E+01	-3.59841E-01	-2.27214E-01	5.05984E+00	
NESS	NESS-BWBK-SS-NE108-0001	4.858295604	5.6	0.363704288	1.09731E-02	5.49954E+01	6.65463E+01	-1.04753E-01	-6.31741E-02	5.70475E+00	
NESS	NESS-BWBK-SS-NE109-0001	4.479535536	4.6	0.398702976	6.04983E-01	7.08272E+01	7.28693E+01	-7.77807E-01	-4.91130E-01	5.37781E+00	
NESS	NESS-BWBK-SS-NE110-0001	3.53889276	4.7	0.398702976	1.79980E-02	6.91540E+01	8.98134E+01	1.34157E-01	8.47105E-02	4.56584E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	19.77330959	21.3	0.056349319	7.40165E+00	6.86265E+01	4.56627E+01	2.72060E+00	6.45816E-01	1.85794E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	21.50266284	18.9	0.057550943	1.37401E+00	3.46228E+01	7.20253E+01	-1.17218E+00	-2.81204E-01	2.00722E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	26.87902588	23.4	0.044853264	1.72413E+00	1.07830E+02	1.92187E+02	-1.31306E+00	-2.78088E-01	2.47131E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	19.65526821	21.2	0.056699153	7.41196E+00	6.69797E+01	4.40814E+01	2.72249E+00	6.48268E-01	1.84775E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	21.41479303	19.3	0.056982734	4.84879E-01	3.94901E+01	7.05416E+01	-6.96332E-01	-1.66222E-01	1.99963E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	21.00320447	19	0.058152676	4.10944E-01	3.58096E+01	6.37972E+01	-6.41049E-01	-1.54588E-01	1.96410E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	20.0111534	15	0.068909923	1.43240E+01	3.93670E+00	4.89337E+01	-3.78471E+00	-9.93513E-01	1.87847E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	20.83604836	18.3	0.059725397	1.43223E+00	2.79218E+01	6.11549E+01	-1.19676E+00	-2.92473E-01	1.94968E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	17.27407734	16.6	0.070633727	3.16613E-02	1.28459E+01	1.81322E+01	1.77936E-01	4.72901E-02	1.64221E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	18.02356846	15.1	0.072958068	3.87706E+00	4.34352E+00	2.50769E+01	-1.96903E+00	-5.31848E-01	1.70690E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	22.72645594	21.1	0.052301276	8.15714E-04	6.53529E+01	9.42951E+01	-2.85607E-02	-6.53168E-03	2.11286E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	13.19545675	12.7	0.098336114	4.05603E-02	9.97851E-02	3.22450E-02	-2.01396E-01	-6.31549E-02	1.29014E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	12.11857551	11.4	0.111405774	3.26991E-01	2.61109E+00	8.05169E-01	-5.71831E-01	-1.90863E-01	1.19718E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	12.92869766	11.8	0.10447848	7.58866E-01	1.47838E+00	7.60213E-03	-8.71129E-01	-2.81576E-01	1.26711E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	15.64240473	15.2	0.07908928	3.47439E-02	4.77035E+00	6.89859E+00	1.86397E-01	5.24201E-02	1.50136E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	13.26196066	13.6	0.093851377	4.11135E-01	3.41187E-01	6.05518E-02	6.41198E-01	1.96432E-01	1.29588E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	23.07057143	16.75	0.059393926	2.18612E+01	1.39436E+01	1.01097E+02	-4.67560E+00	-1.13948E+00	2.14256E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	19.89810744	21.2	0.056296261	6.31452E+00	6.69797E+01	4.73649E+01	2.51287E+00	5.96225E-01	1.86871E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	17.13211319	18.2	0.067193024	3.61182E+00	2.68750E+01	1.69433E+01	1.90048E+00	4.92635E-01	1.62995E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	16.25155503	16.75	0.072864608	1.46550E+00	1.39436E+01	1.04695E+01	1.21058E+00	3.26777E-01	1.55394E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	22.35225905	23.6	0.049523606	7.80893E+00	1.12023E+02	8.71678E+01	2.79445E+00	6.21873E-01	2.08056E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	20.25885264	21.2	0.055713299	4.84650E+00	6.69797E+01	5.24605E+01	2.20148E+00	5.19629E-01	1.89985E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	24.60608379	25.6	0.044796461	8.11648E+00	1.58360E+02	1.34333E+02	2.84894E+00	6.02984E-01	2.27511E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	25.3092701	27.1	0.042710212	1.40022E+01	1.98362E+02	1.51127E+02	3.74195E+00	7.73329E-01	2.33580E+01	
PMSS	PMSS-DABK-S-SO21-0001	13.82574349	11.3	0.103062048	4.60300E+00	2.94427E+00	6.55866E-01	-2.14546E+00	-6.88763E-01	1.34455E+01	
PMSS	PMSS-DABK-S-SO22-0001	19.83918505	12.2	0.078899082	4.14255E+01	6.65673E-01	4.65574E+01	-6.43627E+00	-1.80788E+00	1.86363E+01	
PMSS	PMSS-DABK-S-SO23-0001	11.15215915	13.6	0.104974945	6.06332E+00	3.41187E-01	3.47348E+00	2.46238E+00	7.97807E-01	1.11376E+01	
PMSS	PMSS-DABK-S-SO24-0001	13.35890124	10	0.114417642	9.25669E+00	9.09558E+00	1.17658E-01	-3.04248E+00	-1.02914E+00	1.30425E+01	
PMSS	PMSS-DABK-S-SO25-0001	12.52346296	10.75	0.113445211	2.46908E+00	5.13425E+00	2.42482E-01	-1.57133E+00	-5.29250E-01	1.23213E+01	
PMSS	PMSS-DABK-S-SO26-0001	16.69408935	14.4	0.078626999	2.31471E+00	1.91577E+00	1.35292E+01	-1.52142E+00	-4.26613E-01	1.59214E+01	
PMSS	PMSS-DABK-S-SO27-0001	9.521390947	11.4	0.131039771	2.78910E+00	2.61109E+00	1.22115E+01	1.67006E+00	6.04552E-01	9.72994E+00	
PMSS	PMSS-DABK-S-SO28-0001	18.01539606	11.1	0.088838876	3.55451E+01	3.67063E+00	2.49951E+01	-5.96197E+00	-1.77702E+00	1.70620E+01	
PMSS	PMSS-DABK-S-SO29-0001	12.66506264	11.6	0.107054515	7.11592E-01	2.00474E+00	1.23078E-01	-8.43559E-01	-2.76006E-01	1.24436E+01	
PMSS	PMSS-DABK-S-SO30-0001	15.140189	11.1	0.098609153	1.21110E+01	3.67063E+00	4.51266E+00	-3.48009E+00	-1.09282E+00	1.45801E+01	
PMSS	PMSS-DABK-S-SO31-0001	11.35854343	7.5	0.157209717	1.45601E+01	3.04250E+01	2.74679E+00	-3.81577E+00	-1.51294E+00	1.13158E+01	
PMSS	PMSS-DABK-S-SO32-0001	21.10299847	11.5	0.079137741	6.76867E+01	2.29792E+00	6.54014E+01	-8.22719E+00	-2.31443E+00	1.97272E+01	
PMSS	PMSS-DABK-S-SO33-0001	11.77614081	9.5	0.128589354	4.73603E+00	1.23615E+01	1.53697E+00	-2.17624E+00	-7.80386E-01	1.16762E+01	
PMSS	PMSS-DABK-S-SO34-0001	11.14718998	8.4	0.145824997	7.47110E+00	2.13064E+01	3.49203E+00	-2.73333E+00	-1.04378E+00	1.11333E+01	
PMSS	PMSS-DABK-S-SO35-0001	10.81001434	9.95	0.131726077	7.96164E-01	9.39967E+00	4.86588E+00	-8.92280E-01	-3.23845E-01	1.08423E+01	
PMSS	PMSS-DABK-S-SO36-0001	6.351435251	8	0.231070314	1.01278E+00	2.51591E+01	4.44149E+01	1.00637E+00	4.83759E-01	6.99363E+00	
PMSS	PMSS-DABK-S-SO37-0001	10.37530204	8.5	0.1516793	3.86923E+00	2.03932E+01	6.97269E+00	-1.96704E+00	-7.66082E-01	1.04670E+01	
PMSS	PMSS-DABK-S-SO38-0001	8.78373369	7.7	0.183907365	1.94099E+00	2.82587E+01	1.79111E+01	-1.39319E+00	-5.97463E-01	9.09319E+00	
PMSS	PMSS-DABK-S-SO39-0001	9.603582449	8.8	0.155939793	1.00178E+00	1.77737E+01	1.16438E+01	-1.00089E+00	-3.95243E-01	9.80089E+00	
PMSS	PMSS-DABK-S-SO40-0001	9.320080681	8.3	0.166350585	1.57796E+00	2.22396E+01	1.36590E+01	-1.25617E+00	-5.12342E-01	9.55617E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,2.7)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!V**	**DA!W**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**NI predict**	**NI**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	30.33103752	37.1	0.032512136	8.84946E+01	5.80044E+02	2.99814E+02	9.40716E+00	1.69622E+00	2.76928E+01	SESB-BWBK-SB-SO03-0108
SESB	SESB-BWBK-SB-SO04-0108	24.94379386	26.8	0.043328729	1.41183E+01	1.90002E+02	1.42275E+02	3.75743E+00	7.82130E-01	2.30426E+01	
SESB	SESB-BWBK-SB-SO05-0106	20.80998012	24.6	0.0503976	2.62732E+01	1.34192E+02	6.07479E+01	5.12574E+00	1.15070E+00	1.94743E+01	SESB-BWBK-SB-SO05-0106
SESB	SESB-BWBK-SB-SO06-0108	27.50848742	30.4	0.038254367	2.64565E+01	3.02207E+02	2.10035E+02	5.14359E+00	1.00602E+00	2.52564E+01	
SESB	SESB-BWBK-SB-SO07-0106	28.78756366	29.1	0.038213753	7.50479E+00	2.58699E+02	2.48746E+02	2.73949E+00	5.35524E-01	2.63605E+01	
SESB	SESB-BWBK-SB-SO08-0107	28.86358604	31	0.036850207	2.09202E+01	3.23428E+02	2.51150E+02	4.57386E+00	8.78018E-01	2.64261E+01	
SESB	SESB-BWBK-SB-SO09-0106	20.44094515	23.6	0.052130211	1.97517E+01	1.12023E+02	5.51315E+01	4.44429E+00	1.01472E+00	1.91557E+01	
SESB	SESB-BWBK-SB-SO11-0106	26.58507123	27.2	0.041466214	7.51133E+00	2.01189E+02	1.84123E+02	2.74068E+00	5.58092E-01	2.44593E+01	
SESB	SESB-BWBK-SB-SO12-0106	25.36748541	26.6	0.043100941	1.01870E+01	1.84528E+02	1.52562E+02	3.19170E+00	6.62622E-01	2.34083E+01	
SESB	SESB-BWBK-SB-SO15-0103	15.75927741	15.7	0.077192308	3.42825E-01	7.20446E+00	7.52619E+00	5.85513E-01	1.62676E-01	1.51145E+01	
SESB	SESB-BWBK-SB-SO16-0105	19.40493108	20.5	0.058242285	5.01125E+00	5.60119E+01	4.08199E+01	2.23858E+00	5.40247E-01	1.82614E+01	
SESB	SESB-BWBK-SB-SO17-0106	17.27836983	17.8	0.067739482	1.88851E+00	2.28877E+01	1.81688E+01	1.37423E+00	3.57668E-01	1.64258E+01	
SESB	SESB-BWBK-SB-SO18-0105	16.80323602	15.1	0.076059783	8.38384E-01	4.34352E+00	1.43440E+01	-9.15633E-01	-2.52522E-01	1.60156E+01	
SESB	SESB-BWBK-SB-SO19-0104	25.34745636	16.5	0.056833883	4.74860E+01	1.21390E+01	1.52068E+02	-6.89101E+00	-1.64281E+00	2.33910E+01	
SESB	SESB-BWBK-SB-SO20-0104	23.42288835	21	0.051553823	5.32494E-01	6.37460E+01	1.08306E+02	-7.29722E-01	-1.65687E-01	2.17297E+01	
SESS	SESS-DABK-S-SO01-0001	10.70357033	10.7	0.126153115	2.53993E-03	5.36334E+00	5.34681E+00	-5.03977E-02	-1.79003E-02	1.07504E+01	
SESS	SESS-DABK-S-SO02-0001	22.24812023	19.1	0.056092759	2.61036E+00	3.70164E+01	8.52341E+01	-1.61566E+00	-3.82652E-01	2.07157E+01	
SESS	SESS-DABK-S-SO03-0001	7.38937813	8.7	0.191131119	6.56773E-01	1.86269E+01	3.16576E+01	8.10415E-01	3.54302E-01	7.88958E+00	
SESS	SESS-DABK-S-SO04-0001	11.02956229	12.3	0.112752814	1.60835E+00	5.12495E-01	3.94549E+00	1.26821E+00	4.25847E-01	1.10318E+01	
SESS	SESS-DABK-S-SO05-0001	8.988421392	9.8	0.151322733	2.81027E-01	1.03419E+01	1.62205E+01	5.30120E-01	2.06218E-01	9.26988E+00	
SESS	SESS-DABK-S-SO06-0001	15.03428639	14.7	0.082707854	4.46584E-02	2.83623E+00	4.07393E+00	2.11325E-01	6.07750E-02	1.44887E+01	
SESS	SESS-DABK-S-SO07-0001	11.93266546	14.35	0.097099771	6.44473E+00	1.77986E+00	1.17337E+00	2.53865E+00	7.91063E-01	1.18114E+01	
SESS	SESS-DABK-S-SO08-0001	11.15294657	12.9	0.108546668	3.10359E+00	1.34300E-02	3.47055E+00	1.76170E+00	5.80417E-01	1.11383E+01	
SESS	SESS-DABK-S-SO09-0001	8.284908253	10.7	0.151223955	4.15097E+00	5.36334E+00	2.23822E+01	2.03739E+00	7.92292E-01	8.66261E+00	
SESS	SESS-DABK-S-SO10-0001	7.401818168	8.9	0.187720216	9.99354E-01	1.69405E+01	3.15178E+01	9.99677E-01	4.33127E-01	7.90032E+00	
SESS	SESS-DABK-S-SO11-0001	6.872473663	7.1	0.237504875	1.17918E-01	3.49977E+01	3.77415E+01	-3.43392E-01	-1.67351E-01	7.44339E+00	
SESS	SESS-DABK-S-SO12-0001	9.032158943	8.7	0.164251805	3.69219E-01	1.86269E+01	1.58701E+01	-6.07634E-01	-2.46262E-01	9.30763E+00	
SESS	SESS-DABK-S-SO13-0001	11.94783926	12.9	0.103750452	1.15680E+00	1.34300E-02	1.14073E+00	1.07555E+00	3.46438E-01	1.18245E+01	
SESS	SESS-DABK-S-SO14-0001	8.272513896	10.9	0.149512811	5.05392E+00	4.47698E+00	2.24996E+01	2.24809E+00	8.69267E-01	8.65191E+00	
SESS	SESS-DABK-S-SO15-0001	7.29262739	9.9	0.176077674	4.38455E+00	9.70876E+00	3.27557E+01	2.09393E+00	8.78647E-01	7.80607E+00	
SESS	SESS-DABK-S-SO16-0001	6.076516784	5.7	0.321949994	1.11582E+00	5.35222E+01	4.81549E+01	-1.05632E+00	-5.99364E-01	6.75632E+00	
SESS	SESS-DABK-S-SO17-0001	5.37550003	5.3	0.384908439	7.24548E-01	5.95349E+01	5.83755E+01	-8.51204E-01	-5.28095E-01	6.15120E+00	
SESS	SESS-DABK-S-SO18-0001	9.629778908	9.3	0.149536604	2.74053E-01	1.38078E+01	1.14657E+01	-5.23500E-01	-2.02437E-01	9.82350E+00	
SESS	SESS-DABK-S-SO19-0001	13.80691868	13.9	0.090264321	2.21643E-01	7.81654E-01	6.25730E-01	4.70790E-01	1.41444E-01	1.34292E+01	
SESS	SESS-DABK-S-SO20-0001	11.327249	14.8	0.098566309	1.23288E+01	3.18306E+00	2.85150E+00	3.51124E+00	1.10236E+00	1.12888E+01	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: NI
X variable name used on graph: FE

	N	214.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	5.264900E+00
0.10	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	1.438440E+05
2	SUM(X^2*w^2)	2.197451E+08
	SUM(X*w^2)	1.183292E+04
	SUM(Y*w^2)	7.822607E+00
	SUM(w^2)	7.597649E-01
	SUM(Y)	2785.400000
	SUM(X)	4.118170E+06
	Denominator	2.693664E+07
	Slope	6.208389E-04
	Intercept	6.268663E-01
	Minimum X value	5.940000E+03
	Maximum X value	5.390000E+04
	Minimum Y value	2.800000E+00
	Maximum Y value	3.710000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	2.521601E+03
	SUM(Yobs - Yave)^2	8.005421E+03
	SUM(X - Xave)^2	1.479687E+10
	Std. Error of Y-estimate	3.448818E+00
	R^2	6.850133E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/SQRT(xy)
est.M, Std.Err.Y	6.21E-04	3.45

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:

Inverse Log Transform (Y/N)?	No	50
Inverse Power Transform (Y/N)?	No	75
Inverse Power Transform (1/Power):	1	90

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
5940.00	4.31	1.21	7.42	-0.59	0.59	0.02	No. of Exceedances
7938.33	5.56	2.46	8.65	-0.59	0.59	0.02	of Upper 95% Limit
9936.67	6.80	3.59	10.00	-0.59	0.59	0.02	for Each Soil Type:
11935.00	8.04	4.55	11.52	-0.59	0.59	0.02	---- V ----
13933.33	9.28	5.34	13.22	-0.59	0.59	0.02	BASS
15931.67	10.52	6.17	14.87	-0.59	0.59	0.02	0
17930.00	11.76	7.03	16.48	-0.59	0.59	0.02	MASS
19928.33	13.00	7.93	18.07	-0.59	0.59	0.02	0
21926.67	14.24	8.84	19.64	-0.59	0.59	0.02	MMSS
23925.00	15.48	9.77	21.19	-0.59	0.59	0.02	0
25923.33	16.72	10.72	22.72	-0.59	0.59	0.02	NESS
27921.67	17.96	11.68	24.25	-0.59	0.59	0.02	0
29920.00	19.20	12.65	25.76	-0.59	0.59	0.02	PMSS
31918.33	20.44	13.62	27.26	-0.59	0.59	0.02	0
33916.67	21.68	14.61	28.75	-0.59	0.59	0.02	SESS
35915.00	22.92	15.61	30.24	-0.59	0.59	0.02	0
37913.33	24.16	16.61	31.72	-0.59	0.59	0.02	SESD
39911.67	25.41	17.62	33.19	-0.59	0.59	0.02	0
41910.00	26.65	18.63	34.66	-0.59	0.59	0.02	MASB
43908.33	27.89	19.65	36.12	-0.59	0.59	0.02	2
45906.67	29.13	20.68	37.58	-0.59	0.59	0.02	MMSB
47905.00	30.37	21.71	39.03	-0.59	0.59	0.02	2
49903.33	31.61	22.74	40.48	-0.59	0.59	0.02	NESB
51901.67	32.85	23.78	41.92	-0.59	0.59	0.02	0
53900.00	34.09	24.82	43.36	-0.59	0.59	0.02	PMSB
14100.00	9.38	5.41	13.36	9.38	-42%	42%	1
17800.00	11.68	6.98	16.38	11.68	-40%	40%	SESB
23425.00	15.17	9.54	20.80	15.17	-37%	37%	5
29580.00	18.99	12.48	25.50	18.99	-34%	34%	<<--Original Units Errors

TEXT BOX ==> (NI) = (6.21E-04)x(FE) + (6.27E-01) R^2 = 0.69; Std. Error of Y-estimate = 3.45E+00 +/-3 x IQR of r -0.586013 0.586013

TEXT BOX ==> Weighted 1/SQRT(MAX(x-Xmin,5555.6)*MAX(y-Ymin,3.5)). 95% C

	Indexed value lookups:	X data column ref.	Y data column ref.	√ - wt.descrip.	TEXT BOX==>	Residuals Plot:	(Observed - Predicted) x (1/SQRT(xy))^0.5			Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!N	DA!W	AX(x-Xmin,5555.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	---- V ----
				---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	
GROUP	SAMPLE	FE	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	9130	5.9	0.007223151	1.56124E-01	5.06359E+01	1.02289E+08	-3.95125E-01	-3.35813E-02	6.29512E+00	
BASS	BASS-BWBK-SS-BA102-0001	7400	5.2	0.007223151	4.44104E-04	6.10881E+01	1.40275E+08	-2.10738E-02	-1.79104E-03	5.22107E+00	
BASS	BASS-BWBK-SS-BA103-0001	7780	5.7	0.007223151	5.90526E-02	5.35222E+01	1.31418E+08	2.43007E-01	2.06530E-02	5.45699E+00	
BASS	BASS-BWBK-SS-BA104-0001	8800	7.1	0.006469966	1.01960E+00	3.49977E+01	1.09073E+08	1.00975E+00	8.12205E-02	6.09025E+00	
BASS	BASS-BWBK-SS-BA105-0001	8450	6.4	0.007071068	2.77777E-01	4.37700E+01	1.16506E+08	5.27045E-01	4.43191E-02	5.87295E+00	
BASS	BASS-BWBK-SS-BA106-0001	8975	7.85	0.005970223	2.72615E+00	2.66864E+01	1.05448E+08	1.65111E+00	1.27576E-01	6.19889E+00	
BASS	BASS-BWBK-SS-BA107-0001	7390	5.2	0.007223151	2.20980E-04	6.10881E+01	1.40512E+08	-1.48654E-02	-1.26340E-03	5.21487E+00	
BASS	BASS-BWBK-SS-BA108-0001	7180	5.6	0.007223151	2.65751E-01	5.49954E+01	1.45535E+08	5.15511E-01	4.38128E-02	5.08449E+00	
BASS	BASS-BWBK-SS-BA109-0001	7860	8.2	0.005773503	7.25408E+00	2.31928E+01	1.29591E+08	2.69334E+00	2.04650E-01	5.50666E+00	
BASS	BASS-BWBK-SS-BA110-0001	9920	7.5	0.006188527	5.10385E-01	3.04250E+01	8.69330E+07	7.14412E-01	5.62008E-02	6.78559E+00	
BASS	BASS-BWBK-SS-BA111-0001	8040	5.7	0.007223151	6.65682E-03	5.35222E+01	1.25525E+08	8.15894E-02	6.93421E-03	5.61841E+00	
BASS	BASS-BWBK-SS-BA112-0001	8000	5.2	0.007223151	1.54903E-01	6.10881E+01	1.26423E+08	-3.93577E-01	-3.34498E-02	5.59358E+00	
BASS	BASS-BWBK-SS-BA113-0001	7855	5.6	0.007223151	9.30155E-03	5.49954E+01	1.29704E+08	9.64445E-02	8.19674E-03	5.50356E+00	
MASB	MASB-BWBK-SB-MA01-0105	27000	21.9	0.001576718	2.03445E+01	7.89274E+01	6.01589E+07	4.51048E+00	1.79102E-01	1.73895E+01	
MASB	MASB-BWBK-SB-MA02-0107	29000	23.5	0.001447389	2.37053E+01	1.09917E+02	9.51837E+07	4.86881E+00	1.85232E-01	1.86312E+01	
MASB	MASB-BWBK-SB-MA03-0108	29300	25.4	0.001376288	4.33300E+01	1.53366E+02	1.01127E+08	6.58256E+00	2.44202E-01	1.88174E+01	MASB-BWBK-SB-MA03-0108
MASB	MASB-BWBK-SB-MA04-0106	27800	24.5	0.001451928	4.37425E+01	1.31885E+02	7.32088E+07	6.61381E+00	2.52014E-01	1.78862E+01	MASB-BWBK-SB-MA04-0106
MASB	MASB-BWBK-SB-MA05-0108	27200	22.1	0.001561132	2.10343E+01	8.25211E+01	6.33014E+07	4.58632E+00	1.81211E-01	1.75137E+01	
MASB	MASB-BWBK-SB-MA06-0105	25800	21.8	0.001627922	2.65791E+01	7.71606E+01	4.29840E+07	5.15549E+00	2.08011E-01	1.66445E+01	
MASB	MASB-BWBK-SB-MA07-0108	28000	19.1	0.001667644	1.18733E+00	3.70164E+01	7.66713E+07	1.08965E+00	4.44977E-02	1.80104E+01	
MASB	MASB-BWBK-SB-MA08-0108	51700	25.35	0.000984427	5.43793E+01	1.52130E+02	1.05341E+09	-7.37423E+00	-2.31371E-01	3.27242E+01	
MASB	MASB-BWBK-SB-MA09-0108	35000	21.5	0.001356536	7.33123E-01	7.19802E+01	2.48258E+08	-8.56226E-01	-3.15358E-02	2.23562E+01	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,5555.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!N	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	FE	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	26900	15.8	0.001915723	2.33305E+00	7.75128E+00	5.86176E+07	-1.52743E+00	-6.68541E-02	1.73274E+01	
MASB	MASB-BWBK-SB-MA11-0108	32500	22.7	0.001375496	3.59433E+00	9.37820E+01	1.75727E+08	1.89587E+00	7.03135E-02	2.08041E+01	
MASB	MASB-BWBK-SB-MA12-0108	33600	24.6	0.001287792	9.69045E+00	1.34192E+02	2.06101E+08	3.11295E+00	1.11711E-01	2.14871E+01	
MASB	MASB-BWBK-SB-MA13-0105	15800	12.3	0.003267381	3.47405E+00	5.12495E-01	1.18597E+07	1.86388E+00	1.06541E-01	1.04361E+01	
MASB	MASB-BWBK-SB-MA14-0104	31350	17.3	0.001647455	7.78502E+00	1.83536E+01	1.46560E+08	-2.79016E+00	-1.13250E-01	2.00902E+01	
MASB	MASB-BWBK-SB-MA15-0105	24400	15.1	0.002098609	4.56076E-01	4.34352E+00	2.65866E+07	-6.75334E-01	-3.09375E-02	1.57753E+01	
MASB	MASB-BWBK-SB-MA16-0104	21300	14.3	0.002379334	2.01840E-01	1.64894E+00	4.22802E+06	4.49266E-01	2.19145E-02	1.38507E+01	
MASB	MASB-BWBK-SB-MA17-0104	20800	11.8	0.002734446	3.02869E+00	1.47838E+00	2.42180E+06	-1.74031E+00	-9.10044E-02	1.35403E+01	
MASB	MASB-BWBK-SB-MA18-0104	17200	13.4	0.002894529	4.38779E+00	1.47542E-01	4.17706E+06	2.09471E+00	1.12697E-01	1.13053E+01	
MASB	MASB-BWBK-SB-MA19-0103	15100	12.1	0.003426185	4.40356E+00	8.38851E-01	1.71710E+07	2.09847E+00	1.22831E-01	1.00015E+01	
MASB	MASB-BWBK-SB-MA20-0103	24600	21	0.001715965	2.60151E+01	6.37460E+01	2.86890E+07	5.10050E+00	2.11284E-01	1.58995E+01	
MASS	MASS-BWBK-SS-MA01-0001	7090	5.3	0.007223151	7.36505E-02	5.95349E+01	1.47714E+08	2.71386E-01	2.30649E-02	5.02861E+00	
MASS	MASS-BWBK-SS-MA02-0001	8420	8.7	0.005523448	8.09784E+00	1.86269E+01	1.17154E+08	2.84567E+00	2.11490E-01	5.85433E+00	
MASS	MASS-BWBK-SS-MA03-0001	11800	8	0.005728613	2.23117E-03	2.51591E+01	5.54099E+07	4.72353E-02	3.57512E-03	7.95276E+00	
MASS	MASS-BWBK-SS-MA04-0001	11900	10.3	0.004729838	5.22192E+00	7.37605E+00	5.39312E+07	2.28515E+00	1.57159E-01	8.01485E+00	
MASS	MASS-BWBK-SS-MA05-0001	17700	13.9	0.002767801	5.21796E+00	7.81654E-01	2.38327E+06	2.28429E+00	1.20176E-01	1.16157E+01	
MASS	MASS-BWBK-SS-MA06-0001	20400	13.3	0.002566381	6.43386E-05	8.07197E-02	1.33683E+06	8.02114E-03	4.06346E-04	1.32920E+01	
MASS	MASS-BWBK-SS-MA07-0001	5940	2.8	0.007223151	2.29416E+00	1.04364E+02	1.76991E+08	-1.51465E+00	-1.28729E-01	4.31465E+00	
MASS	MASS-BWBK-SS-MA08-0001	18900	9.5	0.003393596	8.18372E+00	1.23615E+01	1.18188E+05	-2.86072E+00	-1.66650E-01	1.23607E+01	
MASS	MASS-BWBK-SS-MA09-0001	20800	15	0.002348609	2.13068E+00	3.93670E+00	2.42180E+06	1.45969E+00	7.07399E-02	1.35403E+01	
MASS	MASS-BWBK-SS-MA10-0001	21600	13.6	0.002431601	1.90956E-01	3.41187E-01	5.55175E+06	-4.36985E-01	-2.15483E-02	1.40370E+01	
MASS	MASS-BWBK-SS-MA11-0001	26600	13	0.002178386	1.71494E+01	2.52424E-04	5.41139E+07	-4.14118E+00	-1.93282E-01	1.71412E+01	
MASS	MASS-BWBK-SS-MA12-0001	14900	11.8	0.003521476	3.69652E+00	1.47838E+00	1.88685E+07	1.92263E+00	1.14093E-01	9.87737E+00	
MASS	MASS-BWBK-SS-MA13-0001	15300	8.7	0.004255358	2.03262E+00	1.86269E+01	1.55534E+07	-1.42570E+00	-9.30029E-02	1.01257E+01	
MASS	MASS-BWBK-SS-MA14-0001	9440	6.8	0.006708204	9.76031E-02	3.86373E+01	9.61142E+07	3.12415E-01	2.55879E-02	6.48759E+00	
MASS	MASS-BWBK-SS-MA15-0001	10500	7	0.006546537	2.12210E-02	3.61909E+01	7.64538E+07	-1.45674E-01	-1.17866E-02	7.14567E+00	
MASS	MASS-BWBK-SS-MA16-0001	15000	8.7	0.004325237	1.53623E+00	1.86269E+01	1.80097E+07	-1.23945E+00	-8.15143E-02	9.93945E+00	
MASS	MASS-BWBK-SS-MA17-0001	14900	9	0.004242776	7.69770E-01	1.61274E+01	1.88685E+07	-8.77365E-01	-5.71486E-02	9.87737E+00	
MASS	MASS-BWBK-SS-MA18-0001	13000	7.9	0.005270024	6.36439E-01	2.61723E+01	3.89849E+07	-7.97771E-01	-5.79142E-02	8.69777E+00	
MASS	MASS-BWBK-SS-MA19-0001	15200	9.2	0.004107755	7.45834E-01	1.45610E+01	1.63522E+07	-8.63617E-01	-5.53507E-02	1.00636E+01	
MASS	MASS-BWBK-SS-MA20-0001	17400	12.4	0.003014894	9.41943E-01	3.79318E-01	3.39954E+06	9.70538E-01	5.32903E-02	1.14295E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	16800	12	0.00316367	8.89326E-01	1.03203E+00	5.97209E+06	9.43041E-01	5.30428E-02	1.10570E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	15800	17.7	0.002608966	5.27640E+01	2.19409E+01	1.18597E+07	7.26388E+00	3.71025E-01	1.04361E+01	MMSB-BWBK-SB-MM102-0109
MMSB	MMSB-BWBK-SB-MM103-0107	14900	13	0.003307851	9.75085E+00	2.52424E-04	1.88685E+07	3.12263E+00	1.79595E-01	9.87737E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	24000	12.9	0.002341426	6.90112E+00	1.34300E-02	2.26216E+07	-2.62700E+00	-1.27116E-01	1.55270E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	12000	10.3	0.00469065	4.94203E+00	7.37605E+00	5.24724E+07	2.22307E+00	1.52254E-01	8.07693E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	21600	15.9	0.002207844	3.47082E+00	8.31810E+00	5.55175E+06	1.86301E+00	8.75388E-02	1.40370E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	14700	11.4	0.003643332	2.71196E+00	2.61109E+00	2.06460E+07	1.64680E+00	9.94010E-02	9.75320E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	15550	11	0.003562307	5.17090E-01	4.06380E+00	1.36440E+07	7.19090E-01	4.29189E-02	1.02809E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	17800	13.4	0.002820361	2.96598E+00	1.47542E-01	2.08452E+06	1.72220E+00	9.14611E-02	1.16778E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	16900	12	0.003149204	7.76085E-01	1.03203E+00	5.49333E+06	8.80957E-01	4.94373E-02	1.11190E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	19200	13.3	0.002679993	5.67051E-01	8.07197E-02	1.91713E+03	7.53028E-01	3.89832E-02	1.25470E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	19550	14.15	0.002544327	1.92026E+00	1.28621E+00	9.37676E+04	1.38573E+00	6.98983E-02	1.27643E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	16100	14.6	0.002888099	1.58215E+01	2.50941E+00	9.88338E+06	3.97763E+00	2.13762E-01	1.06224E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	12700	11.2	0.004196498	7.22793E+00	3.29745E+00	4.28211E+07	2.68848E+00	1.74161E-01	8.51152E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	16300	9.7	0.003740206	1.09525E+00	1.09951E+01	8.66587E+06	-1.04654E+00	-6.40035E-02	1.07465E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	15600	13	0.003185747	7.22560E+00	2.52424E-04	1.32772E+07	2.68805E+00	1.51720E-01	1.03120E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	13500	10.6	0.004118052	2.53386E+00	5.83651E+00	3.29911E+07	1.59181E+00	1.02150E-01	9.00819E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	14900	22.6	0.002374179	1.61865E+02	9.18552E+01	1.88685E+07	1.27226E+01	6.19917E-01	9.87737E+00	MMSB-BWBK-SB-MM118-0110
MMSB	MMSB-BWBK-SB-MM119-0110	15800	11.9	0.003338419	2.14294E+00	1.24521E+00	1.18597E+07	1.46388E+00	8.45816E-02	1.04361E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	10600	7.6	0.006123724	1.53854E-01	2.93318E+01	7.47150E+07	3.92242E-01	3.06946E-02	7.20776E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	17800	9.6	0.003521301	4.31724E+00	1.16683E+01	2.08452E+06	-2.07780E+00	-1.23298E-01	1.16778E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	14100	8.2	0.00476385	1.39404E+00	2.31928E+01	2.64585E+07	-1.18069E+00	-8.14923E-02	9.38069E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,5555.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!N	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	FE	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	17400	9.2	0.003692476	4.97050E+00	1.45610E+01	3.39954E+06	-2.22946E+00	-1.35475E-01	1.14295E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	18000	10.6	0.003260461	1.44472E+00	5.83651E+00	1.54700E+06	-1.20197E+00	-6.86328E-02	1.18020E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	12000	6.7	0.006504762	1.89594E+00	3.98904E+01	5.24724E+07	-1.37693E+00	-1.11053E-01	8.07693E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	17900	10.1	0.003384332	2.68921E+00	8.50240E+00	1.80576E+06	-1.63988E+00	-9.54001E-02	1.17399E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	17800	10.3	0.00335295	1.89833E+00	7.37605E+00	2.08452E+06	-1.37780E+00	-7.97809E-02	1.16778E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	15400	8.5	0.004306426	2.84862E+00	2.03932E+01	1.47747E+07	-1.68778E+00	-1.10758E-01	1.01878E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	15500	8.2	0.004401231	4.20196E+00	2.31928E+01	1.40159E+07	-2.04987E+00	-1.35992E-01	1.02499E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	9880	4.7	0.007223151	4.24671E+00	6.91540E+01	8.76805E+07	-2.06075E+00	-1.75142E-01	6.76075E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	10400	5.3	0.007223151	3.18119E+00	5.95349E+01	7.82125E+07	-1.78359E+00	-1.51586E-01	7.08359E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9120	4.8	0.007223151	2.21687E+00	6.75008E+01	1.02491E+08	-1.48892E+00	-1.26542E-01	6.28892E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	14100	7.3	0.005218536	4.32929E+00	3.26714E+01	2.64585E+07	-2.08069E+00	-1.50308E-01	9.38069E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	8240	4.5	0.007223151	1.54400E+00	7.25203E+01	1.21083E+08	-1.24258E+00	-1.05606E-01	5.74258E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	11000	5.5	0.007223151	3.82630E+00	5.64886E+01	6.79600E+07	-1.95609E+00	-1.66247E-01	7.45609E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	10200	5	0.007223151	3.83934E+00	6.42545E+01	8.17900E+07	-1.95942E+00	-1.66530E-01	6.95942E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	15000	8.4	0.00443958	2.36990E+00	2.13064E+01	1.80097E+07	-1.53945E+00	-1.02574E-01	9.93945E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	13100	9	0.004746218	5.76695E-02	1.61274E+01	3.77461E+07	2.40145E-01	1.65442E-02	8.75986E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	11400	9.1	0.005345225	1.94762E+00	1.53342E+01	6.15250E+07	1.39557E+00	1.02032E-01	7.70443E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	17600	8.9	0.003749607	7.04175E+00	1.69405E+01	2.70203E+06	-2.65363E+00	-1.62492E-01	1.15536E+01	
NESB	NESB-BWBK-SB-NE01-0108	23700	19	0.001864322	1.33901E+01	3.58096E+01	1.98579E+07	3.65925E+00	1.57998E-01	1.53407E+01	
NESB	NESB-BWBK-SB-NE02-0109	22200	17.8	0.002024856	1.14956E+01	2.28877E+01	8.73921E+06	3.39051E+00	1.52568E-01	1.44095E+01	
NESB	NESB-BWBK-SB-NE03-0105	22300	15.6	0.002185261	1.27335E+00	6.67764E+00	9.34045E+06	1.12843E+00	5.27503E-02	1.44716E+01	
NESB	NESB-BWBK-SB-NE04-0110	20000	15.6	0.002357232	6.53496E+00	6.67764E+00	5.71861E+05	2.55636E+00	1.24115E-01	1.30436E+01	
NESB	NESB-BWBK-SB-NE05-0108	22900	17.75	0.001985942	8.44439E+00	2.24118E+01	1.33679E+07	2.90592E+00	1.29499E-01	1.48441E+01	
NESB	NESB-BWBK-SB-NE06-0109	21100	16.9	0.002162922	1.00707E+01	1.50863E+01	3.44553E+06	3.17343E+00	1.47588E-01	1.37266E+01	
NESB	NESB-BWBK-SB-NE07-0107	23100	18.8	0.001908453	1.46824E+01	3.34560E+01	1.48704E+07	3.83176E+00	1.67393E-01	1.49682E+01	
NESB	NESB-BWBK-SB-NE08-0104	18200	15.5	0.00253427	1.27725E+01	6.17081E+00	1.08949E+06	3.57387E+00	1.79914E-01	1.19261E+01	
NESB	NESB-BWBK-SB-NE09-0110	20500	15.7	0.002307408	5.50342E+00	7.20446E+00	1.57808E+06	2.34594E+00	1.12688E-01	1.33541E+01	
NESB	NESB-BWBK-SB-NE10-0107	18200	12.9	0.002841804	9.48416E-01	1.34300E-02	1.08949E+06	9.73867E-01	5.19154E-02	1.19261E+01	
NESB	NESB-BWBK-SB-NE101-0110	17600	12.5	0.002973479	8.95616E-01	2.66140E-01	2.70203E+06	9.46370E-01	5.16052E-02	1.15536E+01	
NESB	NESB-BWBK-SB-NE102-0110	14400	11	0.003796714	2.05364E+00	4.06380E+00	2.34623E+07	1.43305E+00	8.83012E-02	9.56695E+00	
NESB	NESB-BWBK-SB-NE103-0110	13100	9.85	0.004450911	1.18842E+00	1.00228E+01	3.77461E+07	1.09014E+00	7.27292E-02	8.75986E+00	
NESB	NESB-BWBK-SB-NE104-0110	11800	9	0.005246327	1.09670E+00	1.61274E+01	5.54099E+07	1.04724E+00	7.58529E-02	7.95276E+00	
NESB	NESB-BWBK-SB-NE105-0110	17300	11.7	0.003144965	1.10637E-01	1.73156E+00	3.77830E+06	3.32622E-01	1.86534E-02	1.13674E+01	
NESB	NESB-BWBK-SB-NE106-0110	15200	11.8	0.003463963	3.01503E+00	1.47838E+00	1.63522E+07	1.73638E+00	1.02196E-01	1.00636E+01	
NESB	NESB-BWBK-SB-NE107-0510	13600	8.8	0.004664553	7.30484E-02	1.77737E+01	3.18523E+07	-2.70275E-01	-1.84591E-02	9.07027E+00	
NESB	NESB-BWBK-SB-NE108-0110	15200	10.1	0.003846211	1.32373E-03	8.50240E+00	1.63522E+07	3.63832E-02	2.25640E-03	1.00636E+01	
NESB	NESB-BWBK-SB-NE109-0110	14900	10.2	0.003883561	1.04093E-01	7.92922E+00	1.88685E+07	3.22635E-01	2.01060E-02	9.87737E+00	
NESB	NESB-BWBK-SB-NE110-0110	14800	9.9	0.003987071	7.17726E-03	9.70876E+00	1.97472E+07	8.47187E-02	5.34942E-03	9.81528E+00	
NESS	NESS-BKG-SS03-NEB-0016	17700	11.5	0.003126344	1.33897E-02	2.29792E+00	2.38327E+06	-1.15714E-01	-6.47000E-03	1.16157E+01	
NESS	NESS-BKG-SS09-NEB-0018	13700	7.4	0.005292858	3.00107E+00	3.15382E+01	3.07336E+07	-1.73236E+00	-1.26033E-01	9.13236E+00	
NESS	NESS-BWBK-SS-NE01-0001	23000	14.3	0.002257676	3.67430E-01	1.64894E+00	1.41092E+07	-6.06160E-01	-2.88017E-02	1.49062E+01	
NESS	NESS-BWBK-SS-NE02-0001	22600	16.5	0.002093159	3.39361E+00	1.21390E+01	1.12642E+07	1.84218E+00	8.42815E-02	1.46578E+01	
NESS	NESS-BWBK-SS-NE03-0001	19700	11.8	0.002841643	1.11808E+00	1.47838E+00	2.08132E+05	-1.05739E+00	-5.63664E-02	1.28574E+01	
NESS	NESS-BWBK-SS-NE04-0001	20800	14.1	0.002440346	3.13248E-01	1.17530E+00	2.42180E+06	5.59686E-01	2.76484E-02	1.35403E+01	
NESS	NESS-BWBK-SS-NE05-0001	18600	12.1	0.00291435	5.54562E-03	8.38851E-01	4.14459E+05	-7.44689E-02	-4.02018E-03	1.21745E+01	
NESS	NESS-BWBK-SS-NE06-0001	19100	14.5	0.002548468	4.06067E+00	2.20259E+00	2.06741E+04	2.01511E+00	1.01728E-01	1.24849E+01	
NESS	NESS-BWBK-SS-NE07-0001	19200	11.6	0.002927433	8.96756E-01	2.00474E+00	1.91713E+03	-9.46972E-01	-5.12366E-02	1.25470E+01	
NESS	NESS-BWBK-SS-NE08-0001	19000	13	0.00273986	3.33155E-01	2.52424E-04	5.94311E+04	5.77196E-01	3.02125E-02	1.24228E+01	
NESS	NESS-BWBK-SS-NE09-0001	17700	10.8	0.003260253	6.65389E-01	4.91016E+00	2.38327E+06	-8.15714E-01	-4.65761E-02	1.16157E+01	
NESS	NESS-BWBK-SS-NE10-0001	17400	11.8	0.003113769	1.37298E-01	1.47838E+00	3.39954E+06	3.70538E-01	2.06764E-02	1.14295E+01	
NESS	NESS-BWBK-SS-NE101-0001	13200	8.1	0.005097929	5.21196E-01	2.41660E+01	3.65273E+07	-7.21939E-01	-5.15463E-02	8.82194E+00	
NESS	NESS-BWBK-SS-NE102-0001	10700	6.4	0.007071068	7.56625E-01	4.37700E+01	7.29963E+07	-8.69842E-01	-7.31447E-02	7.26984E+00	
NESS	NESS-BWBK-SS-NE103-0001	9870	6.3	0.007171372	2.06612E-01	4.51031E+01	8.78678E+07	-4.54546E-01	-3.84927E-02	6.75455E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,5555.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!N	DA!W	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	FE	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	12300	7.3	0.005911058	9.27724E-01	3.26714E+01	4.82162E+07	-9.63184E-01	-7.40529E-02	8.26318E+00	
NESS	NESS-BWBK-SS-NE105-0001	9200	5.2	0.007223151	1.29637E+00	6.10881E+01	1.00878E+08	-1.13858E+00	-9.67672E-02	6.33858E+00	
NESS	NESS-BWBK-SS-NE106-0001	10100	5.4	0.007223151	2.24202E+00	5.80017E+01	8.36088E+07	-1.49734E+00	-1.27258E-01	6.89734E+00	
NESS	NESS-BWBK-SS-NE107-0001	9320	4.7	0.007223151	2.93466E+00	6.91540E+01	9.84815E+07	-1.71308E+00	-1.45594E-01	6.41308E+00	
NESS	NESS-BWBK-SS-NE108-0001	10100	5.6	0.007223151	1.68309E+00	5.49954E+01	8.36088E+07	-1.29734E+00	-1.10260E-01	6.89734E+00	
NESS	NESS-BWBK-SS-NE109-0001	9020	4.6	0.007223151	2.64658E+00	7.08272E+01	1.04526E+08	-1.62683E+00	-1.38263E-01	6.22683E+00	
NESS	NESS-BWBK-SS-NE110-0001	9580	4.7	0.007223151	3.51376E+00	6.91540E+01	9.33887E+07	-1.87450E+00	-1.59312E-01	6.57450E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	21000	21.3	0.001894531	5.83011E+01	6.86265E+01	3.08429E+06	7.63552E+00	3.32345E-01	1.36645E+01	PMSB-BWBK-SB-PM01-0105
PMSB	PMSB-BWBK-SB-PM02-0104	38700	18.9	0.00137694	3.31008E+01	3.46228E+01	3.78544E+08	-5.75333E+00	-2.13490E-01	2.46533E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	35100	23.4	0.001290246	9.63715E-01	1.07830E+02	2.51420E+08	9.81690E-01	3.52623E-02	2.24183E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	27700	21.2	0.00158038	1.13967E+01	6.69797E+01	7.15076E+07	3.37590E+00	1.34205E-01	1.78241E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	27700	19.3	0.001668893	2.17827E+00	3.94901E+01	7.15076E+07	1.47590E+00	6.02935E-02	1.78241E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	30300	19	0.001591856	1.92092E-01	3.58096E+01	1.22240E+08	-4.38284E-01	-1.74867E-02	1.94383E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	26600	15	0.001991842	4.58465E+00	3.93670E+00	5.41139E+07	-2.14118E+00	-9.55610E-02	1.71412E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	24800	18.3	0.001849538	5.18168E+00	2.79218E+01	3.08715E+07	2.27633E+00	9.78964E-02	1.60237E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	20300	16.6	0.00224638	1.13576E+01	1.28459E+01	1.11559E+06	3.37011E+00	1.59729E-01	1.32299E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	25700	15.1	0.002028402	2.19758E+00	4.34352E+00	4.16827E+07	-1.48242E+00	-6.67651E-02	1.65824E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	28600	21.1	0.001552904	7.38286E+00	6.53529E+01	8.75388E+07	2.71714E+00	1.07074E-01	1.83829E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	14900	12.7	0.003357596	7.96727E+00	9.97851E-02	1.88685E+07	2.82263E+00	1.63557E-01	9.87737E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	24300	11.4	0.002516601	1.86041E+01	2.61109E+00	2.55653E+07	-4.31325E+00	-2.16377E-01	1.57133E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	16400	11.8	0.003259214	9.82827E-01	1.47838E+00	8.08711E+06	9.91377E-01	5.65972E-02	1.08086E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	23000	15.2	0.002174201	8.63420E-02	4.77035E+00	1.41092E+07	2.93840E-01	1.37013E-02	1.49062E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	18700	13.6	0.002693784	1.85899E+00	3.41187E-01	2.95702E+05	1.36345E+00	7.07652E-02	1.22366E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	25200	16.75	0.001929233	2.28479E-01	1.39436E+01	3.54765E+07	4.77995E-01	2.09950E-02	1.62720E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	34100	21.2	0.001389232	3.56972E-01	6.69797E+01	2.20707E+08	-5.97471E-01	-2.22692E-02	2.17975E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	25900	18.2	0.00180368	2.23027E+00	2.68750E+01	4.43052E+07	1.49341E+00	6.34246E-02	1.67066E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	22550	16.75	0.002077438	4.50805E+00	1.39436E+01	1.09311E+07	2.12322E+00	9.67740E-02	1.46268E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	29300	23.6	0.001434604	2.28728E+01	1.12023E+02	1.01127E+08	4.78256E+00	1.81145E-01	1.88174E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	34900	21.2	0.001369909	1.19715E+00	6.69797E+01	2.45117E+08	-1.09414E+00	-4.04967E-02	2.22941E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	33900	25.6	0.00125246	1.54189E+01	1.58360E+02	2.14805E+08	3.92670E+00	1.38966E-01	2.16733E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	36100	27.1	0.001168103	1.64905E+01	1.98362E+02	2.84132E+08	4.06085E+00	1.38790E-01	2.30391E+01	
PMSS	PMSS-DABK-S-SO21-0001	20400	11.3	0.002852373	3.96798E+00	2.94427E+00	1.33683E+06	-1.99198E+00	-1.06387E-01	1.32920E+01	
PMSS	PMSS-DABK-S-SO22-0001	23500	12.2	0.002461353	9.09975E+00	6.65673E-01	1.81154E+07	-3.01658E+00	-1.49659E-01	1.52166E+01	
PMSS	PMSS-DABK-S-SO23-0001	18200	13.6	0.002748166	2.80183E+00	3.41187E-01	1.08949E+06	1.67387E+00	8.77490E-02	1.19261E+01	
PMSS	PMSS-DABK-S-SO24-0001	25700	10	0.002651187	4.33283E+01	9.09558E+00	4.16827E+07	-6.58242E+00	-3.38927E-01	1.65824E+01	
PMSS	PMSS-DABK-S-SO25-0001	43300	10.75	0.001834903	2.80870E+02	5.13425E+00	5.78701E+08	-1.67592E+01	-7.17893E-01	2.75092E+01	
PMSS	PMSS-DABK-S-SO26-0001	24600	14.4	0.00214939	2.24851E+00	1.91577E+00	2.86890E+07	-1.49950E+00	-6.95192E-02	1.58995E+01	
PMSS	PMSS-DABK-S-SO27-0001	16000	11.4	0.003399788	7.05116E-01	2.61109E+00	1.05221E+07	8.39712E-01	4.89617E-02	1.05603E+01	
PMSS	PMSS-DABK-S-SO28-0001	18300	11.1	0.003122135	7.88930E-01	3.67063E+00	8.90730E+05	-8.88217E-01	-4.96301E-02	1.19882E+01	
PMSS	PMSS-DABK-S-SO29-0001	21800	11.6	0.002676745	6.55951E+00	2.00474E+00	6.53423E+06	-2.56115E+00	-1.32507E-01	1.41612E+01	
PMSS	PMSS-DABK-S-SO30-0001	18000	11.1	0.003160729	4.92756E-01	3.67063E+00	1.54700E+06	-7.01966E-01	-3.94648E-02	1.18020E+01	
PMSS	PMSS-DABK-S-SO31-0001	16500	7.5	0.004488685	1.13617E+01	3.04250E+01	7.52836E+06	-3.37071E+00	-2.25829E-01	1.08707E+01	
PMSS	PMSS-DABK-S-SO32-0001	23200	11.5	0.002580596	1.24632E+01	2.29792E+00	1.56516E+07	-3.53033E+00	-1.79339E-01	1.50303E+01	
PMSS	PMSS-DABK-S-SO33-0001	12700	9.5	0.004698825	9.77093E-01	1.23615E+01	4.28211E+07	9.88480E-01	6.77583E-02	8.51152E+00	
PMSS	PMSS-DABK-S-SO34-0001	15400	8.4	0.004344706	3.19617E+00	2.13064E+01	1.47747E+07	-1.78778E+00	-1.17841E-01	1.01878E+01	
PMSS	PMSS-DABK-S-SO35-0001	17850	9.95	0.003426818	3.09352E+00	9.39967E+00	1.94264E+06	-1.75884E+00	-1.02961E-01	1.17088E+01	
PMSS	PMSS-DABK-S-SO36-0001	14200	8	0.004825122	2.08161E+00	2.51591E+01	2.54398E+07	-1.44278E+00	-1.00220E-01	9.44278E+00	
PMSS	PMSS-DABK-S-SO37-0001	20100	8.5	0.003519905	2.12127E+01	2.03932E+01	7.33104E+05	-4.60573E+00	-2.73252E-01	1.31057E+01	
PMSS	PMSS-DABK-S-SO38-0001	13700	7.7	0.005128273	2.05165E+00	2.82587E+01	3.07336E+07	-1.43236E+00	-1.02574E-01	9.13236E+00	
PMSS	PMSS-DABK-S-SO39-0001	18800	8.8	0.003600012	1.22405E+01	1.77737E+01	1.96945E+05	-3.49864E+00	-2.09919E-01	1.22986E+01	
PMSS	PMSS-DABK-S-SO40-0001	14500	8.3	0.004608735	1.76632E+00	2.22396E+01	2.25035E+07	-1.32903E+00	-9.02247E-02	9.62903E+00	

APPENDIX F, TABLE F8-11
SUPPORT DATA FOR NICKEL REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	AX(x-Xmin,5555.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!N	DA!W	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE	NI	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
SESB	SESB-BWBK-SB-SO03-0108	40900	37.1	0.000913203	1.22785E+02	5.80044E+02	4.68992E+08	1.10808E+01	3.34854E-01	2.60192E+01	SESB-BWBK-SB-SO03-0108
SESB	SESB-BWBK-SB-SO04-0108	33600	26.8	0.00122735	2.82274E+01	1.90002E+02	2.06101E+08	5.31295E+00	1.86131E-01	2.14871E+01	
SESB	SESB-BWBK-SB-SO05-0106	31600	24.6	0.001337037	1.89628E+01	1.34192E+02	1.52676E+08	4.35463E+00	1.59229E-01	2.02454E+01	
SESB	SESB-BWBK-SB-SO06-0108	42650	30.4	0.000993467	1.08528E+01	3.02207E+02	5.47851E+08	3.29436E+00	1.03836E-01	2.71056E+01	
SESB	SESB-BWBK-SB-SO07-0106	29100	29.1	0.001281306	1.08300E+02	2.58699E+02	9.71450E+07	1.04067E+01	3.72512E-01	1.86933E+01	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	39900	31	0.00102186	3.13786E+01	3.23428E+02	4.26679E+08	5.60166E+00	1.79066E-01	2.53983E+01	
SESB	SESB-BWBK-SB-SO09-0106	29000	23.6	0.001443905	2.46890E+01	1.12023E+02	9.51837E+07	4.96881E+00	1.88808E-01	1.86312E+01	
SESB	SESB-BWBK-SB-SO11-0106	34800	27.2	0.001191673	2.46804E+01	2.01189E+02	2.41996E+08	4.96794E+00	1.71496E-01	2.22321E+01	
SESB	SESB-BWBK-SB-SO12-0106	34900	26.6	0.001204515	1.85404E+01	1.84528E+02	2.45117E+08	4.30586E+00	1.49440E-01	2.22941E+01	
SESB	SESB-BWBK-SB-SO15-0103	22700	15.7	0.002150642	9.60580E-01	7.20446E+00	1.19454E+07	9.80092E-01	4.54518E-02	1.47199E+01	
SESB	SESB-BWBK-SB-SO16-0105	24900	20.5	0.001726212	1.94856E+01	5.60119E+01	3.19928E+07	4.41425E+00	1.83402E-01	1.60858E+01	
SESB	SESB-BWBK-SB-SO17-0106	18100	17.8	0.002341465	3.52355E+01	2.28877E+01	1.30824E+06	5.93595E+00	2.87233E-01	1.18640E+01	SESB-BWBK-SB-SO17-0106
SESB	SESB-BWBK-SB-SO18-0105	15000	15.1	0.002995597	2.66313E+01	4.34352E+00	1.80097E+07	5.16055E+00	2.82448E-01	9.93945E+00	SESB-BWBK-SB-SO18-0105
SESB	SESB-BWBK-SB-SO19-0104	16400	16.5	0.002641641	3.23918E+01	1.21390E+01	8.08711E+06	5.69138E+00	2.92519E-01	1.08086E+01	SESB-BWBK-SB-SO19-0104
SESB	SESB-BWBK-SB-SO20-0104	29700	21	0.001520691	3.74121E+00	6.37460E+01	1.09332E+08	1.93422E+00	7.54269E-02	1.90658E+01	
SESS	SESS-DABK-S-SO01-0001	18600	10.7	0.003162056	2.17406E+00	5.36334E+00	4.14459E+05	-1.47447E+00	-8.29126E-02	1.21745E+01	
SESS	SESS-DABK-S-SO02-0001	24100	19.1	0.001838012	1.23265E+01	3.70164E+01	2.35828E+07	3.51092E+00	1.50520E-01	1.55891E+01	
SESS	SESS-DABK-S-SO03-0001	19100	8.7	0.003588774	1.43254E+01	1.86269E+01	2.06741E+04	-3.78489E+00	-2.26739E-01	1.24849E+01	
SESS	SESS-DABK-S-SO04-0001	18400	12.3	0.002906559	6.23495E-02	5.12495E-01	7.11973E+05	2.49699E-01	1.34619E-02	1.20503E+01	
SESS	SESS-DABK-S-SO05-0001	19300	9.8	0.00327	7.89080E+00	1.03419E+01	3.16012E+03	-2.80906E+00	-1.60633E-01	1.26091E+01	
SESS	SESS-DABK-S-SO06-0001	53900	14.7	0.001323692	3.75975E+02	2.83623E+00	1.20105E+09	-1.93901E+01	-7.05461E-01	3.40901E+01	
SESS	SESS-DABK-S-SO07-0001	16000	14.35	0.002933662	1.43619E+01	1.77986E+00	1.05221E+07	3.78971E+00	2.05263E-01	1.05603E+01	
SESS	SESS-DABK-S-SO08-0001	20500	12.9	0.002607706	2.06173E-01	1.34300E-02	1.57808E+06	-4.54063E-01	-2.31870E-02	1.33541E+01	
SESS	SESS-DABK-S-SO09-0001	23000	10.7	0.002723936	1.76918E+01	5.36334E+00	1.41092E+07	-4.20616E+00	-2.19525E-01	1.49062E+01	
SESS	SESS-DABK-S-SO10-0001	23800	8.9	0.003029663	4.22868E+01	1.69405E+01	2.07591E+07	-6.50283E+00	-3.57931E-01	1.54028E+01	
SESS	SESS-DABK-S-SO11-0001	8840	7.1	0.006469966	9.70064E-01	3.49977E+01	1.08239E+08	9.84918E-01	7.92230E-02	6.11508E+00	
SESS	SESS-DABK-S-SO12-0001	14500	8.7	0.004449765	8.63096E-01	1.86269E+01	2.25035E+07	-9.29030E-01	-6.19724E-02	9.62903E+00	
SESS	SESS-DABK-S-SO13-0001	18700	12.9	0.002785569	4.40162E-01	1.34300E-02	2.95702E+05	6.63447E-01	3.50157E-02	1.22366E+01	
SESS	SESS-DABK-S-SO14-0001	18000	10.9	0.003199513	8.13542E-01	4.47698E+00	1.54700E+06	-9.01966E-01	-5.10190E-02	1.18020E+01	
SESS	SESS-DABK-S-SO15-0001	17500	9.9	0.003490534	2.53302E+00	9.70876E+00	3.04079E+06	-1.59155E+00	-9.40297E-02	1.14915E+01	
SESS	SESS-DABK-S-SO16-0001	9330	5.7	0.007223151	5.17382E-01	5.35222E+01	9.82831E+07	-7.19293E-01	-6.11321E-02	6.41929E+00	
SESS	SESS-DABK-S-SO17-0001	14800	5.3	0.005719704	2.03878E+01	5.95349E+01	1.97472E+07	-4.51528E+00	-3.41485E-01	9.81528E+00	
SESS	SESS-DABK-S-SO18-0001	13100	9.3	0.004635396	2.91756E-01	1.38078E+01	3.77461E+07	5.40145E-01	3.67751E-02	8.75986E+00	
SESS	SESS-DABK-S-SO19-0001	17300	13.9	0.002816108	6.41417E+00	7.81654E-01	3.77830E+06	2.53262E+00	1.34399E-01	1.13674E+01	
SESS	SESS-DABK-S-SO20-0001	23500	14.8	0.002178448	1.73538E-01	3.18306E+00	1.81154E+07	-4.16579E-01	-1.94434E-02	1.52166E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Y variable name used on graph: V			********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
	X variable name used on graph: V predict (from Factor Anal.)			X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
	N	214.000000		0.73	5.62	5.29	5.95	-1.02	1.02	-0.05	No. of Exceedances
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	1.287793E+01		2.32	6.77	5.82	7.72	-1.02	1.02	-0.05	of Upper 95% Limit
0.10	t-Value: 2-tail, 0.100 alpha	1.652073		3.91	7.92	6.32	9.51	-1.02	1.02	-0.05	for Each Soil Type:
degrees freedom	SUM(XY*w^2)	2.593667E+02		5.49	9.06	6.82	11.31	-1.02	1.02	-0.05	---- V ----
2	SUM(X^2*w^2)	2.140000E+02		7.08	10.21	7.32	13.10	-1.02	1.02	-0.05	BASS
	SUM(X*w^2)	2.053549E+01		8.66	11.36	7.82	14.90	-1.02	1.02	-0.05	1
	SUM(Y*w^2)	6.371854E+01		10.25	12.51	8.32	16.69	-1.02	1.02	-0.05	MASS
	SUM(w^2)	9.596140E+00		11.84	13.65	8.82	18.48	-1.02	1.02	-0.05	0
	SUM(Y)	4021.850000		13.42	14.80	9.32	20.28	-1.02	1.02	-0.05	MMSS
	SUM(X)	4.107164E+03		15.01	15.95	9.82	22.07	-1.02	1.02	-0.05	0
	Denominator	1.631868E+03		16.59	17.10	10.32	23.87	-1.02	1.02	-0.05	NESS
	Slope	7.233599E-01		18.18	18.24	10.82	25.66	-1.02	1.02	-0.05	0
	Intercept	5.092046E+00		19.77	19.39	11.32	27.46	-1.02	1.02	-0.05	PMSS
	Minimum X value	7.326106E-01		21.35	20.54	11.82	29.25	-1.02	1.02	-0.05	11
	Maximum X value	3.880196E+01		22.94	21.69	12.32	31.05	-1.02	1.02	-0.05	SESS
	Minimum Y value	5.200000E+00		24.53	22.83	12.82	32.84	-1.02	1.02	-0.05	3
	Maximum Y value	3.580000E+01		26.11	23.98	13.32	34.64	-1.02	1.02	-0.05	SESD
	No. of graph points	25		27.70	25.13	13.82	36.44	-1.02	1.02	-0.05	0
	SUM(Ypred.- Yobs)^2	4.876315E+03		29.28	26.28	14.32	38.23	-1.02	1.02	-0.05	MASB
	SUM(Yobs - Yave)^2	9.281109E+03		30.87	27.42	14.82	40.03	-1.02	1.02	-0.05	0
	SUM(X - Xave)^2	1.213637E+04		32.46	28.57	15.32	41.82	-1.02	1.02	-0.05	MMSB
	Std. Error of Y-estimate	4.795986E+00		34.04	29.72	15.82	43.62	-1.02	1.02	-0.05	0
	R^2	4.745978E-01		35.63	30.87	16.32	45.41	-1.02	1.02	-0.05	NESB
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/x		37.22	32.01	16.82	47.21	-1.02	1.02	-0.05	0
est.M, Std.Err.Y				38.80	33.16	17.32	49.00	-1.02	1.02	-0.05	PMSB
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:			25	15.65	16.42	10.03	22.81	16.42	-39%	39%	1
Inverse Log Transform (Y/N)?		No	50	18.90	18.76	11.05	26.48	18.76	-41%	41%	SESB
Inverse Power Transform (Y/N)?		No	75	23.70	22.23	12.56	31.91	22.23	-44%	44%	2
Inverse Power Transform (1/Power):		1	90	29.40	26.36	14.36	38.36	26.36	-46%	46%	<<--Original Units Errors

TEXT BOX ==> (V) = (7.23E-01)x(V predict (from Factor Anal.)) + (5.09E+00) R^2 = 0.47; Std. Error of Y-estimate = 4.80E+00 +/-3 x IQR of r -1.021708 1.021708

TEXT BOX ==> Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro V - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V predict	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001	3.056984235	6.3	0.107007348	1.00670E+00	1.56092E+02	2.60350E+02	-1.00335E+00	-3.28214E-01	7.30335E+00	
BASS	BASS-BWBK-SS-BA102-0001	0.737373127	5.2	1.83918488	1.80993E-01	1.84788E+02	3.40586E+02	-4.25433E-01	-5.76957E-01	5.62543E+00	
BASS	BASS-BWBK-SS-BA103-0001	1.736910993	6	0.331470492	1.21423E-01	1.63679E+02	3.04693E+02	-3.48458E-01	-2.00619E-01	6.34846E+00	
BASS	BASS-BWBK-SS-BA104-0001	2.978293994	8.3	0.112736583	1.11002E+00	1.10118E+02	2.62896E+02	1.05358E+00	3.53751E-01	7.24642E+00	
BASS	BASS-BWBK-SS-BA105-0001	0.982923036	6.1	1.035049151	8.81772E-02	1.61130E+02	3.31583E+02	2.96946E-01	3.02106E-01	5.80305E+00	
BASS	BASS-BWBK-SS-BA106-0001	2.84096259	7.75	0.123899334	3.63507E-01	1.21963E+02	2.67368E+02	6.02915E-01	2.12222E-01	7.14708E+00	
BASS	BASS-BWBK-SS-BA107-0001	1.025858957	5.9	0.950221145	4.34127E-03	1.66247E+02	3.30022E+02	6.58883E-02	6.42275E-02	5.83411E+00	
BASS	BASS-BWBK-SS-BA108-0001	0.945072603	5.5	1.119617435	7.59962E-02	1.76722E+02	3.32963E+02	-2.75674E-01	-2.91696E-01	5.77567E+00	
BASS	BASS-BWBK-SS-BA109-0001	1.092622709	6.1	0.837644141	4.73472E-02	1.61130E+02	3.27600E+02	2.17594E-01	1.99148E-01	5.88241E+00	
BASS	BASS-BWBK-SS-BA110-0001	5.078558745	7.8	0.038772075	9.32523E-01	1.20861E+02	1.99199E+02	-9.65672E-01	-1.90147E-01	8.76567E+00	
BASS	BASS-BWBK-SS-BA111-0001	1.907549208	6	0.274820104	2.22681E-01	1.63679E+02	2.98765E+02	-4.71891E-01	-2.47381E-01	6.47189E+00	
BASS	BASS-BWBK-SS-BA112-0001	1.917790284	5.8	0.271892841	4.61447E-01	1.68836E+02	2.98411E+02	-6.79299E-01	-3.54209E-01	6.47930E+00	
BASS	BASS-BWBK-SS-BA113-0001	0.732610621	6.05	1.863174702	1.83195E-01	1.62402E+02	3.40762E+02	4.28012E-01	5.84229E-01	5.62199E+00	BASS-BWBK-SS-BA113-0001
MASB	MASB-BWBK-SB-MA01-0105	14.01720666	17.1	0.005089523	3.49117E+00	2.86859E+00	2.67822E+01	1.86847E+00	1.33298E-01	1.52315E+01	
MASB	MASB-BWBK-SB-MA02-0107	18.36247944	16.7	0.002965769	2.80471E+00	4.38354E+00	6.88695E-01	-1.67473E+00	-9.12038E-02	1.83747E+01	
MASB	MASB-BWBK-SB-MA03-0108	10.53366036	15.4	0.009012419	7.22710E+00	1.15171E+01	7.49730E+01	2.68833E+00	2.55213E-01	1.27117E+01	
MASB	MASB-BWBK-SB-MA04-0106	17.66719738	18.8	0.003203795	8.61576E-01	3.97961E-05	2.32611E+00	9.28211E-01	5.25387E-02	1.78718E+01	
MASB	MASB-BWBK-SB-MA05-0108	16.13224974	17.5	0.003842467	5.45428E-01	1.67364E+00	9.36425E+00	7.38531E-01	4.57798E-02	1.67615E+01	
MASB	MASB-BWBK-SB-MA06-0105	17.05941743	17.8	0.003436146	1.35317E-01	9.87423E-01	4.54943E+00	3.67855E-01	2.15632E-02	1.74321E+01	
MASB	MASB-BWBK-SB-MA07-0108	16.4254561	15.6	0.00370651	1.88667E+00	1.01997E+01	7.65574E+00	-1.37356E+00	-8.36240E-02	1.69736E+01	
MASB	MASB-BWBK-SB-MA08-0108	25.88194491	25.05	0.001492816	1.52768E+00	3.91414E+01	4.47506E+01	1.23599E+00	4.77550E-02	2.38140E+01	
MASB	MASB-BWBK-SB-MA09-0108	17.11195205	17.2	0.00341508	7.29791E-02	2.53985E+00	4.32808E+00	-2.70146E-01	-1.57870E-02	1.74701E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V predict	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	12.60301975	15.3	0.006295798	1.19123E+00	1.22059E+01	4.34194E+01	1.09143E+00	8.66010E-02	1.42086E+01	
MASB	MASB-BWBK-SB-MA11-0108	18.79292975	19.9	0.002831464	1.47356E+00	1.22392E+00	1.59541E-01	1.21390E+00	6.45935E-02	1.86861E+01	
MASB	MASB-BWBK-SB-MA12-0108	16.01373817	16.7	0.003899551	5.88426E-04	4.38354E+00	1.01036E+01	2.42575E-02	1.51479E-03	1.66757E+01	
MASB	MASB-BWBK-SB-MA13-0105	16.70999028	19.9	0.003581357	7.40175E+00	1.22392E+00	6.16214E+00	2.72062E+00	1.62814E-01	1.71794E+01	
MASB	MASB-BWBK-SB-MA14-0104	24.38154461	21.55	0.0016822	1.38928E+00	7.59724E+00	2.69277E+01	-1.17868E+00	-4.83430E-02	2.27287E+01	
MASB	MASB-BWBK-SB-MA15-0105	24.47259189	23.6	0.001669706	6.48769E-01	2.31006E+01	2.78809E+01	8.05462E-01	3.29128E-02	2.27945E+01	
MASB	MASB-BWBK-SB-MA16-0104	14.76673534	19.1	0.004585968	1.10642E+01	9.38248E-02	1.95861E+01	3.32629E+00	2.25256E-01	1.57737E+01	
MASB	MASB-BWBK-SB-MA17-0104	21.06107258	18.6	0.002254442	2.98178E+00	3.75164E-02	3.49210E+00	-1.72678E+00	-8.19893E-02	2.03268E+01	
MASB	MASB-BWBK-SB-MA18-0104	19.78984248	25.5	0.002553379	3.71219E+01	4.49746E+01	3.56990E-01	6.09278E+00	3.07874E-01	1.94072E+01	
MASB	MASB-BWBK-SB-MA19-0103	15.61290131	18.6	0.004102351	4.90271E+00	3.75164E-02	1.28125E+01	2.21421E+00	1.41819E-01	1.63858E+01	
MASB	MASB-BWBK-SB-MA20-0103	14.82070414	17.2	0.00455263	1.92446E+00	2.53985E+00	1.91113E+01	1.38725E+00	9.36022E-02	1.58127E+01	
MASS	MASS-BWBK-SS-MA01-0001	16.28133041	13.6	0.003772422	1.06884E+01	2.69744E+01	8.47407E+00	-3.26931E+00	-2.00801E-01	1.68693E+01	
MASS	MASS-BWBK-SS-MA02-0001	28.25092297	14.2	0.001252953	1.28315E+02	2.11020E+01	8.20576E+01	-1.13276E+01	-4.00965E-01	2.55276E+01	
MASS	MASS-BWBK-SS-MA03-0001	18.32288876	14.8	0.002978599	1.25748E+01	1.59496E+01	7.55974E-01	-3.54609E+00	-1.93533E-01	1.83461E+01	
MASS	MASS-BWBK-SS-MA04-0001	20.4111717	13.9	0.002400292	3.54819E+01	2.39482E+01	1.48551E+00	-5.95667E+00	-2.91834E-01	1.98567E+01	
MASS	MASS-BWBK-SS-MA05-0001	23.85491837	19.9	0.001757293	5.99142E+00	1.22392E+00	2.17395E+01	-2.44774E+00	-1.02609E-01	2.23477E+01	
MASS	MASS-BWBK-SS-MA06-0001	31.72658593	20.9	0.000993467	5.10051E+01	4.43654E+00	1.57107E+02	-7.14179E+00	-2.25104E-01	2.80418E+01	
MASS	MASS-BWBK-SS-MA07-0001	6.985655028	11.6	0.020492065	2.11647E+00	5.17492E+01	1.49004E+02	1.45481E+00	2.08257E-01	1.01452E+01	
MASS	MASS-BWBK-SS-MA08-0001	21.86259527	22.1	0.002092168	1.42427E+00	1.09317E+01	7.13018E+00	1.19343E+00	5.45877E-02	2.09066E+01	
MASS	MASS-BWBK-SS-MA09-0001	37.01467228	29.5	0.000729881	5.60258E+00	1.14625E+02	3.17635E+02	-2.36698E+00	-6.39470E-02	3.18670E+01	
MASS	MASS-BWBK-SS-MA10-0001	29.49414868	27.5	0.001149551	1.15148E+00	7.57998E+01	1.06127E+02	1.07307E+00	3.63824E-02	2.64269E+01	
MASS	MASS-BWBK-SS-MA11-0001	32.02423198	30.4	0.000975085	4.59206E+00	1.34706E+02	1.64657E+02	2.14291E+00	6.69152E-02	2.82571E+01	
MASS	MASS-BWBK-SS-MA12-0001	20.22972839	15.6	0.002443542	1.70191E+01	1.01997E+01	1.07614E+00	-4.12542E+00	-2.03929E-01	1.97254E+01	
MASS	MASS-BWBK-SS-MA13-0001	29.18202671	24.3	0.001174273	3.61439E+00	3.03194E+01	9.97935E+01	-1.90115E+00	-6.51481E-02	2.62012E+01	
MASS	MASS-BWBK-SS-MA14-0001	20.86797417	24	0.002296357	1.45382E+01	2.71056E+01	2.80770E+00	3.81290E+00	1.82715E-01	2.01871E+01	
MASS	MASS-BWBK-SS-MA15-0001	25.04800798	22.3	0.001593873	8.29504E-01	1.22942E+01	3.42887E+01	-9.10771E-01	-3.63610E-02	2.32108E+01	
MASS	MASS-BWBK-SS-MA16-0001	20.05081409	23.2	0.002487345	1.29888E+01	1.94156E+01	7.36950E-01	3.60400E+00	1.79743E-01	1.95960E+01	
MASS	MASS-BWBK-SS-MA17-0001	22.75449674	22.5	0.00193137	8.99203E-01	1.37367E+01	1.26888E+01	9.48263E-01	4.16737E-02	2.15517E+01	
MASS	MASS-BWBK-SS-MA18-0001	20.70253339	25.9	0.002333206	3.40189E+01	5.04996E+01	2.28064E+00	5.83257E+00	2.81732E-01	2.00674E+01	
MASS	MASS-BWBK-SS-MA19-0001	22.76848999	24.8	0.001928997	1.04856E+01	3.60757E+01	1.27887E+01	3.23814E+00	1.42220E-01	2.15619E+01	
MASS	MASS-BWBK-SS-MA20-0001	19.62899502	21.1	0.002595397	3.27294E+00	5.31906E+00	1.90653E-01	1.80913E+00	9.21660E-02	1.92909E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	10.76741697	11.15	0.008625354	2.99554E+00	5.84260E+01	7.09796E+01	-1.73076E+00	-1.60741E-01	1.28808E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	12.83436072	13.2	0.006070878	1.38276E+00	3.12894E+01	4.04241E+01	-1.17591E+00	-9.16219E-02	1.43759E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	9.755212937	11	0.010508156	1.31923E+00	6.07416E+01	8.90597E+01	-1.14858E+00	-1.17740E-01	1.21486E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	18.88594055	15.6	0.002803643	9.94380E+00	1.01997E+01	9.38905E-02	-3.15338E+00	-1.66970E-01	1.87534E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	8.037357929	9.9	0.015480086	1.01193E+00	7.90978E+01	1.24434E+02	-1.00595E+00	-1.25159E-01	1.09059E+01	
MMSB	MMSB-BWBK-SB-MM106-0110	21.12543323	19	0.002240726	1.88606E+00	4.25632E-02	3.73679E+00	-1.37334E+00	-6.50087E-02	2.03733E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	11.38968483	12.4	0.007708619	8.66552E-01	4.08793E+01	6.08817E+01	-9.30888E-01	-8.17308E-02	1.33309E+01	
MMSB	MMSB-BWBK-SB-MM108-0110	13.17597727	13.35	0.005760157	1.62058E+00	2.96338E+01	3.61968E+01	-1.27302E+00	-9.66167E-02	1.46230E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	19.76330104	16.7	0.002560242	7.22548E+00	4.38354E+00	3.25978E-01	-2.68803E+00	-1.36011E-01	1.93880E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	16.01032131	14.8	0.003901215	3.50914E+00	1.59496E+01	1.01253E+01	-1.87327E+00	-1.17004E-01	1.66733E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	17.19520698	14.4	0.00338209	9.79921E+00	1.93045E+01	3.98860E+00	-3.13037E+00	-1.82049E-01	1.75304E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	17.34087316	18.45	0.003325509	6.63021E-01	1.18124E-01	3.42799E+00	8.14261E-01	4.69562E-02	1.76357E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	13.96001879	13.3	0.005131307	3.57272E+00	3.01806E+01	2.73774E+01	-1.89016E+00	-1.35398E-01	1.51902E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	11.62639421	10.6	0.007397925	8.42226E+00	6.71366E+01	5.72438E+01	-2.90211E+00	-2.49614E-01	1.35021E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	20.60682404	16.7	0.002354929	1.08781E+01	4.38354E+00	2.00072E+00	-3.29820E+00	-1.60054E-01	1.99982E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	12.73027798	11.05	0.006170555	1.05665E+01	5.99648E+01	4.17585E+01	-3.25062E+00	-2.55345E-01	1.43006E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	8.42846092	9.5	0.014076784	2.85224E+00	8.63727E+01	1.15861E+02	-1.68886E+00	-2.00376E-01	1.11889E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	7.980076316	12.1	0.015703119	1.52643E+00	4.48055E+01	1.25715E+02	1.23549E+00	1.54821E-01	1.08645E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	10.93249762	12.8	0.008366835	4.00708E-02	3.59243E+01	6.82253E+01	-2.00177E-01	-1.83103E-02	1.30002E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	5.172187801	8.6	0.037381044	5.44754E-02	1.03911E+02	1.96565E+02	-2.33400E-01	-4.51259E-02	8.83340E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	31.99623214	21.7	0.000976793	4.27302E+01	8.44663E+00	1.63939E+02	-6.53684E+00	-2.04300E-01	2.82368E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	21.45419573	16.7	0.002172579	1.52971E+01	4.38354E+00	5.11592E+00	-3.91115E+00	-1.82302E-01	2.06112E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V predict	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	29.01454236	22.2	0.001187869	1.50544E+01	1.16029E+01	9.64753E+01	-3.88000E+00	-1.33726E-01	2.60800E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	28.95340578	20.6	0.001192891	2.95477E+01	3.26275E+00	9.52781E+01	-5.43578E+00	-1.87742E-01	2.60358E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	18.91105748	16.7	0.002796201	4.29131E+00	4.38354E+00	7.91290E-02	-2.07155E+00	-1.09542E-01	1.87715E+01	
MMSS	MMSS-BWBK-SS-MM106-0001	28.93597828	21.1	0.001194328	2.42376E+01	5.31906E+00	9.49382E+01	-4.92317E+00	-1.70140E-01	2.60232E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	31.34602476	20.4	0.001017736	5.42654E+01	2.58023E+00	1.47712E+02	-7.36650E+00	-2.35006E-01	2.77665E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	32.70071652	22.7	0.000935159	3.65594E+01	1.52592E+01	1.82476E+02	-6.04643E+00	-1.84902E-01	2.87464E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	28.71339582	20.3	0.001212916	3.09377E+01	2.26897E+00	9.06502E+01	-5.56217E+00	-1.93713E-01	2.58622E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	17.57634545	15.2	0.003237001	6.79160E+00	1.29146E+01	2.61149E+00	-2.60607E+00	-1.48271E-01	1.78061E+01	
MMSS	MMSS-BWBK-SS-MM111-0001	20.26296828	13.9	0.002435532	3.42162E+01	2.39482E+01	1.14621E+00	-5.84947E+00	-2.88678E-01	1.97495E+01	
MMSS	MMSS-BWBK-SS-MM112-0001	16.54858978	12.8	0.003651556	1.81700E+01	3.59243E+01	6.98950E+00	-4.26263E+00	-2.57583E-01	1.70626E+01	
MMSS	MMSS-BWBK-SS-MM113-0001	27.41931518	21.5	0.001330108	1.17380E+01	7.32411E+00	6.76829E+01	-3.42608E+00	-1.24951E-01	2.49261E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	14.34843485	10.8	0.004857255	2.18194E+01	6.38991E+01	2.34636E+01	-4.67113E+00	-3.25550E-01	1.54711E+01	
MMSS	MMSS-BWBK-SS-MM115-0001	19.27321473	13.5	0.002692103	3.06198E+01	2.80232E+01	6.53810E-03	-5.53352E+00	-2.87109E-01	1.90335E+01	
MMSS	MMSS-BWBK-SS-MM116-0001	17.02060275	14.3	0.003451836	9.63524E+00	2.01933E+01	4.71651E+00	-3.10407E+00	-1.82371E-01	1.74041E+01	
MMSS	MMSS-BWBK-SS-MM117-0001	25.81780211	17.8	0.001500243	3.56124E+01	9.87423E-01	4.38965E+01	-5.96761E+00	-2.31143E-01	2.37676E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	14.93604899	12.7	0.004482585	1.02156E+01	3.71331E+01	1.81162E+01	-3.19619E+00	-2.13991E-01	1.58962E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	12.60328403	11.2	0.006295534	9.05262E+00	5.76642E+01	4.34159E+01	-3.00876E+00	-2.38728E-01	1.42088E+01	
MMSS	MMSS-BWBK-SS-MM120-0001	15.58555458	14.4	0.004116759	3.86520E+00	1.93045E+01	1.30090E+01	-1.96601E+00	-1.26143E-01	1.63660E+01	
NESB	NESB-BWBK-SB-NE01-0108	20.02690749	14.1	0.002493287	3.00162E+01	2.20307E+01	6.96476E-01	-5.47871E+00	-2.73567E-01	1.95787E+01	
NESB	NESB-BWBK-SB-NE02-0109	19.44897849	12.4	0.002643665	4.57065E+01	4.08793E+01	6.58550E-02	-6.76066E+00	-3.47610E-01	1.91607E+01	
NESB	NESB-BWBK-SB-NE03-0105	18.48388367	12.8	0.002926938	3.20644E+01	3.59243E+01	5.01933E-01	-5.66255E+00	-3.06350E-01	1.84625E+01	
NESB	NESB-BWBK-SB-NE04-0110	16.88439406	12.9	0.003507753	1.94088E+01	3.47356E+01	5.32669E+00	-4.40554E+00	-2.60924E-01	1.73055E+01	
NESB	NESB-BWBK-SB-NE05-0108	18.3935809	14.2	0.002955748	1.76167E+01	2.11020E+01	6.38042E-01	-4.19723E+00	-2.28190E-01	1.83972E+01	
NESB	NESB-BWBK-SB-NE06-0109	15.96042431	13.3	0.003925646	1.11368E+01	3.01806E+01	1.04454E+01	-3.33718E+00	-2.09091E-01	1.66372E+01	
NESB	NESB-BWBK-SB-NE07-0107	20.67293063	13.6	0.002339892	4.15511E+01	2.69744E+01	2.19210E+00	-6.44602E+00	-3.11809E-01	2.00460E+01	
NESB	NESB-BWBK-SB-NE08-0104	15.63887076	13.8	0.004088737	6.78383E+00	2.49370E+01	1.26273E+01	-2.60458E+00	-1.66545E-01	1.64046E+01	
NESB	NESB-BWBK-SB-NE09-0110	15.92428729	12.6	0.003943483	1.60884E+01	3.83618E+01	1.06803E+01	-4.01104E+00	-2.51882E-01	1.66110E+01	
NESB	NESB-BWBK-SB-NE10-0107	20.0513041	18.5	0.002487223	1.20200E+00	8.62547E-02	7.37792E-01	-1.09636E+00	-5.46775E-02	1.95964E+01	
NESB	NESB-BWBK-SB-NE101-0110	22.81581038	16.5	0.001921004	2.59701E+01	5.26102E+00	1.31294E+01	-5.09609E+00	-2.23358E-01	2.15961E+01	
NESB	NESB-BWBK-SB-NE102-0110	20.81017304	14.6	0.002309131	3.07503E+01	1.75870E+01	2.61733E+00	-5.54529E+00	-2.66470E-01	2.01453E+01	
NESB	NESB-BWBK-SB-NE103-0110	16.50545689	12.95	0.003670666	1.66581E+01	3.41487E+01	7.21943E+00	-4.08143E+00	-2.47278E-01	1.70314E+01	
NESB	NESB-BWBK-SB-NE104-0110	12.89763636	11.7	0.006011457	7.40754E+00	5.03205E+01	3.96235E+01	-2.72168E+00	-2.11022E-01	1.44217E+01	
NESB	NESB-BWBK-SB-NE105-0110	20.6870477	16.2	0.0023367	1.48705E+01	6.72724E+00	2.23410E+00	-3.85623E+00	-1.86408E-01	2.00562E+01	
NESB	NESB-BWBK-SB-NE106-0110	18.49132611	14.4	0.002924583	1.65481E+01	1.93045E+01	4.91443E-01	-4.06793E+00	-2.19991E-01	1.84679E+01	
NESB	NESB-BWBK-SB-NE107-0510	12.91174112	11.8	0.00599833	6.92680E+00	4.89117E+01	3.94461E+01	-2.63188E+00	-2.03836E-01	1.44319E+01	
NESB	NESB-BWBK-SB-NE108-0110	19.03776539	16	0.002759104	8.19793E+00	7.80471E+00	2.38983E-02	-2.86320E+00	-1.50396E-01	1.88632E+01	
NESB	NESB-BWBK-SB-NE109-0110	19.1839834	14	0.002717205	2.46907E+01	2.29795E+01	7.01037E-05	-4.96897E+00	-2.59017E-01	1.89690E+01	
NESB	NESB-BWBK-SB-NE110-0110	17.90027409	14.25	0.003120906	1.43670E+01	2.06451E+01	1.66948E+00	-3.79039E+00	-2.11750E-01	1.80404E+01	
NESS	NESS-BKG-SS03-NEB-0016	30.53933424	23.1	0.001072213	1.66707E+01	1.85443E+01	1.28754E+02	-4.08298E+00	-1.33696E-01	2.71830E+01	
NESS	NESS-BKG-SS09-NEB-0018	24.72185394	18.9	0.001636206	1.66044E+01	1.13015E-02	3.05753E+01	-4.07484E+00	-1.64828E-01	2.29748E+01	
NESS	NESS-BWBK-SS-NE01-0001	35.68844724	23	0.000785136	6.25307E+01	1.76930E+01	2.72121E+02	-7.90764E+00	-2.21574E-01	3.09076E+01	
NESS	NESS-BWBK-SS-NE02-0001	30.20933771	19.6	0.001095765	5.39383E+01	6.50133E-01	1.21374E+02	-7.34427E+00	-2.43113E-01	2.69443E+01	
NESS	NESS-BWBK-SS-NE03-0001	33.42571	19.5	0.000895032	9.54698E+01	4.98872E-01	2.02588E+02	-9.77086E+00	-2.92316E-01	2.92709E+01	
NESS	NESS-BWBK-SS-NE04-0001	31.82808424	20.6	0.000987141	5.64783E+01	3.26275E+00	1.59662E+02	-7.51521E+00	-2.36119E-01	2.81152E+01	
NESS	NESS-BWBK-SS-NE05-0001	29.51551561	19.6	0.001147887	4.68183E+01	6.50133E-01	1.06568E+02	-6.84239E+00	-2.31823E-01	2.64424E+01	
NESS	NESS-BWBK-SS-NE06-0001	28.93779194	19.5	0.001194178	4.25689E+01	4.98872E-01	9.49735E+01	-6.52448E+00	-2.25466E-01	2.60245E+01	
NESS	NESS-BWBK-SS-NE07-0001	30.61942415	23	0.001066611	1.79853E+01	1.76930E+01	1.30578E+02	-4.24091E+00	-1.38504E-01	2.72409E+01	
NESS	NESS-BWBK-SS-NE08-0001	31.12328714	19.1	0.001032355	7.23416E+01	9.38248E-02	1.42347E+02	-8.50538E+00	-2.73280E-01	2.76054E+01	
NESS	NESS-BWBK-SS-NE09-0001	38.8019617	20.9	0.00066419	1.50303E+02	4.43654E+00	3.84537E+02	-1.22598E+01	-3.15959E-01	3.31598E+01	
NESS	NESS-BWBK-SS-NE10-0001	26.63481775	21.5	0.001409615	8.17163E+00	7.32411E+00	5.53902E+01	-2.85861E+00	-1.07326E-01	2.43586E+01	
NESS	NESS-BWBK-SS-NE101-0001	28.41190664	17.3	0.001238794	6.96237E+01	2.23111E+00	8.50001E+01	-8.34408E+00	-2.93683E-01	2.56441E+01	
NESS	NESS-BWBK-SS-NE102-0001	19.96767271	15.8	0.002508101	1.39567E+01	8.96219E+00	6.01116E-01	-3.73586E+00	-1.87095E-01	1.95359E+01	
NESS	NESS-BWBK-SS-NE103-0001	16.55414929	15	0.003649104	4.27106E+00	1.43921E+01	6.96014E+00	-2.06665E+00	-1.24842E-01	1.70667E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V predict	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	19.7130483	15.4	0.002573312	1.56157E+01	1.15171E+01	2.71120E-01	-3.95168E+00	-2.00460E-01	1.93517E+01	
NESS	NESS-BWBK-SS-NE105-0001	17.18404095	12.5	0.003386487	2.52234E+01	3.96106E+01	4.03333E+00	-5.02229E+00	-2.92265E-01	1.75223E+01	
NESS	NESS-BWBK-SS-NE106-0001	18.3729989	14.5	0.002962374	1.50725E+01	1.84358E+01	6.71346E-01	-3.88234E+00	-2.11307E-01	1.83823E+01	
NESS	NESS-BWBK-SS-NE107-0001	20.08773756	14.8	0.002478209	2.32585E+01	1.59496E+01	8.01708E-01	-4.82271E+00	-2.40082E-01	1.96227E+01	
NESS	NESS-BWBK-SS-NE108-0001	19.93485983	15.3	0.002516365	1.77420E+01	1.22059E+01	5.51312E-01	-4.21212E+00	-2.11294E-01	1.95121E+01	
NESS	NESS-BWBK-SS-NE109-0001	17.7845127	12.5	0.003161667	2.97750E+01	3.96106E+01	1.98202E+00	-5.45665E+00	-3.06820E-01	1.79566E+01	
NESS	NESS-BWBK-SS-NE110-0001	16.34249567	17.3	0.003744236	1.49342E-01	2.23111E+00	8.12170E+00	3.86447E-01	2.36468E-02	1.69136E+01	
PMSB	PMSB-BWBK-SB-PM01-0105	20.52130241	18.6	0.002374598	1.78579E+00	3.75164E-02	1.76610E+00	-1.33633E+00	-6.51193E-02	1.99363E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	25.78329105	26.6	0.001504261	8.16448E+00	6.09385E+01	4.34404E+01	2.85735E+00	1.10822E-01	2.37426E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	17.07643184	20.7	0.003429302	1.05986E+01	3.63401E+00	4.47714E+00	3.25555E+00	1.90646E-01	1.74445E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	17.23005812	19.3	0.003368422	3.04300E+00	2.56348E-01	3.85061E+00	1.74442E+00	1.01243E-01	1.75556E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	17.18867644	19.6	0.003384661	4.30295E+00	6.50133E-01	4.01473E+00	2.07435E+00	1.20681E-01	1.75256E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	17.75738241	18.4	0.003171335	2.14346E-01	1.54993E-01	2.05915E+00	4.62975E-01	2.60723E-02	1.79370E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	14.29963096	19.7	0.004890467	1.81832E+01	8.21395E-01	2.39388E+01	4.26417E+00	2.98202E-01	1.54358E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	15.70082524	19.2	0.004056533	7.56583E+00	1.65087E-01	1.21908E+01	2.75061E+00	1.75189E-01	1.64494E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	10.61326173	15.2	0.008877737	5.90852E+00	1.29146E+01	7.36009E+01	2.43075E+00	2.29029E-01	1.27693E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	16.4496929	28.5	0.003695595	1.32455E+02	9.42124E+01	7.52220E+00	1.15089E+01	6.99643E-01	1.69911E+01	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	14.32805006	18.8	0.004871086	1.11798E+01	3.97961E-05	2.36615E+01	3.34362E+00	2.33362E-01	1.54564E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	13.12597218	16.3	0.005804129	2.93489E+00	6.21850E+00	3.68010E+01	1.71315E+00	1.30516E-01	1.45868E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	21.26973874	22.2	0.002210425	2.96624E+00	1.16029E+01	4.31552E+00	1.72228E+00	8.09731E-02	2.04777E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	14.08226088	17.9	0.005042608	6.87179E+00	7.98685E-01	2.61131E+01	2.62141E+00	1.86150E-01	1.52786E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	18.12410206	18.7	0.003044297	2.47710E-01	8.77811E-03	1.14117E+00	4.97705E-01	2.74609E-02	1.82023E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	16.17182627	17.3	0.003823683	2.60001E-01	2.23111E+00	9.12360E+00	5.09903E-01	3.15303E-02	1.67901E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	15.73441762	21.9	0.004039231	2.94448E+01	9.64915E+00	1.19573E+01	5.42631E+00	3.44869E-01	1.64737E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	19.75035127	16.6	0.002563601	7.72094E+00	4.81228E+00	3.11359E-01	-2.77866E+00	-1.40689E-01	1.93787E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	19.2713119	18	0.002692635	1.06531E+00	6.29946E-01	6.23400E-03	-1.03214E+00	-5.35584E-02	1.90321E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	17.55270979	18.05	0.003245725	6.81352E-02	5.53077E-01	2.68844E+00	2.61027E-01	1.48710E-02	1.77890E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	18.54317091	17.4	0.002908252	1.22198E+00	1.94238E+00	4.21442E-01	-1.10543E+00	-5.96140E-02	1.85054E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	20.51316273	18.7	0.002376483	1.51400E+00	8.77811E-03	1.74453E+00	-1.23045E+00	-5.99832E-02	1.99304E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	14.83751779	19.1	0.004542318	1.07262E+01	9.38248E-02	1.89646E+01	3.27509E+00	2.20730E-01	1.58249E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	18.1194393	17	0.003045864	1.43741E+00	3.21733E+00	1.15115E+00	-1.19892E+00	-6.61677E-02	1.81989E+01	
PMSS	PMSS-DABK-S-SO21-0001	17.8940632	27.6	0.003123073	9.14721E+01	7.75511E+01	1.68556E+00	9.56411E+00	5.34485E-01	1.80359E+01	PMSS-DABK-S-SO21-0001
PMSS	PMSS-DABK-S-SO22-0001	24.5349814	34.9	0.001661225	1.45452E+02	2.59413E+02	2.85436E+01	1.20603E+01	4.91557E-01	2.28397E+01	PMSS-DABK-S-SO22-0001
PMSS	PMSS-DABK-S-SO23-0001	23.84033388	30.4	0.001759444	6.50089E+01	1.34706E+02	2.16037E+01	8.06281E+00	3.38200E-01	2.23372E+01	
PMSS	PMSS-DABK-S-SO24-0001	25.51881276	30.9	0.001535603	5.40029E+01	1.46563E+02	4.00241E+01	7.34867E+00	2.87971E-01	2.35513E+01	
PMSS	PMSS-DABK-S-SO25-0001	30.42602676	35.8	0.001080213	7.56724E+01	2.89215E+02	1.26195E+02	8.69899E+00	2.85906E-01	2.71010E+01	
PMSS	PMSS-DABK-S-SO26-0001	25.82285646	35.2	0.001499655	1.30616E+02	2.69167E+02	4.39635E+01	1.14287E+01	4.42582E-01	2.37713E+01	PMSS-DABK-S-SO26-0001
PMSS	PMSS-DABK-S-SO27-0001	21.16585804	30.3	0.002232175	9.79589E+01	1.32395E+02	3.89471E+00	9.89742E+00	4.67613E-01	2.04026E+01	PMSS-DABK-S-SO27-0001
PMSS	PMSS-DABK-S-SO28-0001	20.85918518	31.5	0.002298293	1.28126E+02	1.61450E+02	2.77832E+00	1.13193E+01	5.42651E-01	2.01807E+01	PMSS-DABK-S-SO28-0001
PMSS	PMSS-DABK-S-SO29-0001	32.26428463	33.8	0.00096063	2.88290E+01	2.25189E+02	1.70875E+02	5.36926E+00	1.66415E-01	2.84307E+01	
PMSS	PMSS-DABK-S-SO30-0001	30.75522178	28.8	0.001057212	2.13411E+00	1.00126E+02	1.33700E+02	1.46086E+00	4.74996E-02	2.73391E+01	
PMSS	PMSS-DABK-S-SO31-0001	17.86334402	27	0.003133823	8.07541E+01	6.73435E+01	1.76627E+00	8.98633E+00	5.03060E-01	1.80137E+01	PMSS-DABK-S-SO31-0001
PMSS	PMSS-DABK-S-SO32-0001	22.6327855	34.1	0.001952199	1.59676E+02	2.34283E+02	1.18366E+01	1.26363E+01	5.58319E-01	2.14637E+01	PMSS-DABK-S-SO32-0001
PMSS	PMSS-DABK-S-SO33-0001	23.12763052	30.8	0.001869553	8.06108E+01	1.44151E+02	1.54864E+01	8.97835E+00	3.88209E-01	2.18216E+01	
PMSS	PMSS-DABK-S-SO34-0001	16.67499833	26.5	0.003596403	8.73464E+01	5.93872E+01	6.33709E+00	9.34593E+00	5.60476E-01	1.71541E+01	PMSS-DABK-S-SO34-0001
PMSS	PMSS-DABK-S-SO35-0001	18.79604206	29.95	0.002830526	1.26825E+02	1.24463E+02	1.57065E-01	1.12617E+01	5.99150E-01	1.86883E+01	PMSS-DABK-S-SO35-0001
PMSS	PMSS-DABK-S-SO36-0001	20.43159575	28.1	0.002395496	6.77091E+01	8.66074E+01	1.53571E+00	8.22856E+00	4.02737E-01	1.98714E+01	
PMSS	PMSS-DABK-S-SO37-0001	22.92068232	30.9	0.001903465	8.51569E+01	1.46563E+02	1.39004E+01	9.22805E+00	4.02608E-01	2.16719E+01	
PMSS	PMSS-DABK-S-SO38-0001	16.5284899	28.6	0.003660443	1.33447E+02	9.61637E+01	7.09618E+00	1.15519E+01	6.98909E-01	1.70481E+01	PMSS-DABK-S-SO38-0001
PMSS	PMSS-DABK-S-SO39-0001	19.77801833	26.1	0.002556433	4.49078E+01	5.33821E+01	3.43000E-01	6.70133E+00	3.38827E-01	1.93987E+01	
PMSS	PMSS-DABK-S-SO40-0001	19.72712074	29	0.002569642	9.28938E+01	1.04169E+02	2.85973E-01	9.63815E+00	4.88573E-01	1.93619E+01	PMSS-DABK-S-SO40-0001

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Y	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	V predict	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
SESB	SESB-BWBK-SB-SO03-0108	22.83098617	18.7	0.001918451	8.45103E+00	8.77811E-03	1.32396E+01	-2.90707E+00	-1.27330E-01	2.16071E+01	
SESB	SESB-BWBK-SB-SO04-0108	16.38778479	17.5	0.00372357	3.06569E-01	1.67364E+00	7.86562E+00	5.53687E-01	3.37866E-02	1.69463E+01	
SESB	SESB-BWBK-SB-SO05-0106	21.9993455	19	0.002066239	4.02199E+00	4.25632E-02	7.87919E+00	-2.00549E+00	-9.11614E-02	2.10055E+01	
SESB	SESB-BWBK-SB-SO06-0108	22.47853878	21.15	0.001979082	4.08525E-02	5.55219E+00	1.07990E+01	-2.02120E-01	-8.99169E-03	2.13521E+01	
SESB	SESB-BWBK-SB-SO07-0106	12.23665806	19.8	0.00667843	3.42980E+01	1.01266E+00	4.83817E+01	5.85645E+00	4.78598E-01	1.39436E+01	SESB-BWBK-SB-SO07-0106
SESB	SESB-BWBK-SB-SO08-0107	21.64943015	21.1	0.002133571	1.20842E-01	5.31906E+00	6.03721E+00	3.47624E-01	1.60570E-02	2.07524E+01	
SESB	SESB-BWBK-SB-SO09-0106	19.95463903	18.4	0.002511379	1.26885E+00	1.54993E-01	5.81075E-01	-1.12643E+00	-5.64496E-02	1.95264E+01	
SESB	SESB-BWBK-SB-SO11-0106	18.91087853	19.5	0.002796254	5.30832E-01	4.98872E-01	7.92297E-02	7.28582E-01	3.85272E-02	1.87714E+01	
SESB	SESB-BWBK-SB-SO12-0106	16.02362383	18.6	0.00389474	3.67530E+00	3.75164E-02	1.00409E+01	1.91711E+00	1.19643E-01	1.66829E+01	
SESB	SESB-BWBK-SB-SO15-0103	19.07898588	20.9	0.002747195	4.02797E+00	4.43654E+00	1.28528E-02	2.00698E+00	1.05193E-01	1.88930E+01	
SESB	SESB-BWBK-SB-SO16-0105	13.34550036	17.9	0.005614748	9.94995E+00	7.98685E-01	3.41857E+01	3.15435E+00	2.36361E-01	1.47456E+01	
SESB	SESB-BWBK-SB-SO17-0106	13.7664847	16.4	0.005276597	1.82204E+00	5.72976E+00	2.94401E+01	1.34983E+00	9.80519E-02	1.50502E+01	
SESB	SESB-BWBK-SB-SO18-0105	13.70990782	15.5	0.005320236	2.40841E-01	1.08484E+01	3.00572E+01	4.90756E-01	3.57957E-02	1.50092E+01	
SESB	SESB-BWBK-SB-SO19-0104	10.9590084	18.5	0.008326404	3.00375E+01	8.62547E-02	6.77880E+01	5.48065E+00	5.00104E-01	1.30194E+01	SESB-BWBK-SB-SO19-0104
SESB	SESB-BWBK-SB-SO20-0104	13.70096683	16.9	0.005327182	3.59946E+00	3.58607E+00	3.01554E+01	1.89722E+00	1.38474E-01	1.50028E+01	
SESS	SESS-DABK-S-SO01-0001	28.30768642	23.5	0.001247933	4.27949E+00	2.21493E+01	8.30892E+01	-2.06869E+00	-7.30788E-02	2.55687E+01	
SESS	SESS-DABK-S-SO02-0001	27.61110533	18.9	0.001311694	3.80049E+01	1.13015E-02	7.08753E+01	-6.16481E+00	-2.23273E-01	2.50648E+01	
SESS	SESS-DABK-S-SO03-0001	24.8382823	34.2	0.001620902	1.24120E+02	2.37354E+02	3.18765E+01	1.11409E+01	4.48539E-01	2.30591E+01	SESS-DABK-S-SO03-0001
SESS	SESS-DABK-S-SO04-0001	35.3271176	30.4	0.000801279	6.06473E-02	1.34706E+02	2.60331E+02	-2.46267E-01	-6.97104E-03	3.06463E+01	
SESS	SESS-DABK-S-SO05-0001	25.79135199	29.5	0.001503321	3.30800E+01	1.14625E+02	4.35467E+01	5.75152E+00	2.23002E-01	2.37485E+01	
SESS	SESS-DABK-S-SO06-0001	33.78540494	34	0.000876076	1.99715E+01	2.31232E+02	2.12957E+02	4.46895E+00	1.32274E-01	2.95311E+01	
SESS	SESS-DABK-S-SO07-0001	27.24486566	24.15	0.001347196	4.22357E-01	2.86900E+01	6.48429E+01	-6.49890E-01	-2.38537E-02	2.47999E+01	
SESS	SESS-DABK-S-SO08-0001	25.19374712	25.2	0.001575486	3.54873E+00	4.10408E+01	3.60167E+01	1.88381E+00	7.47728E-02	2.33162E+01	
SESS	SESS-DABK-S-SO09-0001	21.75844255	30.8	0.002112245	9.93763E+01	1.44151E+02	6.58480E+00	9.96877E+00	4.58156E-01	2.08312E+01	SESS-DABK-S-SO09-0001
SESS	SESS-DABK-S-SO10-0001	26.81388072	23.1	0.001390851	1.92691E+00	1.85443E+01	5.80876E+01	-1.38813E+00	-5.17692E-02	2.44881E+01	
SESS	SESS-DABK-S-SO11-0001	15.14721858	17.95	0.004358472	3.61404E+00	7.11815E-01	1.63631E+01	1.90106E+00	1.25506E-01	1.60489E+01	
SESS	SESS-DABK-S-SO12-0001	25.15824176	22.2	0.001579936	1.18921E+00	1.16029E+01	3.55918E+01	-1.09051E+00	-4.33460E-02	2.32905E+01	
SESS	SESS-DABK-S-SO13-0001	18.06779054	20.7	0.003063303	6.44367E+00	3.63401E+00	1.26465E+00	2.53844E+00	1.40495E-01	1.81616E+01	
SESS	SESS-DABK-S-SO14-0001	15.04536135	24.3	0.004417685	6.93013E+01	3.03194E+01	1.71976E+01	8.32474E+00	5.53310E-01	1.59753E+01	SESS-DABK-S-SO14-0001
SESS	SESS-DABK-S-SO15-0001	23.27164336	29.4	0.001846485	5.58634E+01	1.12494E+02	1.66406E+01	7.47418E+00	3.21171E-01	2.19258E+01	
SESS	SESS-DABK-S-SO16-0001	17.21074314	14	0.003375987	1.25430E+01	2.29795E+01	3.92679E+00	-3.54161E+00	-2.05779E-01	1.75416E+01	
SESS	SESS-DABK-S-SO17-0001	24.77615597	22.4	0.001629041	3.77149E-01	1.30055E+01	3.11788E+01	-6.14124E-01	-2.47869E-02	2.30141E+01	
SESS	SESS-DABK-S-SO18-0001	16.62770737	22.4	0.00361689	2.78798E+01	1.30055E+01	6.57742E+00	5.28014E+00	3.17550E-01	1.71199E+01	
SESS	SESS-DABK-S-SO19-0001	25.69954812	23.9	0.001514081	4.74939E-02	2.60744E+01	4.23435E+01	2.17931E-01	8.47995E-03	2.36821E+01	
SESS	SESS-DABK-S-SO20-0001	31.87464314	30.6	0.000984259	6.00796E+00	1.39389E+02	1.60840E+02	2.45111E+00	7.68986E-02	2.81489E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: V
X variable name used on graph: AL

	N	214.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	4.438208E-05
0.10	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	3.754733E-01
2	SUM(X^2*w^2)	2.140000E+02
	SUM(X*w^2)	2.185966E-02
	SUM(Y*w^2)	3.796093E-05
	SUM(w^2)	2.565515E-06
	SUM(Y)	4021.850000
	SUM(X)	2.291560E+06
	Denominator	7.117525E-05
	Slope	1.875217E-03
	Intercept	-1.181312E+00
	Minimum X value	3.710000E+03
	Maximum X value	1.790000E+04
	Minimum Y value	5.200000E+00
	Maximum Y value	3.580000E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	5.585791E+03
	SUM(Yobs - Yave)^2	9.281109E+03
	SUM(X - Xave)^2	1.535208E+09
	Std. Error of Y-estimate	5.133037E+00
	R^2	3.981548E-01
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		1/x
est.M, Std.Err.Y		
Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		
Inverse Log Transform (Y/N)?		No
Inverse Power Transform (Y/N)?		No
Inverse Power Transform (1/Power):		1

25	
50	
75	
90	

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	Y Predicted	Lower 95%	Upper 95%	-3 x IQR	+3 x IQR	Median	
3710.00	5.78	2.85	8.70	0.00	0.00	0.00	No. of Exceedances
4301.25	6.88	3.54	10.23	0.00	0.00	0.00	of Upper 95% Limit
4892.50	7.99	4.23	11.76	0.00	0.00	0.00	for Each Soil Type:
5483.75	9.10	4.91	13.30	0.00	0.00	0.00	---- V ----
6075.00	10.21	5.58	14.84	0.00	0.00	0.00	BASS
6666.25	11.32	6.25	16.39	0.00	0.00	0.00	0
7257.50	12.43	6.92	17.94	0.00	0.00	0.00	MASS
7848.75	13.54	7.58	19.49	0.00	0.00	0.00	0
8440.00	14.65	8.25	21.04	0.00	0.00	0.00	MMSS
9031.25	15.75	8.91	22.60	0.00	0.00	0.00	0
9622.50	16.86	9.57	24.15	0.00	0.00	0.00	NESS
10213.75	17.97	10.23	25.71	0.00	0.00	0.00	0
10805.00	19.08	10.89	27.27	0.00	0.00	0.00	PMSS
11396.25	20.19	11.55	28.83	0.00	0.00	0.00	17
11987.50	21.30	12.21	30.39	0.00	0.00	0.00	SESS
12578.75	22.41	12.87	31.94	0.00	0.00	0.00	3
13170.00	23.52	13.53	33.50	0.00	0.00	0.00	SESD
13761.25	24.62	14.18	35.06	0.00	0.00	0.00	0
14352.50	25.73	14.84	36.62	0.00	0.00	0.00	MASB
14943.75	26.84	15.50	38.18	0.00	0.00	0.00	0
15535.00	27.95	16.15	39.75	0.00	0.00	0.00	MMSB
16126.25	29.06	16.81	41.31	0.00	0.00	0.00	0
16717.50	30.17	17.47	42.87	0.00	0.00	0.00	NESB
17308.75	31.28	18.12	44.43	0.00	0.00	0.00	0
17900.00	32.39	18.78	45.99	0.00	0.00	0.00	PMSB
9300.00	16.26	9.21	23.30	16.26	-43%	43%	1
10700.00	18.88	10.78	26.99	18.88	-43%	43%	SESB
12175.00	21.65	12.42	30.88	21.65	-43%	43%	0
14270.00	25.58	14.75	36.41	25.58	-42%	42%	<<--Original Units Errors

TEXT BOX ==> (V) = (1.88E-03)x(AL) + (-1.18E+00) R^2 = 0.40; Std. Error of Y-estimate = 5.13E+00 +/-3 x IQR of r -0.001481 0.001481

TEXT BOX ==> Weighted 1/x. 95% Confidence Limits on a Y-value predicted fro V - wt.descrip. TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/x)^0.5 Versus Y-Pred.

		Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
		Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE		AL	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
BASS	BASS-BWBK-SS-BA101-0001		4760	6.3	4.41353E-08	2.08722E+00	1.56092E+02	3.53814E+07	-1.44472E+00	-3.03513E-04	7.74472E+00	
BASS	BASS-BWBK-SS-BA102-0001		3730	5.2	7.18757E-08	3.76071E-01	1.84788E+02	4.86956E+07	-6.13246E-01	-1.64409E-04	5.81325E+00	
BASS	BASS-BWBK-SS-BA103-0001		4130	6	5.86273E-08	3.17344E-01	1.63679E+02	4.32730E+07	-5.63333E-01	-1.36400E-04	6.56333E+00	
BASS	BASS-BWBK-SS-BA104-0001		4790	8.3	4.35842E-08	2.49025E-01	1.10118E+02	3.50254E+07	4.99024E-01	1.04180E-04	7.80098E+00	
BASS	BASS-BWBK-SS-BA105-0001		3920	6.1	6.50771E-08	4.83549E-03	1.61130E+02	4.60800E+07	-6.95377E-02	-1.77392E-05	6.16954E+00	
BASS	BASS-BWBK-SS-BA106-0001		4800	7.75	4.34028E-08	4.86205E-03	1.21963E+02	3.49071E+07	-6.97284E-02	-1.45268E-05	7.81973E+00	
BASS	BASS-BWBK-SS-BA107-0001		3810	5.9	6.8889E-08	4.00231E-03	1.66247E+02	4.75855E+07	-6.32638E-02	-1.66047E-05	5.96326E+00	
BASS	BASS-BWBK-SS-BA108-0001		3870	5.5	6.67695E-08	3.31519E-01	1.76722E+02	4.67613E+07	-5.75777E-01	-1.48780E-04	6.07578E+00	
BASS	BASS-BWBK-SS-BA109-0001		4160	6.1	5.77848E-08	2.69973E-01	1.61130E+02	4.28792E+07	-5.19590E-01	-1.24901E-04	6.61959E+00	
BASS	BASS-BWBK-SS-BA110-0001		5290	7.8	3.57346E-08	8.80941E-01	1.20861E+02	2.93572E+07	-9.38585E-01	-1.77426E-04	8.73858E+00	
BASS	BASS-BWBK-SS-BA111-0001		4250	6	5.53633E-08	6.21510E-01	1.63679E+02	4.17087E+07	-7.88359E-01	-1.85496E-04	6.78836E+00	
BASS	BASS-BWBK-SS-BA112-0001		4230	5.8	5.58881E-08	9.04125E-01	1.68836E+02	4.19674E+07	-9.50855E-01	-2.24788E-04	6.75085E+00	
BASS	BASS-BWBK-SS-BA113-0001		3710	6.05	7.26528E-08	7.52174E-02	1.62402E+02	4.89751E+07	2.74258E-01	7.39239E-05	5.77574E+00	
MASB	MASB-BWBK-SB-MA01-0105		10600	17.1	8.89996E-09	2.54717E+00	2.86859E+00	1.17125E+04	-1.59599E+00	-1.50565E-04	1.86960E+01	
MASB	MASB-BWBK-SB-MA02-0107		11400	16.7	7.69468E-09	1.22231E+01	4.38354E+00	4.78554E+05	-3.49616E+00	-3.06681E-04	2.01962E+01	
MASB	MASB-BWBK-SB-MA03-0108		9390	15.4	1.13415E-08	1.05467E+00	1.15171E+01	1.73772E+06	-1.02697E+00	-1.09369E-04	1.64270E+01	
MASB	MASB-BWBK-SB-MA04-0106		11400	18.8	7.69468E-09	1.94926E+00	3.97961E-05	4.78554E+05	-1.39616E+00	-1.22470E-04	2.01962E+01	
MASB	MASB-BWBK-SB-MA05-0108		10500	17.5	9.07029E-09	1.01700E+00	1.67364E+00	4.33574E+04	-1.00846E+00	-9.60442E-05	1.85085E+01	
MASB	MASB-BWBK-SB-MA06-0105		10700	17.8	8.73439E-09	1.17399E+00	9.87423E-01	6.76391E+01	-1.08351E+00	-1.01262E-04	1.88835E+01	
MASB	MASB-BWBK-SB-MA07-0108		10300	15.6	9.42596E-09	6.41822E+00	1.01997E+01	1.66647E+05	-2.53342E+00	-2.45963E-04	1.81334E+01	
MASB	MASB-BWBK-SB-MA08-0108		14150	25.05	4.99444E-09	9.18122E-02	3.91414E+01	1.18458E+07	-3.03005E-01	-2.14138E-05	2.53530E+01	
MASB	MASB-BWBK-SB-MA09-0108		11000	17.2	8.26446E-09	5.04484E+00	2.53985E+00	8.51331E+04	-2.24607E+00	-2.04188E-04	1.94461E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	8630	15.3	1.3427E-08	8.89181E-02	1.22059E+01	4.31902E+06	2.98191E-01	3.45529E-05	1.50018E+01	
MASB	MASB-BWBK-SB-MA11-0108	11300	19.9	7.83147E-09	1.18021E-02	1.22392E+00	3.50198E+05	-1.08637E-01	-9.61393E-06	2.00086E+01	
MASB	MASB-BWBK-SB-MA12-0108	10900	16.7	8.4168E-09	6.54618E+00	4.38354E+00	3.67779E+04	-2.55855E+00	-2.34729E-04	1.92586E+01	
MASB	MASB-BWBK-SB-MA13-0105	9000	19.9	1.23457E-08	1.76767E+01	1.22392E+00	2.91803E+06	4.20436E+00	4.67151E-04	1.56956E+01	
MASB	MASB-BWBK-SB-MA14-0104	11900	21.55	7.06165E-09	1.73250E-01	7.59724E+00	1.42033E+06	4.16233E-01	3.49775E-05	2.11338E+01	
MASB	MASB-BWBK-SB-MA15-0105	12000	23.6	6.94444E-09	5.19252E+00	2.31006E+01	1.66868E+06	2.27871E+00	1.89893E-04	2.13213E+01	
MASB	MASB-BWBK-SB-MA16-0104	8820	19.1	1.28547E-08	1.40018E+01	9.38248E-02	3.56539E+06	3.74190E+00	4.24252E-04	1.53581E+01	
MASB	MASB-BWBK-SB-MA17-0104	10900	18.6	8.4168E-09	4.33689E-01	3.75164E-02	3.67779E+04	-6.58551E-01	-6.04175E-05	1.92586E+01	
MASB	MASB-BWBK-SB-MA18-0104	10700	25.5	8.73439E-09	4.37780E+01	4.49746E+01	6.76391E+01	6.61649E+00	6.18364E-04	1.88835E+01	
MASB	MASB-BWBK-SB-MA19-0103	9000	18.6	1.23457E-08	8.43531E+00	3.75164E-02	2.91803E+06	2.90436E+00	3.22707E-04	1.56956E+01	
MASB	MASB-BWBK-SB-MA20-0103	9610	17.2	1.08281E-08	1.29945E-01	2.53985E+00	1.20610E+06	3.60479E-01	3.75108E-05	1.68395E+01	
MASS	MASS-BWBK-SS-MA01-0001	8580	13.6	1.35839E-08	1.71099E+00	2.69744E+01	4.52934E+06	-1.30805E+00	-1.52453E-04	1.49080E+01	
MASS	MASS-BWBK-SS-MA02-0001	12700	14.2	6.20001E-09	7.11314E+01	2.11020E+01	3.96717E+06	-8.43394E+00	-6.64090E-04	2.26339E+01	
MASS	MASS-BWBK-SS-MA03-0001	9270	14.8	1.1637E-08	1.96546E+00	1.59496E+01	2.06849E+06	-1.40195E+00	-1.51235E-04	1.62019E+01	
MASS	MASS-BWBK-SS-MA04-0001	10400	13.9	9.24556E-09	1.95447E+01	2.39482E+01	9.50022E+04	-4.42094E+00	-4.25091E-04	1.83209E+01	
MASS	MASS-BWBK-SS-MA05-0001	12200	19.9	6.71862E-09	3.22681E+00	1.22392E+00	2.22539E+06	-1.79633E+00	-1.47240E-04	2.16963E+01	
MASS	MASS-BWBK-SS-MA06-0001	13800	20.9	5.251E-09	1.44148E+01	4.43654E+00	9.55908E+06	-3.79668E+00	-2.75122E-04	2.46967E+01	
MASS	MASS-BWBK-SS-MA07-0001	5470	11.6	3.34215E-08	6.36995E+00	5.17492E+01	2.74390E+07	2.52388E+00	4.61403E-04	9.07612E+00	
MASS	MASS-BWBK-SS-MA08-0001	11000	22.1	8.26446E-09	7.04333E+00	1.09317E+01	8.51331E+04	2.65393E+00	2.41266E-04	1.94461E+01	
MASS	MASS-BWBK-SS-MA09-0001	16800	29.5	3.54308E-09	6.76226E-01	1.14625E+02	3.71097E+07	-8.22330E-01	-4.89482E-05	3.03223E+01	
MASS	MASS-BWBK-SS-MA10-0001	14300	27.5	4.89021E-09	3.48088E+00	7.57998E+01	1.29009E+07	1.86571E+00	1.30469E-04	2.56343E+01	
MASS	MASS-BWBK-SS-MA11-0001	14300	30.4	4.89021E-09	2.27120E+01	1.34706E+02	1.29009E+07	4.76571E+00	3.33267E-04	2.56343E+01	
MASS	MASS-BWBK-SS-MA12-0001	10500	15.6	9.07029E-09	8.45916E+00	1.01997E+01	4.33574E+04	-2.90846E+00	-2.76997E-04	1.85085E+01	
MASS	MASS-BWBK-SS-MA13-0001	12500	24.3	6.4E-09	4.16610E+00	3.03194E+01	3.21046E+06	2.04110E+00	1.63288E-04	2.22589E+01	
MASS	MASS-BWBK-SS-MA14-0001	9980	24	1.00401E-08	4.18175E+01	2.71056E+01	5.30311E+05	6.46665E+00	6.47961E-04	1.75334E+01	
MASS	MASS-BWBK-SS-MA15-0001	11500	22.3	7.56144E-09	3.67228E+00	1.22942E+01	6.26909E+05	1.91632E+00	1.66636E-04	2.03837E+01	
MASS	MASS-BWBK-SS-MA16-0001	9940	23.2	1.01211E-08	3.29666E+01	1.94156E+01	5.90169E+05	5.74166E+00	5.77632E-04	1.74583E+01	
MASS	MASS-BWBK-SS-MA17-0001	11300	22.5	7.83147E-09	6.20689E+00	1.37367E+01	3.50198E+05	2.49136E+00	2.20475E-04	2.00086E+01	
MASS	MASS-BWBK-SS-MA18-0001	10400	25.9	9.24556E-09	5.74421E+01	5.04996E+01	9.50022E+04	7.57906E+00	7.28756E-04	1.83209E+01	
MASS	MASS-BWBK-SS-MA19-0001	11100	24.8	8.11622E-09	2.66918E+01	3.60757E+01	1.53488E+05	5.16641E+00	4.65442E-04	1.96336E+01	
MASS	MASS-BWBK-SS-MA20-0001	10100	21.1	9.80296E-09	1.11664E+01	5.31906E+00	3.69937E+05	3.34162E+00	3.30854E-04	1.77584E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	7735	11.15	1.6714E-08	4.72406E+00	5.84260E+01	8.84006E+06	-2.17349E+00	-2.80994E-04	1.33235E+01	
MMSB	MMSB-BWBK-SB-MM102-0109	9150	13.2	1.19442E-08	7.71129E+00	3.12894E+01	2.42806E+06	-2.77692E+00	-3.03489E-04	1.59769E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	8050	11	1.54315E-08	8.49246E+00	6.07416E+01	7.06616E+06	-2.91418E+00	-3.62010E-04	1.39142E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	11300	15.6	7.83147E-09	1.94361E+01	1.01997E+01	3.50198E+05	-4.40864E+00	-3.90145E-04	2.00086E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	6760	9.9	2.1883E-08	2.54451E+00	7.90978E+01	1.55885E+07	-1.59515E+00	-2.35969E-04	1.14952E+01	
MMSB	MMSB-BWBK-SB-MM106-0110	12000	19	6.94444E-09	5.38838E+00	4.25632E-02	1.66868E+06	-2.32129E+00	-1.93441E-04	2.13213E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	7650	12.4	1.70874E-08	5.83843E-01	4.08793E+01	9.35274E+06	-7.64096E-01	-9.98819E-05	1.31641E+01	
MMSB	MMSB-BWBK-SB-MM108-0110	8775	13.35	1.29869E-08	3.70068E+00	2.96338E+01	3.73736E+06	-1.92372E+00	-2.19227E-04	1.52737E+01	
MMSB	MMSB-BWBK-SB-MM109-0110	10800	16.7	8.57339E-09	5.62178E+00	4.38354E+00	8.42278E+03	-2.37103E+00	-2.19540E-04	1.90710E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	9490	14.8	1.11037E-08	3.29239E+00	1.59496E+01	1.48407E+06	-1.81450E+00	-1.91201E-04	1.66145E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	10000	14.4	0.00000001	1.00543E+01	1.93045E+01	5.01582E+05	-3.17086E+00	-3.17086E-04	1.75709E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	10350	18.45	9.33511E-09	4.96481E-02	1.18124E-01	1.28325E+05	2.22819E-01	2.15284E-05	1.82272E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	8890	13.3	1.26531E-08	4.79332E+00	3.01806E+01	3.30594E+06	-2.18937E+00	-2.46273E-04	1.54894E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	8040	10.6	1.54699E-08	1.08599E+01	6.71366E+01	7.11942E+06	-3.29543E+00	-4.09879E-04	1.38954E+01	
MMSB	MMSB-BWBK-SB-MM115-0110	10700	16.7	8.73439E-09	4.76770E+00	4.38354E+00	6.76391E+01	-2.18351E+00	-2.04066E-04	1.88835E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	8475	11.05	1.39226E-08	1.34040E+01	5.99648E+01	4.98729E+06	-3.66115E+00	-4.31994E-04	1.47112E+01	
MMSB	MMSB-BWBK-SB-MM117-0110	7070	9.5	2.0006E-08	6.63820E+00	8.63727E+01	1.32367E+07	-2.57647E+00	-3.64423E-04	1.20765E+01	
MMSB	MMSB-BWBK-SB-MM118-0110	7890	12.1	1.60637E-08	2.29264E+00	4.48055E+01	7.94239E+06	-1.51415E+00	-1.91907E-04	1.36141E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	7940	12.8	1.5862E-08	8.24299E-01	3.59243E+01	7.66307E+06	-9.07909E-01	-1.14346E-04	1.37079E+01	
MMSB	MMSB-BWBK-SB-MM120-0110	5520	8.6	3.28187E-08	3.24768E-01	1.03911E+02	2.69177E+07	-5.69885E-01	-1.03240E-04	9.16988E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	15200	21.7	4.32825E-09	3.16067E+01	8.44663E+00	2.01760E+07	-5.62198E+00	-3.69867E-04	2.73220E+01	
MMSS	MMSS-BWBK-SS-MM102-0001	11400	16.7	7.69468E-09	1.22231E+01	4.38354E+00	4.78554E+05	-3.49616E+00	-3.06681E-04	2.01962E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!Z	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	AL	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	14200	22.2	4.95933E-09	1.05415E+01	1.16029E+01	1.21925E+07	-3.24677E+00	-2.28645E-04	2.54468E+01	
MMSS	MMSS-BWBK-SS-MM104-0001	14100	20.6	5.02993E-09	2.17086E+01	3.26275E+00	1.15041E+07	-4.65924E+00	-3.30443E-04	2.52592E+01	
MMSS	MMSS-BWBK-SS-MM105-0001	10400	16.7	9.24556E-09	2.62745E+00	4.38354E+00	9.50022E+04	-1.62094E+00	-1.55860E-04	1.83209E+01	
MMSS	MMSS-BWBK-SS-MM106-0001	14000	21.1	5.10204E-09	1.57746E+01	5.31906E+00	1.08358E+07	-3.97172E+00	-2.83694E-04	2.50717E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	15100	20.4	4.38577E-09	4.53530E+01	2.58023E+00	1.92877E+07	-6.73446E+00	-4.45991E-04	2.71345E+01	
MMSS	MMSS-BWBK-SS-MM108-0001	15500	22.7	4.16233E-09	2.68795E+01	1.52592E+01	2.29611E+07	-5.18455E+00	-3.34487E-04	2.78845E+01	
MMSS	MMSS-BWBK-SS-MM109-0001	14300	20.3	4.89021E-09	2.84546E+01	2.26897E+00	1.29009E+07	-5.33429E+00	-3.73027E-04	2.56343E+01	
MMSS	MMSS-BWBK-SS-MM110-0001	9610	15.2	1.08281E-08	2.68803E+00	1.29146E+01	1.20610E+06	-1.63952E+00	-1.70606E-04	1.68395E+01	
MMSS	MMSS-BWBK-SS-MM111-0001	10900	13.9	8.4168E-09	2.87141E+01	2.39482E+01	3.67779E+04	-5.35855E+00	-4.91610E-04	1.92586E+01	
MMSS	MMSS-BWBK-SS-MM112-0001	9430	12.8	1.12454E-08	1.37047E+01	3.59243E+01	1.63386E+06	-3.70198E+00	-3.92575E-04	1.65020E+01	
MMSS	MMSS-BWBK-SS-MM113-0001	13500	21.5	5.48697E-09	6.93856E+00	7.32411E+00	7.79401E+06	-2.63411E+00	-1.95120E-04	2.41341E+01	
MMSS	MMSS-BWBK-SS-MM114-0001	8540	10.8	1.37115E-08	1.62654E+01	6.38991E+01	4.70120E+06	-4.03304E+00	-4.72253E-04	1.48330E+01	
MMSS	MMSS-BWBK-SS-MM115-0001	10200	13.5	9.61169E-09	1.97660E+01	2.80232E+01	2.58292E+05	-4.44590E+00	-4.35872E-04	1.79459E+01	
MMSS	MMSS-BWBK-SS-MM116-0001	9520	14.3	1.10338E-08	5.62046E+00	2.01933E+01	1.41188E+06	-2.37075E+00	-2.49029E-04	1.66708E+01	
MMSS	MMSS-BWBK-SS-MM117-0001	12800	17.8	6.10352E-09	2.52151E+01	9.87423E-01	4.37553E+06	-5.02146E+00	-3.92302E-04	2.28215E+01	
MMSS	MMSS-BWBK-SS-MM118-0001	9250	12.7	1.16874E-08	1.20024E+01	3.71331E+01	2.12642E+06	-3.46444E+00	-3.74534E-04	1.61644E+01	
MMSS	MMSS-BWBK-SS-MM119-0001	8300	11.2	1.45159E-08	1.01314E+01	5.76642E+01	5.79954E+06	-3.18299E+00	-3.83492E-04	1.43830E+01	
MMSS	MMSS-BWBK-SS-MM120-0001	8900	14.4	1.26247E-08	1.22792E+00	1.93045E+01	3.26968E+06	-1.10812E+00	-1.24508E-04	1.55081E+01	
NESB	NESB-BWBK-SB-NE01-0108	12300	14.1	6.60982E-09	6.05884E+01	2.20307E+01	2.53375E+06	-7.78385E+00	-6.32834E-04	2.18839E+01	
NESB	NESB-BWBK-SB-NE02-0109	11100	12.4	8.11622E-09	5.23249E+01	4.08793E+01	1.53488E+05	-7.23359E+00	-6.51675E-04	1.96336E+01	
NESB	NESB-BWBK-SB-NE03-0105	11100	12.8	8.11622E-09	4.66980E+01	3.59243E+01	1.53488E+05	-6.83359E+00	-6.15639E-04	1.96336E+01	
NESB	NESB-BWBK-SB-NE04-0110	10700	12.9	8.73439E-09	3.58024E+01	3.47356E+01	6.76391E+01	-5.98351E+00	-5.59206E-04	1.88835E+01	
NESB	NESB-BWBK-SB-NE05-0108	11550	14.2	7.49611E-09	3.94063E+01	2.11020E+01	7.08586E+05	-6.27744E+00	-5.43501E-04	2.04774E+01	
NESB	NESB-BWBK-SB-NE06-0109	10500	13.3	9.07029E-09	2.71281E+01	3.01806E+01	4.33574E+04	-5.20846E+00	-4.96044E-04	1.85085E+01	
NESB	NESB-BWBK-SB-NE07-0107	12300	13.6	6.60982E-09	6.86222E+01	2.69744E+01	2.53375E+06	-8.28385E+00	-6.73484E-04	2.18839E+01	
NESB	NESB-BWBK-SB-NE08-0104	10300	13.8	9.42596E-09	1.87785E+01	2.49370E+01	1.66647E+05	-4.33342E+00	-4.20720E-04	1.81334E+01	
NESB	NESB-BWBK-SB-NE09-0110	10350	12.6	9.33511E-09	3.16652E+01	3.83618E+01	1.28325E+05	-5.62718E+00	-5.43689E-04	1.82272E+01	
NESB	NESB-BWBK-SB-NE10-0107	11300	18.5	7.83147E-09	2.27599E+00	8.62547E-02	3.50198E+05	-1.50864E+00	-1.33508E-04	2.00086E+01	
NESB	NESB-BWBK-SB-NE101-0110	11800	16.5	7.18184E-09	1.97691E+01	5.26102E+00	1.19197E+06	-4.44625E+00	-3.76800E-04	2.09462E+01	
NESB	NESB-BWBK-SB-NE102-0110	10800	14.6	8.57339E-09	1.99901E+01	1.75870E+01	8.42278E+03	-4.47103E+00	-4.13984E-04	1.90710E+01	
NESB	NESB-BWBK-SB-NE103-0110	9340	12.95	1.14632E-08	1.14461E+01	3.41487E+01	1.87204E+06	-3.38321E+00	-3.62228E-04	1.63332E+01	
NESB	NESB-BWBK-SB-NE104-0110	8090	11.7	1.52793E-08	5.24040E+00	5.03205E+01	6.85510E+06	-2.28919E+00	-2.82966E-04	1.39892E+01	
NESB	NESB-BWBK-SB-NE105-0110	10800	16.2	8.57339E-09	8.24281E+00	6.72724E+00	8.42278E+03	-2.87103E+00	-2.65836E-04	1.90710E+01	
NESB	NESB-BWBK-SB-NE106-0110	10200	14.4	9.61169E-09	1.25734E+01	1.93045E+01	2.58292E+05	-3.54590E+00	-3.47637E-04	1.79459E+01	
NESB	NESB-BWBK-SB-NE107-0510	8220	11.8	1.47998E-08	5.91934E+00	4.89117E+01	6.19126E+06	-2.43297E+00	-2.95982E-04	1.42330E+01	
NESB	NESB-BWBK-SB-NE108-0110	10500	16	9.07029E-09	6.29239E+00	7.80471E+00	4.33574E+04	-2.50846E+00	-2.38901E-04	1.85085E+01	
NESB	NESB-BWBK-SB-NE109-0110	10400	14	9.24556E-09	1.86705E+01	2.29795E+01	9.50022E+04	-4.32094E+00	-4.15475E-04	1.83209E+01	
NESB	NESB-BWBK-SB-NE110-0110	10300	14.25	9.42596E-09	1.50810E+01	2.06451E+01	1.66647E+05	-3.88342E+00	-3.77031E-04	1.81334E+01	
NESS	NESS-BKG-SS03-NEB-0016	15300	23.1	4.27186E-09	1.94437E+01	1.85443E+01	2.10844E+07	-4.40950E+00	-2.88203E-04	2.75095E+01	
NESS	NESS-BKG-SS09-NEB-0018	12900	18.9	6.00925E-09	1.68838E+01	1.13015E-02	4.80388E+06	-4.10898E+00	-3.18526E-04	2.30090E+01	
NESS	NESS-BWBK-SS-NE01-0001	17100	23	3.41986E-09	6.21716E+01	1.76930E+01	4.08548E+07	-7.88489E+00	-4.61105E-04	3.08849E+01	
NESS	NESS-BWBK-SS-NE02-0001	15500	19.6	4.16233E-09	6.86337E+01	6.50133E-01	2.29611E+07	-8.28455E+00	-5.34487E-04	2.78845E+01	
NESS	NESS-BWBK-SS-NE03-0001	16100	19.5	3.85788E-09	9.04340E+01	4.98872E-01	2.90712E+07	-9.50968E+00	-5.90663E-04	2.90097E+01	
NESS	NESS-BWBK-SS-NE04-0001	16000	20.6	3.90625E-09	6.76039E+01	3.26275E+00	2.80029E+07	-8.22216E+00	-5.13885E-04	2.88222E+01	
NESS	NESS-BWBK-SS-NE05-0001	14600	19.6	4.69131E-09	4.35185E+01	6.50133E-01	1.51459E+07	-6.59685E+00	-4.51839E-04	2.61969E+01	
NESS	NESS-BWBK-SS-NE06-0001	14900	19.5	4.5043E-09	5.26991E+01	4.98872E-01	1.75710E+07	-7.25942E+00	-4.87209E-04	2.67594E+01	
NESS	NESS-BWBK-SS-NE07-0001	15000	23	4.44444E-09	1.55783E+01	1.76930E+01	1.84193E+07	-3.94694E+00	-2.63129E-04	2.69469E+01	
NESS	NESS-BWBK-SS-NE08-0001	15300	19.1	4.27186E-09	7.07198E+01	9.38248E-02	2.10844E+07	-8.40950E+00	-5.49641E-04	2.75095E+01	
NESS	NESS-BWBK-SS-NE09-0001	17900	20.9	3.121E-09	1.31907E+02	4.43654E+00	5.17216E+07	-1.14851E+01	-6.41624E-04	3.23851E+01	
NESS	NESS-BWBK-SS-NE10-0001	13600	21.5	5.40657E-09	7.96163E+00	7.32411E+00	8.36237E+06	-2.82164E+00	-2.07473E-04	2.43216E+01	
NESS	NESS-BWBK-SS-NE101-0001	14000	17.3	5.10204E-09	6.03997E+01	2.23111E+00	1.08358E+07	-7.77172E+00	-5.55123E-04	2.50717E+01	
NESS	NESS-BWBK-SS-NE102-0001	10700	15.8	8.73439E-09	9.50802E+00	8.96219E+00	6.76391E+01	-3.08351E+00	-2.88178E-04	1.88835E+01	
NESS	NESS-BWBK-SS-NE103-0001	9330	15	1.14878E-08	1.72781E+00	1.43921E+01	1.89950E+06	-1.31446E+00	-1.40885E-04	1.63145E+01	

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!Z	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	AL	V	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	11000	15.4	8.26446E-09	1.63707E+01	1.15171E+01	8.51331E+04	-4.04607E+00	-3.67825E-04	1.94461E+01	
NESS	NESS-BWBK-SS-NE105-0001	9580	12.5	1.0896E-08	1.83464E+01	3.96106E+01	1.27289E+06	-4.28326E+00	-4.47105E-04	1.67833E+01	
NESS	NESS-BWBK-SS-NE106-0001	10300	14.5	9.42596E-09	1.32017E+01	1.84358E+01	1.66647E+05	-3.63342E+00	-3.52759E-04	1.81334E+01	
NESS	NESS-BWBK-SS-NE107-0001	10700	14.8	8.73439E-09	1.66750E+01	1.59496E+01	6.76391E+01	-4.08351E+00	-3.81636E-04	1.88835E+01	
NESS	NESS-BWBK-SS-NE108-0001	10500	15.3	9.07029E-09	1.02942E+01	1.22059E+01	4.33574E+04	-3.20846E+00	-3.05568E-04	1.85085E+01	
NESS	NESS-BWBK-SS-NE109-0001	9720	12.5	1.05844E-08	2.06643E+01	3.96106E+01	9.76587E+05	-4.54579E+00	-4.67674E-04	1.70458E+01	
NESS	NESS-BWBK-SS-NE110-0001	9260	17.3	1.16621E-08	1.24725E+00	2.23111E+00	2.09735E+06	1.11680E+00	1.20605E-04	1.61832E+01	
PMSB	PMSB-BWBK-SB-PM01-0105	12300	18.6	6.60982E-09	1.07837E+01	3.75164E-02	2.53375E+06	-3.28385E+00	-2.66980E-04	2.18839E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	13200	26.6	5.73921E-09	9.17151E+00	6.09385E+01	6.20895E+06	3.02845E+00	2.29428E-04	2.35715E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	11400	20.7	7.69468E-09	2.53856E-01	3.63401E+00	4.78554E+05	5.03841E-01	4.41966E-05	2.01962E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	11100	19.3	8.11622E-09	1.11285E-01	2.56348E-01	1.53488E+05	-3.33594E-01	-3.00535E-05	1.96336E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	10900	19.6	8.4168E-09	1.16588E-01	6.50133E-01	3.67779E+04	3.41449E-01	3.13256E-05	1.92586E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	11200	18.4	7.97194E-09	2.01957E+00	1.54993E-01	2.41843E+05	-1.42112E+00	-1.26885E-04	1.98211E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	9280	19.7	1.16119E-08	1.21055E+01	8.21395E-01	2.03982E+06	3.47930E+00	3.74925E-04	1.62207E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	10500	19.2	9.07029E-09	4.78222E-01	1.65087E-01	4.33574E+04	6.91536E-01	6.58606E-05	1.85085E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	8390	15.2	1.42061E-08	4.20219E-01	1.29146E+01	5.37416E+06	6.48243E-01	7.72638E-05	1.45518E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	9830	28.5	1.03489E-08	1.26516E+02	9.42124E+01	7.71278E+05	1.12479E+01	1.14425E-03	1.72521E+01	PMSB-BWBK-SB-PM10-0105
PMSB	PMSB-BWBK-SB-PM11-0104	9700	18.8	1.06281E-08	3.21022E+00	3.97961E-05	1.01652E+06	1.79171E+00	1.84712E-04	1.70083E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	8620	16.3	1.34582E-08	1.73434E+00	6.21850E+00	4.36068E+06	1.31694E+00	1.52778E-04	1.49831E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	10600	22.2	8.89996E-09	1.22781E+01	1.16029E+01	1.17125E+04	3.50401E+00	3.30567E-04	1.86960E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	8860	17.9	1.27389E-08	6.08555E+00	7.98685E-01	3.41593E+06	2.46689E+00	2.78430E-04	1.54331E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	10300	18.7	9.42596E-09	3.21012E-01	8.77811E-03	1.66647E+05	5.66579E-01	5.50077E-05	1.81334E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	9740	17.3	1.0541E-08	4.69592E-02	2.23111E+00	9.37458E+05	2.16701E-01	2.22485E-05	1.70833E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	10550	21.9	8.98452E-09	1.08753E+01	9.64915E+00	2.50349E+04	3.29778E+00	3.12585E-04	1.86022E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	11300	16.6	7.83147E-09	1.16188E+01	4.81228E+00	3.50198E+05	-3.40864E+00	-3.01649E-04	2.00086E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	10900	18	8.4168E-09	1.58395E+00	6.29946E-01	3.67779E+04	-1.25855E+00	-1.15463E-04	1.92586E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	10400	18.05	9.24556E-09	7.34097E-02	5.53077E-01	9.50022E+04	-2.70942E-01	-2.60521E-05	1.83209E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	11500	17.4	7.56144E-09	8.90235E+00	1.94238E+00	6.26909E+05	-2.98368E+00	-2.59451E-04	2.03837E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	11800	18.7	7.18184E-09	5.04562E+00	8.77811E-03	1.19197E+06	-2.24625E+00	-1.90360E-04	2.09462E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	9910	19.1	1.01825E-08	2.88291E+00	9.38248E-02	6.37162E+05	1.69791E+00	1.71333E-04	1.74021E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	11300	17	7.83147E-09	9.05190E+00	3.21733E+00	3.50198E+05	-3.00864E+00	-2.66251E-04	2.00086E+01	
PMSS	PMSS-DABK-S-SO21-0001	9290	27.6	1.15869E-08	1.29062E+02	7.75511E+01	2.01136E+06	1.13605E+01	1.22288E-03	1.62395E+01	PMSS-DABK-S-SO21-0001
PMSS	PMSS-DABK-S-SO22-0001	12100	34.9	6.83013E-09	1.79324E+02	2.59413E+02	1.93704E+06	1.33912E+01	1.10671E-03	2.15088E+01	PMSS-DABK-S-SO22-0001
PMSS	PMSS-DABK-S-SO23-0001	12100	30.4	6.83013E-09	7.90532E+01	1.34706E+02	1.93704E+06	8.89119E+00	7.34809E-04	2.15088E+01	
PMSS	PMSS-DABK-S-SO24-0001	11700	30.9	7.30514E-09	1.02845E+02	1.46563E+02	9.83619E+05	1.01413E+01	8.66776E-04	2.07587E+01	PMSS-DABK-S-SO24-0001
PMSS	PMSS-DABK-S-SO25-0001	13050	35.8	5.8719E-09	1.56493E+02	2.89215E+02	5.48391E+06	1.25097E+01	9.58600E-04	2.32903E+01	PMSS-DABK-S-SO25-0001
PMSS	PMSS-DABK-S-SO26-0001	12400	35.2	6.50364E-09	1.72361E+02	2.69167E+02	2.86211E+06	1.31286E+01	1.05876E-03	2.20714E+01	PMSS-DABK-S-SO26-0001
PMSS	PMSS-DABK-S-SO27-0001	11000	30.3	8.26446E-09	1.17808E+02	1.32395E+02	8.51331E+04	1.08539E+01	9.86721E-04	1.94461E+01	PMSS-DABK-S-SO27-0001
PMSS	PMSS-DABK-S-SO28-0001	10800	31.5	8.57339E-09	1.54479E+02	1.61450E+02	8.42278E+03	1.24290E+01	1.15083E-03	1.90710E+01	PMSS-DABK-S-SO28-0001
PMSS	PMSS-DABK-S-SO29-0001	14600	33.8	4.69131E-09	5.78078E+01	2.25189E+02	1.51459E+07	7.60315E+00	5.20764E-04	2.61969E+01	
PMSS	PMSS-DABK-S-SO30-0001	14000	28.8	5.10204E-09	1.39001E+01	1.00126E+02	1.08358E+07	3.72828E+00	2.66306E-04	2.50717E+01	
PMSS	PMSS-DABK-S-SO31-0001	9780	27	1.0455E-08	9.68589E+01	6.73435E+01	8.61600E+05	9.84169E+00	1.00631E-03	1.71583E+01	PMSS-DABK-S-SO31-0001
PMSS	PMSS-DABK-S-SO32-0001	11700	34.1	7.30514E-09	1.77990E+02	2.34283E+02	9.83619E+05	1.33413E+01	1.14028E-03	2.07587E+01	PMSS-DABK-S-SO32-0001
PMSS	PMSS-DABK-S-SO33-0001	11200	30.8	7.97194E-09	1.20536E+02	1.44151E+02	2.41843E+05	1.09789E+01	9.80258E-04	1.98211E+01	PMSS-DABK-S-SO33-0001
PMSS	PMSS-DABK-S-SO34-0001	9110	26.5	1.20493E-08	1.12319E+02	5.93872E+01	2.55432E+06	1.05981E+01	1.16335E-03	1.59019E+01	PMSS-DABK-S-SO34-0001
PMSS	PMSS-DABK-S-SO35-0001	9835	29.95	1.03384E-08	1.60999E+02	1.24463E+02	7.62521E+05	1.26886E+01	1.29014E-03	1.72614E+01	PMSS-DABK-S-SO35-0001
PMSS	PMSS-DABK-S-SO36-0001	10600	28.1	8.89996E-09	8.84355E+01	8.66074E+01	1.17125E+04	9.40401E+00	8.87171E-04	1.86960E+01	PMSS-DABK-S-SO36-0001
PMSS	PMSS-DABK-S-SO37-0001	11400	30.9	7.69468E-09	1.14572E+02	1.46563E+02	4.78554E+05	1.07038E+01	9.38933E-04	2.01962E+01	PMSS-DABK-S-SO37-0001
PMSS	PMSS-DABK-S-SO38-0001	9430	28.6	1.12454E-08	1.46362E+02	9.61637E+01	1.63386E+06	1.20980E+01	1.28293E-03	1.65020E+01	PMSS-DABK-S-SO38-0001
PMSS	PMSS-DABK-S-SO39-0001	9890	26.1	1.02237E-08	7.63075E+01	5.33821E+01	6.69491E+05	8.73542E+00	8.83258E-04	1.73646E+01	PMSS-DABK-S-SO39-0001
PMSS	PMSS-DABK-S-SO40-0001	10300	29	9.42596E-09	1.18083E+02	1.04169E+02	1.66647E+05	1.08666E+01	1.05501E-03	1.81334E+01	PMSS-DABK-S-SO40-0001

APPENDIX F, TABLE F8-12
SUPPORT DATA FOR VANADIUM REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	Weighted 1/x.	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	d - Predicted) x	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!D	DA!Z	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**AL**	**V**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	14000	18.7	5.10204E-09	4.05989E+01	8.77811E-03	1.08358E+07	-6.37172E+00	-4.55123E-04	2.50717E+01	
SESB	SESB-BWBK-SB-SO04-0108	10600	17.5	8.89996E-09	1.43038E+00	1.67364E+00	1.17125E+04	-1.19599E+00	-1.12829E-04	1.86960E+01	
SESB	SESB-BWBK-SB-SO05-0106	12400	19	6.50364E-09	9.43335E+00	4.25632E-02	2.86211E+06	-3.07138E+00	-2.47692E-04	2.20714E+01	
SESB	SESB-BWBK-SB-SO06-0108	13450	21.15	5.52784E-09	8.35414E+00	5.55219E+00	7.51733E+06	-2.89035E+00	-2.14896E-04	2.40404E+01	
SESB	SESB-BWBK-SB-SO07-0106	10400	19.8	9.24556E-09	2.18761E+00	1.01266E+00	9.50022E+04	1.47906E+00	1.42217E-04	1.83209E+01	
SESB	SESB-BWBK-SB-SO08-0107	13100	21.1	5.82717E-09	5.21678E+00	5.31906E+00	5.72059E+06	-2.28403E+00	-1.74353E-04	2.33840E+01	
SESB	SESB-BWBK-SB-SO09-0106	11600	18.4	7.43163E-09	4.71412E+00	1.54993E-01	7.95264E+05	-2.17120E+00	-1.87173E-04	2.05712E+01	
SESB	SESB-BWBK-SB-SO11-0106	12600	19.5	6.29882E-09	8.68139E+00	4.98872E-01	3.57882E+06	-2.94642E+00	-2.33843E-04	2.24464E+01	
SESB	SESB-BWBK-SB-SO12-0106	10750	18.6	8.65333E-09	1.42331E-01	3.75164E-02	1.74521E+03	-3.77268E-01	-3.50947E-05	1.89773E+01	
SESB	SESB-BWBK-SB-SO15-0103	11000	20.9	8.26446E-09	2.11391E+00	4.43654E+00	8.51331E+04	1.45393E+00	1.32175E-04	1.94461E+01	
SESB	SESB-BWBK-SB-SO16-0105	9090	17.9	1.21024E-08	4.14363E+00	7.98685E-01	2.61865E+06	2.03559E+00	2.23937E-04	1.58644E+01	
SESB	SESB-BWBK-SB-SO17-0106	9140	16.4	1.19704E-08	1.95214E-01	5.72976E+00	2.45933E+06	4.41831E-01	4.83403E-05	1.59582E+01	
SESB	SESB-BWBK-SB-SO18-0105	9300	15.5	1.1562E-08	5.74873E-01	1.08484E+01	1.98310E+06	-7.58204E-01	-8.15273E-05	1.62582E+01	
SESB	SESB-BWBK-SB-SO19-0104	9060	18.5	1.21827E-08	7.24605E+00	8.62547E-02	2.71664E+06	2.69185E+00	2.97113E-04	1.58082E+01	
SESB	SESB-BWBK-SB-SO20-0104	9300	16.9	1.1562E-08	4.11902E-01	3.58607E+00	1.98310E+06	6.41796E-01	6.90103E-05	1.62582E+01	
SESS	SESS-DABK-S-SO01-0001	14300	23.5	4.89021E-09	4.55518E+00	2.21493E+01	1.29009E+07	-2.13429E+00	-1.49251E-04	2.56343E+01	
SESS	SESS-DABK-S-SO02-0001	12500	18.9	6.4E-09	1.12822E+01	1.13015E-02	3.21046E+06	-3.35890E+00	-2.68712E-04	2.22589E+01	
SESS	SESS-DABK-S-SO03-0001	12300	34.2	6.60982E-09	1.51687E+02	2.37354E+02	2.53375E+06	1.23161E+01	1.00131E-03	2.18839E+01	SESS-DABK-S-SO03-0001
SESS	SESS-DABK-S-SO04-0001	16700	30.4	3.58564E-09	7.03268E-02	1.34706E+02	3.59014E+07	2.65192E-01	1.58798E-05	3.01348E+01	
SESS	SESS-DABK-S-SO05-0001	13100	29.5	5.82717E-09	3.74051E+01	1.14625E+02	5.72059E+06	6.11597E+00	4.66868E-04	2.33840E+01	
SESS	SESS-DABK-S-SO06-0001	14800	34	4.56538E-09	5.51767E+01	2.31232E+02	1.67426E+07	7.42810E+00	5.01899E-04	2.65719E+01	
SESS	SESS-DABK-S-SO07-0001	13150	24.15	5.78294E-09	4.51868E-01	2.86900E+01	5.96227E+06	6.72212E-01	5.11187E-05	2.34778E+01	
SESS	SESS-DABK-S-SO08-0001	12300	25.2	6.60982E-09	1.09968E+01	4.10408E+01	2.53375E+06	3.31615E+00	2.69605E-04	2.18839E+01	
SESS	SESS-DABK-S-SO09-0001	11200	30.8	7.97194E-09	1.20536E+02	1.44151E+02	2.41843E+05	1.09789E+01	9.80258E-04	1.98211E+01	SESS-DABK-S-SO09-0001
SESS	SESS-DABK-S-SO10-0001	12500	23.1	6.4E-09	7.07453E-01	1.85443E+01	3.21046E+06	8.41102E-01	6.72882E-05	2.22589E+01	
SESS	SESS-DABK-S-SO11-0001	8240	17.95	1.47281E-08	1.35389E+01	7.11815E-01	6.09213E+06	3.67953E+00	4.46544E-04	1.42705E+01	
SESS	SESS-DABK-S-SO12-0001	11900	22.2	7.06165E-09	1.13685E+00	1.16029E+01	1.42033E+06	1.06623E+00	8.95994E-05	2.11338E+01	
SESS	SESS-DABK-S-SO13-0001	9840	20.7	1.03278E-08	1.17593E+01	3.63401E+00	7.53813E+05	3.42918E+00	3.48494E-04	1.72708E+01	
SESS	SESS-DABK-S-SO14-0001	9250	24.3	1.16874E-08	6.61873E+01	3.03194E+01	2.12642E+06	8.13556E+00	8.79520E-04	1.61644E+01	SESS-DABK-S-SO14-0001
SESS	SESS-DABK-S-SO15-0001	11700	29.4	7.30514E-09	7.46716E+01	1.12494E+02	9.83619E+05	8.64128E+00	7.38571E-04	2.07587E+01	
SESS	SESS-DABK-S-SO16-0001	9020	14	1.2291E-08	3.00379E+00	2.29795E+01	2.85010E+06	-1.73314E+00	-1.92144E-04	1.57331E+01	
SESS	SESS-DABK-S-SO17-0001	11000	22.4	8.26446E-09	8.72569E+00	1.30055E+01	8.51331E+04	2.95393E+00	2.68539E-04	1.94461E+01	
SESS	SESS-DABK-S-SO18-0001	9140	22.4	1.19704E-08	4.14972E+01	1.30055E+01	2.45933E+06	6.44183E+00	7.04795E-04	1.59582E+01	
SESS	SESS-DABK-S-SO19-0001	13000	23.9	5.91716E-09	4.94904E-01	2.60744E+01	5.25224E+06	7.03494E-01	5.41149E-05	2.31965E+01	
SESS	SESS-DABK-S-SO20-0001	15200	30.6	4.32825E-09	1.07454E+01	1.39389E+02	2.01760E+07	3.27802E+00	2.15659E-04	2.73220E+01	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: Zn^0.67
X variable name used on graph: ZN predict (from Factor Anal.)

	N	214.000000
2sided ALPHA	SUM(w^2*(Ypred.- Yobs)^2)	4.455629E+01
0.10	t-Value: 2-tail, 0.100 alpha	1.652073
degrees freedom	SUM(XY*w^2)	6.921548E+03
2	SUM(X^2*w^2)	2.377358E+04
	SUM(X*w^2)	6.572550E+02
	SUM(Y*w^2)	2.032072E+02
	SUM(w^2)	2.123090E+01
	SUM(Y)	2344.585249
	SUM(X)	7.973000E+03
	Denominator	7.275036E+04
	Slope	**1.840785E-01**
	Intercept	**3.872687E+00**
	Minimum X value	1.073525E+01
	Maximum X value	6.802754E+01
	Minimum Y value	4.795047E+00
	Maximum Y value	2.062971E+01
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	6.525070E+02
	SUM(Yobs - Yave)^2	1.900881E+03
	SUM(X - Xave)^2	3.448605E+04
	Std. Error of Y-estimate	**1.754384E+00**
	R^2	**6.567344E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1/SQRT(xy)**
est.M, Std.Err.Y	**0.184**	**1.75**

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:		**25**
Inverse Log Transform (Y/N)?	**No**	**50**
Inverse Power Transform (Y/N)?	**Yes**	**75**
Inverse Power Transform (1/Power):	**1.5**	**90**

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
10.74	5.85	4.29	7.41	-1.93	1.93	-0.07	**No. of Exceedances**
13.12	6.29	4.73	7.84	-1.93	1.93	-0.07	**of Upper 95% Limit**
15.51	6.73	5.14	8.32	-1.93	1.93	-0.07	**for Each Soil Type:**
17.90	7.17	5.50	8.83	-1.93	1.93	-0.07	---- V ----
20.28	7.61	5.87	9.34	-1.93	1.93	-0.07	BASS
22.67	8.05	6.15	9.95	-1.93	1.93	-0.07	1
25.06	8.49	6.44	10.54	-1.93	1.93	-0.07	MASS
27.45	8.92	6.74	11.11	-1.93	1.93	-0.07	1
29.83	9.36	7.04	11.68	-1.93	1.93	-0.07	MMSS
32.22	9.80	7.36	12.25	-1.93	1.93	-0.07	0
34.61	10.24	7.68	12.81	-1.93	1.93	-0.07	NESS
36.99	10.68	8.01	13.36	-1.93	1.93	-0.07	2
39.38	11.12	8.34	13.91	-1.93	1.93	-0.07	PMSS
41.77	11.56	8.67	14.45	-1.93	1.93	-0.07	3
44.16	12.00	9.01	14.99	-1.93	1.93	-0.07	SESS
46.54	12.44	9.35	15.53	-1.93	1.93	-0.07	3
48.93	12.88	9.69	16.07	-1.93	1.93	-0.07	SESD
51.32	13.32	10.04	16.60	-1.93	1.93	-0.07	0
53.70	13.76	10.39	17.13	-1.93	1.93	-0.07	MASB
56.09	14.20	10.74	17.66	-1.93	1.93	-0.07	5
58.48	14.64	11.09	18.19	-1.93	1.93	-0.07	MMSB
60.87	15.08	11.44	18.71	-1.93	1.93	-0.07	0
63.25	15.52	11.80	19.23	-1.93	1.93	-0.07	NESB
65.64	15.96	12.16	19.75	-1.93	1.93	-0.07	0
68.03	16.40	12.52	20.27	-1.93	1.93	-0.07	PMSB
29.88	9.37	7.05	11.70	28.70	**-35%**	**39%**	0
37.21	10.72	8.04	13.41	35.11	**-35%**	**40%**	SESB
45.42	12.23	9.19	15.28	42.79	**-35%**	**40%**	0
53.15	13.66	10.30	17.01	50.46	**-34%**	**39%**	<<--Original Units Errors

TEXT BOX ==> **(Zn^0.67) = (1.84E-01)x(ZN predict (from Factor Anal.)) + (3.87E+00)** **R^2 = 0.66; Std. Error of Y-estimate = 1.75E+00** **+/-3 x IQR of r** -1.933300 1.933300

TEXT BOX ==> **Weighted 1/SQRT(MAX(x-Xmin,9.5)*MAX(y-Ymin,1.8)). 95% Conf** **√ - wt.descrip.** **TEXT BOX==> Residuals Plot: (Observed - Predicted) x (1/SQRT(xy))^0.5** **Y-Pred.**

	Indexed value lookups:	**X data column ref.**	**Y data column ref.**	**(MAX(x-Xmin,9.5)***	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!Z**	**DA!AA**	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	**SAMPLE**	**ZN predict**	**Zn^0.67**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	13.32265592	7.755964884	0.188441566	2.04737E+00	1.02403E+01	5.72853E+02	1.43086E+00	6.21136E-01	6.32510E+00	
BASS	BASS-BWBK-SS-BA102-0001	10.73525377	6.893700054	0.223830652	1.09178E+00	1.65023E+01	7.03404E+02	1.04488E+00	4.94342E-01	5.84882E+00	
BASS	BASS-BWBK-SS-BA103-0001	12.30624696	7.045217486	0.216163405	8.23039E-01	1.52943E+01	6.22541E+02	9.07215E-01	4.21795E-01	6.13800E+00	
BASS	BASS-BWBK-SS-BA104-0001	16.90201474	7.49035798	0.197508343	2.56414E-01	1.20107E+01	4.14326E+02	5.06373E-01	2.25042E-01	6.98398E+00	
BASS	BASS-BWBK-SS-BA105-0001	13.41604981	7.635807482	0.192385606	1.67318E+00	1.10237E+01	5.68391E+02	1.29351E+00	5.67358E-01	6.34229E+00	
BASS	BASS-BWBK-SS-BA106-0001	16.28318148	7.993536446	0.181308191	1.26218E+00	8.77622E+00	4.39901E+02	1.12347E+00	4.78375E-01	6.87007E+00	
BASS	BASS-BWBK-SS-BA107-0001	11.50411792	6.919067891	0.222489998	8.62521E-01	1.62969E+01	6.63211E+02	9.28720E-01	4.38067E-01	5.99035E+00	
BASS	BASS-BWBK-SS-BA108-0001	11.47418864	6.919067891	0.222489998	8.72785E-01	1.62969E+01	6.64754E+02	9.34229E-01	4.40665E-01	5.98484E+00	
BASS	BASS-BWBK-SS-BA109-0001	14.06672916	7.269491743	0.206134652	6.51931E-01	1.35904E+01	5.37789E+02	8.07422E-01	3.66586E-01	6.46207E+00	
BASS	BASS-BWBK-SS-BA110-0001	16.95648944	7.368062997	0.202147624	1.39914E-01	1.28733E+01	4.12111E+02	3.74051E-01	1.68176E-01	6.99401E+00	
BASS	BASS-BWBK-SS-BA111-0001	12.47665561	7.095361647	0.213794369	8.57459E-01	1.49046E+01	6.14066E+02	9.25991E-01	4.28159E-01	6.16937E+00	
BASS	BASS-BWBK-SS-BA112-0001	11.98543375	6.994894236	0.218621879	8.38958E-01	1.56904E+01	6.38653E+02	9.15947E-01	4.28269E-01	6.07895E+00	
BASS	BASS-BWBK-SS-BA113-0001	12.52026308	10.75076613	0.132868729	2.09157E+01	4.21233E-02	6.11907E+02	4.57337E+00	1.66705E+00	6.17740E+00	BASS-BWBK-SS-BA113-0001
MASB	MASB-BWBK-SB-MA01-0105	54.11896539	14.14515644	0.049651034	9.63051E-02	1.01707E+01	2.84326E+02	3.10331E-01	6.91495E-02	1.38348E+01	
MASB	MASB-BWBK-SB-MA02-0107	51.13269917	14.53248365	0.050419754	1.55592E+00	1.27912E+01	1.92535E+02	1.24737E+00	2.80088E-01	1.32851E+01	
MASB	MASB-BWBK-SB-MA03-0108	66.83008942	15.86638733	0.040127163	9.50387E-02	2.41118E+01	8.74567E+02	-3.08283E-01	-6.17546E-02	1.61747E+01	
MASB	MASB-BWBK-SB-MA04-0106	53.39855431	15.58057246	0.046617837	3.52823E+00	2.13866E+01	2.60549E+02	1.87836E+00	4.05560E-01	1.37022E+01	
MASB	MASB-BWBK-SB-MA05-0108	40.32924489	14.16287665	0.060059089	8.21649E+00	1.02840E+01	9.43863E+00	2.86644E+00	7.02478E-01	1.12964E+01	MASB-BWBK-SB-MA05-0108
MASB	MASB-BWBK-SB-MA06-0105	47.56210632	14.16287665	0.053839151	2.35631E+00	1.02840E+01	1.06195E+02	1.53503E+00	3.56177E-01	1.26278E+01	
MASB	MASB-BWBK-SB-MA07-0108	35.96291324	13.39962593	0.067872947	8.45030E+00	5.97128E+00	1.67468E+00	2.90694E+00	7.57329E-01	1.04927E+01	MASB-BWBK-SB-MA07-0108
MASB	MASB-BWBK-SB-MA08-0108	50.18945934	17.21071083	0.045182304	1.68036E+01	3.91213E+01	1.67248E+02	4.09922E+00	8.71336E-01	1.31115E+01	MASB-BWBK-SB-MA08-0108
MASB	MASB-BWBK-SB-MA09-0108	37.49194926	15.34321302	0.059524435	2.08763E+01	1.92476E+01	5.51968E-02	4.56906E+00	1.11474E+00	1.07741E+01	MASB-BWBK-SB-MA09-0108

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,9.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Z	DA!AA	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	ZN predict	Zn^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	36.67007285	12.51994682	0.070649966	3.59894E+00	2.44591E+00	3.44494E-01	1.89709E+00	5.04247E-01	1.06229E+01	
MASB	MASB-BWBK-SB-MA11-0108	49.70201948	15.5974574	0.048740781	6.63421E+00	2.15431E+01	1.54878E+02	2.57570E+00	5.68645E-01	1.30218E+01	
MASB	MASB-BWBK-SB-MA12-0108	44.82152118	15.36022795	0.052695291	1.04773E+01	1.93972E+01	5.72218E+01	3.23686E+00	7.43036E-01	1.21234E+01	MASB-BWBK-SB-MA12-0108
MASB	MASB-BWBK-SB-MA13-0105	38.01722604	9.76187464	0.085905817	1.22981E+00	1.42595E+00	5.77929E-01	-1.10897E+00	-3.25035E-01	1.08708E+01	
MASB	MASB-BWBK-SB-MA14-0104	46.40830595	12.51052447	0.06027656	9.03743E-03	2.41653E+00	8.37462E+01	9.50654E-02	2.33398E-02	1.24155E+01	
MASB	MASB-BWBK-SB-MA15-0105	44.48937077	10.94306672	0.069417505	1.25251E+00	1.67421E-04	5.23071E+01	-1.11916E+00	-2.94867E-01	1.20622E+01	
MASB	MASB-BWBK-SB-MA16-0104	42.62440449	11.18358565	0.07006123	2.86587E-01	5.17926E-02	2.88089E+01	-5.35338E-01	-1.41699E-01	1.17189E+01	
MASB	MASB-BWBK-SB-MA17-0104	39.39195803	11.38205857	0.072785131	6.66458E-02	1.81521E-01	4.55801E+00	2.58158E-01	6.96479E-02	1.11239E+01	
MASB	MASB-BWBK-SB-MA18-0104	43.04550948	10.39193779	0.074362912	1.97263E+00	3.18173E-01	3.35067E+01	-1.40450E+00	-3.83002E-01	1.17964E+01	
MASB	MASB-BWBK-SB-MA19-0103	35.13149575	9.868272403	0.08988691	2.22188E-01	1.18316E+00	4.51781E+00	-4.71368E-01	-1.41322E-01	1.03396E+01	
MASB	MASB-BWBK-SB-MA20-0103	47.6793833	13.39051828	0.05611674	5.49201E-01	5.92685E+00	1.08626E+02	7.41081E-01	1.75555E-01	1.26494E+01	
MASS	MASS-BWBK-SS-MA01-0001	19.42585043	7.465979245	0.198407667	3.03132E-04	1.21803E+01	3.17950E+02	1.74107E-02	7.75524E-03	7.44857E+00	
MASS	MASS-BWBK-SS-MA02-0001	23.13728367	9.654893846	0.128807847	2.31993E+00	1.69289E+00	1.99367E+02	1.52313E+00	5.46649E-01	8.13176E+00	
MASS	MASS-BWBK-SS-MA03-0001	22.71705884	8.686136373	0.146454686	3.99079E-01	5.15231E+00	2.11410E+02	6.31727E-01	2.41758E-01	8.05441E+00	
MASS	MASS-BWBK-SS-MA04-0001	25.420534	9.825782451	0.116343772	1.62237E+00	1.27740E+00	1.40102E+02	1.27372E+00	4.34456E-01	8.55206E+00	
MASS	MASS-BWBK-SS-MA05-0001	37.12013704	12.10193262	0.072020521	1.94945E+00	1.31315E+00	1.87340E-02	1.39623E+00	3.74700E-01	1.07057E+01	
MASS	MASS-BWBK-SS-MA06-0001	29.87137288	11.20351187	0.090301728	3.35676E+00	6.12592E-02	5.45476E+01	1.83215E+00	5.50565E-01	9.37136E+00	
MASS	MASS-BWBK-SS-MA07-0001	12.65162047	4.795046974	0.24511555	1.97833E+00	3.79574E+01	6.05425E+02	-1.40653E+00	-6.96362E-01	6.20158E+00	
MASS	MASS-BWBK-SS-MA08-0001	33.7840299	10.78124316	0.08513352	4.75606E-01	3.05420E-02	1.20616E+01	6.89642E-01	2.01221E-01	1.00916E+01	
MASS	MASS-BWBK-SS-MA09-0001	49.88432307	14.94922089	0.050155317	3.58686E+00	1.59458E+01	1.59449E+02	1.89390E+00	4.24147E-01	1.30553E+01	
MASS	MASS-BWBK-SS-MA10-0001	45.97915365	13.78838202	0.056169122	2.10807E+00	8.02235E+00	7.60758E+01	1.45192E+00	3.44106E-01	1.23365E+01	
MASS	MASS-BWBK-SS-MA11-0001	49.3971276	12.67022599	0.057309726	8.72676E-02	2.93855E+00	1.47382E+02	-2.95411E-01	-7.07197E-02	1.29656E+01	
MASS	MASS-BWBK-SS-MA12-0001	26.00834937	11.10370247	0.101875103	5.97039E+00	2.18143E-02	1.26532E+02	2.44344E+00	7.79893E-01	8.66027E+00	MASS-BWBK-SS-MA12-0001
MASS	MASS-BWBK-SS-MA13-0001	35.02861006	9.825782451	0.09045665	2.44945E-01	1.27740E+00	4.96576E+00	-4.94919E-01	-1.48852E-01	1.03207E+01	
MASS	MASS-BWBK-SS-MA14-0001	31.83366255	8.910890175	0.10731137	6.75175E-01	4.18250E+00	2.94127E+01	-8.21690E-01	-2.69173E-01	9.73258E+00	
MASS	MASS-BWBK-SS-MA15-0001	29.92383246	8.663501474	0.116067291	5.14835E-01	5.25558E+00	5.37755E+01	-7.17520E-01	-2.44449E-01	9.38102E+00	
MASS	MASS-BWBK-SS-MA16-0001	31.57885816	9.33032074	0.102851785	1.26278E-01	2.64285E+00	3.22414E+01	-3.55355E-01	-1.13964E-01	9.68568E+00	
MASS	MASS-BWBK-SS-MA17-0001	34.85742742	9.889483101	0.090207723	1.59766E-01	1.13747E+00	5.75799E+00	-3.99707E-01	-1.20050E-01	1.02892E+01	
MASS	MASS-BWBK-SS-MA18-0001	32.77932608	9.286618903	0.100497419	3.84447E-01	2.78685E+00	2.00496E+01	-6.20038E-01	-1.96560E-01	9.90666E+00	
MASS	MASS-BWBK-SS-MA19-0001	36.77724037	9.974099642	0.086106866	4.46875E-01	9.64140E-01	2.30178E-01	-6.68487E-01	-1.96161E-01	1.06426E+01	
MASS	MASS-BWBK-SS-MA20-0001	35.1524289	10.90272356	0.081886871	3.12738E-01	2.83900E-03	4.42926E+00	5.59230E-01	1.60029E-01	1.03435E+01	
MMSB	MMSB-BWBK-SB-MM101-0110	31.59234957	9.395682339	0.102085527	8.55430E-02	2.43461E+00	3.20884E+01	-2.92477E-01	-9.34489E-02	9.68816E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	36.40977402	9.611935386	0.089921913	9.27386E-01	1.80653E+00	7.17808E-01	-9.63009E-01	-2.88777E-01	1.05749E+01	
MMSB	MMSB-BWBK-SB-MM103-0107	41.36479254	9.286618903	0.085257107	4.84193E+00	2.78685E+00	1.68739E+01	-2.20044E+00	-6.42502E-01	1.14871E+01	
MMSB	MMSB-BWBK-SB-MM104-0110	42.11235311	11.48064798	0.069043592	2.07413E-02	2.75249E-01	2.35744E+01	-1.44018E-01	-3.78425E-02	1.16247E+01	
MMSB	MMSB-BWBK-SB-MM105-0110	24.27274474	8.111004704	0.149254151	5.27956E-02	8.09403E+00	1.68591E+02	-2.29773E-01	-8.87692E-02	8.34078E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	46.99056035	12.23571012	0.06088473	8.23285E-02	1.63764E+00	9.47420E+01	-2.86929E-01	-7.07994E-02	1.25226E+01	
MMSB	MMSB-BWBK-SB-MM107-0110	31.92440864	9.110770968	0.104572226	4.07700E-01	3.40489E+00	2.84366E+01	-6.38514E-01	-2.06480E-01	9.74928E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	32.38542098	9.373920468	0.100436148	2.11809E-01	2.50299E+00	2.37324E+01	-4.60227E-01	-1.45853E-01	9.83415E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	39.3481462	10.05835876	0.081487233	1.11826E+00	8.05770E-01	4.37285E+00	-1.05748E+00	-3.01867E-01	1.11158E+01	
MMSB	MMSB-BWBK-SB-MM110-0109	33.54073826	9.439130677	0.097169581	3.69282E-01	2.30091E+00	1.38107E+01	-6.07686E-01	-1.89428E-01	1.00468E+01	
MMSB	MMSB-BWBK-SB-MM111-0110	35.63591909	10.0162735	0.087701749	1.73240E-01	8.83097E-01	2.62793E+00	-4.16221E-01	-1.23262E-01	1.04325E+01	
MMSB	MMSB-BWBK-SB-MM112-0110	41.04935582	9.772540443	0.081408977	2.74383E+00	1.40059E+00	1.43819E+01	-1.65645E+00	-4.72623E-01	1.14290E+01	
MMSB	MMSB-BWBK-SB-MM113-0110	35.06573175	9.868272403	0.090008308	2.10922E-01	1.18316E+00	4.80170E+00	-4.59262E-01	-1.37785E-01	1.03275E+01	
MMSB	MMSB-BWBK-SB-MM114-0110	26.5387883	8.250853906	0.135315688	2.57103E-01	7.31785E+00	1.14880E+02	-5.07054E-01	-1.86521E-01	8.75791E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	36.30321183	9.952979251	0.087079146	3.62824E-01	1.00606E+00	9.09730E-01	-6.02349E-01	-1.77748E-01	1.05553E+01	
MMSB	MMSB-BWBK-SB-MM116-0110	31.92118445	9.974099642	0.095466514	5.08090E-02	9.64140E-01	2.84710E+01	2.25408E-01	6.96459E-02	9.74869E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	28.51233083	8.549879733	0.122398057	3.26400E-01	5.78944E+00	7.64694E+01	-5.71315E-01	-1.99877E-01	9.12119E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	39.66594511	9.847038886	0.082715952	1.76172E+00	1.22981E+00	5.80297E+00	-1.32730E+00	-3.81735E-01	1.11743E+01	
MMSB	MMSB-BWBK-SB-MM119-0110	31.95517555	9.525728962	0.099808202	5.25415E-02	2.04569E+00	2.81094E+01	-2.29219E-01	-7.24159E-02	9.75495E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	21.74423512	7.045217486	0.20091794	6.89092E-01	1.52943E+01	2.40646E+02	-8.30116E-01	-3.72090E-01	7.87533E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	31.73554509	9.439130677	0.10125986	7.58387E-02	2.30091E+00	3.04866E+01	-2.75388E-01	-8.76323E-02	9.71452E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	24.52408644	7.755964884	0.156503144	3.98261E-01	1.02403E+01	1.62127E+02	-6.31079E-01	-2.49658E-01	8.38704E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,9.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Z	DA!AA	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	ZN predict	Zn^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	31.3627304	8.798872101	0.110037166	7.17442E-01	4.65323E+00	3.47425E+01	-8.47020E-01	-2.80972E-01	9.64589E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	33.03470144	9.286618903	0.099920309	4.44951E-01	2.78685E+00	1.78279E+01	-6.67047E-01	-2.10855E-01	9.95367E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	23.73000593	7.294196927	0.175476855	8.96192E-01	1.34088E+01	1.82980E+02	-9.46674E-01	-3.96561E-01	8.24087E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	34.52866458	9.242813995	0.097207692	9.71916E-01	2.93503E+00	7.44387E+00	-9.85858E-01	-3.07372E-01	1.02287E+01	
MMSS	MMSS-BWBK-SS-MM107-0001	31.84333449	9.525728962	0.10007227	4.35272E-02	2.04569E+00	2.93079E+01	-2.08632E-01	-6.59990E-02	9.73436E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	30.54925492	8.320335292	0.11965107	1.38254E+00	6.94676E+00	4.49940E+01	-1.17581E+00	-4.06721E-01	9.49615E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	28.49995087	7.898936993	0.134669093	1.48835E+00	9.34567E+00	7.66861E+01	-1.21998E+00	-4.47699E-01	9.11892E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	18.99780996	6.109204058	0.24511555	1.58904E+00	2.34915E+01	3.33398E+02	-1.26057E+00	-6.24098E-01	7.36978E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	19.01118099	6.428728274	0.24511555	8.90208E-01	2.04962E+01	3.32910E+02	-9.43509E-01	-4.67123E-01	7.37224E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	16.0155909	6.53347621	0.24511555	8.25624E-02	1.95588E+01	4.51198E+02	-2.87337E-01	-1.42258E-01	6.82081E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	28.49196422	8.111004704	0.130320954	1.01292E+00	8.09403E+00	7.68260E+01	-1.00644E+00	-3.63325E-01	9.11745E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	14.42092748	6.243331554	0.24511555	8.06209E-02	2.22093E+01	5.21487E+02	-2.83938E-01	-1.40575E-01	6.52727E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	17.65703914	6.969664646	0.219886431	2.35020E-02	1.58909E+01	3.84159E+02	-1.53304E-01	-7.18873E-02	7.12297E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	18.9935691	6.481208051	0.24511555	7.88165E-01	2.00238E+01	3.33553E+02	-8.87787E-01	-4.39536E-01	7.36899E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	26.83645607	8.274046768	0.13361144	2.90149E-01	7.19290E+00	1.08588E+02	-5.38655E-01	-1.96894E-01	8.81270E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	25.91639802	7.635807482	0.152275641	1.01512E+00	1.10237E+01	1.28609E+02	-1.00753E+00	-3.93164E-01	8.64334E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	22.9564953	7.219954932	0.183693888	7.71814E-01	1.39581E+01	2.04505E+02	-8.78529E-01	-3.76534E-01	8.09848E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	26.28070555	8.504219358	0.131692129	4.25105E-02	6.01126E+00	1.20479E+02	-2.06181E-01	-7.48218E-02	8.71040E+00	
NESB	NESB-BWBK-SB-NE01-0108	43.43745366	12.06357463	0.064861695	3.80194E-02	1.22671E+00	3.81979E+01	1.94986E-01	4.96589E-02	1.18686E+01	
NESB	NESB-BWBK-SB-NE02-0109	41.11822184	11.83213019	0.068389363	1.52461E-01	7.67594E-01	1.49090E+01	3.90462E-01	1.02111E-01	1.14417E+01	
NESB	NESB-BWBK-SB-NE03-0105	36.03853839	10.63864498	0.082237781	1.74339E-02	1.00718E-01	1.48467E+00	1.32037E-01	3.78645E-02	1.05066E+01	
NESB	NESB-BWBK-SB-NE04-0110	37.87210079	10.88252397	0.077803949	1.47433E-03	5.39958E-03	3.78337E-01	3.83969E-02	1.07102E-02	1.08441E+01	
NESB	NESB-BWBK-SB-NE05-0108	41.33605146	11.79333627	0.068334132	9.70761E-02	7.01122E-01	1.66386E+01	3.11570E-01	8.14470E-02	1.14818E+01	
NESB	NESB-BWBK-SB-NE06-0109	39.22792156	11.06365299	0.074825212	9.03094E-04	1.15879E-02	3.88449E+00	-3.00515E-02	-8.22035E-03	1.10937E+01	
NESB	NESB-BWBK-SB-NE07-0107	40.88987377	12.005923	0.067815514	3.67586E-01	1.10233E+00	1.31977E+01	6.06289E-01	1.57886E-01	1.13996E+01	
NESB	NESB-BWBK-SB-NE08-0104	37.72252918	10.26748157	0.082286803	3.01525E-01	4.74066E-01	2.16709E-01	-5.49113E-01	-1.57517E-01	1.08166E+01	
NESB	NESB-BWBK-SB-NE09-0110	37.29343151	10.98333565	0.078003768	6.03828E-02	7.46919E-04	1.32657E-03	2.45729E-01	6.86301E-02	1.07376E+01	
NESB	NESB-BWBK-SB-NE10-0107	38.20279293	10.37124701	0.080801784	2.84893E-01	3.41943E-01	8.94507E-01	-5.33753E-01	-1.51723E-01	1.09050E+01	
NESB	NESB-BWBK-SB-NE101-0110	37.13241934	9.654893846	0.088289704	1.10896E+00	1.69289E+00	1.55227E-02	-1.05307E+00	-3.12906E-01	1.07080E+01	
NESB	NESB-BWBK-SB-NE102-0110	32.10576026	9.110770968	0.104127577	4.51445E-01	3.40489E+00	2.65354E+01	-6.71897E-01	-2.16813E-01	9.78267E+00	
NESB	NESB-BWBK-SB-NE103-0110	28.19381335	8.354967343	0.126845672	5.00690E-01	6.76540E+00	8.21415E+01	-7.07595E-01	-2.52013E-01	9.06256E+00	
NESB	NESB-BWBK-SB-NE104-0110	26.04943634	7.875198618	0.145601899	6.28262E-01	9.49137E+00	1.25610E+02	-7.92630E-01	-3.02450E-01	8.66783E+00	
NESB	NESB-BWBK-SB-NE105-0110	35.13209201	9.719153002	0.091236692	3.85141E-01	1.52980E+00	4.51527E+00	-6.20597E-01	-1.87454E-01	1.03398E+01	
NESB	NESB-BWBK-SB-NE106-0110	33.38176217	9.264729394	0.099394199	5.66742E-01	2.86042E+00	1.50175E+01	-7.52823E-01	-2.37341E-01	1.00176E+01	
NESB	NESB-BWBK-SB-NE107-0510	26.8852107	8.481343163	0.129604238	1.15827E-01	6.12396E+00	1.07574E+02	-3.40333E-01	-1.22522E-01	8.82168E+00	
NESB	NESB-BWBK-SB-NE108-0110	34.28469174	8.866167898	0.102129857	1.73605E+00	4.36742E+00	8.83467E+00	-1.31759E+00	-4.21074E-01	1.01838E+01	
NESB	NESB-BWBK-SB-NE109-0110	31.55286329	8.843764427	0.108924565	7.00781E-01	4.46156E+00	3.25373E+01	-8.37127E-01	-2.76283E-01	9.68089E+00	
NESB	NESB-BWBK-SB-NE110-0110	32.69282466	8.854969705	0.105912927	1.07281E+00	4.41435E+00	2.08318E+01	-1.03576E+00	-3.37082E-01	9.89073E+00	
NESS	NESS-BKG-SS03-NEB-0016	38.7873876	11.75447845	0.07156986	5.50366E-01	6.37559E-01	2.34206E+00	7.41867E-01	1.98468E-01	1.10126E+01	
NESS	NESS-BKG-SS09-NEB-0018	26.51462135	8.527064827	0.130311681	5.12543E-02	5.89975E+00	1.15399E+02	-2.26394E-01	-8.17254E-02	8.75346E+00	
NESS	NESS-BWBK-SS-NE01-0001	40.38676781	14.60235153	0.058641049	1.08592E+01	1.32958E+01	9.79539E+00	3.29533E+00	7.97994E-01	1.13070E+01	NESS-BWBK-SS-NE01-0001
NESS	NESS-BWBK-SS-NE02-0001	35.23928283	16.56176423	0.058891632	3.84683E+01	3.14245E+01	4.07122E+00	6.20228E+00	1.50514E+00	1.03595E+01	NESS-BWBK-SS-NE02-0001
NESS	NESS-BWBK-SS-NE03-0001	31.49552755	10.76092993	0.089855796	1.18939E+00	3.80546E-02	3.31947E+01	1.09059E+00	3.26916E-01	9.67034E+00	
NESS	NESS-BWBK-SS-NE04-0001	41.6409745	10.69987481	0.074024749	7.02279E-01	6.56031E-02	1.92192E+01	-8.38021E-01	-2.28004E-01	1.15379E+01	
NESS	NESS-BWBK-SS-NE05-0001	32.99217634	11.61796661	0.08114884	2.79601E+00	4.38192E-01	1.81888E+01	1.67213E+00	4.76333E-01	9.94584E+00	
NESS	NESS-BWBK-SS-NE06-0001	38.10176417	10.28827648	0.08155985	3.57755E-01	4.45862E-01	7.13611E-01	-5.98127E-01	-1.70817E-01	1.08864E+01	
NESS	NESS-BWBK-SS-NE07-0001	34.41743706	11.65705149	0.078444704	2.09918E+00	4.91465E-01	8.06317E+00	1.44885E+00	4.05795E-01	1.02082E+01	
NESS	NESS-BWBK-SS-NE08-0001	33.31386234	10.3298034	0.089454493	1.05463E-01	3.92129E-01	1.55484E+01	3.24750E-01	9.71293E-02	1.00051E+01	
NESS	NESS-BWBK-SS-NE09-0001	32.00735335	10.37124701	0.091817539	3.68078E-01	3.41943E-01	2.75589E+01	6.06694E-01	1.83837E-01	9.76455E+00	
NESS	NESS-BWBK-SS-NE10-0001	34.20830002	11.14367985	0.081917213	9.48637E-01	3.52215E-02	9.29463E+00	9.73980E-01	2.78765E-01	1.01697E+01	
NESS	NESS-BWBK-SS-NE101-0001	27.14232212	7.611662611	0.147102723	1.58091E+00	1.11846E+01	1.02307E+02	-1.25734E+00	-4.82241E-01	8.86901E+00	
NESS	NESS-BWBK-SS-NE102-0001	22.66815658	7.195122726	0.186859195	7.22984E-01	1.41442E+01	2.12835E+02	-8.50285E-01	-3.67554E-01	8.04541E+00	
NESS	NESS-BWBK-SS-NE103-0001	20.85745423	6.637391074	0.231567261	1.15499E+00	1.86504E+01	2.68945E+02	-1.07470E+00	-5.17163E-01	7.71210E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,9.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Z	DA!AA	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	ZN predict	Zn^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	22.93129186	7.392602786	0.177667573	4.91741E-01	1.26978E+01	2.05226E+02	-7.01242E-01	-2.95578E-01	8.09385E+00	
NESS	NESS-BWBK-SS-NE105-0001	17.24081065	6.637391074	0.238893599	1.67247E-01	1.86504E+01	4.00648E+02	-4.08959E-01	-1.99886E-01	7.04635E+00	
NESS	NESS-BWBK-SS-NE106-0001	20.41973301	6.817314583	0.225965715	6.62932E-01	1.71288E+01	2.83494E+02	-8.14206E-01	-3.87040E-01	7.63152E+00	
NESS	NESS-BWBK-SS-NE107-0001	19.14222655	6.842823749	0.226594091	3.06402E-01	1.69183E+01	3.28145E+02	-5.53536E-01	-2.63494E-01	7.39636E+00	
NESS	NESS-BWBK-SS-NE108-0001	21.35124874	7.269491743	0.195110556	2.84624E-01	1.35904E+01	2.52993E+02	-5.33501E-01	-2.35655E-01	7.80299E+00	
NESS	NESS-BWBK-SS-NE109-0001	16.86007317	6.50736837	0.24511555	2.19863E-01	1.97904E+01	4.16035E+02	-4.68896E-01	-2.32146E-01	6.97626E+00	
NESS	NESS-BWBK-SS-NE110-0001	21.85961204	6.243331554	0.226643617	2.73320E+00	2.22093E+01	2.37080E+02	-1.65324E+00	-7.87060E-01	7.89657E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	53.5709331	11.5983995	0.058578154	4.56055E+00	4.12670E-01	2.66144E+02	-2.13555E+00	-5.16864E-01	1.37339E+01	
PMSB	PMSB-BWBK-SB-PM02-0104	61.14416998	12.7823528	0.049836343	5.50213E+00	3.33554E+00	5.70596E+02	-2.34566E+00	-5.23647E-01	1.51280E+01	
PMSB	PMSB-BWBK-SB-PM03-0106	63.48687364	14.05638822	0.04524235	2.25861E+00	9.61237E+00	6.88006E+02	-1.50287E+00	-3.19664E-01	1.55593E+01	
PMSB	PMSB-BWBK-SB-PM04-0105	47.44458928	12.93109499	0.057863538	1.05546E-01	3.90098E+00	1.03787E+02	3.24878E-01	7.81490E-02	1.26062E+01	
PMSB	PMSB-BWBK-SB-PM05-0105	53.22969001	12.65148998	0.054729437	1.03966E+00	2.87467E+00	2.55127E+02	-1.01964E+00	-2.38538E-01	1.36711E+01	
PMSB	PMSB-BWBK-SB-PM06-0105	50.15124739	12.34979702	0.057950036	5.69507E-01	1.94265E+00	1.66261E+02	-7.54657E-01	-1.81667E-01	1.31045E+01	
PMSB	PMSB-BWBK-SB-PM07-0105	53.53544618	10.3298034	0.064972246	1.15437E+01	3.92129E-01	2.64988E+02	-3.39761E+00	-8.66039E-01	1.37274E+01	
PMSB	PMSB-BWBK-SB-PM08-0106	52.9520574	11.71555629	0.058504369	3.62699E+00	5.76917E-01	2.46335E+02	-1.90447E+00	-4.60646E-01	1.36200E+01	
PMSB	PMSB-BWBK-SB-PM09-0106	41.29933995	10.43325769	0.076176961	1.08524E+00	2.73266E-01	1.63404E+01	-1.04175E+00	-2.87525E-01	1.14750E+01	
PMSB	PMSB-BWBK-SB-PM10-0105	58.3125547	11.42154538	0.056319404	1.01457E+01	2.16727E-01	4.43336E+02	-3.18523E+00	-7.55910E-01	1.46068E+01	
PMSB	PMSB-BWBK-SB-PM11-0104	57.7753486	11.73502544	0.055346077	7.68876E+00	6.06872E-01	4.21002E+02	-2.77286E+00	-6.52336E-01	1.45079E+01	
PMSB	PMSB-BWBK-SB-PM12-0105	36.33142235	9.676337264	0.089463359	7.81781E-01	1.63755E+00	8.56711E-01	-8.84184E-01	-2.64463E-01	1.05605E+01	
PMSB	PMSB-BWBK-SB-PM13-0106	40.05065035	9.931836428	0.081490359	1.72480E+00	1.04892E+00	7.80443E+00	-1.31331E+00	-3.74906E-01	1.12452E+01	
PMSB	PMSB-BWBK-SB-PM14-0106	37.49250139	9.590420131	0.088281169	1.40146E+00	1.86482E+00	5.54565E-02	-1.18383E+00	-3.51742E-01	1.07743E+01	
PMSB	PMSB-BWBK-SB-PM15-0105	41.9125151	11.32269956	0.070097496	7.03209E-02	1.34464E-01	2.16737E+01	-2.65181E-01	-7.02091E-02	1.15879E+01	
PMSB	PMSB-BWBK-SB-PM16-0106	36.22424322	10.35053557	0.084035456	3.61974E-02	3.66594E-01	1.06661E+00	-1.90256E-01	-5.51531E-02	1.05408E+01	
PMSB	PMSB-BWBK-SB-PM17-0105	62.00036976	11.95777404	0.052185497	1.10746E+01	1.00354E+00	6.12234E+02	-3.32785E+00	-7.60219E-01	1.52856E+01	
PMSB	PMSB-BWBK-SB-PM18-0105	42.65568357	13.75245135	0.059139077	4.11185E+00	7.82011E+00	2.91457E+01	2.02777E+00	4.93124E-01	1.17247E+01	
PMSB	PMSB-BWBK-SB-PM19-0105	42.30622506	12.50109857	0.06411211	7.06851E-01	2.38731E+00	2.54946E+01	8.40745E-01	2.12880E-01	1.16604E+01	
PMSB	PMSB-BWBK-SB-PM20-0106	41.65852714	11.77391538	0.068071413	5.41905E-02	6.68976E-01	1.93734E+01	2.32789E-01	6.07357E-02	1.15411E+01	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	49.60670943	14.72422003	0.050901204	2.95841E+00	1.41994E+01	1.52515E+02	1.72000E+00	3.88055E-01	1.30042E+01	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	43.98231317	14.58490026	0.055428776	6.84353E+00	1.31689E+01	4.52297E+01	2.61601E+00	6.15897E-01	1.19689E+01	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	57.83710172	13.89589445	0.048299219	3.88578E-01	8.64295E+00	4.23540E+02	-6.23360E-01	-1.36996E-01	1.45193E+01	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	52.59987252	15.56367837	0.047097318	4.03401E+00	2.12306E+01	2.35403E+02	2.00848E+00	4.35880E-01	1.35552E+01	
PMSS	PMSS-DABK-S-SO21-0001	41.78455422	16.16623563	0.053219545	2.11776E+01	2.71465E+01	2.04987E+01	4.60191E+00	1.06163E+00	1.15643E+01	PMSS-DABK-S-SO21-0001
PMSS	PMSS-DABK-S-SO22-0001	55.61442492	20.62970704	0.037512259	4.25052E+01	9.35805E+01	3.36995E+02	6.51960E+00	1.26272E+00	1.41101E+01	PMSS-DABK-S-SO22-0001
PMSS	PMSS-DABK-S-SO23-0001	49.28508556	12.42556294	0.058305806	2.69828E-01	2.15960E+00	1.44675E+02	-5.19449E-01	-1.25429E-01	1.29450E+01	
PMSS	PMSS-DABK-S-SO24-0001	47.7291707	14.60235153	0.052500085	3.77816E+00	1.32958E+01	1.09666E+02	1.94375E+00	4.45369E-01	1.26586E+01	
PMSS	PMSS-DABK-S-SO25-0001	52.11659062	13.09741417	0.053950661	1.36026E-01	4.58563E+00	2.20807E+02	-3.68817E-01	-8.56663E-02	1.34662E+01	
PMSS	PMSS-DABK-S-SO26-0001	52.80997317	19.24102916	0.040561672	3.18904E+01	6.86416E+01	2.41895E+02	5.64716E+00	1.13733E+00	1.35939E+01	PMSS-DABK-S-SO26-0001
PMSS	PMSS-DABK-S-SO27-0001	45.34843244	12.94962755	0.059522127	5.31832E-01	3.97453E+00	6.54711E+01	7.29268E-01	1.77921E-01	1.22204E+01	
PMSS	PMSS-DABK-S-SO28-0001	56.34501093	17.06577746	0.042270357	7.95908E+00	3.73293E+01	3.64352E+02	2.82118E+00	5.80029E-01	1.42446E+01	
PMSS	PMSS-DABK-S-SO29-0001	52.04218137	14.98368597	0.048745044	2.34442E+00	1.62222E+01	2.18601E+02	1.53115E+00	3.38052E-01	1.34525E+01	
PMSS	PMSS-DABK-S-SO30-0001	49.71412526	15.88311962	0.048101358	8.17463E+00	2.42765E+01	1.55180E+02	2.85913E+00	6.27065E-01	1.30240E+01	
PMSS	PMSS-DABK-S-SO31-0001	44.65260666	10.80153728	0.070061372	1.66600E+00	2.38605E-02	5.46949E+01	-1.29074E+00	-3.41646E-01	1.20923E+01	
PMSS	PMSS-DABK-S-SO32-0001	68.02753543	17.24283536	0.037446035	7.18664E-01	3.95242E+01	9.46825E+02	8.47741E-01	1.64046E-01	1.63951E+01	
PMSS	PMSS-DABK-S-SO33-0001	49.45084772	13.64437638	0.054025881	4.47361E-01	7.22734E+00	1.48690E+02	6.68851E-01	1.55464E-01	1.29755E+01	
PMSS	PMSS-DABK-S-SO34-0001	47.08082535	9.740525532	0.074588193	7.83289E+00	1.47739E+00	9.65074E+01	-2.79873E+00	-7.64357E-01	1.25393E+01	
PMSS	PMSS-DABK-S-SO35-0001	48.98624223	11.38205857	0.062999116	2.27389E+00	1.81521E-01	1.37575E+02	-1.50794E+00	-3.78488E-01	1.28900E+01	
PMSS	PMSS-DABK-S-SO36-0001	40.59899306	9.044389755	0.088770164	5.29782E+00	3.65428E+00	1.11689E+01	-2.30170E+00	-6.85776E-01	1.13461E+01	
PMSS	PMSS-DABK-S-SO37-0001	46.9492082	10.94306672	0.067018453	2.47106E+00	1.67421E-04	9.39387E+01	-1.57196E+00	-4.06948E-01	1.25150E+01	
PMSS	PMSS-DABK-S-SO38-0001	45.44867255	8.753864959	0.085303832	1.21448E+01	4.84942E+00	6.71033E+01	-3.48495E+00	-1.01784E+00	1.22388E+01	
PMSS	PMSS-DABK-S-SO39-0001	42.50794457	9.373920468	0.082907473	5.39896E+00	2.50299E+00	2.75723E+01	-2.32357E+00	-6.69040E-01	1.16975E+01	
PMSS	PMSS-DABK-S-SO40-0001	45.2989079	9.974099642	0.074742051	5.00481E+00	9.64140E-01	6.46721E+01	-2.23714E+00	-6.11612E-01	1.22112E+01	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.	(MAX(x-Xmin,9.5)*	(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	Predicted) x (1/S	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!Z	DA!AA	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	ZN predict	Zn^0.67	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
SESB	SESB-BWBK-SB-SO03-0108	63.93912051	17.70533636	0.038155787	4.25527E+00	4.55535E+01	7.11935E+02	2.06283E+00	4.02943E-01	1.56425E+01	
SESB	SESB-BWBK-SB-SO04-0108	52.56540331	15.58057246	0.047079803	4.12790E+00	2.13866E+01	2.34347E+02	2.03172E+00	4.40841E-01	1.35488E+01	
SESB	SESB-BWBK-SB-SO05-0106	46.47952644	15.08684438	0.052137614	7.06643E+00	1.70638E+01	8.50548E+01	2.65828E+00	6.06982E-01	1.24286E+01	
SESB	SESB-BWBK-SB-SO06-0108	58.93612861	16.90401501	0.041392244	4.76310E+00	3.53788E+01	4.69984E+02	2.18245E+00	4.44022E-01	1.47216E+01	
SESB	SESB-BWBK-SB-SO07-0106	66.68410343	15.47906991	0.040901291	4.47197E-01	2.04581E+01	8.65954E+02	-6.68728E-01	-1.35244E-01	1.61478E+01	
SESB	SESB-BWBK-SB-SO08-0107	62.90268542	17.32301613	0.039116495	3.50175E+00	4.05388E+01	6.57701E+02	1.87130E+00	3.70103E-01	1.54517E+01	
SESB	SESB-BWBK-SB-SO09-0106	46.64531778	14.32186331	0.054065225	3.46993E+00	1.13290E+01	8.81403E+01	1.86278E+00	4.33131E-01	1.24591E+01	
SESB	SESB-BWBK-SB-SO11-0106	58.94159342	15.37723346	0.044275168	4.28587E-01	1.95473E+01	4.70221E+02	6.54665E-01	1.37753E-01	1.47226E+01	
SESB	SESB-BWBK-SB-SO12-0106	53.41932943	15.94161337	0.045845478	4.99780E+00	2.48563E+01	2.61221E+02	2.23558E+00	4.78672E-01	1.37060E+01	
SESB	SESB-BWBK-SB-SO15-0103	44.93134969	11.40181053	0.066529974	5.50227E-01	1.98742E-01	5.88955E+01	-7.41773E-01	-1.91328E-01	1.21436E+01	
SESB	SESB-BWBK-SB-SO16-0105	46.95356092	12.72635114	0.059001578	4.43197E-02	3.13412E+00	9.40231E+01	2.10522E-01	5.11364E-02	1.25158E+01	
SESB	SESB-BWBK-SB-SO17-0106	43.84505638	11.57881587	0.066724631	1.33082E-01	3.87892E-01	4.34024E+01	-3.64804E-01	-9.42329E-02	1.19436E+01	
SESB	SESB-BWBK-SB-SO18-0105	43.64522892	10.51565315	0.072881147	1.93539E+00	1.93910E-01	4.08093E+01	-1.39118E+00	-3.75571E-01	1.19068E+01	
SESB	SESB-BWBK-SB-SO19-0104	64.87033605	12.12108883	0.050214125	1.36370E+01	1.35742E+00	7.62496E+02	-3.69283E+00	-8.27509E-01	1.58139E+01	
SESB	SESB-BWBK-SB-SO20-0104	50.79574565	14.56743854	0.050540721	1.80727E+00	1.30424E+01	1.83297E+02	1.34435E+00	3.02226E-01	1.32231E+01	
SESS	SESS-DABK-S-SO01-0001	35.6210044	12.61397626	0.071688746	4.77085E+00	2.74887E+00	2.67651E+00	2.18423E+00	5.84822E-01	1.04297E+01	
SESS	SESS-DABK-S-SO02-0001	48.01261322	18.82845585	0.043721579	3.74260E+01	6.19755E+01	1.15683E+02	6.11768E+00	1.27919E+00	1.27108E+01	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	43.91455409	11.73502544	0.06590029	4.90124E-02	6.06872E-01	4.43229E+01	-2.21387E-01	-5.68325E-02	1.19564E+01	
SESS	SESS-DABK-S-SO04-0001	44.15565314	14.44491186	0.055684403	5.97371E+00	1.21725E+01	4.75913E+01	2.44412E+00	5.76752E-01	1.20008E+01	
SESS	SESS-DABK-S-SO05-0001	40.31207171	12.31182682	0.06706692	1.03745E+00	1.83825E+00	9.33341E+00	1.01855E+00	2.63778E-01	1.12933E+01	
SESS	SESS-DABK-S-SO06-0001	41.9786325	15.47906991	0.054733548	1.50468E+01	2.04581E+01	2.22937E+01	3.87902E+00	9.07504E-01	1.16001E+01	SESS-DABK-S-SO06-0001
SESS	SESS-DABK-S-SO07-0001	39.96962646	13.89589445	0.0613073	7.10573E+00	8.64295E+00	7.35829E+00	2.66566E+00	6.60025E-01	1.12302E+01	
SESS	SESS-DABK-S-SO08-0001	40.31029742	12.7823528	0.065063459	2.21833E+00	3.33554E+00	9.32257E+00	1.48941E+00	3.79911E-01	1.12929E+01	
SESS	SESS-DABK-S-SO09-0001	40.35606048	11.40181053	0.071483725	1.00882E-02	1.98742E-01	9.60412E+00	1.00440E-01	2.68540E-02	1.13014E+01	
SESS	SESS-DABK-S-SO10-0001	30.49315991	10.69987481	0.092581864	1.47392E+00	6.56031E-02	4.57497E+01	1.21405E+00	3.69403E-01	9.48582E+00	
SESS	SESS-DABK-S-SO11-0001	27.44857624	9.066543816	0.118352806	1.99272E-02	3.57007E+00	9.62054E+01	1.41164E-01	4.85638E-02	8.92538E+00	
SESS	SESS-DABK-S-SO12-0001	34.31954253	11.36228947	0.080352072	1.37385E+00	1.65066E-01	8.62871E+00	1.17211E+00	3.32252E-01	1.01902E+01	
SESS	SESS-DABK-S-SO13-0001	31.10987847	13.71647369	0.074171666	1.69507E+01	7.62018E+00	3.77872E+01	4.11713E+00	1.12128E+00	9.59935E+00	SESS-DABK-S-SO13-0001
SESS	SESS-DABK-S-SO14-0001	34.06312441	10.0162735	0.090610011	1.60536E-02	8.83097E-01	1.02009E+01	-1.26703E-01	-3.81394E-02	1.01430E+01	
SESS	SESS-DABK-S-SO15-0001	39.1194179	10.78124316	0.076716092	8.55493E-02	3.05420E-02	3.46857E+00	-2.92488E-01	-8.10124E-02	1.10737E+01	
SESS	SESS-DABK-S-SO16-0001	22.14391545	7.708014369	0.173466189	5.80287E-02	1.05494E+01	2.28406E+02	-2.40892E-01	-1.00330E-01	7.94891E+00	
SESS	SESS-DABK-S-SO17-0001	32.7240828	7.875198618	0.121510246	4.08561E+00	9.49137E+00	2.05474E+01	-2.02129E+00	-7.04587E-01	9.89649E+00	
SESS	SESS-DABK-S-SO18-0001	36.32663453	10.59772706	0.082061382	1.45063E-03	1.28364E-01	8.65597E-01	3.80872E-02	1.09106E-02	1.05596E+01	
SESS	SESS-DABK-S-SO19-0001	44.73983117	14.37466288	0.055406059	5.13627E+00	1.16872E+01	5.59926E+01	2.26633E+00	5.33461E-01	1.21083E+01	
SESS	SESS-DABK-S-SO20-0001	44.85261352	14.05638822	0.056256842	3.71448E+00	9.61237E+00	5.76932E+01	1.92730E+00	4.57127E-01	1.21291E+01	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

Y variable name used on graph: ZN_log
X variable name used on graph: FE_log

	N	214.000000
2sided ALPHA	**SUM(w^2*(Ypred.- Yobs)^2)**	1.011496E+01
0.10	**t-Value: 2-tail, 0.100 alpha**	1.652073
degrees freedom	SUM(XY*w^2)	7.428638E+03
2	SUM(X^2*w^2)	2.049109E+04
	SUM(X*w^2)	2.092089E+03
	SUM(Y*w^2)	7.566715E+02
	SUM(w^2)	2.140000E+02
	SUM(Y)	756.671474
	SUM(X)	2.092089E+03
	Denominator	8.255834E+03
	Slope	**8.120865E-01**
	Intercept	**-4.403205E+00**
	Minimum X value	8.689464E+00
	Maximum X value	1.089489E+01
	Minimum Y value	2.351375E+00
	Maximum Y value	4.540098E+00
	No. of graph points	25
	SUM(Ypred.- Yobs)^2	1.011496E+01
	SUM(Yobs - Yave)^2	3.555699E+01
	SUM(X - Xave)^2	3.857866E+01
	Std. Error of Y-estimate	**2.184309E-01**
	R^2	**7.155283E-01**
Weight= "1/x", "1/y", "1/SQRT(xy)" or "" =>		**1**
est.M, Std.Err.Y		

Percentiles of Y-Pred.Domain for Estimating % Err in Y-Pred:	
Inverse Log Transform (Y/N)?	**Yes**
Inverse Power Transform (Y/N)?	**No**
Inverse Power Transform (1/Power):	**1**

25	
50	
75	
90	

********** GRAPH LINES **********				- - - Extreme Value Lines: +/-3 x IQR of residuals			
X-Points	**Y Predicted**	**Lower 95%**	**Upper 95%**	**-3 x IQR**	**+3 x IQR**	**Median**	
8.69	2.65	2.29	3.02	-0.66	0.66	-0.04	**No. of Exceedances**
8.78	2.73	2.36	3.09	-0.66	0.66	-0.04	**of Upper 95% Limit**
8.87	2.80	2.44	3.17	-0.66	0.66	-0.04	**for Each Soil Type:**
8.97	2.88	2.51	3.24	-0.66	0.66	-0.04	---- \/ ----
9.06	2.95	2.59	3.32	-0.66	0.66	-0.04	BASS
9.15	3.03	2.66	3.39	-0.66	0.66	-0.04	1
9.24	3.10	2.74	3.46	-0.66	0.66	-0.04	MASS
9.33	3.18	2.81	3.54	-0.66	0.66	-0.04	2
9.42	3.25	2.89	3.61	-0.66	0.66	-0.04	MMSS
9.52	3.33	2.96	3.69	-0.66	0.66	-0.04	0
9.61	3.40	3.04	3.76	-0.66	0.66	-0.04	NESS
9.70	3.47	3.11	3.84	-0.66	0.66	-0.04	1
9.79	3.55	3.19	3.91	-0.66	0.66	-0.04	PMSS
9.88	3.62	3.26	3.99	-0.66	0.66	-0.04	8
9.98	3.70	3.34	4.06	-0.66	0.66	-0.04	SESS
10.07	3.77	3.41	4.13	-0.66	0.66	-0.04	4
10.16	3.85	3.48	4.21	-0.66	0.66	-0.04	SESD
10.25	3.92	3.56	4.28	-0.66	0.66	-0.04	0
10.34	4.00	3.63	4.36	-0.66	0.66	-0.04	MASB
10.44	4.07	3.71	4.43	-0.66	0.66	-0.04	0
10.53	4.15	3.78	4.51	-0.66	0.66	-0.04	MMSB
10.62	4.22	3.86	4.59	-0.66	0.66	-0.04	0
10.71	4.30	3.93	4.66	-0.66	0.66	-0.04	NESB
10.80	4.37	4.00	4.74	-0.66	0.66	-0.04	0
10.89	4.44	4.08	4.81	-0.66	0.66	-0.04	PMSB
9.55	3.36	2.99	3.72	28.66	**-30%**	**44%**	0
9.79	3.54	3.18	3.91	34.63	**-30%**	**44%**	SESB
10.06	3.77	3.41	4.13	43.28	**-30%**	**44%**	0
10.29	3.96	3.59	4.32	52.30	**-30%**	**44%**	<<--Original Units Errors

TEXT BOX ==> **(ZN_log) = (8.12E-01)x(FE_log) + (-4.40E+00)** **R^2 = 0.72; Std. Error of Y-estimate = 2.18E-01** **+/-3 x IQR of r** -0.660999 0.660999

TEXT BOX ==> **95% Confidence Limits on a Y-value predicted from one X-valu** **\/ - wt.descrip.** **TEXT BOX==>** **Residuals Plot: (Observed - Predicted) Versus Y-Pred.** **Y-Pred.**

	Indexed value lookups:	**X data column ref.**	**Y data column ref.**		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	**DA!AD**	**DA!AC**	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**FE_log**	**ZN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
BASS	BASS-BWBK-SS-BA101-0001	9.119320974	3.072693315	1	4.93096E-03	2.14512E-01	4.31382E-01	7.02208E-02	7.02208E-02	3.00247E+00	
BASS	BASS-BWBK-SS-BA102-0001	8.909235279	2.895911938	1	4.10204E-03	4.09518E-01	7.51485E-01	6.40472E-02	6.40472E-02	2.83186E+00	
BASS	BASS-BWBK-SS-BA103-0001	8.959311617	2.928523524	1	3.13515E-03	3.68843E-01	6.67172E-01	5.59924E-02	5.59924E-02	2.87253E+00	
BASS	BASS-BWBK-SS-BA104-0001	9.082507	3.020424886	1	2.28948E-03	2.65661E-01	4.81095E-01	4.78485E-02	4.78485E-02	2.97258E+00	
BASS	BASS-BWBK-SS-BA105-0001	9.04192172	3.04927304	1	1.20243E-02	2.36755E-01	5.39043E-01	1.09655E-01	1.09655E-01	2.93962E+00	
BASS	BASS-BWBK-SS-BA106-0001	9.102198213	3.117949906	1	1.67398E-02	1.74639E-01	4.54167E-01	1.29383E-01	1.29383E-01	2.98857E+00	
BASS	BASS-BWBK-SS-BA107-0001	8.907883014	2.901421594	1	4.99213E-03	4.02497E-01	7.53831E-01	7.06550E-02	7.06550E-02	2.83077E+00	
BASS	BASS-BWBK-SS-BA108-0001	8.879054662	2.901421594	1	8.84843E-03	4.02497E-01	8.04722E-01	9.40661E-02	9.40661E-02	2.80736E+00	
BASS	BASS-BWBK-SS-BA109-0001	8.969541885	2.975529566	1	8.96631E-03	3.13957E-01	6.50564E-01	9.46906E-02	9.46906E-02	2.88084E+00	
BASS	BASS-BWBK-SS-BA110-0001	9.2023082	2.995732274	1	5.49571E-03	2.91725E-01	3.29257E-01	-7.41330E-02	-7.41330E-02	3.06987E+00	
BASS	BASS-BWBK-SS-BA111-0001	8.992184362	2.939161922	1	1.59483E-03	3.56034E-01	6.14551E-01	3.99353E-02	3.99353E-02	2.89923E+00	
BASS	BASS-BWBK-SS-BA112-0001	8.987196821	2.917770732	1	5.10510E-04	3.82020E-01	6.22396E-01	2.25945E-02	2.25945E-02	2.89518E+00	
BASS	BASS-BWBK-SS-BA113-0001	8.968905551	3.562465529	1	4.65320E-01	7.08492E-04	6.51591E-01	6.82143E-01	6.82143E-01	2.88032E+00	BASS-BWBK-SS-BA113-0001
MASB	MASB-BWBK-SB-MA01-0105	10.20359214	3.974058396	1	8.29263E-03	1.92028E-01	1.82735E-01	9.10639E-02	9.10639E-02	3.88299E+00	
MASB	MASB-BWBK-SB-MA02-0107	10.27505111	4.014579594	1	5.41023E-03	2.29184E-01	2.48935E-01	7.35542E-02	7.35542E-02	3.94103E+00	
MASB	MASB-BWBK-SB-MA03-0108	10.2853428	4.146304301	1	3.87780E-02	3.72657E-01	2.59311E-01	1.96921E-01	1.96921E-01	3.94938E+00	
MASB	MASB-BWBK-SB-MA04-0106	10.2327913	4.119037175	1	4.50842E-02	3.40110E-01	2.08551E-01	2.12330E-01	2.12330E-01	3.90671E+00	
MASB	MASB-BWBK-SB-MA05-0108	10.21097225	3.975936331	1	7.56005E-03	1.93678E-01	1.89099E-01	8.69486E-02	8.69486E-02	3.88899E+00	
MASB	MASB-BWBK-SB-MA06-0105	10.15812977	3.975936331	1	1.68639E-02	1.93678E-01	1.45933E-01	1.29861E-01	1.29861E-01	3.84608E+00	
MASB	MASB-BWBK-SB-MA07-0108	10.23995979	3.892840186	1	3.87616E-04	1.27443E-01	2.15150E-01	-1.96880E-02	-1.96880E-02	3.91253E+00	
MASB	MASB-BWBK-SB-MA08-0108	10.85321306	4.268297869	1	2.02336E-02	5.36483E-01	1.16014E+00	-1.42245E-01	-1.42245E-01	4.41054E+00	
MASB	MASB-BWBK-SB-MA09-0108	10.46310334	4.096009842	1	5.15205E-06	3.13781E-01	4.71950E-01	2.26981E-03	2.26981E-03	4.09374E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AD	DA!AC	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	FE_log	ZN_log	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MASB	MASB-BWBK-SB-MA10-0104	10.19988157	3.790984677	1	7.92038E-03	6.50947E-02	1.79576E-01	-8.89965E-02	-8.89965E-02	3.87998E+00	
MASB	MASB-BWBK-SB-MA11-0108	10.38899537	4.120661871	1	7.58709E-03	3.42007E-01	3.75619E-01	8.71039E-02	8.71039E-02	4.03356E+00	
MASB	MASB-BWBK-SB-MA12-0108	10.42228135	4.097672352	1	1.37517E-03	3.15647E-01	4.17528E-01	3.70833E-02	3.70833E-02	4.06059E+00	
MASB	MASB-BWBK-SB-MA13-0105	9.667765219	3.417726684	1	9.07817E-04	1.39526E-02	1.17402E-02	-3.01300E-02	-3.01300E-02	3.44786E+00	
MASB	MASB-BWBK-SB-MA14-0104	10.35296955	3.789855371	1	4.59873E-02	6.45197E-02	3.32758E-01	-2.14446E-01	-2.14446E-01	4.00430E+00	
MASB	MASB-BWBK-SB-MA15-0105	10.10233841	3.589059119	1	4.48205E-02	2.83142E-03	1.06420E-01	-2.11709E-01	-2.11709E-01	3.80077E+00	
MASB	MASB-BWBK-SB-MA16-0104	9.966462352	3.621670704	1	4.72710E-03	7.36553E-03	3.62312E-02	-6.87539E-02	-6.87539E-02	3.69042E+00	
MASB	MASB-BWBK-SB-MA17-0104	9.942708266	3.64805746	1	5.32537E-04	1.25910E-02	2.77525E-02	-2.30768E-02	-2.30768E-02	3.67113E+00	
MASB	MASB-BWBK-SB-MA18-0104	9.752664663	3.511545439	1	2.76353E-05	5.90615E-04	5.50030E-04	-5.25693E-03	-5.25693E-03	3.51680E+00	
MASB	MASB-BWBK-SB-MA19-0103	9.622450023	3.433987204	1	5.25802E-04	1.03756E-02	2.36137E-02	2.29304E-02	2.29304E-02	3.41106E+00	
MASB	MASB-BWBK-SB-MA20-0103	10.11050172	3.891820298	1	7.12729E-03	1.26716E-01	1.11813E-01	8.44233E-02	8.44233E-02	3.80740E+00	
MASS	MASS-BWBK-SS-MA01-0001	8.86644062	3.015534901	1	4.77087E-02	2.70726E-01	8.27512E-01	2.18423E-01	2.18423E-01	2.79711E+00	
MASS	MASS-BWBK-SS-MA02-0001	9.038365107	3.401197382	1	2.15731E-01	1.81308E-02	5.44278E-01	4.64468E-01	4.64468E-01	2.93673E+00	MASS-BWBK-SS-MA02-0001
MASS	MASS-BWBK-SS-MA03-0001	9.37585481	3.242592351	1	1.01074E-03	8.59989E-02	1.60210E-01	3.17922E-02	3.17922E-02	3.21080E+00	
MASS	MASS-BWBK-SS-MA04-0001	9.384293679	3.42751469	1	4.40418E-02	1.17361E-02	1.53526E-01	2.09861E-01	2.09861E-01	3.21765E+00	
MASS	MASS-BWBK-SS-MA05-0001	9.781319919	3.740047741	1	3.99899E-02	4.16975E-02	2.70663E-05	1.99975E-01	1.99975E-01	3.54007E+00	
MASS	MASS-BWBK-SS-MA06-0001	9.92329018	3.624340933	1	9.62496E-04	7.83100E-03	2.16598E-02	-3.10241E-02	-3.10241E-02	3.65537E+00	
MASS	MASS-BWBK-SS-MA07-0001	8.689464412	2.351375257	1	9.12140E-02	1.40298E+00	1.18081E+00	-3.02017E-01	-3.02017E-01	2.65339E+00	
MASS	MASS-BWBK-SS-MA08-0001	9.846917201	3.56671182	1	7.09251E-04	9.52575E-04	5.01261E-03	-2.66318E-02	-2.66318E-02	3.59334E+00	
MASS	MASS-BWBK-SS-MA09-0001	9.942708266	4.056988776	1	1.48884E-01	2.71588E-01	2.77525E-02	3.85855E-01	3.85855E-01	3.67113E+00	MASS-BWBK-SS-MA09-0001
MASS	MASS-BWBK-SS-MA10-0001	9.980448594	3.935739532	1	5.47358E-02	1.59913E-01	4.17512E-02	2.33957E-01	2.33957E-01	3.70178E+00	
MASS	MASS-BWBK-SS-MA11-0001	10.18866649	3.808882247	1	3.84292E-03	7.45477E-02	1.70197E-01	-6.19913E-02	-6.19913E-02	3.87087E+00	
MASS	MASS-BWBK-SS-MA12-0001	9.609116492	3.610917913	1	4.43899E-02	5.63549E-03	2.78893E-02	2.10689E-01	2.10689E-01	3.40023E+00	
MASS	MASS-BWBK-SS-MA13-0001	9.635608107	3.42751469	1	3.33202E-05	1.17361E-02	1.97429E-02	5.77237E-03	5.77237E-03	3.42174E+00	
MASS	MASS-BWBK-SS-MA14-0001	9.152711259	3.280911216	1	6.31632E-02	6.49928E-02	3.88635E-01	2.51323E-01	2.51323E-01	3.02959E+00	
MASS	MASS-BWBK-SS-MA15-0001	9.259130536	3.238678452	1	1.50476E-02	8.83097E-02	2.67275E-01	1.22668E-01	1.22668E-01	3.11601E+00	
MASS	MASS-BWBK-SS-MA16-0001	9.61580548	3.349904087	1	3.10882E-03	3.45751E-02	2.56999E-02	-5.57568E-02	-5.57568E-02	3.40566E+00	
MASS	MASS-BWBK-SS-MA17-0001	9.609116492	3.437207819	1	1.36744E-03	9.72989E-03	2.78893E-02	3.69790E-02	3.69790E-02	3.40023E+00	
MASS	MASS-BWBK-SS-MA18-0001	9.472704636	3.342861805	1	2.85276E-03	3.72437E-02	9.20593E-02	5.34112E-02	5.34112E-02	3.28945E+00	
MASS	MASS-BWBK-SS-MA19-0001	9.629050707	3.449987546	1	1.12697E-03	7.37202E-03	2.16286E-02	3.35704E-02	3.35704E-02	3.41642E+00	
MASS	MASS-BWBK-SS-MA20-0001	9.764225485	3.583518938	1	3.28652E-03	2.27252E-03	1.41417E-04	5.73282E-02	5.73282E-02	3.52619E+00	
MMSB	MMSB-BWBK-SB-MM101-0110	9.729134165	3.360375387	1	1.88563E-02	3.07906E-02	2.20742E-03	-1.37318E-01	-1.37318E-01	3.49769E+00	
MMSB	MMSB-BWBK-SB-MM102-0109	9.667765219	3.394508394	1	2.84604E-03	1.99769E-02	1.17402E-02	-5.33483E-02	-5.33483E-02	3.44786E+00	
MMSB	MMSB-BWBK-SB-MM103-0107	9.609116492	3.342861805	1	3.29098E-03	3.72437E-02	2.78893E-02	-5.73670E-02	-5.73670E-02	3.40023E+00	
MMSB	MMSB-BWBK-SB-MM104-0110	10.08580911	3.660994251	1	1.59644E-02	1.56616E-02	9.59090E-02	-1.26350E-01	-1.26350E-01	3.78734E+00	
MMSB	MMSB-BWBK-SB-MM105-0110	9.392661929	3.139832618	1	7.15993E-03	1.56828E-01	1.47038E-01	-8.46164E-02	-8.46164E-02	3.22445E+00	
MMSB	MMSB-BWBK-SB-MM106-0110	9.980448594	3.756538103	1	2.99816E-03	4.87041E-02	4.17512E-02	5.47555E-02	5.47555E-02	3.70178E+00	
MMSB	MMSB-BWBK-SB-MM107-0110	9.595602773	3.314186005	1	5.63528E-03	4.91340E-02	3.25855E-02	-7.50685E-02	-7.50685E-02	3.38925E+00	
MMSB	MMSB-BWBK-SB-MM108-0110	9.651815918	3.356897123	1	6.08515E-03	3.20234E-02	1.54509E-02	-7.80073E-02	-7.80073E-02	3.43490E+00	
MMSB	MMSB-BWBK-SB-MM109-0110	9.786953736	3.46260601	1	6.73090E-03	5.36439E-03	1.17426E-04	-8.20421E-02	-8.20421E-02	3.54465E+00	
MMSB	MMSB-BWBK-SB-MM110-0109	9.735068901	3.36729583	1	1.82837E-02	2.84098E-02	1.68498E-03	-1.35217E-01	-1.35217E-01	3.50251E+00	
MMSB	MMSB-BWBK-SB-MM111-0110	9.862665558	3.456316681	1	2.24448E-02	6.32523E-03	7.49059E-03	-1.49816E-01	-1.49816E-01	3.60613E+00	
MMSB	MMSB-BWBK-SB-MM112-0110	9.880730565	3.419364686	1	4.05774E-02	1.35684E-02	1.09439E-02	-2.01438E-01	-2.01438E-01	3.62080E+00	
MMSB	MMSB-BWBK-SB-MM113-0110	9.686574551	3.433987204	1	8.49389E-04	1.03756E-02	8.01792E-03	-2.91443E-02	-2.91443E-02	3.46313E+00	
MMSB	MMSB-BWBK-SB-MM114-0110	9.449357272	3.165475048	1	1.10283E-02	1.37176E-01	1.06772E-01	-1.05015E-01	-1.05015E-01	3.27049E+00	
MMSB	MMSB-BWBK-SB-MM115-0110	9.698920387	3.446807893	1	6.94295E-04	7.92814E-03	5.95938E-03	-2.63495E-02	-2.63495E-02	3.47316E+00	
MMSB	MMSB-BWBK-SB-MM116-0110	9.655026193	3.449987546	1	1.55652E-04	7.37202E-03	1.46631E-02	1.24761E-02	1.24761E-02	3.43751E+00	
MMSB	MMSB-BWBK-SB-MM117-0110	9.510444964	3.218875825	1	1.02461E-02	1.00471E-01	7.05818E-02	-1.01223E-01	-1.01223E-01	3.32010E+00	
MMSB	MMSB-BWBK-SB-MM118-0110	9.609116492	3.430756184	1	9.31919E-04	1.10443E-02	2.78893E-02	3.05273E-02	3.05273E-02	3.40023E+00	
MMSB	MMSB-BWBK-SB-MM119-0110	9.667765219	3.380994674	1	4.47053E-03	2.39796E-02	1.17402E-02	-6.68620E-02	-6.68620E-02	3.44786E+00	
MMSB	MMSB-BWBK-SB-MM120-0110	9.26860928	2.928523524	1	3.80968E-02	3.68843E-01	2.57564E-01	-1.95184E-01	-1.95184E-01	3.12371E+00	
MMSS	MMSS-BWBK-SS-MM101-0001	9.786953736	3.36729583	1	3.14538E-02	2.84098E-02	1.17426E-04	-1.77352E-01	-1.77352E-01	3.54465E+00	
MMSS	MMSS-BWBK-SS-MM102-0001	9.553930076	3.072693315	1	7.99302E-02	2.14512E-01	4.93672E-02	-2.82719E-01	-2.82719E-01	3.35541E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AD	DA!AC	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----	---- V ----
GROUP	SAMPLE	FE_log	ZN_log	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
MMSS	MMSS-BWBK-SS-MM103-0001	9.764225485	3.261935314	1	6.98309E-02	7.50282E-02	1.41417E-04	-2.64255E-01	-2.64255E-01	3.52619E+00	
MMSS	MMSS-BWBK-SS-MM104-0001	9.798127037	3.342861805	1	4.44619E-02	3.72437E-02	4.84425E-04	-2.10860E-01	-2.10860E-01	3.55372E+00	
MMSS	MMSS-BWBK-SS-MM105-0001	9.392661929	2.980618636	1	5.94533E-02	3.08280E-01	1.47038E-01	-2.43830E-01	-2.43830E-01	3.22445E+00	
MMSS	MMSS-BWBK-SS-MM106-0001	9.792555992	3.335769576	1	4.55515E-02	4.00314E-02	2.70228E-04	-2.13428E-01	-2.13428E-01	3.54920E+00	
MMSS	MMSS-BWBK-SS-MM107-0001	9.786953736	3.380994674	1	2.67824E-02	2.39796E-02	1.17426E-04	-1.63653E-01	-1.63653E-01	3.54465E+00	
MMSS	MMSS-BWBK-SS-MM108-0001	9.642122788	3.17805383	1	6.19905E-02	1.28017E-01	1.79546E-02	-2.48979E-01	-2.48979E-01	3.42703E+00	
MMSS	MMSS-BWBK-SS-MM109-0001	9.648595303	3.100092289	1	1.10355E-01	1.89883E-01	1.62619E-02	-3.32197E-01	-3.32197E-01	3.43229E+00	
MMSS	MMSS-BWBK-SS-MM110-0001	9.198267791	2.714694744	1	1.23826E-01	6.74293E-01	3.33910E-01	-3.51889E-01	-3.51889E-01	3.06658E+00	
MMSS	MMSS-BWBK-SS-MM111-0001	9.249561085	2.791165108	1	1.00536E-01	5.54553E-01	2.77262E-01	-3.17074E-01	-3.17074E-01	3.10824E+00	
MMSS	MMSS-BWBK-SS-MM112-0001	9.118225083	2.815408719	1	3.46607E-02	5.19033E-01	4.32822E-01	-1.86174E-01	-1.86174E-01	3.00158E+00	
MMSS	MMSS-BWBK-SS-MM113-0001	9.553930076	3.139832618	1	4.64748E-02	1.56828E-01	4.93672E-02	-2.15580E-01	-2.15580E-01	3.35541E+00	
MMSS	MMSS-BWBK-SS-MM114-0001	9.016755623	2.747270914	1	2.95529E-02	6.21854E-01	5.76630E-01	-1.71910E-01	-1.71910E-01	2.91918E+00	
MMSS	MMSS-BWBK-SS-MM115-0001	9.305650552	2.912350665	1	5.82921E-02	3.88749E-01	2.21339E-01	-2.41438E-01	-2.41438E-01	3.15379E+00	
MMSS	MMSS-BWBK-SS-MM116-0001	9.230142999	2.803360381	1	8.35841E-02	5.36538E-01	2.98088E-01	-2.89109E-01	-2.89109E-01	3.09247E+00	
MMSS	MMSS-BWBK-SS-MM117-0001	9.61580548	3.169685581	1	5.56843E-02	1.34075E-01	2.56999E-02	-2.35975E-01	-2.35975E-01	3.40566E+00	
MMSS	MMSS-BWBK-SS-MM118-0001	9.480367509	3.04927304	1	6.07132E-02	2.36755E-01	8.74680E-02	-2.46400E-01	-2.46400E-01	3.29567E+00	
MMSS	MMSS-BWBK-SS-MM119-0001	9.341368634	2.965273066	1	4.73155E-02	3.25556E-01	1.89006E-01	-2.17521E-01	-2.17521E-01	3.18279E+00	
MMSS	MMSS-BWBK-SS-MM120-0001	9.775654181	3.210843653	1	1.05383E-01	1.05628E-01	2.14559E-07	-3.24628E-01	-3.24628E-01	3.53547E+00	
NESB	NESB-BWBK-SB-NE01-0108	10.07323033	3.735285827	1	1.75089E-03	3.97754E-02	8.82761E-02	-4.18436E-02	-4.18436E-02	3.77713E+00	
NESB	NESB-BWBK-SB-NE02-0109	10.00784757	3.706228092	1	3.17013E-04	2.90294E-02	5.36989E-02	-1.78049E-02	-1.78049E-02	3.72403E+00	
NESB	NESB-BWBK-SB-NE03-0105	10.01234196	3.546739687	1	3.27404E-02	1.18629E-04	5.58020E-02	-1.80943E-01	-1.80943E-01	3.72768E+00	
NESB	NESB-BWBK-SB-NE04-0110	9.903487553	3.580737295	1	3.42767E-03	2.01505E-03	1.62232E-02	-5.85463E-02	-5.85463E-02	3.63928E+00	
NESB	NESB-BWBK-SB-NE05-0108	10.03889219	3.701301974	1	2.29843E-03	2.73750E-02	6.90506E-02	-4.79419E-02	-4.79419E-02	3.74924E+00	
NESB	NESB-BWBK-SB-NE06-0109	9.957028319	3.605497845	1	5.96996E-03	4.85110E-03	3.27288E-02	-7.72655E-02	-7.72655E-02	3.68276E+00	
NESB	NESB-BWBK-SB-NE07-0107	10.0475879	3.728100167	1	7.95543E-04	3.69609E-02	7.36962E-02	-2.82054E-02	-2.82054E-02	3.75631E+00	
NESB	NESB-BWBK-SB-NE08-0104	9.809176873	3.493472658	1	4.79176E-03	1.79567E-03	1.09293E-03	-6.92225E-02	-6.92225E-02	3.56270E+00	
NESB	NESB-BWBK-SB-NE09-0110	9.928180165	3.594568775	1	4.19481E-03	3.44813E-03	2.31231E-02	-6.47674E-02	-6.47674E-02	3.65934E+00	
NESB	NESB-BWBK-SB-NE10-0107	9.809176873	3.5085559	1	2.93106E-03	7.44859E-04	1.09293E-03	-5.41393E-02	-5.41393E-02	3.56270E+00	
NESB	NESB-BWBK-SB-NE101-0110	9.775654181	3.401197382	1	1.80296E-02	1.81308E-02	2.14559E-07	-1.34274E-01	-1.34274E-01	3.53547E+00	
NESB	NESB-BWBK-SB-NE102-0110	9.574983486	3.314186005	1	3.40168E-03	4.91340E-02	4.04548E-02	-5.83239E-02	-5.83239E-02	3.37251E+00	
NESB	NESB-BWBK-SB-NE103-0110	9.480367509	3.18428438	1	1.24075E-02	1.23597E-01	8.74680E-02	-1.11389E-01	-1.11389E-01	3.29567E+00	
NESB	NESB-BWBK-SB-NE104-0110	9.37585481	3.095577609	1	1.32762E-02	1.93838E-01	1.60210E-01	-1.15223E-01	-1.15223E-01	3.21080E+00	
NESB	NESB-BWBK-SB-NE105-0110	9.75846178	3.411147713	1	1.21799E-02	1.55502E-02	3.11720E-04	-1.10362E-01	-1.10362E-01	3.52151E+00	
NESB	NESB-BWBK-SB-NE106-0110	9.629050707	3.339321978	1	5.94367E-03	3.86225E-02	2.16286E-02	-7.70952E-02	-7.70952E-02	3.41642E+00	
NESB	NESB-BWBK-SB-NE107-0510	9.517825072	3.206803244	1	1.42299E-02	1.08270E-01	6.67149E-02	-1.19289E-01	-1.19289E-01	3.32609E+00	
NESB	NESB-BWBK-SB-NE108-0110	9.629050707	3.27336401	1	2.04642E-02	6.88979E-02	2.16286E-02	-1.43053E-01	-1.43053E-01	3.41642E+00	
NESB	NESB-BWBK-SB-NE109-0110	9.609116492	3.269568939	1	1.70720E-02	7.09045E-02	2.78893E-02	-1.30660E-01	-1.30660E-01	3.40023E+00	
NESB	NESB-BWBK-SB-NE110-0110	9.60238246	3.271468275	1	1.52009E-02	6.98966E-02	3.01838E-02	-1.23292E-01	-1.23292E-01	3.39476E+00	
NESS	NESS-BKG-SS03-NEB-0016	9.781319919	3.696351469	1	2.44230E-02	2.57614E-02	2.70663E-05	1.56279E-01	1.56279E-01	3.54007E+00	
NESS	NESS-BKG-SS09-NEB-0018	9.525151112	3.214867803	1	1.37297E-02	1.03028E-01	6.29841E-02	-1.17174E-01	-1.17174E-01	3.33204E+00	
NESS	NESS-BWBK-SS-NE01-0001	10.04324949	4.021773869	1	7.23564E-02	2.36124E-01	7.13596E-02	2.68991E-01	2.68991E-01	3.75278E+00	
NESS	NESS-BWBK-SS-NE02-0001	10.02570519	4.210645018	1	2.22888E-01	4.55351E-01	6.22941E-02	4.72110E-01	4.72110E-01	3.73853E+00	NESS-BWBK-SS-NE02-0001
NESS	NESS-BWBK-SS-NE03-0001	9.888373915	3.563882964	1	3.98503E-03	7.85959E-04	1.26015E-02	-6.31271E-02	-6.31271E-02	3.62701E+00	
NESS	NESS-BWBK-SS-NE04-0001	9.942708266	3.555348061	1	1.34064E-02	3.80252E-04	2.77525E-02	-1.15786E-01	-1.15786E-01	3.67113E+00	
NESS	NESS-BWBK-SS-NE05-0001	9.83091686	3.678829118	1	9.69815E-03	2.04436E-02	3.00298E-03	9.84792E-02	9.84792E-02	3.58035E+00	
NESS	NESS-BWBK-SS-NE06-0001	9.857443614	3.496507561	1	1.11059E-02	1.54767E-03	6.61396E-03	-1.05384E-01	-1.05384E-01	3.60189E+00	
NESS	NESS-BWBK-SS-NE07-0001	9.862665558	3.683866912	1	6.04262E-03	2.19096E-02	7.49059E-03	7.77343E-02	7.77343E-02	3.60613E+00	
NESS	NESS-BWBK-SS-NE08-0001	9.852194258	3.502549876	1	9.04004E-03	1.10877E-03	5.78769E-03	-9.50791E-02	-9.50791E-02	3.59763E+00	
NESS	NESS-BWBK-SS-NE09-0001	9.781319919	3.5085559	1	9.93322E-04	7.44859E-04	2.70663E-05	-3.15170E-02	-3.15170E-02	3.54007E+00	
NESS	NESS-BWBK-SS-NE10-0001	9.764225485	3.616308761	1	8.12125E-03	6.47393E-03	1.41417E-04	9.01180E-02	9.01180E-02	3.52619E+00	
NESS	NESS-BWBK-SS-NE101-0001	9.487972109	3.044522438	1	6.62170E-02	2.41401E-01	8.30277E-02	-2.57327E-01	-2.57327E-01	3.30185E+00	
NESS	NESS-BWBK-SS-NE102-0001	9.27799902	2.960105096	1	2.93189E-02	3.31480E-01	2.48122E-01	-1.71228E-01	-1.71228E-01	3.13133E+00	
NESS	NESS-BWBK-SS-NE103-0001	9.197255132	2.839078464	1	5.13853E-02	4.85488E-01	3.35082E-01	-2.26683E-01	-2.26683E-01	3.06576E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AD	DA!AC	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	SAMPLE	FE_log	ZN_log	Regression Wt.					Wt'd.Residuals		Candidate High Outliers
NESS	NESS-BWBK-SS-NE104-0001	9.417354541	3.000719815	1	5.94295E-02	2.86362E-01	1.28711E-01	-2.43782E-01	-2.43782E-01	3.24450E+00	
NESS	NESS-BWBK-SS-NE105-0001	9.126958763	2.839078464	1	2.87630E-02	4.85488E-01	4.21407E-01	-1.69597E-01	-1.69597E-01	3.00868E+00	
NESS	NESS-BWBK-SS-NE106-0001	9.220290703	2.879198457	1	4.21359E-02	4.31189E-01	3.08943E-01	-2.05270E-01	-2.05270E-01	3.08447E+00	
NESS	NESS-BWBK-SS-NE107-0001	9.139917908	2.884800713	1	1.80629E-02	4.23863E-01	4.04750E-01	-1.34398E-01	-1.34398E-01	3.01920E+00	
NESS	NESS-BWBK-SS-NE108-0001	9.220290703	2.975529566	1	1.18677E-02	3.13957E-01	3.08943E-01	-1.08939E-01	-1.08939E-01	3.08447E+00	
NESS	NESS-BWBK-SS-NE109-0001	9.107199613	2.809402695	1	3.35718E-02	5.27723E-01	4.47451E-01	-1.83226E-01	-1.83226E-01	2.99263E+00	
NESS	NESS-BWBK-SS-NE110-0001	9.167432871	2.747270914	1	8.65964E-02	6.21854E-01	3.70497E-01	-2.94273E-01	-2.94273E-01	3.04154E+00	
PMSB	PMSB-BWBK-SB-PM01-0105	9.952277717	3.676300672	1	6.78480E-06	1.97269E-02	3.10325E-02	-2.60477E-03	-2.60477E-03	3.67891E+00	
PMSB	PMSB-BWBK-SB-PM02-0104	10.56359488	3.822098298	1	1.24785E-01	8.19392E-02	6.20121E-01	-3.53250E-01	-3.53250E-01	4.17535E+00	
PMSB	PMSB-BWBK-SB-PM03-0106	10.46595641	3.964615456	1	1.72769E-02	1.83842E-01	4.75878E-01	-1.31442E-01	-1.31442E-01	4.09606E+00	
PMSB	PMSB-BWBK-SB-PM04-0105	10.22918769	3.839452313	1	4.13809E-03	9.21756E-02	2.05273E-01	-6.43280E-02	-6.43280E-02	3.90378E+00	
PMSB	PMSB-BWBK-SB-PM05-0105	10.22918769	3.80666249	1	9.43187E-03	7.33405E-02	2.05273E-01	-9.71178E-02	-9.71178E-02	3.90378E+00	
PMSB	PMSB-BWBK-SB-PM06-0105	10.31890299	3.770459441	1	4.25091E-02	5.50425E-02	2.94616E-01	-2.06177E-01	-2.06177E-01	3.97664E+00	
PMSB	PMSB-BWBK-SB-PM07-0105	10.18866649	3.502549876	1	1.35662E-01	1.10877E-03	1.70197E-01	-3.68324E-01	-3.68324E-01	3.87087E+00	
PMSB	PMSB-BWBK-SB-PM08-0106	10.11859893	3.691376334	1	1.50299E-02	2.41891E-02	1.17294E-01	-1.22596E-01	-1.22596E-01	3.81397E+00	
PMSB	PMSB-BWBK-SB-PM09-0106	9.918376165	3.517497837	1	1.79229E-02	3.36729E-04	2.02376E-02	-1.33877E-01	-1.33877E-01	3.65137E+00	
PMSB	PMSB-BWBK-SB-PM10-0105	10.15424627	3.653252276	1	3.59744E-02	1.37838E-02	1.42981E-01	-1.89669E-01	-1.89669E-01	3.84292E+00	
PMSB	PMSB-BWBK-SB-PM11-0104	10.261162	3.693866996	1	5.56390E-02	2.49700E-02	2.35268E-01	-2.35879E-01	-2.35879E-01	3.92975E+00	
PMSB	PMSB-BWBK-SB-PM12-0105	9.609116492	3.404525172	1	1.84585E-05	1.72457E-02	2.78893E-02	4.29633E-03	4.29633E-03	3.40023E+00	
PMSB	PMSB-BWBK-SB-PM13-0106	10.09823163	3.443618098	1	1.25185E-01	8.50636E-03	1.03758E-01	-3.53815E-01	-3.53815E-01	3.79743E+00	
PMSB	PMSB-BWBK-SB-PM14-0106	9.705036614	3.391147046	1	7.56504E-03	2.09384E-02	5.05248E-03	-8.69772E-02	-8.69772E-02	3.47812E+00	
PMSB	PMSB-BWBK-SB-PM15-0105	10.04324949	3.640214282	1	1.26716E-02	1.08923E-02	7.13596E-02	-1.12568E-01	-1.12568E-01	3.75278E+00	
PMSB	PMSB-BWBK-SB-PM16-0106	9.836278803	3.505557397	1	6.26423E-03	9.17521E-04	3.61940E-03	-7.91469E-02	-7.91469E-02	3.58470E+00	
PMSB	PMSB-BWBK-SB-PM17-0105	10.13459927	3.722072421	1	1.10027E-02	3.46795E-02	1.28509E-01	-1.04894E-01	-1.04894E-01	3.82697E+00	
PMSB	PMSB-BWBK-SB-PM18-0105	10.43705266	3.931825633	1	1.98131E-02	1.56798E-01	4.36835E-01	-1.40759E-01	-1.40759E-01	4.07258E+00	
PMSB	PMSB-BWBK-SB-PM19-0105	10.16199825	3.788724789	1	3.65927E-03	6.39467E-02	1.48904E-01	-6.04919E-02	-6.04919E-02	3.84922E+00	
PMSB	PMSB-BWBK-SB-PM20-0106	10.02349034	3.698829785	1	1.43690E-03	2.65631E-02	6.11934E-02	-3.79065E-02	-3.79065E-02	3.73674E+00	
PMSB	PMSB-BWBK-SB-SO01-0107-PM	10.2853428	4.034240638	1	7.20080E-03	2.48395E-01	2.59311E-01	8.48575E-02	8.48575E-02	3.94938E+00	
PMSB	PMSB-BWBK-SB-SO02-0109-PM	10.46024211	4.019980147	1	5.10315E-03	2.34384E-01	4.68027E-01	-7.14363E-02	-7.14363E-02	4.09142E+00	
PMSB	PMSB-BWBK-SB-SO13-0104-PM	10.43117029	3.947390149	1	1.45004E-02	1.69367E-01	4.29094E-01	-1.20417E-01	-1.20417E-01	4.06781E+00	
PMSB	PMSB-BWBK-SB-SO14-0105-PM	10.49404814	4.117409835	1	2.13175E-06	3.38214E-01	5.15425E-01	-1.46005E-03	-1.46005E-03	4.11887E+00	
PMSS	PMSS-DABK-S-SO21-0001	9.92329018	4.17438727	1	2.69384E-01	4.07732E-01	2.16598E-02	5.19022E-01	5.19022E-01	3.65537E+00	PMSS-DABK-S-SO21-0001
PMSS	PMSS-DABK-S-SO22-0001	10.0647557	4.540098189	1	5.92670E-01	1.00852E+00	8.33121E-02	7.69851E-01	7.69851E-01	3.77025E+00	PMSS-DABK-S-SO22-0001
PMSS	PMSS-DABK-S-SO23-0001	9.809176873	3.779633817	1	4.70624E-02	5.94315E-02	1.09293E-03	2.16939E-01	2.16939E-01	3.56270E+00	
PMSS	PMSS-DABK-S-SO24-0001	10.15424627	4.021773869	1	3.19882E-02	2.36124E-01	1.42981E-01	1.78852E-01	1.78852E-01	3.84292E+00	
PMSS	PMSS-DABK-S-SO25-0001	10.67590791	3.858622229	1	1.66410E-01	1.04183E-01	8.09623E-01	-4.07934E-01	-4.07934E-01	4.26656E+00	
PMSS	PMSS-DABK-S-SO26-0001	10.11050172	4.435567402	1	3.94598E-01	8.09495E-01	1.11813E-01	6.28170E-01	6.28170E-01	3.80740E+00	PMSS-DABK-S-SO26-0001
PMSS	PMSS-DABK-S-SO27-0001	9.680344001	3.841600541	1	1.47094E-01	9.34846E-02	9.17254E-03	3.83529E-01	3.83529E-01	3.45807E+00	PMSS-DABK-S-SO27-0001
PMSS	PMSS-DABK-S-SO28-0001	9.814656339	4.25561271	1	4.73988E-01	5.18061E-01	1.48525E-03	6.88468E-01	6.88468E-01	3.56714E+00	PMSS-DABK-S-SO28-0001
PMSS	PMSS-DABK-S-SO29-0001	9.989665249	4.060443011	1	1.23324E-01	2.75200E-01	4.56027E-02	3.51176E-01	3.51176E-01	3.70927E+00	
PMSS	PMSS-DABK-S-SO30-0001	9.798127037	4.147885329	1	3.53030E-01	3.74590E-01	4.84425E-04	5.94164E-01	5.94164E-01	3.55372E+00	PMSS-DABK-S-SO30-0001
PMSS	PMSS-DABK-S-SO31-0001	9.71111566	3.569532696	1	7.47736E-03	1.13466E-03	4.22522E-03	8.64717E-02	8.64717E-02	3.48306E+00	
PMSS	PMSS-DABK-S-SO32-0001	10.05190756	4.271095074	1	2.61409E-01	5.40588E-01	7.60602E-02	5.11282E-01	5.11282E-01	3.75981E+00	PMSS-DABK-S-SO32-0001
PMSS	PMSS-DABK-S-SO33-0001	9.449357272	3.919991175	1	4.21851E-01	1.47566E-01	1.06772E-01	6.49501E-01	6.49501E-01	3.27049E+00	PMSS-DABK-S-SO33-0001
PMSS	PMSS-DABK-S-SO34-0001	9.642122788	3.414442608	1	1.58513E-04	1.47393E-02	1.79546E-02	-1.25902E-02	-1.25902E-02	3.42703E+00	
PMSS	PMSS-DABK-S-SO35-0001	9.789758787	3.64805746	1	1.02276E-02	1.25910E-02	1.86088E-04	1.01131E-01	1.01131E-01	3.54693E+00	
PMSS	PMSS-DABK-S-SO36-0001	9.560997244	3.303216973	1	3.35645E-03	5.41172E-02	4.62767E-02	-5.79349E-02	-5.79349E-02	3.36115E+00	
PMSS	PMSS-DABK-S-SO37-0001	9.908475094	3.589059119	1	2.94575E-03	2.83142E-03	1.75186E-02	-5.42748E-02	-5.42748E-02	3.64333E+00	
PMSS	PMSS-DABK-S-SO38-0001	9.525151112	3.254242969	1	6.05264E-03	7.93014E-02	6.29841E-02	-7.77987E-02	-7.77987E-02	3.33204E+00	
PMSS	PMSS-DABK-S-SO39-0001	9.841612149	3.356897123	1	5.38882E-02	3.20234E-02	4.28956E-03	-2.32138E-01	-2.32138E-01	3.58904E+00	
PMSS	PMSS-DABK-S-SO40-0001	9.581903928	3.449987546	1	5.16352E-03	7.37202E-03	3.77189E-02	7.18577E-02	7.18577E-02	3.37813E+00	

APPENDIX F, TABLE F8-13
SUPPORT DATA FOR ZINC REGRESSIONS
BASEWIDE BACKGROUND STUDY
NAVSTA NEWPORT, NEWPORT, RHODE ISLAND

	Indexed value lookups:	X data column ref.	Y data column ref.		(Pred. - Obs.)^2	(Y - Ymean)^2	(X - Xmean)^2	Obs-Pred	served - Predic	Y-Pred.	Spl. IDs>upper 95% C.L.
	Specify X-col., Y-col. as: "DA!" + column	DA!AD	DA!AC	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----	---- \/ ----
GROUP	**SAMPLE**	**FE_log**	**ZN_log**	**Regression Wt.**					**Wt'd.Residuals**		**Candidate High Outliers**
SESB	SESB-BWBK-SB-SO03-0108	10.61888534	4.310799125	1	8.19942E-03	6.00549E-01	7.10258E-01	9.05506E-02	9.05506E-02	4.22025E+00	
SESB	SESB-BWBK-SB-SO04-0108	10.42228135	4.119037175	1	3.41618E-03	3.40110E-01	4.17528E-01	5.84481E-02	5.84481E-02	4.06059E+00	
SESB	SESB-BWBK-SB-SO05-0106	10.3609124	4.070734697	1	3.59791E-03	2.86104E-01	3.41985E-01	5.99826E-02	5.99826E-02	4.01075E+00	
SESB	SESB-BWBK-SB-SO06-0108	10.66078255	4.241326753	1	1.67596E-04	4.97700E-01	7.82632E-01	-1.29459E-02	-1.29459E-02	4.25427E+00	
SESB	SESB-BWBK-SB-SO07-0106	10.27849345	4.109233175	1	2.73612E-02	3.28771E-01	2.52382E-01	1.65412E-01	1.65412E-01	3.94382E+00	
SESB	SESB-BWBK-SB-SO08-0107	10.5941316	4.278054044	1	6.06961E-03	5.50870E-01	6.69147E-01	7.79077E-02	7.79077E-02	4.20015E+00	
SESB	SESB-BWBK-SB-SO09-0106	10.27505111	3.992680908	1	2.66830E-03	2.08696E-01	2.48935E-01	5.16556E-02	5.16556E-02	3.94103E+00	
SESB	SESB-BWBK-SB-SO11-0106	10.45737267	4.099332104	1	1.04978E-04	3.17514E-01	4.64109E-01	1.02459E-02	1.02459E-02	4.08909E+00	
SESB	SESB-BWBK-SB-SO12-0106	10.46024211	4.153399325	1	3.84188E-03	3.81370E-01	4.68027E-01	6.19829E-02	6.19829E-02	4.09142E+00	
SESB	SESB-BWBK-SB-SO15-0103	10.0301202	3.650658241	1	8.36530E-03	1.31814E-02	6.45174E-02	-9.14620E-02	-9.14620E-02	3.74212E+00	
SESB	SESB-BWBK-SB-SO16-0105	10.12262308	3.815512105	1	2.98772E-06	7.82120E-02	1.20066E-01	-1.72850E-03	-1.72850E-03	3.81724E+00	
SESB	SESB-BWBK-SB-SO17-0106	9.803667217	3.673765816	1	1.33506E-02	1.90213E-02	7.58993E-04	1.15545E-01	1.15545E-01	3.55822E+00	
SESB	SESB-BWBK-SB-SO18-0105	9.61580548	3.529297384	1	1.52860E-02	4.29107E-05	2.56999E-02	1.23637E-01	1.23637E-01	3.40566E+00	
SESB	SESB-BWBK-SB-SO19-0104	9.705036614	3.742420221	1	6.98523E-02	4.26721E-02	5.05248E-03	2.64296E-01	2.64296E-01	3.47812E+00	
SESB	SESB-BWBK-SB-SO20-0104	10.29890232	4.018183201	1	3.33952E-03	2.32647E-01	2.73304E-01	5.77886E-02	5.77886E-02	3.96039E+00	
SESS	SESS-DABK-S-SO01-0001	9.83091686	3.802208139	1	4.92211E-02	7.09477E-02	3.00298E-03	2.21858E-01	2.21858E-01	3.58035E+00	
SESS	SESS-DABK-S-SO02-0001	10.08996712	4.403054002	1	3.74952E-01	7.52046E-01	9.85017E-02	6.12333E-01	6.12333E-01	3.79072E+00	SESS-DABK-S-SO02-0001
SESS	SESS-DABK-S-SO03-0001	9.857443614	3.693866996	1	8.45941E-03	2.49700E-02	6.61396E-03	9.19751E-02	9.19751E-02	3.60189E+00	
SESS	SESS-DABK-S-SO04-0001	9.820105944	4.005513349	1	1.88306E-01	2.20586E-01	1.93499E-03	4.33943E-01	4.33943E-01	3.57157E+00	SESS-DABK-S-SO04-0001
SESS	SESS-DABK-S-SO05-0001	9.867860375	3.765840495	1	2.41769E-02	5.28965E-02	8.41678E-03	1.55489E-01	1.55489E-01	3.61035E+00	
SESS	SESS-DABK-S-SO06-0001	10.89488576	4.109233175	1	1.12327E-01	3.28771E-01	1.25164E+00	-3.35152E-01	-3.35152E-01	4.44438E+00	
SESS	SESS-DABK-S-SO07-0001	9.680344001	3.947390149	1	2.39433E-01	1.69367E-01	9.17254E-03	4.89318E-01	4.89318E-01	3.45807E+00	SESS-DABK-S-SO07-0001
SESS	SESS-DABK-S-SO08-0001	9.928180165	3.822098298	1	2.64915E-02	8.19392E-02	2.31231E-02	1.62762E-01	1.62762E-01	3.65934E+00	
SESS	SESS-DABK-S-SO09-0001	10.04324949	3.650658241	1	1.04293E-02	1.31814E-02	7.13596E-02	-1.02124E-01	-1.02124E-01	3.75278E+00	
SESS	SESS-DABK-S-SO10-0001	10.07744086	3.555348061	1	5.07153E-02	3.80252E-04	9.07958E-02	-2.25201E-01	-2.25201E-01	3.78055E+00	
SESS	SESS-DABK-S-SO11-0001	9.087042156	3.306886702	1	1.09314E-01	5.24233E-02	4.74825E-01	3.30627E-01	3.30627E-01	2.97626E+00	
SESS	SESS-DABK-S-SO12-0001	9.581903928	3.645449896	1	7.14600E-02	1.20126E-02	3.77189E-02	2.67320E-01	2.67320E-01	3.37813E+00	
SESS	SESS-DABK-S-SO13-0001	9.836278803	3.927896355	1	1.17781E-01	1.53702E-01	3.61940E-03	3.43192E-01	3.43192E-01	3.58470E+00	
SESS	SESS-DABK-S-SO14-0001	9.798127037	3.456316681	1	9.48775E-03	6.32523E-03	4.84425E-04	-9.74051E-02	-9.74051E-02	3.55372E+00	
SESS	SESS-DABK-S-SO15-0001	9.76995616	3.56671182	1	1.28646E-03	9.52575E-04	3.79607E-05	3.58673E-02	3.58673E-02	3.53084E+00	
SESS	SESS-DABK-S-SO16-0001	9.140990294	3.063390922	1	1.87671E-03	2.23216E-01	4.03386E-01	4.33210E-02	4.33210E-02	3.02007E+00	
SESS	SESS-DABK-S-SO17-0001	9.60238246	3.095577609	1	8.95102E-02	1.93838E-01	3.01838E-02	-2.99183E-01	-2.99183E-01	3.39476E+00	
SESS	SESS-DABK-S-SO18-0001	9.480367509	3.540959324	1	6.01651E-02	2.61255E-05	8.74680E-02	2.45286E-01	2.45286E-01	3.29567E+00	
SESS	SESS-DABK-S-SO19-0001	9.75846178	3.998200702	1	2.27234E-01	2.13770E-01	3.11720E-04	4.76691E-01	4.76691E-01	3.52151E+00	SESS-DABK-S-SO19-0001
SESS	SESS-DABK-S-SO20-0001	10.0647557	3.964615456	1	3.77790E-02	1.83842E-01	8.33121E-02	1.94368E-01	1.94368E-01	3.77025E+00	