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SITE INVESTIGATION FOR BUILDING 1773 WITH TRANSMITTAL MCAS CHERRY POINT  
NC  
9/27/2000  
CATLIN ENGINEERS AND SCIENTISTS

**SITE INVESTIGATION FOR  
BUILDING 1773  
MARINE CORPS AIR STATION  
CHERRY POINT, NORTH CAROLINA**

**Contract No. N62470-95-D-6009  
Delivery Order No. 0099  
CATLIN Project No. 200-113-20**

**September 27, 2000**



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September 27, 2000

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1510 Gilbert Street  
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RE: Contract No. N62470-95-D-6009  
Delivery Order No. 0100  
CATLIN Project No. 200-113-20

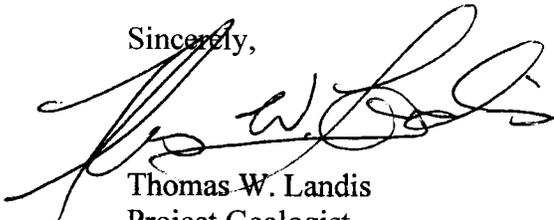
Dear Mr. Hilton:

Please find enclosed the FINAL report, "Site Investigation for Building 1773, MCAS, Cherry Point, North Carolina." One copy of the final report is included for your files.

The attached pages contain a written response to comments concerning the above referenced report.

If you have any questions or require any additional information, please do not hesitate to contact us at (910) 452-5861. CATLIN appreciates the opportunity to provide you with environmental services.

Sincerely,



Thomas W. Landis  
Project Geologist



Teri M. Piver  
Project Manager

TWL/TMP/ss

Enclosure

cc: John Myers, MCAS EAD (w/3 encl.)  
Christine Foskey, LANTNAVFACENGCOM, Code 02134 (letter only)

20113TWL02\_itr

**Response to Review Comments  
Concerning Draft Site Investigation for  
Former Building 1773  
Marine Corps Air Station  
Cherry Point, North Carolina**

- 1. Page 10, 5.4, 2<sup>nd</sup> sentence – Please change 15,000 ug/l to 15 ug/l.**

Acknowledge. Value of 15,000 ug/l changed to 15 ug/l.

- 2. Tables – Please shade hits above any standard.**

Concentrations above applicable standards have been shaded and note added to legend of table.

- 3. Table 4 – Please include the risk-based standards.**

The risk-based standards are included as part of Table 5, which compares MADEP VPH/EPH results to NCDENR MSCCs. Table 4 presents the laboratory data which reports six analytical fractions. Table 5 combines the six reported fractions to the required summation of fractions for MSCC comparison in accordance with NCDENR.

- 4. Figures 3 – 10 – Please number each compound on the Compounds Table on each figure. In addition, please provide the corresponding number for each compound at each sample location.**

A “compound #” column has been added to the compound table on each figure. A corresponding number block has been added to each compound at the respective sample location.

**SITE INVESTIGATION FOR  
BUILDING 1773  
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**September 27, 2000**

**Contract No. N62470-95-D-6009  
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CATLIN Engineers and Scientists Project No. 200-113-20**



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**SITE INVESTIGATION FOR  
BUILDING 1773  
MARINE CORPS AIR STATION  
CHERRY POINT, NORTH CAROLINA**

**Contract No. N62470-95-D-6009  
Delivery Order No. 0099**

**SEPTEMBER 27, 2000**

**1.0 INTRODUCTION**

**1.1 *Purpose of Investigation***  
*(Refer to Figure 1)*

The purpose of this additional site investigation was to investigate and confirm the presence of suspected soil and ground water contamination associated with a former waste oil Underground Storage Tank (UST). The location of the project site is shown on Figure 1. CATLIN Engineers and Scientists (CATLIN) was authorized to perform this Site Investigation by the Commander of the Atlantic Division (LANTDIV) Naval Facilities Engineering Command (NAVFACENGCOM) in accordance with the Order of Supplies Contract No. N62470-95-D-6009, Delivery Order No. 0099.

**1.2 *Scope of Work***  
*(Refer to Figure 2)*

The site investigation involved the advancement of four PowerProbe™ soil borings and the installation of four Type II temporary wells (GP-9 through GP-12) and one permanent Type II Monitoring Well (GW-2). Information from previous investigations was used to assist in the placement of the soil boring and well locations (Refer to Figure 2). Samples were collected from the soil borings (soil) and Type II wells (ground water) for off-site laboratory analysis.

**1.3 *Area of Investigation***

The site is located between Fifth and Sixth Avenues at the Marine Corps Air Station (MCAS) in Cherry Point, North Carolina. The subject site is utilized as a vehicle and equipment maintenance facility.

**2.0 SITE HISTORY AND SOURCE CHARACTERIZATION**

**2.1 *Contaminant Source Inventory***

Site reconnaissance and research of previous investigations revealed potential sources for subsurface impact in the area. The primary source of suspected contamination appears to originate from the 250 gallon steel UST formerly used

to store waste oil resulting from maintenance operations. Additional sources may exist in the area that are not identified here.

## 2.2 *Previous Investigations*

Following in place closure of the tank, three subsequent limited soil and ground water sampling events have taken place. The first two sampling events were performed by R. E. Wright Environmental, Inc. (REWEI) and included a summary of the initial investigation following tank closure is presented in the report entitled *Geoprobe Soil and Water Sampling* dated August 1994. Follow-up sampling resulted in the report *Geoprobe Soil Sampling* dated January 1995. In addition the report entitled *Groundwater Monitoring Plan* dated May 1, 1998 was prepared and submitted by Law Engineering and Environmental Services Inc. (LAW). The findings of these previous reports are paraphrased as follows:

### 2.2.1 *Geoprobe Soil and Water Sampling* dated August 1994

The waste oil tank was closed in place by GES Environmental Inc., on January 4, 1994. Based on laboratory analysis of a soil sample collected from below the tank during closure, it was determined that a release had occurred at the site. In response, REWEI advanced three soil probes SB-1, SB-2 and SB-3 to a maximum depth of 12 feet below land surface (BLS). Sample intervals which exhibited the highest photoionization detector (PID) levels were submitted to the laboratory for chemical analysis. All soil samples submitted to the laboratory were analyzed for oil and grease by Environmental Protection Agency (EPA) Method 9071 and for Halogenated Solvents by EPA Method 8021.

In addition, ground water samples were collected from the three soil sample point locations. No free phase product was encountered during these sampling activities. The ground water samples submitted to the laboratory were analyzed for Volatile Organic Compounds (VOCs) by EPA Method 502.2, Semi-VOCs (SVOCs) by EPA Method 625 + 10 Tentatively Identified Compounds (TICs) and 8 Resource and Recovery Act (RCRA) metals by AA or ICP, with filtration and digestion.

Results of the soil sampling analysis were reported as below quantitation limits (BQL) for all Halogenated Solvent Parameters. Oil and grease concentrations ranged from 16,900 parts per million (ppm) in SB-3 to 73,500 ppm in SB-2. All soil samples reportedly contained concentrations which exceeded the permissible levels established by the Department of Environmental Management (DEM) *Guidelines for the Investigation and Remediation of Soil and Groundwater*. The ground water sample results were reported as below detection limits (BDL) for VOCs and SVOCs but contained detectable quantities of five metals.

### 2.2.2 Geoprobe Soil Sampling – Dated January 1995

In order to attempt further delineation of the impacted area, an eight boring Geoprobe site check was performed by REWEI on November 7<sup>th</sup> and 8<sup>th</sup>, 1994. At each boring location (G-1 through G-8), the soils sample interval which exhibited the highest PID reading was retained for laboratory analysis. All soil samples submitted to the laboratory were analyzed for oil and grease by EPA Method 9071 and for Halogenated Solvents by EPA Method 8021. In addition soil from G-1 was also analyzed for Toxicity Characteristic Leaching Procedure (TCLP) Inorganics, TCLP SVOCs and TCLP VOCs. No ground water samples were collected as part of this additional investigation.

Laboratory results indicated Halogenated Solvents were reported as BDL for all parameters analyzed. Oil and grease concentrations ranged from BDL at G-1 to 29.5 ppm at G-7. All oil and grease concentrations were below the 250 ppm reportable concentration established by the DEM. TCLP analysis indicated only Barium, at a concentration of 1.10 ppm which is below the regulatory action level of 100 ppm.

### 2.2.3 *Groundwater Monitoring Plan* – Dated May, 1998

In order to confirm or refute the presence of soil and ground water contamination, LAW installed one Type II Monitoring Well (G5GW-35) in close proximity to the abandoned 250 gallon UST. As reported in the LAW report:

“A soil sample was collected during well installation activities and analyzed for volatiles, semi-volatiles, chromium, and lead according to EPA Methods 8260, 8270, and 6010, respectively. Neither volatiles, semi-volatiles, chromium nor lead detected in the soil sample exceeded the Maximum Soil Contaminant Concentrations (MSCC) for Soil-to-Groundwater transport.

On January 16, 1998, a groundwater sample was collected from the monitoring well, and bromochloromethane (0.723 ug/L) and chloroform (27.3 ug/L) were detected at concentrations exceeding Groundwater Quality Standards. These compounds are likely present due to the release of drinking water from a water line that was severed during monitoring well installation. The maximum contaminant level (MCL) allowed in drinking water for chloroform is 80 ug/L, and there is no MCL for bromochloromethane.

Seven tentatively identified compounds were also identified in the ground water in the sample collected from the newly installed monitoring well. According to LAW laboratory personnel, nonanamide is the only TIC detected in the ground water sample that may be associated with petroleum fuel. It can be used as a gasoline additive.

The results discussed above show that the quality of groundwater at the project site is different from that reported by R.E. Wright Environmental, Inc. (REWEI Project 94376-2-1). The R.E. Wright report indicates that arsenic, cadmium, chromium, lead, and mercury were detected at concentrations exceeding the Groundwater Quality Standards in Geoprobe® groundwater samples collected in 1994 and 1995 at the project site prior to the installation of the new monitoring well on January 14, 1998. According to the R. E. Wright report dated August 1994, these samples were preserved with hydrochloric acid and nitric acid. LAW laboratory personnel stated that turbid groundwater samples collected from the Geoprobe® sampling device should not be preserved with acid because metals absorbed to the soil particles will likely leach into the groundwater sample from soil particles. Therefore, the metals detected during the Geoprobe® sampling event were likely from soil particles remaining in the collected water sample, and are not indicative of water quality.

The LAW report summarizes, contaminants indicative of waste oil were not present in groundwater excess of Groundwater Quality Standards at the 1773 project site with the possible exception of nonanamide which may be used as a gasoline additive.”

The Monitoring Plan proposed by LAW was summarized as follows:

Free product has not been detected at the project site and groundwater constituents indicative of waste oil were not detected in excess of North Carolina Groundwater Quality Standards (NCGWQS) except for nonanamide which may be used as a gasoline additive. However, soil contamination (oil and grease) remains in the subsurface in close proximity to the closed UST. Considering that the documented soil contamination is located within the building under concrete such that infiltration is limited, it is most practical to leave the contaminated soil in place and monitor the groundwater on an annual basis for five years to assess groundwater quality over time.

Components of the proposed monitoring program will include:

- Annual sampling and laboratory testing of groundwater from the monitoring well located in the building for five years. Laboratory testing will be performed for volatile organics, semi-volatiles (including 10 largest non-target peaks), lead and chromium, by EPA Method 6210D, 625, and 3030c/6010, respectively. When available, laboratory testing will also be performed for aliphatics/aromatics by the Massachusetts Department of Environmental Protection (MADEP) volatile petroleum hydrocarbons (VPH) and extractable petroleum hydrocarbons (EPH).

- Reporting will be conducted annually for five years. Each report will contain a brief narrative describing the sampling event and analytical results, and a table that summarizes field analytical data as specified in the monitoring plan. The changes in groundwater quality will be evaluated annually. During monitoring activities, observe the status of nonanamide to track its presence in groundwater. If the groundwater quality has not degraded in five years, monitoring will be terminated with approval from the Division of Water Quality.

### 3.0 METHODS

The Marine Corps Air Station Environmental Affairs Division (EAD) and CATLIN personnel conducted a pre-drill site meeting on June 8, 2000 in order to perform the site reconnaissance and mark the borehole locations, but no drilling was performed due to unmarked utilities. Drilling started on June 29, 2000. An Arts Manufacturing, Inc. (AMS) PowerProbe™ 9600DC was used to obtain the subsurface soil and ground water samples at four locations (GP-9 through GP-12). In addition, one permanent Type II Monitoring Well (GW-2) was installed utilizing hand auger techniques. The PowerProbe™, utilizing a dual tube, power-assisted direct push sampling system, obtained continuous (1½-inch diameter by 4-foot long sections) soil profiles. All retrieved soils were described continuously in accordance with the Unified Soil Classification System (ASTM D-2488) and inspected for qualitative evidence indicative of the presence of petroleum hydrocarbons.

Soil samples were divided into two-foot intervals and placed in a plastic bags after each bore hole soil profile was examined. After allowing the sample to equilibrate for approximately 15 minutes, the sample headspace was checked with an Organic Vapor Analyzer (OVA) Foxboro Model 128. The soil sample interval exhibiting the highest OVA reading and the interval just above the capillary fringe were placed in sample containers, properly labeled and kept on ice (<4°C) during transportation to the analytical laboratory. All soil samples were transported with the appropriate chain-of-custody (COC) and analyzed for petroleum hydrocarbon constituents at Paradigm Analytical Laboratories, Inc. of Wilmington, North Carolina by the following methods:

- EPA Method 8082; PCBs
- EPA Method 8081; Pesticides
- EPA Method 8260B; Volatiles
- MADEP VPH/EPH; Aliphatics/Aromatics
- EPA Method 8270; Semivolatiles
- EPA Method 6010B; Total Chromium and Lead

Once the target borehole depth (±two feet below soil saturation zone) was achieved, the PowerProbe™ dual tubes were extracted and a 1-inch diameter Poly Vinyl Chloride (PVC) temporary well (ten feet of casing, five feet of screen) was installed in the borehole in order to obtain surficial ground water samples. Utilizing a GeoPump™ peristaltic pump, two to three gallons of ground water was purged from each temporary well prior to obtaining a representative surficial ground water sample. Ground water samples were placed in the appropriate preserved and unpreserved clean glassware,

labeled, and then kept on ice (<4°C) during transportation to the analytical laboratory. All ground water samples were transported with the appropriate COC and analyzed at Paradigm Analytical Laboratory for dissolved hydrocarbon constituents per the following methods:

- MADEP VPH/EPH; Aliphatics/Aromatics
- EPA Method 625 + 10 TICs; Semivolatiles
- EPA Method 6010B; Total Chromium and Lead

Ground water samples were collected through the use of dedicated plastic tubing. Pump and sampling equipment was decontaminated between each sampling location in order to mitigate the possibility of cross contamination. New disposable vinyl gloves were used at each sample location. The PVC wells were then removed and each borehole was backfilled with Benseal™ for proper abandonment of boreholes.

Soil and ground water quality data has been compared to clean-up standards applicable to incidents reported to the North Carolina Department of Environment and Natural Resources (NCDENR) on or after January 2, 1998 in accordance with the "*Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater, Volume II, Petroleum Underground Storage Tanks*" (1998 Guidelines) January 2, 1998.

#### 4.0 SOILS INVESTIGATION

*(Refer to Figure 2 and Appendix A)*

Soil samples were collected from boreholes advanced at five locations in the vicinity of the abandoned UST. Figure 2 illustrates the location of boreholes GP-9 through GP-12 and GW-2. The bore holes were advanced to a depth ranging from 15.5 to 20.0 feet below land surface (BLS). The soils encountered underlying the area are predominantly silty sands and sandy clays. Lithology across the site was fairly uniform although at some boring locations the sandy clay material was not encountered. (See Appendix A for Boring Logs.)

Organic vapors were detected at or above background levels in samples collected from each boring. The highest organic vapor readings were recorded in Boring GP-10 (>1,000 ppm) and GW-2 (65 ppm). Organic vapor readings in the remaining four boreholes were recorded as <1 ppm.

The following table summarizes the borehole sample intervals, OVA readings, and nomenclature of the samples chosen for laboratory analysis.

Borehole I.D.	Approximate Water Table Depth (Feet BLS)	Sample Interval BLS (Feet)	OVA Reading (PPM)	Sample I.D. Selected for Laboratory Analysis
GP-9	12.8	4 – 6 10 – 12	<1 <1	GP-9 (4'-6') GP-9 (10'-12')
GP-10	14.8	0 – 4 10 – 12	>1000 50	GP-10 (0'-4') GP-10 (10'-12')
GP-11	15.8	4 – 6 12 – 14	<1 <1	GP-11 (4'-6') GP-11 (12'-14')
GP-12	15.0	4 – 6 10 – 12	<1 <1	GP-12 (4'-6') GP-12 (10'-12')
GW-2	13.0	5 – 6 10 – 11	65 14	GW-2 (5'-6') GW-2 (10'-11')

**4.1 EPA Method 8082 for PCB's - Soil**  
(Refer to Table 1, Figure 3 and Appendix B)

A total of 10 soil samples were collected from five boring locations and submitted to the laboratory for analysis. No samples revealed concentrations of PCB list compounds and were therefore reported as BQL (see Figure 3). Laboratory results are summarized in Table 1 and laboratory reports are included in Appendix B.

**4.2 EPA Method 8081 for Pesticides – Soil**  
(Refer to Table 2, Figure 3, and Appendix B)

A total of 10 soil samples were collected from five boring locations and submitted to the laboratory for analysis. Laboratory analysis detected no pesticide list compounds above method detection limits and were therefore reported as BQL for parameters tested (see Figure 3). Laboratory results are summarized in Table 2 while laboratory reports are presented in Appendix B.

**4.3 EPA Method 8260B for Volatiles – Soil**  
(Refer to Table 3, Figure 4 and Appendix B)

Soil samples collected from GP-9, (4'-6'), (10'-12'); GP-10 (10'-12'); and GP-11 (4'-6') were reported as BQL for all EPA Method 8260B list compounds. A total of 11 analytes from the compound list were detected in various samples submitted for laboratory analysis.

Sample GP-10 (0'-4') revealed concentrations of Acetone (220 ug/Kg); n-Butylbenzene (15 ug/Kg); sec-Butylbenzene (21 ug/Kg); and Naphthalene (72 ug/Kg). Samples GP-11 (12'-14'); GP-12 (4'-6'), (10'-12') and GW-2 (10'-11') revealed concentrations of Acetone (170 ug/Kg), (8,600 ug/Kg), (320 ug/Kg) and (620 ug/Kg) respectively. Sample GW-2 (5'-6') contained detectable concentrations of Acetone (770 ug/Kg); sec-Butylbenzene (91 ug/Kg); Ethylbenzene (35 ug/Kg); Isopropylbenzene (35 ug/Kg); N-Propylbenzene (110 ug/Kg); 4-Isopropyltoluene (99 ug/Kg) 1,2,4-Trimethylbenzene (900 ug/Kg); 1,3,5-Trimethylbenzene (380 ug/Kg); and Total Xylenes (84 ug/Kg). The remaining list compounds for these samples were reported as BQL.

The concentrations of Acetone detected in sample GP-12 (4'-6') exceed the Soil To Ground Water (STGW) MSCC but are well below both the Residential and Industrial/Commercial MSCCs. No MSCC has been established for 4-Isopropyltoluene comparison. All other remaining detectable concentrations reported were below established MSCCs. It should be noted that the Acetone detected in these samples is considered a relic of the final alcohol rinse during the equipment decontamination process. Laboratory results are summarized in Table 3 and Laboratory Reports are included in Appendix B.

**4.4 MADEP VPH/EPH (Aliphatics/Aromatics) - Soil**  
(Refer to Tables 4 and 5, Figure 5 and Appendix B)

Massachusetts Department of Environmental Protection (MADEP) - Volatile Petroleum Hydrocarbons (VPH) and Extractable Petroleum Hydrocarbons (EPH) laboratory data is summarized in Table 4. Table 5 compares the MADEP VPH/EPH hydrocarbon fractions to applicable NCDENR MSCCs. Laboratory analyses revealed that all site soil samples tested compliant per the most restrictive MSCCs with the exception of the C<sub>9</sub>-C<sub>22</sub> Aromatic fractions for GP-10 (0'-4') ; GW-2 (5'-6') and GW-2 (10'-12'). The C<sub>9</sub>-C<sub>22</sub> Aromatic fractions detected in GP-10 (0'-4'), 69 mg/Kg; GW-2 (5'-6'), 300 ug/Kg and GW-2 (10'-11') 143 mg/Kg are above the STGW MSCC, but well below both Residential and Industrial/Commercial MSCCs. Laboratory reports are included in Appendix B.

**4.5 EPA Method 8270 for Semivolatiles - Soil**  
(Refer to Table 6, Figure 6 and Appendix B)

Semivolatile analysis revealed detectable concentrations of the following list compounds: Butylbenzylphthalate, GP-10 (0'-4'), .490 mg/Kg; 2-Methylnaphthalene, GP-10 (0-4'), 2.3 mg/Kg, GW-2 (5'-6'), 12 mg/Kg; Naphthalene, GP-10 (0'-4') 1.10 mg/Kg, GW-2 (5'-6') 5.0 mg/Kg; and Phenanthrene, GW-2 (5'-6'), 3.8 mg/Kg. Although Naphthalene detected in GP-10 (0'-4') and GW-2 (5'-6') exceeds the established STGW MSCCs, the concentration is well below Residential and Industrial/Commercial MSCCs. All other concentrations are BQL or below all established MSCCs. Laboratory analysis is summarized in Table 6 and laboratory reports are included in Appendix B.

**4.6 EPA Method 6010B for Total Chromium and Total Lead – Soil**  
(Refer to Table 7, Figure 7 and Appendix B)

Detectable chromium concentrations ranged from 2.72 mg/Kg in GP-9 (4'-6') to a high of 18.4 mg/Kg in sample GP-11 (4'-6'). Lead concentrations ranged from BQL in sample GP-12 (10'-12') to a high of 23.5 mg/Kg in GW-2 (5'-6'). The Chromium and lead concentrations reported are all well below the established MSCCs. Laboratory analysis are summarized in Table 7. Laboratory reports are included in Appendix B.

**5.0 SURFICIAL GROUND WATER QUALITY INVESTIGATION**

**5.1 EPA Method 6210 for Volatiles - Ground Water**  
(Refer to Table 8, Figure 8 and Appendix B)

Analysis for volatiles revealed all list compounds to be BQL or below Gross Contaminant Level (GCL) and 2L standards with the exception of chloroform and 4-Isopropyltoluene. Chloroform was detected in GP-9 (1 ug/L); GP-10 (12 ug/L); GP-11 (0.8 ug/L); GP-12 (14 ug/L) and GW-2 (0.7 ug/L). These concentrations exceed the NCDENR 2L Standard which is currently 0.19 ug/L. In addition 4-Isopropyltoluene was detected in GP-10 at a concentration 4 ug/L. No standard currently exists for Isopropyltoluene therefore the standard becomes the method detection limit. Although in exceedence of State Groundwater Quality Standards these concentrations are below calculated GCLs.

**5.2 MADEP VPH/EPH (Aliphatics/Aromatics) - Ground Water**  
(Refer to Table 9, Figure 9 and Appendix B)

The MADEP VPH/EPH data is summarized in Table 9. Table 9 compares the hydrocarbon fraction data to the North Carolina Interim Groundwater Quality Standards. Results of MADEP analysis revealed fractions for C<sub>9</sub>-C<sub>22</sub> Aromatics in GP-10 (450 ppm) and GW-2 (1,500 ppm) to be in exceedance of the current Interim Groundwater Standards. All other concentrations were reported as either BQL or below the Interim Groundwater Standard.

**5.3 EPA Method 625 + 10 TICs for SemiVolatiles) - Ground Water**  
(Refer to Table 10, Figure 10 and Appendix B)

No concentrations of 625 compound list analytes were reported above BQL's for any ground water samples submitted as part of this investigation. In addition to the 625 analysis, the ground water samples were analyzed in an effort to look for tentatively identified compounds (TICs). TIC refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist. Quantitation was accomplished by relative peak height of the compound compared to that the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate. TICs were identified in GP-9, GP-10, GP-11 and GW-2. No library search compound were detected in sample GP-12. Compounds found in the library search are located in the laboratory reports included in Appendix B. All other Method 625 data is summarized in Table 10 and laboratory reports are in Appendix B.

**5.4 EPA Method 6010B (Total Chromium and Lead) – Ground Water**  
(Refer to Table 11, Figure 10 and Appendix B)

Detectable concentrations of chromium and lead were reported as BQL with the exception of 16.2 ug/L of lead reported in sample GW-2. This concentration of lead is slightly above the NCAC T14A:02L Standard of 15 ug/L, but well below the established GCL.

## 6.0 CONCLUSIONS

The findings of this site investigation can be summarized as follows:

- Soil samples collected from probe holes consisted primarily of mottled silty sands and sandy clays. The water table was encountered between approximately 13 to 16 feet BLS at the site.
- The following analytes detected in various soil samples exceed the STGW MSCC but are below Industrial/Commercial and Residential MSCCs: GP-12 (4'-6') Acetone; GW-2 (5'-6') 4-Isopropyltoluene, C<sub>9</sub>-C<sub>22</sub> Aromatics, Naphthalene, 2-Methylnaphthalene; GW-2 (10'-11') C<sub>9</sub>-C<sub>22</sub> Aromatics; GP-10 (0-4'); C<sub>9</sub>-C<sub>22</sub> Aromatics.
- Results of MADEP analysis revealed fractions for C<sub>9</sub>-C<sub>22</sub> Aromatics in GP-10 and GW-2 to be in exceedance of the current Interim Groundwater Standards. All other concentrations were reported as BQL or below the Interim Groundwater Standard.

- Laboratory analysis of Ground water samples by various EPA Methods revealed no concentrations above established or calculated GCLs.
- This site meets the NCDENR criteria as defined by NCAC 2L.0115(D) as low risk site (i.e. the risk posed by a discharge or release does not meet any of the high or intermediate criteria), and contamination present appears limited to the immediate area of the abandoned UST.
- Considering that the documented soil contamination is confined to the subsurface soil under the building and is capped by concrete, it is more practical to leave soils in place and monitor the ground water utilizing the two Type II Monitoring Wells located in close proximity to the UST.

At this time recommendations are as follows:

1. Submit a copy of this report to the North Carolina Division of Waste Management – UST Section Washington Regional Office along with correspondence officially requesting that this site be ranked as a "Low Risk" site.
2. Implement a two-year monitoring program; semi annually for the first year and annually the second. Laboratory testing should be performed for lead and chromium, volatiles by EPA Method 6210D and alkanes/aromatics by MADEP VPH and EPH.
3. Reporting should be conducted annually for two years. Each report should contain a brief summary of sampling events and analytical results. The changes in groundwater should be evaluated annually. If ground water quality continues to show reduction of contaminant levels after two years, monitoring will be terminated, and a No Further Action Request should be submitted to the NCDENR.

## 7.0 REFERENCES

North Carolina Department of Environment and Natural Resources, *Groundwater Section Guidelines for the Investigation and Remediation of Soil and Groundwater, Volume II, Petroleum Underground Storage Tanks*, January 2, 1998.

R.E. Wright Environmental, Inc., *Geoprobe Soil and Water Sampling, Marine Corps Air Station Cherry Point, North Carolina, UST 1773-1*; August 1994.

R.E. Wright Environmental, Inc., *Geoprobe Soil Sampling, Marine Corps Air Station Cherry Point, North Carolina, UST 1773-1*; January 1995.

Law Engineering and Environmental Services Inc., *Groundwater Monitoring Plan UST 1773 Marine Corps Air Station, Cherry Point, North Carolina*; May 01, 1998.

## **TABLES**

**TABLE 1**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
PCBs - EPA METHOD 8082**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	<b>NCDENR MSCC's</b>	<b>GP-9 (4'-6')</b>	<b>GP-9 (10'-12')</b>	<b>GP-10 (0'-4')</b>	<b>GP-10 (10'-12')</b>	<b>GP-11 (4'-6')</b>	<b>GP-11 (12'-14')</b>	<b>GP-12 (4'-6')</b>	<b>GP-12 (10'-12')</b>	<b>GW-2 (5'-6')</b>	<b>GW-2 (10'-11')</b>
<b>DATE SAMPLED</b>		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
<b>ANALYTE</b>											
<b>ALL LIST COMPOUNDS†</b>	Varies	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

\* = All results in mg/kg (ppm)

† = All compounds listed in laboratory analytical results in Appendix B

BQL = Below Quantitation Limits (Compound specific quantitation limits vary)

( ) = Feet below land surface

MSCCs = Maximum Soil Contaminant Concentrations

**TABLE 2**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
PESTICIDES - EPA METHOD 8081**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	<b>NCDENR MSCCs</b>	<b>GP-9 (4'-6')</b>	<b>GP-9 (10'-12')</b>	<b>GP-10 (0'-4')</b>	<b>GP-10 (10'-12')</b>	<b>GP-11 (4'-6')</b>	<b>GP-11 (12'-14')</b>	<b>GP-12 (4'-6')</b>	<b>GP-12 (10'-12')</b>	<b>GW-2 (5'-6')</b>	<b>GW-2 (10'-11')</b>
<b>DATE SAMPLED</b>		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
<b>ANALYTE</b>											
<b>ALL COMPOUNDS†</b>	Varies	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

\* = All results in mg/kg (ppm)

† = All compounds listed in laboratory analytical results in Appendix B

BQL = Below Quantitation Limits (Compound specific quantitation limits vary)

( ) = Feet below land surface

MSCCs = Maximum Soil Contaminant Concentrations

TABLE 3 (Page 1 of 2)

SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
VOLATILES - EPA METHOD 8260B

MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113

	Residential MSCC Industrial- Commercial MSCC STGW MSCC	GP-9 (4'-6')	GP-9 (10'-12')	GP-10 (0'-4')	GP-10 (10'-12')	GP-11 (4'-6')	GP-11 (12'-14')	GP-12 (4'-6')	GP-12 (10'-12')	GW-2 (5'-6')	GW-2 (10'-11')
DATE SAMPLED		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
ANALYTE											
Acetone	1,564,000 40,880,000 3,000	<53	<69	220	<53	<60	170	8,600	320	770	620
n-Butylbenzene	156,000 4,088,000 4,000	<5.3	<6.9	15	<5.3	<6	<5.8	<140	<11	<31	<27
Sec-Butylbenzene	156,000 4,088,000 3,000	<5.3	<6.9	21	<5.3	<6	<5.8	<140	<11	91	<27
Ethylbenzene	1,560,000 40,000,000 240	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	35	<27
Isopropylbenzene	1,564,000 40,880,000 2,000	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	35	<27
4-Isopropyltoluene	NE NE NE	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	99	<27
Naphthalene	63,000 1,635,000 580	<5.3	<6.9	72	<5.3	<6	<5.8	<140	<11	460	<27
n-Propyl benzene	156,000 4,088,000 2,000	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	110	<27

TABLE 3 (Page 2 of 2)

SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
VOLATILES - EPA METHOD 8260B

MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113

	Residential MSCC Industrial- Commercial MSCC STGW MSCC	GP-9 (4'-6')	GP-9 (10'-12')	GP-10 (0'-4')	GP-10 (10'-12')	GP-11 (4'-6')	GP-11 (12'-14')	GP-12 (4'-6')	GP-12 (10'-12')	GW-2 (5'-6')	GW-2 (10'-11')
DATE SAMPLED		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
ANALYTE											
1,2,4- Trimethylbenzene	782,000 20,440,000 8,000	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	900	<27
1,3,5- Trimethylbenzene	782,000 20,440,000 7,000	<5.3	<6.9	<5.8	<5.3	<6	<5.8	<140	<11	380	<27
Total Xylenes	32,000,000 200,000,000 5,000	<16.3	<20.9	<17.8	<16.3	<18	<17.8	<420	<33	84	<81
ALL OTHER COMPOUNDS†	Varies Varies Varies	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

\* = All results in ug/kg (ppb)

( ) = Feet below land surface

BQL = Below Quantitation Limits (Compound specific quantitation limits vary)

† = All compounds listed in laboratory analytical results in Appendix B

< = Less than the compound specific quantitation limit

MSCC = Maximum Soil Contaminant Concentration

STGW = Soil-to-Groundwater

NE = Not Established

Shading indicates concentration above one or more compound specific MSCCs.

**TABLE 4**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
MADEP VPH/EPH**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	GP-9		GP-10		GP-11		GP-12		GW-2		Trip Blank	
	(4'-6')	(10'-12')	(0'-4')	(10'-12')	(4'-6')	(12'-14')	(4'-6')	(10'-12')	(5'-6')	(10'-11')		
<b>DATE SAMPLED</b>	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00	6/30/00
<b>Analytical Fractions</b>												
<b>VPH</b>												
C <sub>5</sub> -C <sub>8</sub> Aliphatics	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C <sub>9</sub> -C <sub>12</sub> Aliphatics	<10	<10	230	<10	<10	<10	13	<10	440	180	<10	<10
C <sub>9</sub> -C <sub>10</sub> Aromatics	<10	<10	53	<10	<10	<10	<10	<10	140	45	<10	<10
<b>Analytical Fractions</b>												
<b>EPH</b>												
C <sub>9</sub> -C <sub>18</sub> Aliphatics	<10	<10	180	<10	<10	<10	<10	<10	390	190	<10	<10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	<10	<10	84	<10	<10	<10	<10	<10	1,000	570	<10	<10
C <sub>11</sub> -C <sub>22</sub> Aromatics	<10	<10	16	<10	<10	<10	<10	<10	160	98	<10	<10

- \* = All results in mg/kg (ppm)
- ( ) = Feet below land surface
- < = Less than the practical quantitation limit

TABLE 5

SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs

MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 2113

Toxicologically Defined Hydrocarbon Fractions		Residential MSCC (1) Industrial-Commercial MSCC (2) STGW MSCC(3)		GP-9	GP-9	GP-10	GP-10	GP-11	GP-11	GP-12	GP-12	GW-2	GW-2
				(4'-6')	(10'-12')	(0'-4')	(10'-12')	(4'-6')	(12'-14')	(4'-6')	(10'-12')	(5'-6')	(10'-11')
DATE SAMPLED				6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
ANALYTICAL FRACTIONS													
C <sub>5</sub> -C <sub>8</sub> Aliphatics	C <sub>5</sub> -C <sub>8</sub> Aliphatics	(1) 939 (2) 24,528 (3) 72		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
C <sub>9</sub> -C <sub>12</sub> Aliphatics C <sub>9</sub> -C <sub>18</sub> Aliphatics	C <sub>9</sub> -C <sub>18</sub> Aliphatics	(1) 9,386 (2) 245,280 (3) 424,799		<10	<10	410	<10	<10	<10	13	<10	830	370
C <sub>19</sub> -C <sub>36</sub> Aliphatics	C <sub>19</sub> -C <sub>36</sub> Aliphatics	(1) 93,860 (2) Health-Based Level (>100%) (3) Considered Immobile		<10	<10	84	<10	<10	<10	<10	<10	1,000	570
C <sub>9</sub> -C <sub>10</sub> Aromatics C <sub>11</sub> -C <sub>22</sub> Aromatics	C <sub>9</sub> -C <sub>22</sub> Aromatics	(1) 469 (2) 12,264 (3) 34		<10	<10	69	<10	<10	<10	<10	<10	300	143

< = Less than the practical Quantitation Limit  
MSCC = Maximum Soil Contaminant Concentrations  
Shading indicates concentration above one or more compound specific MSCCs.

\* = All results in mg/Kg (ppm)  
STGW = Soil-to-Groundwater

( ) = Feet below land surface

**TABLE 6  
SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - SOIL  
SEMIVOLATILES - EPA METHOD 8270**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	Residential MSCC (1) Industrial- Commercial MSCC (2) STGW MSCC(3)	GP-9 (4'-6')	GP-9 (10'-12')	GP-10 (0'-4')	GP-10 (10'-12')	GP-11 (4'-6')	GP-11 (12'-14')	GP-12 (4'-6')	GP-12 (10'-12')	GW-2 (5'-6')	GW-2 (10'-11')
<b>DATE SAMPLED</b>		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
<b>ANALYTE</b>											
Butyl- benzylphthalate	(1) NE (2) NE (3) NE	<.330	<.430	.490	<.330	<.370	<.360	<.340	<.340	<3.8	<3.3
2- Methylnaphthalene	(1) 63 (2) 1,635 (3) 3	<.330	<.430	2.3	<.330	<.370	<.360	<.340	<.340	12	<3.3
N-Nitrosodi-n- Propylamine	(1) NE (2) NE (3) NE	<.330	<.430	<.360	<.330	<.370	<.360	<.340	<.340	<3.8	<3.3
Naphthalene	(1) 63 (2) 1,635 (3) 0.58	<.330	<.430	1.10	<.330	<.370	<.360	<.340	<.340	5.0	<3.3
Phenanthrene	(1) 469 (2) 12,264 (3) 60	<.330	<.430	<.360	<.330	<.370	<.360	<.340	<.340	3.8	<3.3
<b>ALL OTHER COMPOUNDS†</b>	(1) Varies (2) Varies (3) Varies	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL	BQL

\* = All results in mg/kg (ppm).

MSCC = Maximum Soil Contaminant Concentration

† = All compounds listed in laboratory analytical results in Appendix B

BQL = Below Quantitation Limits (Compound specific quantitation limits vary)

Shading indicates concentration above one or more compound specific MSCCs.

( ) = Feet below land surface

STGW = Soil to Groundwater

< = Less than compound specific quantitation limit

NE = Not Established

**TABLE 7**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS - SOIL\*  
TOTAL CHROMIUM AND LEAD**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	Residential MSCC (1) Industrial- Commercial MSCC (2) STGW MSCC(3)	GP-9 (4'-6')	GP-9 (10'-12')	GP-10 (0'-4')	GP-10 (10'-12')	GP-11 (4'-6')	GP-11 (12'-14')	GP-12 (4'-6')	GP-12 (10'-12')	GW-2 (5'-6')	GW-2 (10'-11')
<b>DATE SAMPLED</b>		6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
<b>ANALYTE</b>											
Chromium	(1) 78 (2) 2,000 (3) 27	2.72	7.75	6.31	2.93	18.4	3.99	9.09	8.26	16.8	2.48
Lead	(1) 400 (2) 400 (3) 270	1.56	2.26	21.9	4.32	4.79	1.80	3.15	<1.06	23.5	2.85

- \* = All results in mg/kg (ppm)
- STGW = Soil-to-Groundwater
- MSCC = Maximum Soil Contaminant Concentration
- < = Less than compound specific quantitation limits

**TABLE 8**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - GROUND WATER  
VOLATILES - EPA METHOD 6210D**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	NCDENR 2L STANDARD	GCL	GP-9	GP-10	GP-11	GP-12	GW-2	TRIP BLANK
<b>DATE SAMPLED</b>			6/29/00	6/29/00	6/29/00	6/29/00	6/30/00	6/30/00
<b>ANALYTE</b>								
n-Butylbenzene	70	6,900	BQL	6	BQL	BQL	BQL	BQL
sec-Butylbenzene	70	8,500	BQL	7	BQL	BQL	BQL	BQL
Chloroform	0.19	190	1	12	0.8	14	0.7	BQL
Isopropylbenzene	70	25,000	BQL	0.5	BQL	BQL	BQL	BQL
4-Isopropyltoluene	**	**	BQL	4	BQL	BQL	BQL	BQL
Naphthalene	21	15,500	BQL	2	BQL	BQL	BQL	BQL
n-Propyl benzene	70	30,000	BQL	0.6	BQL	BQL	BQL	BQL
1,2,4- Trimethylbenzene	350	28,500	BQL	0.5	BQL	BQL	BQL	BQL
Xylenes	530	87,500	2	BQL	BQL	BQL	BQL	BQL
<b>ALL OTHER COMPOUNDS†</b>	Varies	Varies	BQL	BQL	BQL	BQL	BQL	BQL

\* = All results in ug/L (ppb)

† = All compounds listed in laboratory analytical results in Appendix B

BQL = Below Quantitation Limits

GCL = Gross Contaminant Level

\*\* = Considered insoluble

Shading indicates concentration above one or more compound specific 2L Standard or GCL.

**TABLE 9**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS - GROUND WATER\*  
MADEP VPH AND EPH  
AS COMPARED TO NCDENR  
INTERIM GROUNDWATER QUALITY STANDARDS**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	<b>NCDENR INTERIM GROUND WATER STANDARD (ppb)</b>	<b>Toxicologically Defined Hydrocarbon Fractions</b>	<b>GP-9</b>	<b>GP-10</b>	<b>GP-11</b>	<b>GP-12</b>	<b>GW-2</b>
<b>DATE SAMPLED</b>			6/29/00	6/29/00	6/29/00	6/29/00	6/30/00
<b>Analytical Fractions</b>							
C <sub>5</sub> -C <sub>8</sub> Aliphatics	420	C <sub>5</sub> -C <sub>8</sub> Aliphatics	<100	<100	<100	<100	<100
C <sub>9</sub> -C <sub>12</sub> Aliphatics  C <sub>9</sub> -C <sub>18</sub> Aliphatics	42,00	C <sub>9</sub> -C <sub>18</sub> Aliphatics	<200	1110	<200	<100	1,700
C <sub>9</sub> -C <sub>10</sub> Aromatics  C <sub>11</sub> -C <sub>22</sub> Aromatics	210	C <sub>9</sub> -C <sub>22</sub> Aromatics	<200	450	<200	<200	1,500
C <sub>19</sub> -C <sub>36</sub> Aliphatics	42,000	C <sub>19</sub> -C <sub>36</sub> Aliphatics	<100	<100	<100	<100	4,200

\* = All results in ug/L (ppb)

< = Less than compound specific quantitaion limits

Shading indicates concentration above one or more compound specific Interim Groundwater Standard.

**TABLE 10**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* - GROUND WATER  
SEMIVOLATILES - EPA METHOD 625**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

	<b>NCDENR 2L STANDARD</b>	<b>GP-9</b>	<b>GP-10</b>	<b>GP-11</b>	<b>GP-12</b>	<b>GW-2</b>
<b>DATE SAMPLED</b>		6/29/00	6/29/00	6/29/00	6/29/00	6/30/00
<b>ANALYTE</b>						
<b>ALL COMPOUNDS†</b>	Varies	BQL	BQL	BQL	BQL	BQL

\* = All results in ug/Lg (ppb)

† = All compounds listed in laboratory analytical results in Appendix B

BQL = Below Quantitation Limits (Compound specific quantitation limits vary)

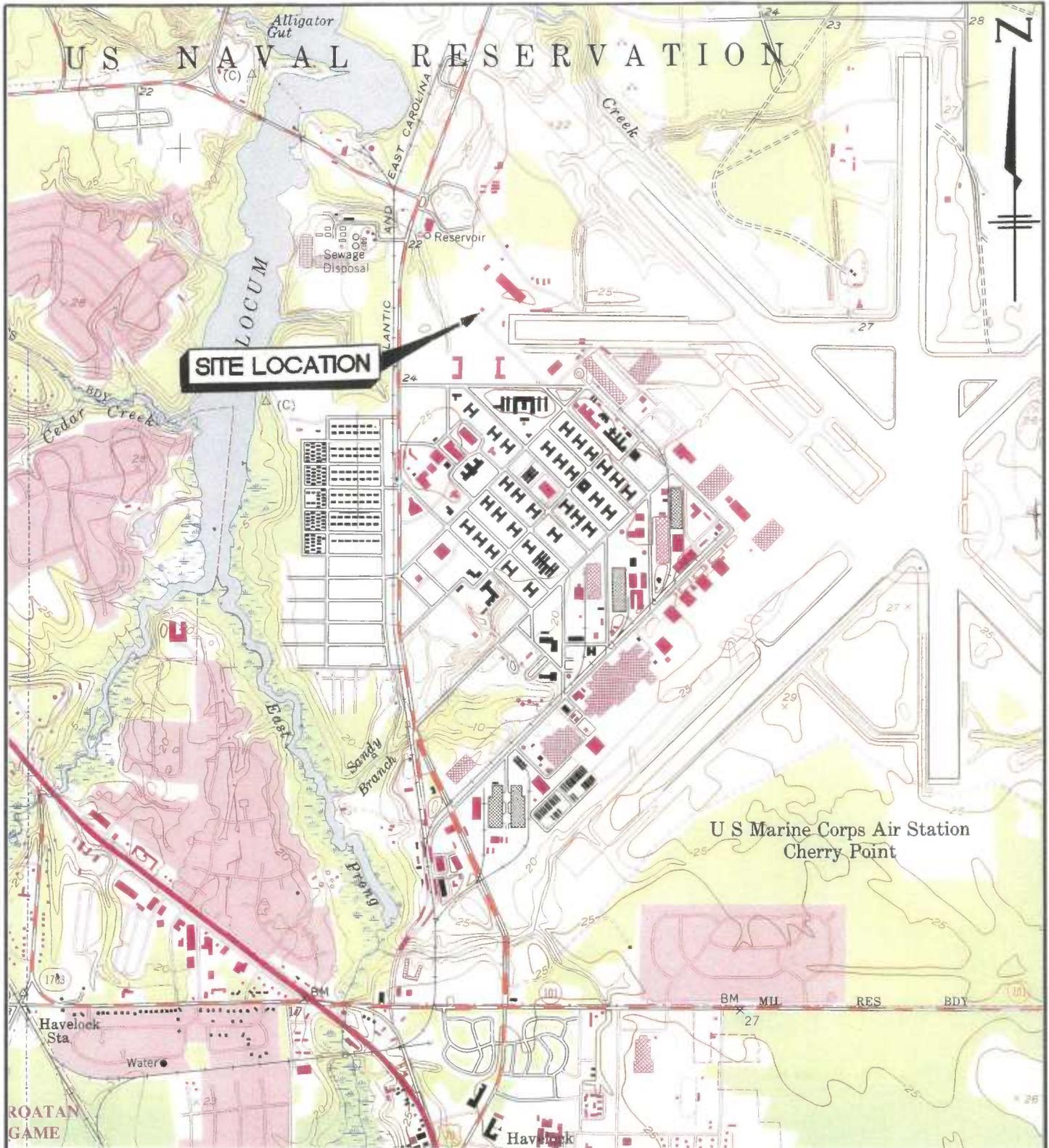
**TABLE 11**

**SUMMARY OF LABORATORY ANALYTICAL RESULTS\* – GROUND WATER  
TOTAL CHROMIUM AND LEAD**

**MCAS BUILDING 1773  
CHERRY POINT, NORTH CAROLINA  
CATLIN PROJECT NO. 200-113**

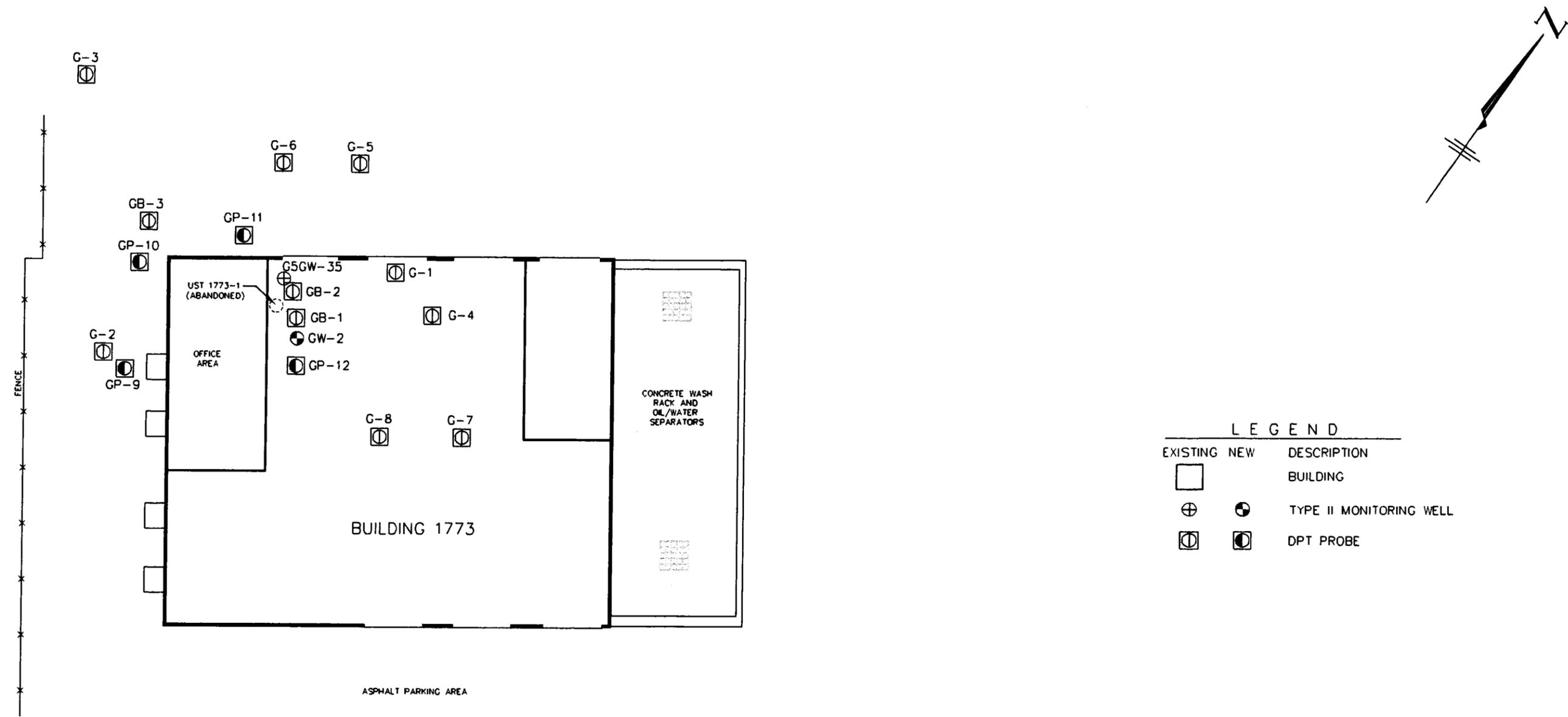
SAMPLE ID	GWQS	GCL	GP-9	GP-10	GP-11	GP-12	GW-2
DATE SAMPLED			6/29/00	6/29/00	6/29/00	6/29/00	6/30/00
ANALYTE							
Chromium	50	50,000	<10	<10	<10	<10	<10
Lead	15	15,000	<10	<10	<10	<10	16.2

\* = All results in ug/L  
 GCL = Gross Contaminant Level  
 GWQS = North Carolina Groundwater Quality Standard  
 < = Less than compound specific quantitation limits  
 Shading indicates concentration above compound specific GWQS or GCL.



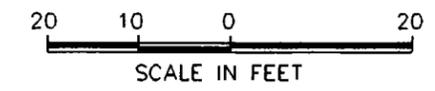
FROM: USGS TOPOGRAPHIC QUADRANGLE HAVELOCK, N.C. PHOTO REVISED 1949 ; PHOTO REVISED 1983

<p>WILMINGTON, NORTH CAROLINA</p>	<p>PROJECT ADDITIONAL SITE INVESTIGATION BUILDING 1773 MCAS CHERRY POINT, N.C.</p>	<p>TITLE GENERAL LOCATION MAP USGS TOPOGRAPHIC QUADRANGLE</p>		<p>FIGURE 1</p>
	<p>JOB NO: 200113-20 DATE: SEPT. 2000</p>	<p>SCALE: 1"=2000'</p>	<p>DRAWN BY: TWL</p>	<p>CHECKED BY: TWL</p>



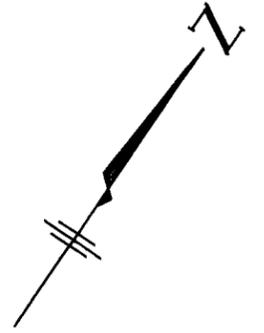
LEGEND		
EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		DPT PROBE

- NOTES:
1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
  2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
  3. C5GW-35 BY LAW JANUARY 1998
  4. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

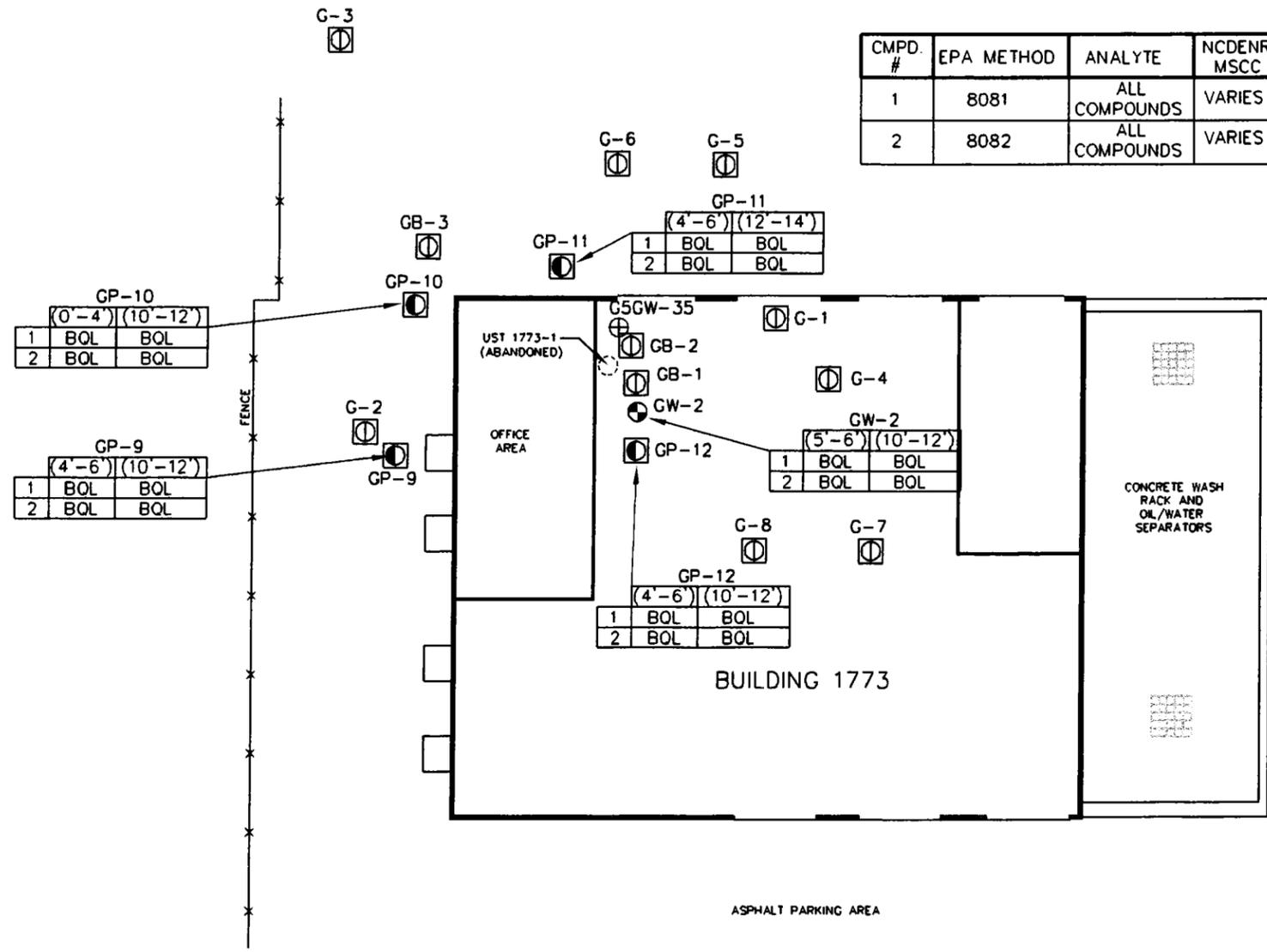


<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SOIL BORING AND MONITORING WELL LOCATION MAP	FIGURE <b>2</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1" = 20'	DRAWN BY: WHW

200113-20-02



CMPD. #	EPA METHOD	ANALYTE	NCDENR MSCC
1	8081	ALL COMPOUNDS	VARIES
2	8082	ALL COMPOUNDS	VARIES



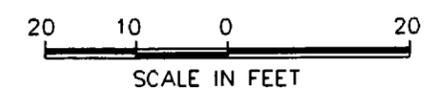
**LEGEND**

EXISTING	NEW	DESCRIPTION
□		BUILDING
⊕	⊕	TYPE II MONITORING WELL
⊙	⊙	DPT PROBE

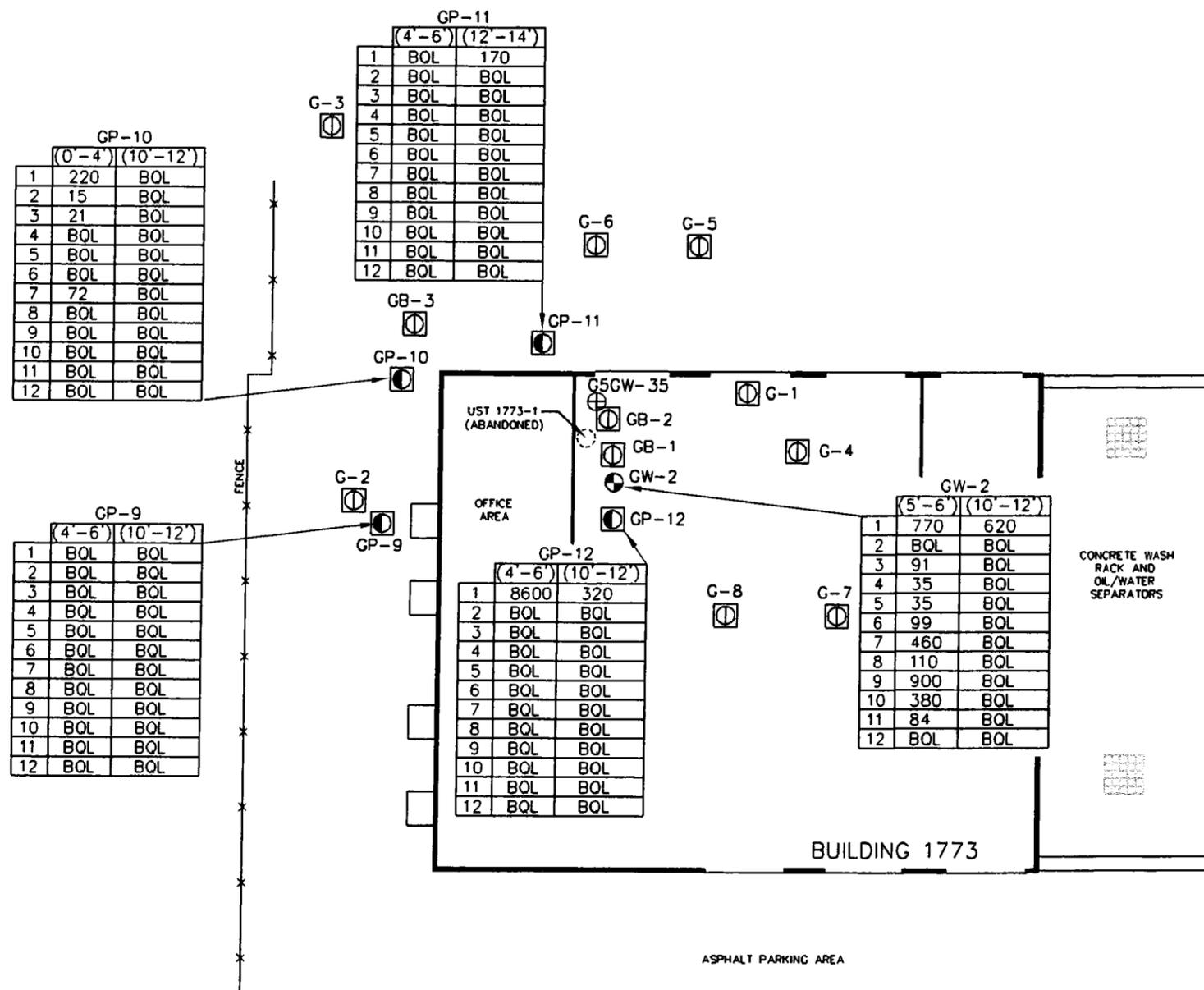
**NOTES:**

1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
3. G5GW-35 BY LAW JANUARY 1998
4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

- \* = ALL RESULTS IN mg/kg (PPM)
- † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B
- BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)
- ( ) = FEET BELOW LAND SURFACE
- MSCC = MAXIMUM SOIL CONTAMINANT CONCENTRATIONS



<p>WILMINGTON, NORTH CAROLINA</p>	<b>PROJECT</b> SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	<b>TITLE</b> SUMMARY OF LABORATORY ANALYTICAL RESULTS* -SOIL PESTICIDES-EPA METHOD 8081 AND PCBs-EPA METHOD 8082	<b>FIGURE</b> 3
	<b>JOB NO.</b> 200113-20 <b>DATE:</b> SEP 2000	<b>SCALE:</b> 1" = 20'	<b>DRAWN BY:</b> WHW <b>CHECKED BY:</b> TWL



COMPOUND #	ANALYTE	(MSCC)	
		RESIDENTIAL	INDUSTRIAL - COMMERCIAL STGW
1	ACETONE	1,564,000	40,880,000
		3,000	
2	N-BUTYLBENZENE	156,000	4,088,000
		4,000	
3	SEC-BUTYLBENZENE	156,000	4,088,000
		3,000	
4	ETHYLBENZENE	1,560,000	40,000,000
		240	
5	ISOPROPYLBENZENE	1,564,000	40,880,000
		2,000	
6	4-ISOPROPYLTOLUENE	NE	
		NE	
		NE	
7	NAPHTHALENE	63,000	1,635,000
		580	
8	N-PROPYL BENZENE	156,000	4,088,000
		2,000	
9	1,2,4-TRIMETHYLBENZENE	782,000	20,440,000
		8,000	
10	1,3,5-TRIMETHYLBENZENE	782,000	20,440,000
		7,000	
11	TOTAL XYLENES	32,000,000	200,000,000
		5,000	
12	ALL OTHER COMPOUNDS†	VARIES	
		VARIES	
		VARIES	

**NOTES:**

1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
3. C5GW-35 BY LAW JANUARY 1998
4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

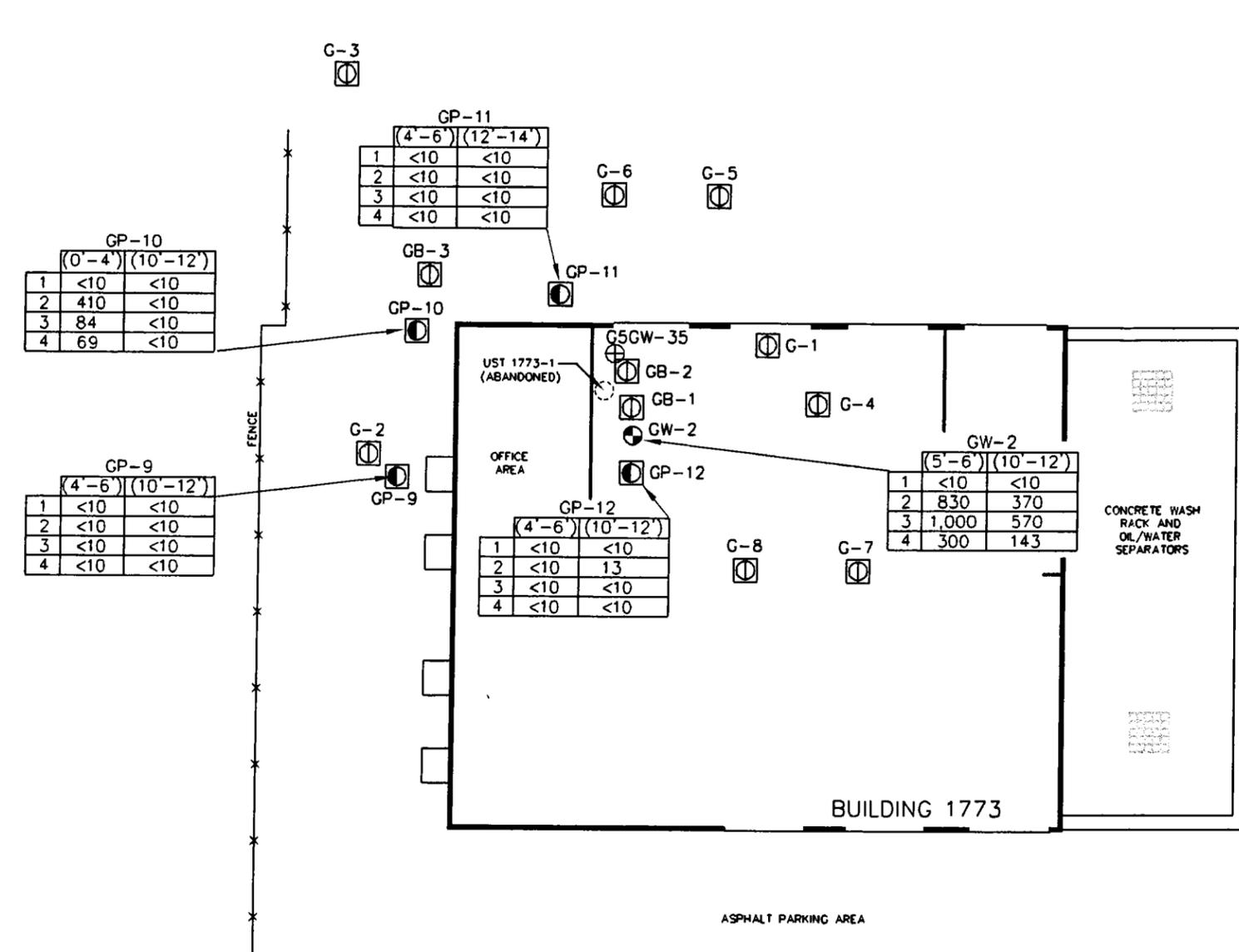
**LEGEND**

EXISTING	NEW	DESCRIPTION
□		BUILDING
⊕	⊕	TYPE II MONITORING WELL
⊗	⊗	DPT PROBE

- \* = ALL RESULTS IN ug/kg (ppb)  
 † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B  
 BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)  
 ( ) = FEET BELOW LAND SURFACE  
 MSCC = MAXIMUM SOIL CONTAMINANT CONCENTRATION  
 STGW = SOIL-TO-GROUNDWATER  
 NE = NOT ESTABLISHED



<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY ANALYTICAL RESULTS* -SOIL VOLATILES-EPA METHOD 8260B	FIGURE <b>4</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1" = 20'	DRAWN BY: WHW CHECKED BY: TWL



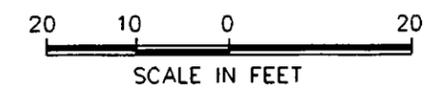
COMPOUND #	ANALYTICAL FRACTIONS	TOXICOLOGICALLY DEFINED HYDROCARBON FRACTIONS	(MSCC)
			RESIDENTIAL INDUSTRIAL-COMMERCIAL STGW
1	C5-C8 ALIPHATICS	C5-C8 ALIPHATICS	939 24,528 72
2	C9-C12 ALIPHATICS C9-C18 ALIPHATICS	C9-C18 ALIPHATICS	9,386 245,280 424,799
3	C19-C36 ALIPHATICS	C19-C36 ALIPHATICS	93,860 HEALTH-BASED LEVEL (>100%) CONSIDERED IMMOBILE
4	C9-C10 AROMATICS C1-C2 AROMATICS	C9-C22 AROMATICS	469 12,264 34

**LEGEND**

EXISTING	NEW	DESCRIPTION
□		BUILDING
⊕	⊕	TYPE II MONITORING WELL
⊙	⊙	DPT PROBE

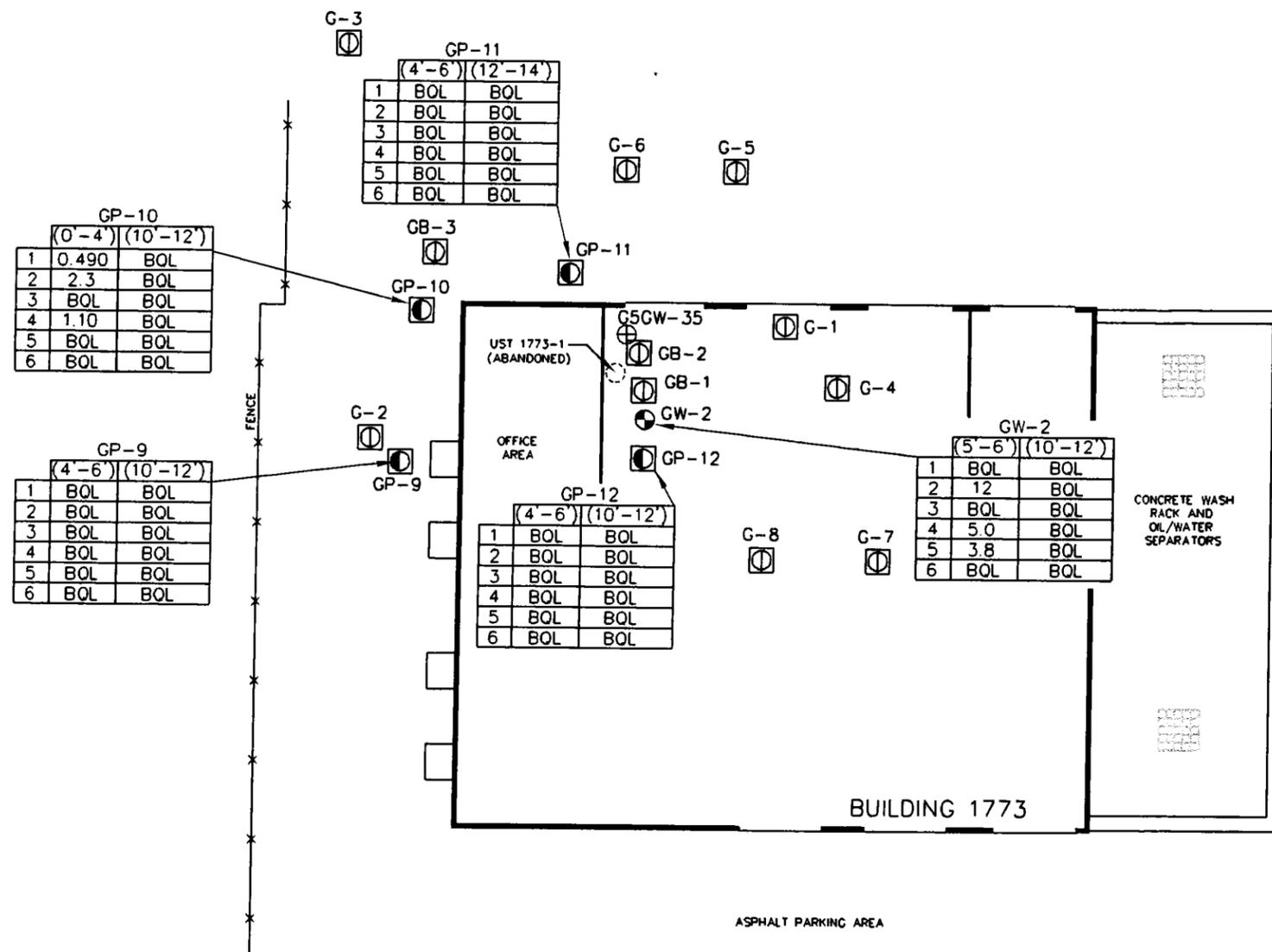
- NOTES:**
1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
  2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
  3. G5GW-35 BY LAW JANUARY 1998
  4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
  5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

- \* = ALL RESULTS IN mg/kg (PPM)
- † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B
- < = LESS THAN THE PRACTICAL QUANTITATION LIMIT
- ( ) = FEET BELOW LAND SURFACE
- MSCC = MAXIMUM SOIL CONTAMINANT CONCENTRATION
- STGW = SOIL-TO-GROUNDWATER



 WILMINGTON, NORTH CAROLINA	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY ANALYTICAL RESULTS* -SOIL MADEP VPH/EPH AS COMPARED TO NCDENR MSCCs	FIGURE <b>5</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1"=20'	DRAWN BY: WHW

200113-20-05



COMPOUND #	ANALYTE	(MSCC)	
		INDUSTRIAL-COMMERCIAL	RESIDENTIAL-STGW
1	BUTYL-BENZYLPHTHALATE	NE	NE
2	2-METHYLNAPHTHALENE	63	1,635
3	N-NITROSODI-N-PROPYLAMINE	NE	3
4	NAPHTHALENE	NE	63
5	PHENANTHRENE	1,635	469
6	ALL OTHER COMPOUNDS †	0.58	12,264
		VARIES	60

**LEGEND**

EXISTING	NEW	DESCRIPTION
□		BUILDING
⊕	⊗	TYPE II MONITORING WELL
⊙	⊚	DPT PROBE

**NOTES:**

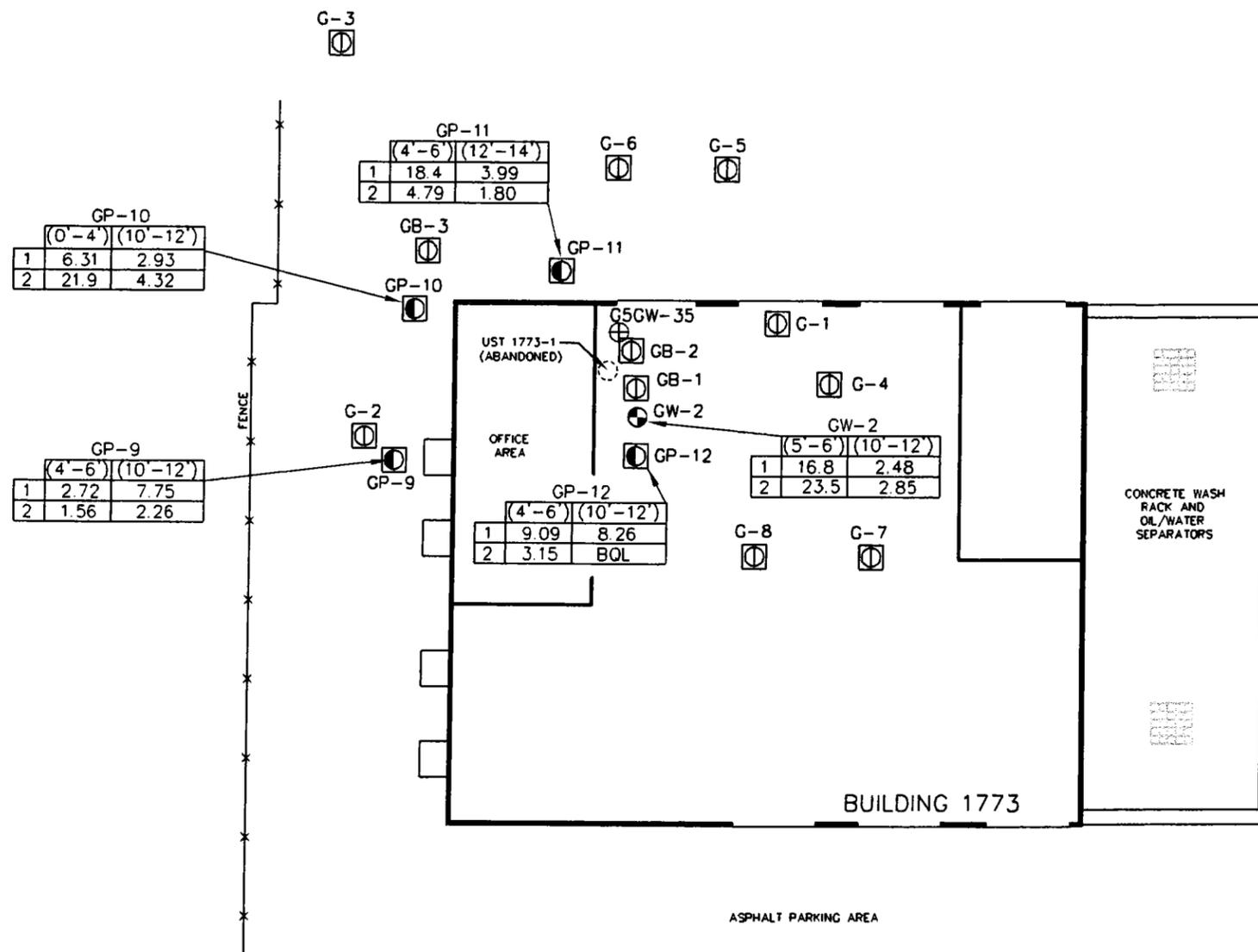
1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
3. G5GW-35 BY LAW JANUARY 1998
4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

- ( ) = FEET BELOW LAND SURFACE  
 STGW = SOIL-TO-GROUNDWATER  
 BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)  
 \* = ALL RESULTS IN ug/kg (ppb)  
 † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B  
 MSCC = MAXIMUM SOIL CONTAMINANT CONCENTRATION  
 NE = NOT ESTABLISHED



 WILMINGTON, NORTH CAROLINA	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY ANALYTICAL RESULTS* -SOIL SEMIVOLATILES-EPA METHOD 8270	FIGURE <b>6</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1"=20'	DRAWN BY: WHW

200113-20-06



COMPOUND #	ANALYTE	(MSCC)	
		RESIDENTIAL	INDUSTRIAL-COMMERCIAL STGW
1	CHROMIUM	78	2,000
2	LEAD	400	270

**LEGEND**

EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		DPT PROBE

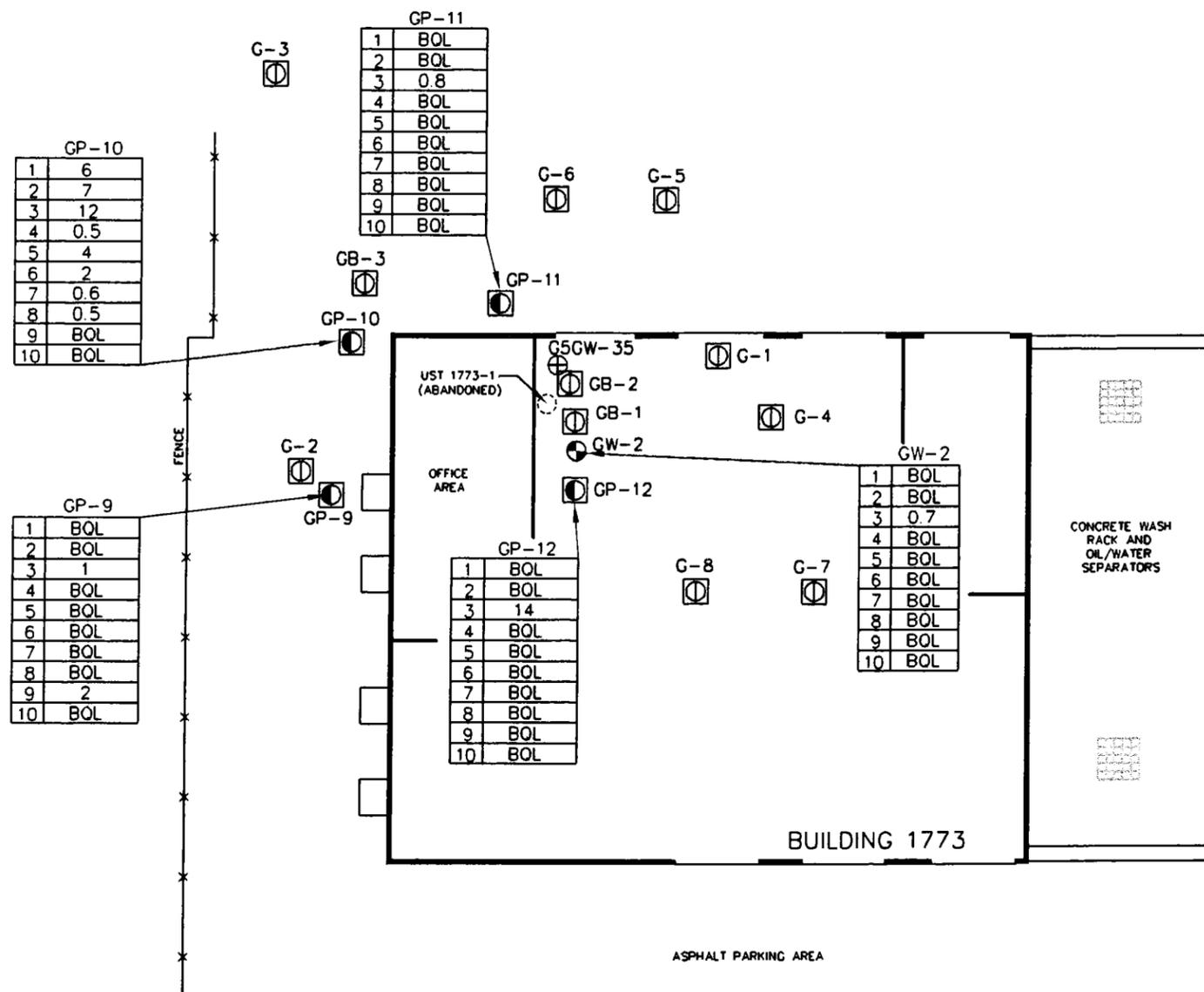
- NOTES:**
1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
  2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
  3. G5GW-35 BY LAW JANUARY 1998
  4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
  5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

- ( ) = FEET BELOW LAND SURFACE  
 STGW = SOIL-TO- GROUNDWATER  
 BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)  
 \* = ALL RESULTS IN mg/kg (PPM)  
 NE = NOT ESTABLISHED  
 MSCC = MAXIMUM SOIL CONTAMINANT CONCENTRATION



 WILMINGTON, NORTH CAROLINA	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY ANALYTICAL RESULTS* -SOIL TOTAL CHROMIUM AND LEAD	FIGURE <b>7</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1"=20'	DRAWN BY: WHW

200113-20-07



COMPOUND #	ANALYTE	NCDENR 2L STANDARD	GCL
1	N-BUTYLBENZENE	70	6,900
2	SEC-BUTYLBENZENE	70	8,500
3	CHLOROFORM	0.19	190
4	ISOPROPYLBENZENE	70	25,000
5	4-ISOPROPYLTOLUENE	**	**
6	NAPHTHALENE	21	15,500
7	N-PROPYL BENZENE	70	30,000
8	1,2,4-TRIMETHYLBENZENE	350	28,500
9	XYLENES	530	87,500
10	ALL OTHER COMPOUNDS†	VARIES	VARIES

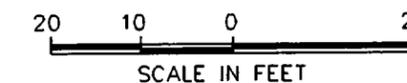
**LEGEND**

EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		DPT PROBE

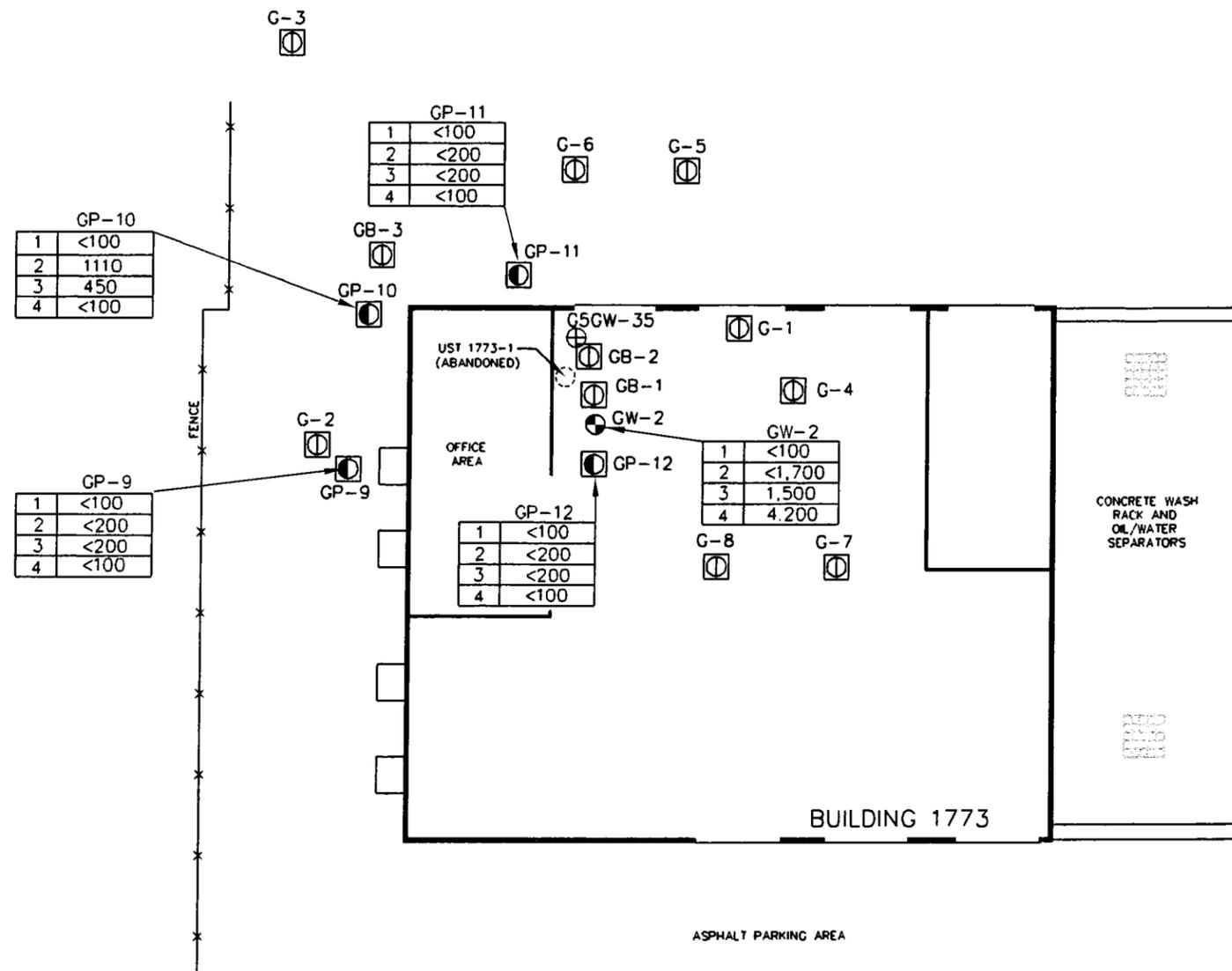
**NOTES:**

1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
3. G5GW-35 BY LAW JANUARY 1998
4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

- \* = ALL RESULTS IN ug/L (ppb)
- † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B
- BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)
- GCL = GROSS CONTAMINANT LEVEL
- NE = NOT ESTABLISHED
- \*\* = CONSIDERED INSOLUBLE



 WILMINGTON, NORTH CAROLINA	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY ANALYTICAL RESULTS* -GROUNDWATER VOLATILES-EPA METHOD 62100	FIGURE <div style="font-size: 2em; font-weight: bold; text-align: center;">8</div>
	JOB NO. 200113-20    DATE: SEP 2000	SCALE: 1" = 20'	DRAWN BY: WHW    CHECKED BY: TWL



COMPOUND #	ANALYTICAL FRACTIONS	INTERIM GROUNDWATER STANDARD (PPb)	TOXICOLOGICALLY DEFINED HYDROCARBON FRACTIONS
1	C5-C8 ALIPHATICS	420	C5-C8 ALIPHATICS
2	C9-C12 ALIPHATICS	42,00	C9-C18 ALIPHATICS
3	C9-C18 ALIPHATIC		
4	C9-C10 AROMATICS C11-C22 AROMATICS	210	C9-C22 AROMATICS
5	C19-C36 ALIPHATICS	42,000	C19-C36 ALIPHATICS

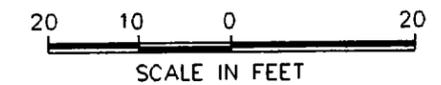
**NOTES:**

1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
2. G-1 THROUGH G-8 BY REWEI NOVEMBER 1994
3. G5GW-35 BY LAW JANUARY 1998
4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000
5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

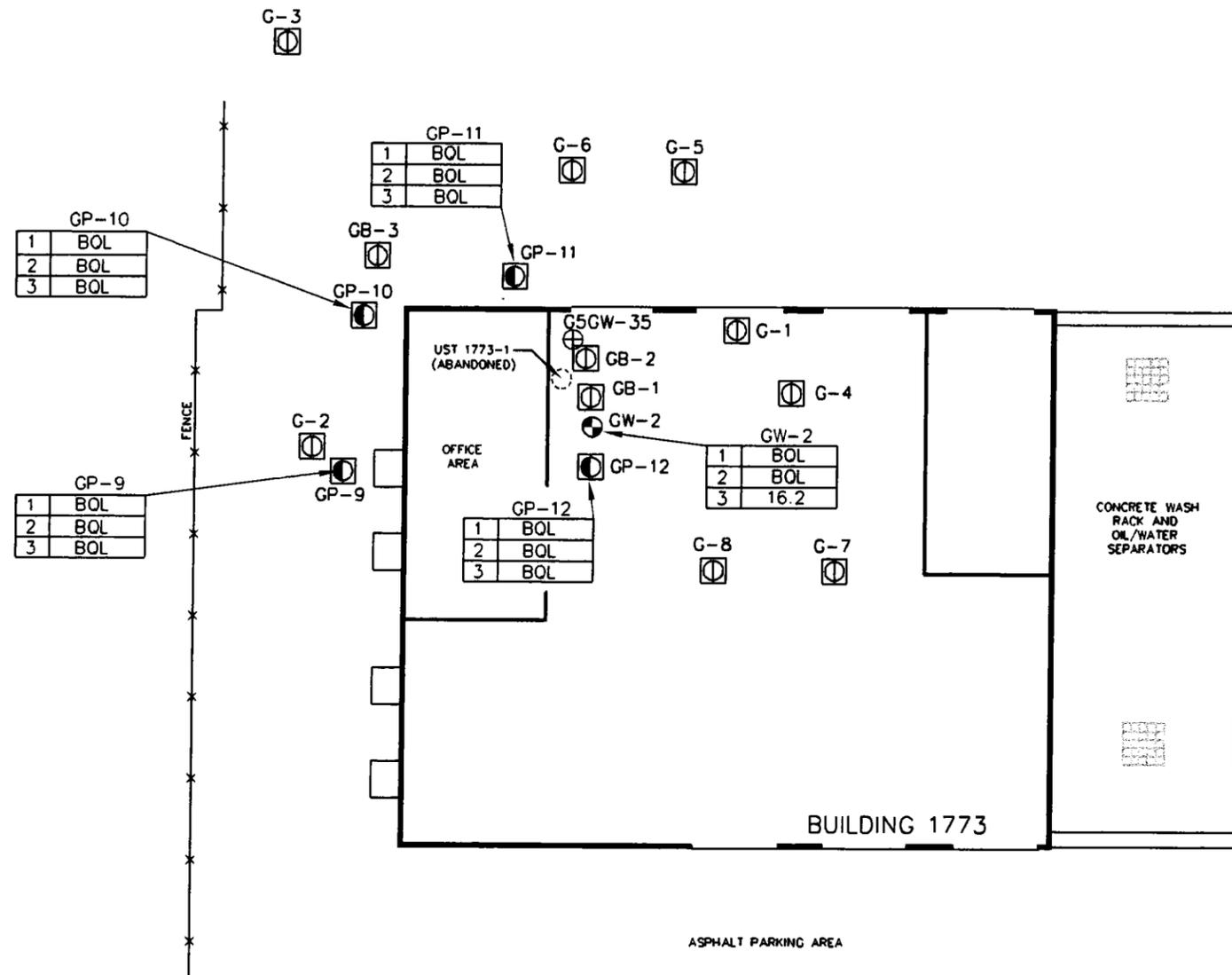
**LEGEND**

EXISTING	NEW	DESCRIPTION
□		BUILDING
⊕	⊕	TYPE II MONITORING WELL
⊙	⊙	DPT PROBE

- < = LESS THAN COMPOUND SPECIFIC QUANTITATION LIMITS  
 \* = ALL RESULTS IN ug/L (PPB)



<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	TITLE SUMMARY OF LABORATORY RESULTS*-GROUND WATER MADEP VPH AND EPH AS COMPARED TO NCDENR INTERIM GROUNDWATER QUALITY STANDARDS	FIGURE <b>9</b>
	JOB NO. 200113-20 DATE: SEP 2000	SCALE: 1"=20'	DRAWN BY: WHW CHECKED BY: TWL



COMPOUND #	EPA METHOD	ANALYTE	GWOS	GCL
1	625	ALL COMPOUNDS †	VARIES	VARIES
2	6010B	CHROMIUM	50	50,000
3	6010B	LEAD	15	15,000

- NOTES:**
1. SB-1, SB-2, SB-3 BY REWEI JULY 7, 1994 (SHOWN AS GB-1, GB-2 AND GB-3)
  2. G-1 THROUGH G-8 BY REWEDI NOVEMBER 1994
  3. G5GW-35 BY LAW JANUARY 1998
  4. CATLIN SAMPLES COLLECTED JUNE 29 AND JUNE 30, 2000 LAW (1998) REPORT.
  5. BASE MAP ADAPTED FROM REWEI (1994) AND LAW (1998) REPORT.

**LEGEND**

EXISTING	NEW	DESCRIPTION
		BUILDING
		TYPE II MONITORING WELL
		DPT PROBE

- \* = ALL RESULTS IN ug/L (ppb)
- BOL = BELOW QUANTITATION LIMITS (COMPOUND SPECIFIC QUANTITATION LIMITS VARY)
- † = ALL COMPOUNDS LISTED IN LABORATORY ANALYTICAL RESULTS IN APPENDIX B
- GCL = GROSS CONTAMINANT LEVEL
- GWOS = GROUNDWATER QUALITY STANDARD



<p><b>CATLIN</b> ENGINEERS and SCIENTISTS WILMINGTON, NORTH CAROLINA</p>	<b>PROJECT</b> SITE INVESTIGATION FOR BUILDING 1773 MCAS CHERRY POINT, N.C.	<b>TITLE</b> SUMMARY OF LABORATORY ANALYTICAL RESULTS* - GROUNDWATER SEMIVOLATILES - EPA METHOD 625 AND TOTAL CHROMIUM AND LEAD - EPA METHOD 6010B	<b>FIGURE</b>  <b>10</b>
	JOB NO. 200113-20   DATE: SEP 2000	SCALE: 1" = 20'	DRAWN BY: WHW   CHECKED BY: TWL

## APPENDICES

**APPENDIX A**  
**BORING LOGS, WELL CONSTRUCTION RECORD**  
**AND**  
**AS-BUILT WELL DETAIL**

## BORING LOG

BORING NUMBER GP-9  
 TOTAL DEPTH 20' BLS

SITE LOCATION MCAS - Cherry Point  
Bldg. 1773

DRILLED BY WJM  
 LOGGED BY TWL  
 DRILLING DATE 6/29/00

SAMPLE DEPTH (FT.)	SAMPLE DESCRIPTION	USGS	WATER CONTENT	HC ODOR	PID/FID PPM	BLOW COUNT	
0	4	Light green to greenish gray, very fine grained, CLAY, soft to medium, well graded, poorly sorted	CL	MOIST	NO	<1	DPT
4	6	Mottled light gray/yellowish orange, very fine grained, SILTY SAND, well rounded, well sorted	SM	MOIST	MODERATE	<1	DPT
6	8	Mottled yellowish orange/light gray very fine to fine grained, CLAYEY SAND, soft to medium	SC	MOIST	MODERATE	<1	DPT
8	10	Mottled light gray/yellowish orange very fine grained, SILTY SAND, loose, well sorted, poorly graded	SM	DRY	SLIGHT	<1	DPT
10	12	Mottled, very fine grained, SILTY SAND, loose, well sorted	SM	DRY	SLIGHT	<1	DPT
12	14	Greenish gray, very fine to fine grained, SILTY SAND, medium dense, well sorted, poorly graded	SM	VERY MOIST	MODERATE	<1	DPT
14	16	Mottled light gray/yellowish orange, very fine grained, SILTY SAND medium dense, minor clay	SM	MOIST	SLIGHT	<1	DPT
16	18	Light gray very fine grained, SILTY SAND, medium dense, poorly graded, well sorted	SM	SATURATED	SLIGHT	<1	DPT
18	20	Light gray very fine grained, SILTY SAND, medium dense, poorly sorted	SM	SATURATED	SLIGHT	<1	DPT

REMARKS: DPT = Direct Push Technology (Power Probe)

Page 1 of 1

# BORING LOG

BORING NUMBER GP-10  
 TOTAL DEPTH 16' BLS

SITE LOCATION MCAS - Cherry Point  
Bldg. 1773

DRILLED BY WJM  
 LOGGED BY TWL  
 DRILLING DATE 6/29/00

SAMPLE DEPTH (FT.)		SAMPLE DESCRIPTION	USGS	WATER CONTENT	HC ODOR	PID/FID PPM	BLOW COUNT
0	4	Light green to greenish gray, very fine grained CLAY, soft to medium, well graded, poorly sorted	CL	MOIST	STRONG	>1,000	DPT
4	6	Mottled light gray/yellowish orange, very fine to fine grained, CLAYEY SAND, medium stiff, moderate plasticity,	SC	MOIST	SLIGHT	118	DPT
6	8	Light gray/yellowish orange, very fine grained, SILTY SAND, loose	SM	DRY	SLIGHT	20	DPT
8	10	Mottled yellowish orange/light gray, very fine grained, SILTY SAND, loose	SM	DRY	NONE	12	DPT
10	12	Yellowish orange, very fine grained, SILTY SAND, loose, well sorted	SM	DRY	SLIGHT	50	DPT
12	14	Mottled light gray/yellowish orange, very fine grained, SILTY SAND, medium dense	SM	MOIST	MODERATE	60	DPT
14	16	Yellowish orange/dark gray, very fine grained, soft CLAY and fine to medium grained SAND mixture, medium dense	SP to CL	SATURATED	MODERATE	30	DPT

REMARKS: DPT = Direct Push Technology (Power Probe)

## BORING LOG

BORING NUMBER GP-11  
 TOTAL DEPTH 16' BLS

SITE LOCATION MCAS - Cherry Point  
Bldg. 1773

DRILLED BY WJM  
 LOGGED BY TWL  
 DRILLING DATE 6/29/00

SAMPLE DEPTH (FT.)		SAMPLE DESCRIPTION	USGS	WATER CONTENT	HC ODOR	PID/FID PPM	BLOW COUNT
0	4	Olive gray, very fine to fine grained, CLAYEY SAND, medium stiff, slight plasticity	SC	MOIST	SLIGHT	<1	DPT
4	6	Mottled yellowish orange, very fine grained SILTY SAND, well sorted, poorly graded	SM	MOIST	NONE	<1	DPT
6	8	Mottled light gray to yellowish orange, very fine grained CLAYEY SAND, soft	SC	DRY	NONE	<1	DPT
8	10	Mottled light gray to yellowish orange, very fine grained, SILTY SAND, loose	SM	DRY	NONE	<1	DPT
10	12	Mottled light gray to yellowish orange, very fine grained SILTY SAND, loose	SM	DRY	NONE	<1	DPT
12	14	Yellowish orange, very fine grained, SILTY SAND, loose	SM	MOIST	NONE	<1	DPT
14	16	Yellowish orange, very fine grained, SILTY SAND, medium dense, poorly graded, well sorted	SM	SATURATED	NONE	<1	DPT

REMARKS: DPT = Direct Push Technology (Power Probe)

Page 1 of 1



# BORING LOG

BORING NUMBER GW-2  
 TOTAL DEPTH 15.5' BLS

SITE LOCATION MCAS - Cherry Point  
Bldg. 1773

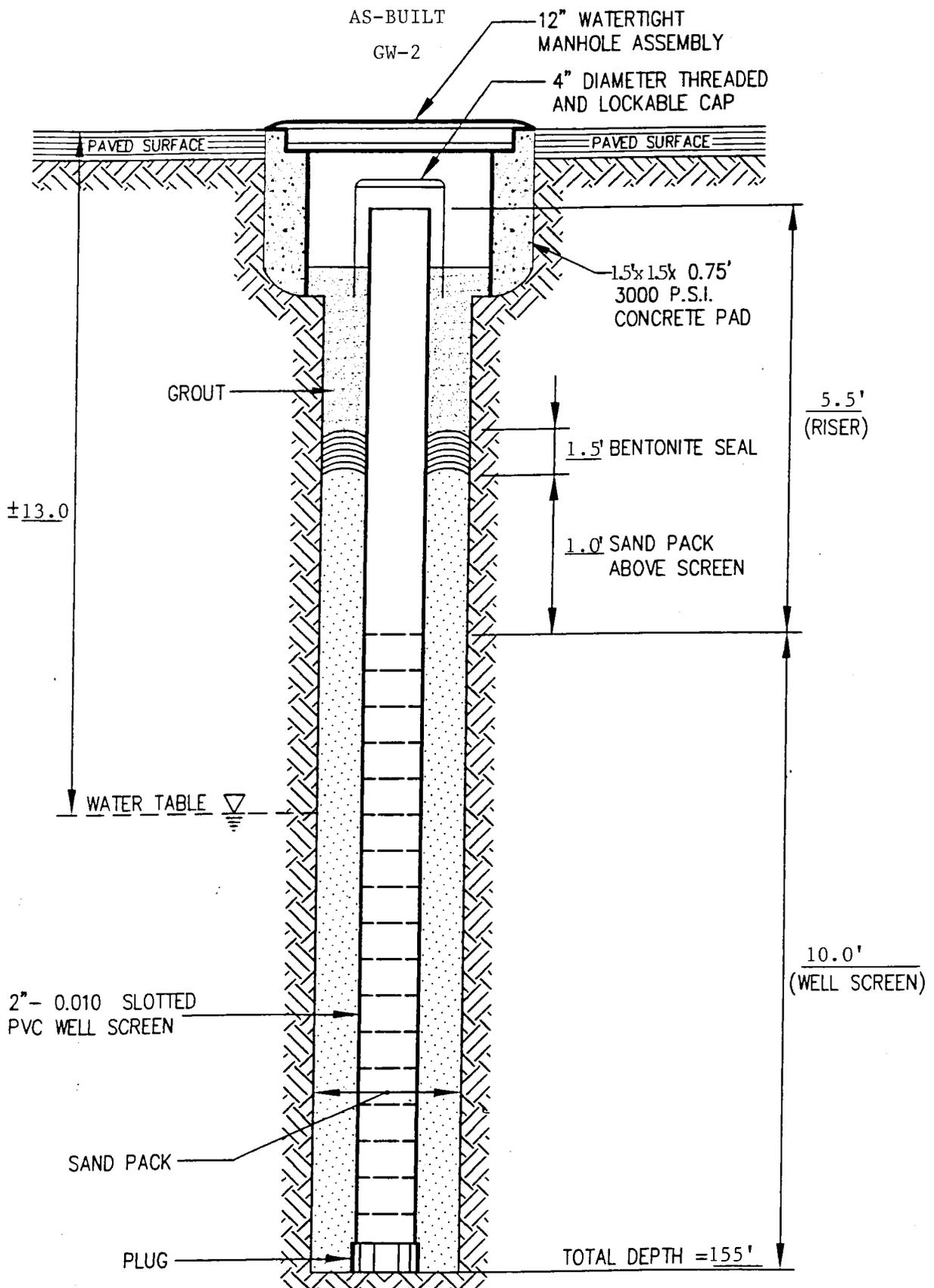
DRILLED BY WJM  
 LOGGED BY TWL  
 DRILLING DATE 6/30/00

SAMPLE DEPTH (FT.)		SAMPLE DESCRIPTION	USGS	WATER CONTENT	HC ODOR	PID/FID PPM	BLOW COUNT
0	1	Core and jack 6" concrete using the 6" gravel hammer					
1	2	Dark gray, very fine to medium grained, SILT and SAND mixture, well graded, poorly sorted, medium dense	SM to SW	MOIST	STRONG	10	HA
2	5	Dark gray, very fine to fine grained, CLAYEY SAND medium stiff	SC	MOIST	MODERATE	16	HA
5	6	Olive gray, very fine grained SILTY SAND, loose to medium dense	SM	MOIST	STRONG	65	HA
6	8	Light olive gray, very fine grained SILTY SAND, medium dense, well sorted	SM	MOIST	STRONG	35	HA
8	10	Light gray, very fine grained, SILTY SAND, medium dense, well sorted	SM	DRY	SLIGHT	24	HA
10	15.5	Yellowish orange, very fine to fine grained, SILTY SAND, loose to medium dense, well sorted	SM	MOIST to SATURATED	SLIGHT	14	HA

REMARKS: HA = Hand Auger

Page 1 of 1





<p>WILMINGTON, NORTH CAROLINA</p>	PROJECT BUILDING 1773 MCAS CHERRY POINT, NC	TITLE PAVED SURFACE TYPE II MONITORING WELL DETAIL	PLATE 1	
	JOB NO. 200-113	DATE 6/30/00	SCALE: NTS	DRAWN BY:

**APPENDIX B**  
**LABORATORY ANALYTICAL TEST REPORTS/  
CHAIN-OF-CUSTODY RECORDS**

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
2627 Northchase Parkway S.E.  
Wilmington, North Carolina 28405  
(910) 350-1903  
Fax (910) 350-1557

Mr. Tom Landis  
Richard Catlin & Associates  
P.O. Box 10279  
Wilmington, NC 28404-0279

July 21, 2000

Report Number: G128-616

Dear Mr. Landis,

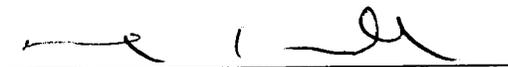
Enclosed are the results of the analytical services performed under the referenced project. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call for assistance. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,

Paradigm Analytical Laboratories, Inc.



Laboratory Director  
Mark Randall

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-9 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90533  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 94.1

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	160	BQL
Arochlor-1221	160	BQL
Arochlor-1232	160	BQL
Arochlor-1242	160	BQL
Arochlor-1248	160	BQL
Arochlor-1254	160	BQL
Arochlor-1260	160	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	63	63

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: mw

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-9 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90532  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

%SOLIDS: 72.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	210	BQL
Arochlor-1221	210	BQL
Arochlor-1232	210	BQL
Arochlor-1242	210	BQL
Arochlor-1248	210	BQL
Arochlor-1254	210	BQL
Arochlor-1260	210	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	62	62

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-10 (0-4')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90534  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 85.7

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	180	BQL
Arochlor-1221	180	BQL
Arochlor-1232	180	BQL
Arochlor-1242	180	BQL
Arochlor-1248	180	BQL
Arochlor-1254	180	BQL
Arochlor-1260	180	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	94	94

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-10 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90535  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 94.0

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	160	BQL
Arochlor-1221	160	BQL
Arochlor-1232	160	BQL
Arochlor-1242	160	BQL
Arochlor-1248	160	BQL
Arochlor-1254	160	BQL
Arochlor-1260	160	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	64	64

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs

by EPA 8082

Client Sample ID: GP-11 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90536  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 83.3

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	180	BQL
Arochlor-1221	180	BQL
Arochlor-1232	180	BQL
Arochlor-1242	180	BQL
Arochlor-1248	180	BQL
Arochlor-1254	180	BQL
Arochlor-1260	180	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	50	50

Comments:

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: MO

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-11 (12-14')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90537  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

%SOLIDS: 86.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	180	BQL
Arochlor-1221	180	BQL
Arochlor-1232	180	BQL
Arochlor-1242	180	BQL
Arochlor-1248	180	BQL
Arochlor-1254	180	BQL
Arochlor-1260	180	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	60	60

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: Ma

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-12 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90538  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 89.9

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	170	BQL
Arochlor-1221	170	BQL
Arochlor-1232	170	BQL
Arochlor-1242	170	BQL
Arochlor-1248	170	BQL
Arochlor-1254	170	BQL
Arochlor-1260	170	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	61	61

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GP-12 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90539  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 90.2

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	170	BQL
Arochlor-1221	170	BQL
Arochlor-1232	170	BQL
Arochlor-1242	170	BQL
Arochlor-1248	170	BQL
Arochlor-1254	170	BQL
Arochlor-1260	170	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	85	85

**Comments:**

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for PCBs  
by EPA 8082

Client Sample ID: GW-2 (5-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90540  
Lab Project ID: G128-616  
Matrix: Soil

%SOLIDS: 80.7

Date Collected: 6/30/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	190	BQL
Arochlor-1221	190	BQL
Arochlor-1232	190	BQL
Arochlor-1242	190	BQL
Arochlor-1248	190	BQL
Arochlor-1254	190	BQL
Arochlor-1260	190	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	99	99

Comments: Elevated limits due to non-target matrix interference.

BQL = Below Quantitation Limit

NA = Not applicable, surrogate diluted out.

Reviewed By: Man

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for PCBs  
by EPA 8082**

Client Sample ID: GW-2 (10-11')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90541  
 Lab Project ID: G128-616  
 Matrix: Soil

%SOLIDS: 93.4

Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: CLP  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Arochlor-1016	170	BQL
Arochlor-1221	170	BQL
Arochlor-1232	170	BQL
Arochlor-1242	170	BQL
Arochlor-1248	170	BQL
Arochlor-1254	170	BQL
Arochlor-1260	170	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	59	59

**Comments: Elevated limits due to non-target matrix interference.**  
 BQL = Below Quantitation Limit  
 NA = Not applicable, surrogate diluted out.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Pesticides  
by EPA 8081

Client Sample ID: GP-9 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90533  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

%SOLIDS 94.1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)	
alpha-BHC	6.6	BQL	
beta-BHC	6.6	BQL	
delta-BHC	6.6	BQL	
gamma-BHC (Lindane)	6.6	BQL	
Heptachlor	6.6	BQL	
Aldrin	6.6	BQL	
Heptachlor epoxide	6.6	BQL	
Endosulfan I	6.6	BQL	
Dieldrin	6.6	BQL	
4,4'-DDE	6.6	BQL	
Endrin	6.6	BQL	
DDD	6.6	BQL	
Endosulfan II	6.6	BQL	
4,4'-DDT	6.6	BQL	
Methoxychlor	6.6	BQL	
Toxaphene	33	BQL	
Chlordane	33	BQL	
Endrin aldehyde	6.6	BQL	
Endosulfan sulfate	6.6	BQL	
Endrin ketone	6.6	BQL	
Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	63	63

Comments:

BQL = Below Quantitation Limit

Reviewed By: Mo





PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Pesticides  
by EPA 8081

Client Sample ID: GP-10 (10-12')

Date Collected: 6/29/00

Client Project ID: MCAS-CP Bldg. 1773

Date Received: 6/30/00

Lab Sample ID: 90535

Date Analyzed: 7/11/00

Lab Project ID: G128-616

Analyzed By: CLP

Matrix: Soil

%SOLIDS 94.0

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
alpha-BHC	6.6	BQL
beta-BHC	6.6	BQL
delta-BHC	6.6	BQL
gamma-BHC (Lindane)	6.6	BQL
Heptachlor	6.6	BQL
Aldrin	6.6	BQL
Heptachlor epoxide	6.6	BQL
Endosulfan I	6.6	BQL
Dieldrin	6.6	BQL
4,4'-DDE	6.6	BQL
Endrin	6.6	BQL
DDD	6.6	BQL
Endosulfan II	6.6	BQL
4,4'-DDT	6.6	BQL
Methoxychlor	6.6	BQL
Toxaphene	33	BQL
Chlordane	33	BQL
Endrin aldehyde	6.6	BQL
Endosulfan sulfate	6.6	BQL
Endrin ketone	6.6	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	64	64

Comments:

BQL = Below Quantitation Limit

Reviewed By:



PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Pesticides  
by EPA 8081

Client Sample ID: GP-11 (12-14')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90537  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

%SOLIDS 86.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
alpha-BHC	7.2	BQL
beta-BHC	7.2	BQL
delta-BHC	7.2	BQL
gamma-BHC (Lindane)	7.2	BQL
Heptachlor	7.2	BQL
Aldrin	7.2	BQL
Heptachlor epoxide	7.2	BQL
Endosulfan I	7.2	BQL
Dieldrin	7.2	BQL
4,4'-DDE	7.2	BQL
Endrin	7.2	BQL
DDD	7.2	BQL
Endosulfan II	7.2	BQL
4,4'-DDT	7.2	BQL
Methoxychlor	7.2	BQL
Toxaphene	36	BQL
Chlordane	36	BQL
Endrin aldehyde	7.2	BQL
Endosulfan sulfate	7.2	BQL
Endrin ketone	7.2	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	60	60

Comments:

BQL = Below Quantitation Limit

Reviewed By:





**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Pesticides  
by EPA 8081**

Client Sample ID: GW-2 (5-6')	Date Collected: 6/30/00
Client Project ID: MCAS-CP Bldg. 1773	Date Received: 6/30/00
Lab Sample ID: 90540	Date Analyzed: 7/11/00
Lab Project ID: G128-616	Analyzed By: CLP
Matrix: Soil      %SOLIDS 80.7	Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
alpha-BHC	76	BQL
beta-BHC	76	BQL
delta-BHC	76	BQL
gamma-BHC (Lindane)	76	BQL
Heptachlor	76	BQL
Aldrin	76	BQL
Heptachlor epoxide	76	BQL
Endosulfan I	76	BQL
Dieldrin	76	BQL
4,4'-DDE	76	BQL
Endrin	76	BQL
DDD	76	BQL
Endosulfan II	76	BQL
4,4'-DDT	76	BQL
Methoxychlor	76	BQL
Toxaphene	38	BQL
Chlordane	38	BQL
Endrin aldehyde	76	BQL
Endosulfan sulfate	76	BQL
Endrin ketone	76	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
TCMX	100	99	99

**Comments: Elevated limits due to non-target matrix interference.**  
BQL = Below Quantitation Limit

Reviewed By: Ma

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Pesticides  
by EPA 8081

Client Sample ID: GW-2 (10-11')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90541  
Lab Project ID: G128-616  
Matrix: Soil %SOLIDS 93.4

Date Collected: 6/30/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: CLP  
Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)	
alpha-BHC	66	BQL	
beta-BHC	66	BQL	
delta-BHC	66	BQL	
gamma-BHC (Lindane)	66	BQL	
Heptachlor	66	BQL	
Aldrin	66	BQL	
Heptachlor epoxide	66	BQL	
Endosulfan I	66	BQL	
Dieldrin	66	BQL	
4,4'-DDE	66	BQL	
Endrin	66	BQL	
DDD	66	BQL	
Endosulfan II	66	BQL	
4,4'-DDT	66	BQL	
Methoxychlor	66	BQL	
Toxaphene	33	BQL	
Chlordane	33	BQL	
Endrin aldehyde	66	BQL	
Endosulfan sulfate	66	BQL	
Endrin ketone	66	BQL	
Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
DBC	100	59	59

Comments: Elevated limits due to non-target matrix interference.  
BQL = Below Quantitation Limit

Reviewed By: MP



**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 8260B*

Client Sample ID: GP-9 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90533  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 94.1

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	53	BQL
Acrolein	110	BQL
Acrylonitrile	110	BQL
Benzene	5.3	BQL
Bromobenzene	5.3	BQL
Bromochloromethane	5.3	BQL
Bromodichloromethane	5.3	BQL
Bromoform	5.3	BQL
Bromomethane	5.3	BQL
2-Butanone	27	BQL
n-Butylbenzene	5.3	BQL
sec-Butylbenzene	5.3	BQL
tert-Butylbenzene	5.3	BQL
Carbon disulfide	5.3	BQL
Carbon tetrachloride	5.3	BQL
Chlorobenzene	5.3	BQL
Chloroethane	5.3	BQL
2-Chloroethyl vinyl ether	5.3	BQL
Chloroform	5.3	BQL
Chloromethane	5.3	BQL
2-Chlorotoluene	5.3	BQL
4-Chlorotoluene	5.3	BQL
Dibromochloromethane	5.3	BQL
1,2-Dibromo-3-chloropropane	5.3	BQL
Dibromomethane	5.3	BQL
1,2-Dibromoethane (EDB)	5.3	BQL
1,2-Dichlorobenzene	5.3	BQL
1,3-Dichlorobenzene	5.3	BQL
1,4-Dichlorobenzene	5.3	BQL
trans-1,4-Dichloro-2-butene	5.3	BQL
1,1-Dichloroethane	5.3	BQL
1,1-Dichloroethene	5.3	BQL
1,2-Dichloroethane	5.3	BQL
cis-1,2-Dichloroethene	5.3	BQL
trans-1,2-dichloroethene	5.3	BQL
1,2-Dichloropropane	5.3	BQL
1,3-Dichloropropane	5.3	BQL
2,2-Dichloropropane	5.3	BQL
1,1-Dichloropropene	5.3	BQL
cis-1,3-Dichloropropene	5.3	BQL
trans-1,3-Dichloropropene	5.3	BQL
Dichlorodifluoromethane	5.3	BQL
Diisopropyl ether (DIPE)	5.3	BQL
Ethylbenzene	5.3	BQL
Hexachlorobutadiene	5.3	BQL

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 8260B*

Client Sample ID: GP-9 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90533  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 94.1

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	5.3	BQL
Iodomethane	5.3	BQL
Isopropylbenzene	5.3	BQL
4-Isopropyltoluene	5.3	BQL
Methylene chloride	21	BQL
4-Methyl-2-pentanone	5.3	BQL
Methyl-tert-butyl ether (MTBE)	5.3	BQL
Naphthalene	5.3	BQL
n-Propyl benzene	5.3	BQL
Styrene	5.3	BQL
1,1,1,2-Tetrachloroethane	5.3	BQL
1,1,2,2-Tetrachloroethane	5.3	BQL
Tetrachloroethene	5.3	BQL
Toluene	5.3	BQL
1,2,3-Trichlorobenzene	5.3	BQL
1,2,4-Trichlorobenzene	5.3	BQL
Trichloroethene	5.3	BQL
1,1,1-Trichloroethane	5.3	BQL
1,1,2-Trichloroethane	5.3	BQL
Trichlorofluoromethane	5.3	BQL
1,2,3-Trichloropropane	5.3	BQL
1,2,4-Trimethylbenzene	5.3	BQL
1,3,5-Trimethylbenzene	5.3	BQL
Vinyl chloride	5.3	BQL
m-,p-Xylene	11	BQL
o-Xylene	5.3	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	50.8	102
1,2-Dichloroethane-d4	50	49.9	100
Toluene-d8	50	50.8	102

**Comments:**

All results are corrected for dilution.

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Volatiles  
 by GCMS 8260B

Client Sample ID: GP-9 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90532  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 72.8

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	69	BQL
Acrolein	140	BQL
Acrylonitrile	140	BQL
Benzene	6.9	BQL
Bromobenzene	6.9	BQL
Bromochloromethane	6.9	BQL
Bromodichloromethane	6.9	BQL
Bromoform	6.9	BQL
Bromomethane	6.9	BQL
2-Butanone	34	BQL
n-Butylbenzene	6.9	BQL
sec-Butylbenzene	6.9	BQL
tert-Butylbenzene	6.9	BQL
Carbon disulfide	6.9	BQL
Carbon tetrachloride	6.9	BQL
Chlorobenzene	6.9	BQL
Chloroethane	6.9	BQL
2-Chloroethyl vinyl ether	6.9	BQL
Chloroform	6.9	BQL
Chloromethane	6.9	BQL
2-Chlorotoluene	6.9	BQL
4-Chlorotoluene	6.9	BQL
Dibromochloromethane	6.9	BQL
1,2-Dibromo-3-chloropropane	6.9	BQL
Dibromomethane	6.9	BQL
1,2-Dibromoethane (EDB)	6.9	BQL
1,2-Dichlorobenzene	6.9	BQL
1,3-Dichlorobenzene	6.9	BQL
1,4-Dichlorobenzene	6.9	BQL
trans-1,4-Dichloro-2-butene	6.9	BQL
1,1-Dichloroethane	6.9	BQL
1,1-Dichloroethene	6.9	BQL
1,2-Dichloroethane	6.9	BQL
cis-1,2-Dichloroethene	6.9	BQL
trans-1,2-dichloroethene	6.9	BQL
1,2-Dichloropropane	6.9	BQL
1,3-Dichloropropane	6.9	BQL
2,2-Dichloropropane	6.9	BQL
1,1-Dichloropropene	6.9	BQL
cis-1,3-Dichloropropene	6.9	BQL
trans-1,3-Dichloropropene	6.9	BQL
Dichlorodifluoromethane	6.9	BQL
Diisopropyl ether (DIPE)	6.9	BQL
Ethylbenzene	6.9	BQL
Hexachlorobutadiene	6.9	BQL

Reviewed by: 

Flags: BQL = Below Quantitation Limit

Page 1 of 2

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GP-9 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90532  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 72.8

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	6.9	BQL
Iodomethane	6.9	BQL
Isopropylbenzene	6.9	BQL
4-Isopropyltoluene	6.9	BQL
Methylene chloride	27	BQL
4-Methyl-2-pentanone	6.9	BQL
Methyl-tert-butyl ether (MTBE)	6.9	BQL
Naphthalene	6.9	BQL
n-Propyl benzene	6.9	BQL
Styrene	6.9	BQL
1,1,1,2-Tetrachloroethane	6.9	BQL
1,1,2,2-Tetrachloroethane	6.9	BQL
Tetrachloroethene	6.9	BQL
Toluene	6.9	BQL
1,2,3-Trichlorobenzene	6.9	BQL
1,2,4-Trichlorobenzene	6.9	BQL
Trichloroethene	6.9	BQL
1,1,1-Trichloroethane	6.9	BQL
1,1,2-Trichloroethane	6.9	BQL
Trichlorofluoromethane	6.9	BQL
1,2,3-Trichloropropane	6.9	BQL
1,2,4-Trimethylbenzene	6.9	BQL
1,3,5-Trimethylbenzene	6.9	BQL
Vinyl chloride	6.9	BQL
m-,p-Xylene	14	BQL
o-Xylene	6.9	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	51.1	102
1,2-Dichloroethane-d4	50	53.1	106
Toluene-d8	50	50.2	100

**Comments:**

All results are corrected for dilution.

Reviewed by: 

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Volatiles  
 by GCMS 8260B

Client Sample ID: GP-10 (0-4')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90534  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 85.7

Date Analyzed: 7/8/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	58	220
Acrolein	120	BQL
Acrylonitrile	120	BQL
Benzene	5.8	BQL
Bromobenzene	5.8	BQL
Bromochloromethane	5.8	BQL
Bromodichloromethane	5.8	BQL
Bromoform	5.8	BQL
Bromomethane	5.8	BQL
2-Butanone	29	BQL
n-Butylbenzene	5.8	15
sec-Butylbenzene	5.8	21
tert-Butylbenzene	5.8	BQL
Carbon disulfide	5.8	BQL
Carbon tetrachloride	5.8	BQL
Chlorobenzene	5.8	BQL
Chloroethane	5.8	BQL
2-Chloroethyl vinyl ether	5.8	BQL
Chloroform	5.8	BQL
Chloromethane	5.8	BQL
2-Chlorotoluene	5.8	BQL
4-Chlorotoluene	5.8	BQL
Dibromochloromethane	5.8	BQL
1,2-Dibromo-3-chloropropane	5.8	BQL
Dibromomethane	5.8	BQL
1,2-Dibromoethane (EDB)	5.8	BQL
1,2-Dichlorobenzene	5.8	BQL
1,3-Dichlorobenzene	5.8	BQL
1,4-Dichlorobenzene	5.8	BQL
trans-1,4-Dichloro-2-butene	5.8	BQL
1,1-Dichloroethane	5.8	BQL
1,1-Dichloroethene	5.8	BQL
1,2-Dichloroethane	5.8	BQL
cis-1,2-Dichloroethene	5.8	BQL
trans-1,2-dichloroethene	5.8	BQL
1,2-Dichloropropane	5.8	BQL
1,3-Dichloropropane	5.8	BQL
2,2-Dichloropropane	5.8	BQL
1,1-Dichloropropene	5.8	BQL
cis-1,3-Dichloropropene	5.8	BQL
trans-1,3-Dichloropropene	5.8	BQL
Dichlorodifluoromethane	5.8	BQL
Diisopropyl ether (DIPE)	5.8	BQL
Ethylbenzene	5.8	BQL
Hexachlorobutadiene	5.8	BQL

Reviewed by: 

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 8260B*

Client Sample ID: GP-10 (0-4')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90534  
 Lab Project ID: G128-616  
 Matrix: Soil            %Solids: 85.7

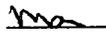
Date Analyzed: 7/8/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	5.8	BQL
Iodomethane	5.8	BQL
Isopropylbenzene	5.8	BQL
4-Isopropyltoluene	5.8	BQL
Methylene chloride	23	BQL
4-Methyl-2-pentanone	5.8	BQL
Methyl-tert-butyl ether (MTBE)	5.8	BQL
Naphthalene	5.8	72
n-Propyl benzene	5.8	BQL
Styrene	5.8	BQL
1,1,1,2-Tetrachloroethane	5.8	BQL
1,1,2,2-Tetrachloroethane	5.8	BQL
Tetrachloroethene	5.8	BQL
Toluene	5.8	BQL
1,2,3-Trichlorobenzene	5.8	BQL
1,2,4-Trichlorobenzene	5.8	BQL
Trichloroethene	5.8	BQL
1,1,1-Trichloroethane	5.8	BQL
1,1,2-Trichloroethane	5.8	BQL
Trichlorofluoromethane	5.8	BQL
1,2,3-Trichloropropane	5.8	BQL
1,2,4-Trimethylbenzene	5.8	BQL
1,3,5-Trimethylbenzene	5.8	BQL
Vinyl chloride	5.8	BQL
m-,p-Xylene	12	BQL
o-Xylene	5.8	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	54.4	109
1,2-Dichloroethane-d4	50	51.1	102
Toluene-d8	50	51.1	102

**Comments:**

All results are corrected for dilution.

Reviewed by: 

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Volatiles  
 by GCMS 8260B

Client Sample ID: GP-10 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90535  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 94.0

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	53	BQL
Acrolein	110	BQL
Acrylonitrile	110	BQL
Benzene	5.3	BQL
Bromobenzene	5.3	BQL
Bromochloromethane	5.3	BQL
Bromodichloromethane	5.3	BQL
Bromoform	5.3	BQL
Bromomethane	5.3	BQL
2-Butanone	27	BQL
n-Butylbenzene	5.3	BQL
sec-Butylbenzene	5.3	BQL
tert-Butylbenzene	5.3	BQL
Carbon disulfide	5.3	BQL
Carbon tetrachloride	5.3	BQL
Chlorobenzene	5.3	BQL
Chloroethane	5.3	BQL
2-Chloroethyl vinyl ether	5.3	BQL
Chloroform	5.3	BQL
Chloromethane	5.3	BQL
2-Chlorotoluene	5.3	BQL
4-Chlorotoluene	5.3	BQL
Dibromochloromethane	5.3	BQL
1,2-Dibromo-3-chloropropane	5.3	BQL
Dibromomethane	5.3	BQL
1,2-Dibromoethane (EDB)	5.3	BQL
1,2-Dichlorobenzene	5.3	BQL
1,3-Dichlorobenzene	5.3	BQL
1,4-Dichlorobenzene	5.3	BQL
trans-1,4-Dichloro-2-butene	5.3	BQL
1,1-Dichloroethane	5.3	BQL
1,1-Dichloroethene	5.3	BQL
1,2-Dichloroethane	5.3	BQL
cis-1,2-Dichloroethene	5.3	BQL
trans-1,2-dichloroethene	5.3	BQL
1,2-Dichloropropane	5.3	BQL
1,3-Dichloropropane	5.3	BQL
2,2-Dichloropropane	5.3	BQL
1,1-Dichloropropene	5.3	BQL
cis-1,3-Dichloropropene	5.3	BQL
trans-1,3-Dichloropropene	5.3	BQL
Dichlorodifluoromethane	5.3	BQL
Diisopropyl ether (DIPE)	5.3	BQL
Ethylbenzene	5.3	BQL
Hexachlorobutadiene	5.3	BQL

Reviewed by: YMA

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 8260B*

Client Sample ID: GP-10 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90535  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 94.0

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	5.3	BQL
Iodomethane	5.3	BQL
Isopropylbenzene	5.3	BQL
4-Isopropyltoluene	5.3	BQL
Methylene chloride	21	BQL
4-Methyl-2-pentanone	5.3	BQL
Methyl-tert-butyl ether (MTBE)	5.3	BQL
Naphthalene	5.3	BQL
n-Propyl benzene	5.3	BQL
Styrene	5.3	BQL
1,1,1,2-Tetrachloroethane	5.3	BQL
1,1,2,2-Tetrachloroethane	5.3	BQL
Tetrachloroethene	5.3	BQL
Toluene	5.3	BQL
1,2,3-Trichlorobenzene	5.3	BQL
1,2,4-Trichlorobenzene	5.3	BQL
Trichloroethene	5.3	BQL
1,1,1-Trichloroethane	5.3	BQL
1,1,2-Trichloroethane	5.3	BQL
Trichlorofluoromethane	5.3	BQL
1,2,3-Trichloropropane	5.3	BQL
1,2,4-Trimethylbenzene	5.3	BQL
1,3,5-Trimethylbenzene	5.3	BQL
Vinyl chloride	5.3	BQL
m-,p-Xylene	11	BQL
o-Xylene	5.3	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	49.3	99
1,2-Dichloroethane-d4	50	49.3	99
Toluene-d8	50	51.0	102

**Comments:**

All results are corrected for dilution.

Reviewed by: Ma

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GP-11 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90536  
 Lab Project ID: G128-616

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00

Matrix: Soil                      %Solids: 83.3

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	60	BQL
Acrolein	120	BQL
Acrylonitrile	120	BQL
Benzene	6	BQL
Bromobenzene	6	BQL
Bromochloromethane	6	BQL
Bromodichloromethane	6	BQL
Bromoform	6	BQL
Bromomethane	6	BQL
2-Butanone	30	BQL
n-Butylbenzene	6	BQL
sec-Butylbenzene	6	BQL
tert-Butylbenzene	6	BQL
Carbon disulfide	6	BQL
Carbon tetrachloride	6	BQL
Chlorobenzene	6	BQL
Chloroethane	6	BQL
2-Chloroethyl vinyl ether	6	BQL
Chloroform	6	BQL
Chloromethane	6	BQL
2-Chlorotoluene	6	BQL
4-Chlorotoluene	6	BQL
Dibromochloromethane	6	BQL
1,2-Dibromo-3-chloropropane	6	BQL
Dibromomethane	6	BQL
1,2-Dibromoethane (EDB)	6	BQL
1,2-Dichlorobenzene	6	BQL
1,3-Dichlorobenzene	6	BQL
1,4-Dichlorobenzene	6	BQL
trans-1,4-Dichloro-2-butene	6	BQL
1,1-Dichloroethane	6	BQL
1,1-Dichloroethene	6	BQL
1,2-Dichloroethane	6	BQL
cis-1,2-Dichloroethene	6	BQL
trans-1,2-dichloroethene	6	BQL
1,2-Dichloropropane	6	BQL
1,3-Dichloropropane	6	BQL
2,2-Dichloropropane	6	BQL
1,1-Dichloropropene	6	BQL
cis-1,3-Dichloropropene	6	BQL
trans-1,3-Dichloropropene	6	BQL
Dichlorodifluoromethane	6	BQL
Diisopropyl ether (DIPE)	6	BQL
Ethylbenzene	6	BQL
Hexachlorobutadiene	6	BQL

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 8260B*

Client Sample ID: GP-11 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90536  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 83.3

Date Analyzed: 7/7/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	6	BQL
Iodomethane	6	BQL
Isopropylbenzene	6	BQL
4-Isopropyltoluene	6	BQL
Methylene chloride	24	BQL
4-Methyl-2-pentanone	6	BQL
Methyl-tert-butyl ether (MTBE)	6	BQL
Naphthalene	6	BQL
n-Propyl benzene	6	BQL
Styrene	6	BQL
1,1,1,2-Tetrachloroethane	6	BQL
1,1,2,2-Tetrachloroethane	6	BQL
Tetrachloroethene	6	BQL
Toluene	6	BQL
1,2,3-Trichlorobenzene	6	BQL
1,2,4-Trichlorobenzene	6	BQL
Trichloroethene	6	BQL
1,1,1-Trichloroethane	6	BQL
1,1,2-Trichloroethane	6	BQL
Trichlorofluoromethane	6	BQL
1,2,3-Trichloropropane	6	BQL
1,2,4-Trimethylbenzene	6	BQL
1,3,5-Trimethylbenzene	6	BQL
Vinyl chloride	6	BQL
m,p-Xylene	12	BQL
o-Xylene	6	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	51.5	103
1,2-Dichloroethane-d4	50	48.6	97
Toluene-d8	50	49.3	99

**Comments:**

All results are corrected for dilution.

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
Results for Volatiles  
 by GCMS 8260B

Client Sample ID: GP-11 (12-14')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90537  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 86.4

Date Analyzed: 7/8/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	58	170
Acrolein	120	BQL
Acrylonitrile	120	BQL
Benzene	5.8	BQL
Bromobenzene	5.8	BQL
Bromochloromethane	5.8	BQL
Bromodichloromethane	5.8	BQL
Bromoform	5.8	BQL
Bromomethane	5.8	BQL
2-Butanone	29	BQL
n-Butylbenzene	5.8	BQL
sec-Butylbenzene	5.8	BQL
tert-Butylbenzene	5.8	BQL
Carbon disulfide	5.8	BQL
Carbon tetrachloride	5.8	BQL
Chlorobenzene	5.8	BQL
Chloroethane	5.8	BQL
2-Chloroethyl vinyl ether	5.8	BQL
Chloroform	5.8	BQL
Chloromethane	5.8	BQL
2-Chlorotoluene	5.8	BQL
4-Chlorotoluene	5.8	BQL
Dibromochloromethane	5.8	BQL
1,2-Dibromo-3-chloropropane	5.8	BQL
Dibromomethane	5.8	BQL
1,2-Dibromoethane (EDB)	5.8	BQL
1,2-Dichlorobenzene	5.8	BQL
1,3-Dichlorobenzene	5.8	BQL
1,4-Dichlorobenzene	5.8	BQL
trans-1,4-Dichloro-2-butene	5.8	BQL
1,1-Dichloroethane	5.8	BQL
1,1-Dichloroethene	5.8	BQL
1,2-Dichloroethane	5.8	BQL
cis-1,2-Dichloroethene	5.8	BQL
trans-1,2-dichloroethene	5.8	BQL
1,2-Dichloropropane	5.8	BQL
1,3-Dichloropropane	5.8	BQL
2,2-Dichloropropane	5.8	BQL
1,1-Dichloropropene	5.8	BQL
cis-1,3-Dichloropropene	5.8	BQL
trans-1,3-Dichloropropene	5.8	BQL
Dichlorodifluoromethane	5.8	BQL
Diisopropyl ether (DIPE)	5.8	BQL
Ethylbenzene	5.8	BQL
Hexachlorobutadiene	5.8	BQL

Reviewed by: ANN

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GP-11 (12-14')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90537  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 86.4

Date Analyzed: 7/8/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	5.8	BQL
Iodomethane	5.8	BQL
Isopropylbenzene	5.8	BQL
4-Isopropyltoluene	5.8	BQL
Methylene chloride	23	BQL
4-Methyl-2-pentanone	5.8	BQL
Methyl-tert-butyl ether (MTBE)	5.8	BQL
Naphthalene	5.8	BQL
n-Propyl benzene	5.8	BQL
Styrene	5.8	BQL
1,1,1,2-Tetrachloroethane	5.8	BQL
1,1,1,2,2-Tetrachloroethane	5.8	BQL
Tetrachloroethene	5.8	BQL
Toluene	5.8	BQL
1,2,3-Trichlorobenzene	5.8	BQL
1,2,4-Trichlorobenzene	5.8	BQL
Trichloroethene	5.8	BQL
1,1,1-Trichloroethane	5.8	BQL
1,1,2-Trichloroethane	5.8	BQL
Trichlorofluoromethane	5.8	BQL
1,2,3-Trichloropropane	5.8	BQL
1,2,4-Trimethylbenzene	5.8	BQL
1,3,5-Trimethylbenzene	5.8	BQL
Vinyl chloride	5.8	BQL
m-,p-Xylene	12	BQL
o-Xylene	5.8	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	49.2	98
1,2-Dichloroethane-d4	50	51.5	103
Toluene-d8	50	50.5	101

**Comments:**

All results are corrected for dilution.

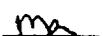
Reviewed by: YMQ

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
 by GCMS 8260B

Client Sample ID: GP-12 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90538  
 Lab Project ID: G128-616  
 Matrix: Soil      %Solids: 89.9

Date Analyzed: 7/13/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 125

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	3500	<b>8600</b>
Acrolein	14000	BQL
Acrylonitrile	14000	BQL
Benzene	140	BQL
Bromobenzene	140	BQL
Bromochloromethane	140	BQL
Bromodichloromethane	140	BQL
Bromoform	140	BQL
Bromomethane	140	BQL
2-Butanone	3500	BQL
n-Butylbenzene	140	BQL
sec-Butylbenzene	140	BQL
tert-Butylbenzene	140	BQL
Carbon disulfide	140	BQL
Carbon tetrachloride	140	BQL
Chlorobenzene	140	BQL
Chloroethane	140	BQL
2-Chloroethyl vinyl ether	690	BQL
Chloroform	140	BQL
Chloromethane	140	BQL
2-Chlorotoluene	140	BQL
4-Chlorotoluene	140	BQL
Dibromochloromethane	140	BQL
1,2-Dibromo-3-chloropropane	690	BQL
Dibromomethane	140	BQL
1,2-Dibromoethane (EDB)	140	BQL
1,2-Dichlorobenzene	140	BQL
1,3-Dichlorobenzene	140	BQL
1,4-Dichlorobenzene	140	BQL
trans-1,4-Dichloro-2-butene	690	BQL
1,1-Dichloroethane	140	BQL
1,1-Dichloroethene	140	BQL
1,2-Dichloroethane	140	BQL
cis-1,2-Dichloroethene	140	BQL
trans-1,2-dichloroethene	140	BQL
1,2-Dichloropropane	140	BQL
1,3-Dichloropropane	140	BQL
2,2-Dichloropropane	140	BQL
1,1-Dichloropropene	140	BQL
cis-1,3-Dichloropropene	140	BQL
trans-1,3-Dichloropropene	140	BQL
Dichlorodifluoromethane	690	BQL
Diisopropyl ether (DIPE)	140	BQL
Ethylbenzene	140	BQL
Hexachlorobutadiene	140	BQL

Reviewed by: 

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GP-12 (4-6")  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90538  
 Lab Project ID: G128-616

Date Analyzed: 7/13/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 125

Matrix: Soil      %Solids: 89.9

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	690	BQL
Iodomethane	140	BQL
Isopropylbenzene	140	BQL
4-Isopropyltoluene	140	BQL
Methylene chloride	690	BQL
4-Methyl-2-pentanone	690	BQL
Methyl-tert-butyl ether (MTBE)	140	BQL
Naphthalene	140	BQL
n-Propyl benzene	140	BQL
Styrene	140	BQL
1,1,1,2-Tetrachloroethane	140	BQL
1,1,2,2-Tetrachloroethane	140	BQL
Tetrachloroethene	140	BQL
Toluene	140	BQL
1,2,3-Trichlorobenzene	140	BQL
1,2,4-Trichlorobenzene	140	BQL
Trichloroethene	140	BQL
1,1,1-Trichloroethane	140	BQL
1,1,2-Trichloroethane	140	BQL
Trichlorofluoromethane	140	BQL
1,2,3-Trichloropropane	140	BQL
1,2,4-Trimethylbenzene	140	BQL
1,3,5-Trimethylbenzene	140	BQL
Vinyl chloride	140	BQL
m,p-Xylene	280	BQL
o-Xylene	140	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	10	10.2	102
1,2-Dichloroethane-d4	10	9.9	99
Toluene-d8	10	10.1	101

**Comments:**

All results are corrected for dilution.

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GP-12 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90539  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 90.2

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	110	320
Acrolein	220	BQL
Acrylonitrile	220	BQL
Benzene	11	BQL
Bromobenzene	11	BQL
Bromochloromethane	11	BQL
Bromodichloromethane	11	BQL
Bromoform	11	BQL
Bromomethane	11	BQL
2-Butanone	55	BQL
n-Butylbenzene	11	BQL
sec-Butylbenzene	11	BQL
tert-Butylbenzene	11	BQL
Carbon disulfide	11	BQL
Carbon tetrachloride	11	BQL
Chlorobenzene	11	BQL
Chloroethane	11	BQL
2-Chloroethyl vinyl ether	11	BQL
Chloroform	11	BQL
Chloromethane	11	BQL
2-Chlorotoluene	11	BQL
4-Chlorotoluene	11	BQL
Dibromochloromethane	11	BQL
1,2-Dibromo-3-chloropropane	11	BQL
Dibromomethane	11	BQL
1,2-Dibromoethane (EDB)	11	BQL
1,2-Dichlorobenzene	11	BQL
1,3-Dichlorobenzene	11	BQL
1,4-Dichlorobenzene	11	BQL
trans-1,4-Dichloro-2-butene	11	BQL
1,1-Dichloroethane	11	BQL
1,1-Dichloroethene	11	BQL
1,2-Dichloroethane	11	BQL
cis-1,2-Dichloroethene	11	BQL
trans-1,2-dichloroethene	11	BQL
1,2-Dichloropropane	11	BQL
1,3-Dichloropropane	11	BQL
2,2-Dichloropropane	11	BQL
1,1-Dichloropropene	11	BQL
cis-1,3-Dichloropropene	11	BQL
trans-1,3-Dichloropropene	11	BQL
Dichlorodifluoromethane	11	BQL
Diisopropyl ether (DIPE)	11	BQL
Ethylbenzene	11	BQL
Hexachlorobutadiene	11	BQL

Reviewed by: 

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
 by GCMS 8260B

Client Sample ID: GP-12 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90539  
 Lab Project ID: G128-616  
 Matrix: Soil      %Solids: 90.2

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	11	BQL
Iodomethane	11	BQL
Isopropylbenzene	11	BQL
4-Isopropyltoluene	11	BQL
Methylene chloride	44	BQL
4-Methyl-2-pentanone	11	BQL
Methyl-tert-butyl ether (MTBE)	11	BQL
Naphthalene	11	BQL
n-Propyl benzene	11	BQL
Styrene	11	BQL
1,1,1,2-Tetrachloroethane	11	BQL
1,1,2,2-Tetrachloroethane	11	BQL
Tetrachloroethene	11	BQL
Toluene	11	BQL
1,2,3-Trichlorobenzene	11	BQL
1,2,4-Trichlorobenzene	11	BQL
Trichloroethene	11	BQL
1,1,1-Trichloroethane	11	BQL
1,1,2-Trichloroethane	11	BQL
Trichlorofluoromethane	11	BQL
1,2,3-Trichloropropane	11	BQL
1,2,4-Trimethylbenzene	11	BQL
1,3,5-Trimethylbenzene	11	BQL
Vinyl chloride	11	BQL
m-,p-Xylene	22	BQL
o-Xylene	11	BQL

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	49.4	99
1,2-Dichloroethane-d4	50	57.7	115
Toluene-d8	50	48.8	98

**Comments:**

All results are corrected for dilution.

Reviewed by: RV

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles

by GCMS 8260B

Client Sample ID: GW-2 (5-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90540  
 Lab Project ID: G128-616  
 Matrix: Soil

%Solids: 80.7

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	310	770
Acrolein	620	BQL
Acrylonitrile	620	BQL
Benzene	31	BQL
Bromobenzene	31	BQL
Bromochloromethane	31	BQL
Bromodichloromethane	31	BQL
Bromoform	31	BQL
Bromomethane	31	BQL
2-Butanone	150	BQL
n-Butylbenzene	31	BQL
sec-Butylbenzene	31	91
tert-Butylbenzene	31	BQL
Carbon disulfide	31	BQL
Carbon tetrachloride	31	BQL
Chlorobenzene	31	BQL
Chloroethane	31	BQL
2-Chloroethyl vinyl ether	31	BQL
Chloroform	31	BQL
Chloromethane	31	BQL
2-Chlorotoluene	31	BQL
4-Chlorotoluene	31	BQL
Dibromochloromethane	31	BQL
1,2-Dibromo-3-chloropropane	31	BQL
Dibromomethane	31	BQL
1,2-Dibromoethane (EDB)	31	BQL
1,2-Dichlorobenzene	31	BQL
1,3-Dichlorobenzene	31	BQL
1,4-Dichlorobenzene	31	BQL
trans-1,4-Dichloro-2-butene	31	BQL
1,1-Dichloroethane	31	BQL
1,1-Dichloroethene	31	BQL
1,2-Dichloroethane	31	BQL
cis-1,2-Dichloroethene	31	BQL
trans-1,2-dichloroethene	31	BQL
1,2-Dichloropropane	31	BQL
1,3-Dichloropropane	31	BQL
2,2-Dichloropropane	31	BQL
1,1-Dichloropropene	31	BQL
cis-1,3-Dichloropropene	31	BQL
trans-1,3-Dichloropropene	31	BQL
Dichlorodifluoromethane	31	BQL
Diisopropyl ether (DIPE)	31	BQL
Ethylbenzene	31	35
Hexachlorobutadiene	31	BQL

Reviewed by: 

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Volatiles  
 by GCMS 8260B

Client Sample ID: GW-2 (5-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90540  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 80.7

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 5

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	31	BQL
Iodomethane	31	BQL
Isopropylbenzene	31	35
4-Isopropyltoluene	31	99
Methylene chloride	120	BQL
4-Methyl-2-pentanone	31	BQL
Methyl-tert-butyl ether (MTBE)	31	BQL
Naphthalene	31	460
n-Propyl benzene	31	110
Styrene	31	BQL
1,1,1,2-Tetrachloroethane	31	BQL
1,1,2,2-Tetrachloroethane	31	BQL
Tetrachloroethene	31	BQL
Toluene	31	BQL
1,2,3-Trichlorobenzene	31	BQL
1,2,4-Trichlorobenzene	31	BQL
Trichloroethene	31	BQL
1,1,1-Trichloroethane	31	BQL
1,1,2-Trichloroethane	31	BQL
Trichlorofluoromethane	31	BQL
1,2,3-Trichloropropane	31	BQL
1,2,4-Trimethylbenzene	31	900
1,3,5-Trimethylbenzene	31	380
Vinyl chloride	31	BQL
m-,p-Xylene	62	BQL
o-Xylene	31	84

Surrogate Spike Recoveries	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Compound			
Bromofluorobenzene	50	52.7	105
1,2-Dichloroethane-d4	50	60.2	120
Toluene-d8	50	48.6	97

**Comments:**

All results are corrected for dilution.

Reviewed by: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 8260B

Client Sample ID: GW-2 (10-11')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90541  
 Lab Project ID: G128-616

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 5

Matrix: Soil %Solids: 93.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acetone	270	620
Acrolein	540	BQL
Acrylonitrile	540	BQL
Benzene	27	BQL
Bromobenzene	27	BQL
Bromochloromethane	27	BQL
Bromodichloromethane	27	BQL
Bromoform	27	BQL
Bromomethane	27	BQL
2-Butanone	130	BQL
n-Butylbenzene	27	BQL
sec-Butylbenzene	27	BQL
tert-Butylbenzene	27	BQL
Carbon disulfide	27	BQL
Carbon tetrachloride	27	BQL
Chlorobenzene	27	BQL
Chloroethane	27	BQL
2-Chloroethyl vinyl ether	27	BQL
Chloroform	27	BQL
Chloromethane	27	BQL
2-Chlorotoluene	27	BQL
4-Chlorotoluene	27	BQL
Dibromochloromethane	27	BQL
1,2-Dibromo-3-chloropropane	27	BQL
Dibromomethane	27	BQL
1,2-Dibromoethane (EDB)	27	BQL
1,2-Dichlorobenzene	27	BQL
1,3-Dichlorobenzene	27	BQL
1,4-Dichlorobenzene	27	BQL
trans-1,4-Dichloro-2-butene	27	BQL
1,1-Dichloroethane	27	BQL
1,1-Dichloroethene	27	BQL
1,2-Dichloroethane	27	BQL
cis-1,2-Dichloroethene	27	BQL
trans-1,2-dichloroethene	27	BQL
1,2-Dichloropropane	27	BQL
1,3-Dichloropropane	27	BQL
2,2-Dichloropropane	27	BQL
1,1-Dichloropropene	27	BQL
cis-1,3-Dichloropropene	27	BQL
trans-1,3-Dichloropropene	27	BQL
Dichlorodifluoromethane	27	BQL
Diisopropyl ether (DIPE)	27	BQL
Ethylbenzene	27	BQL
Hexachlorobutadiene	27	BQL

Reviewed by:     

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**

Results for Volatiles  
by GCMS 8260B

Client Sample ID: GW-2 (10-11')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90541  
 Lab Project ID: G128-616  
 Matrix: Soil                      %Solids: 93.4

Date Analyzed: 7/10/00  
 Analyzed By: RNP  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 5

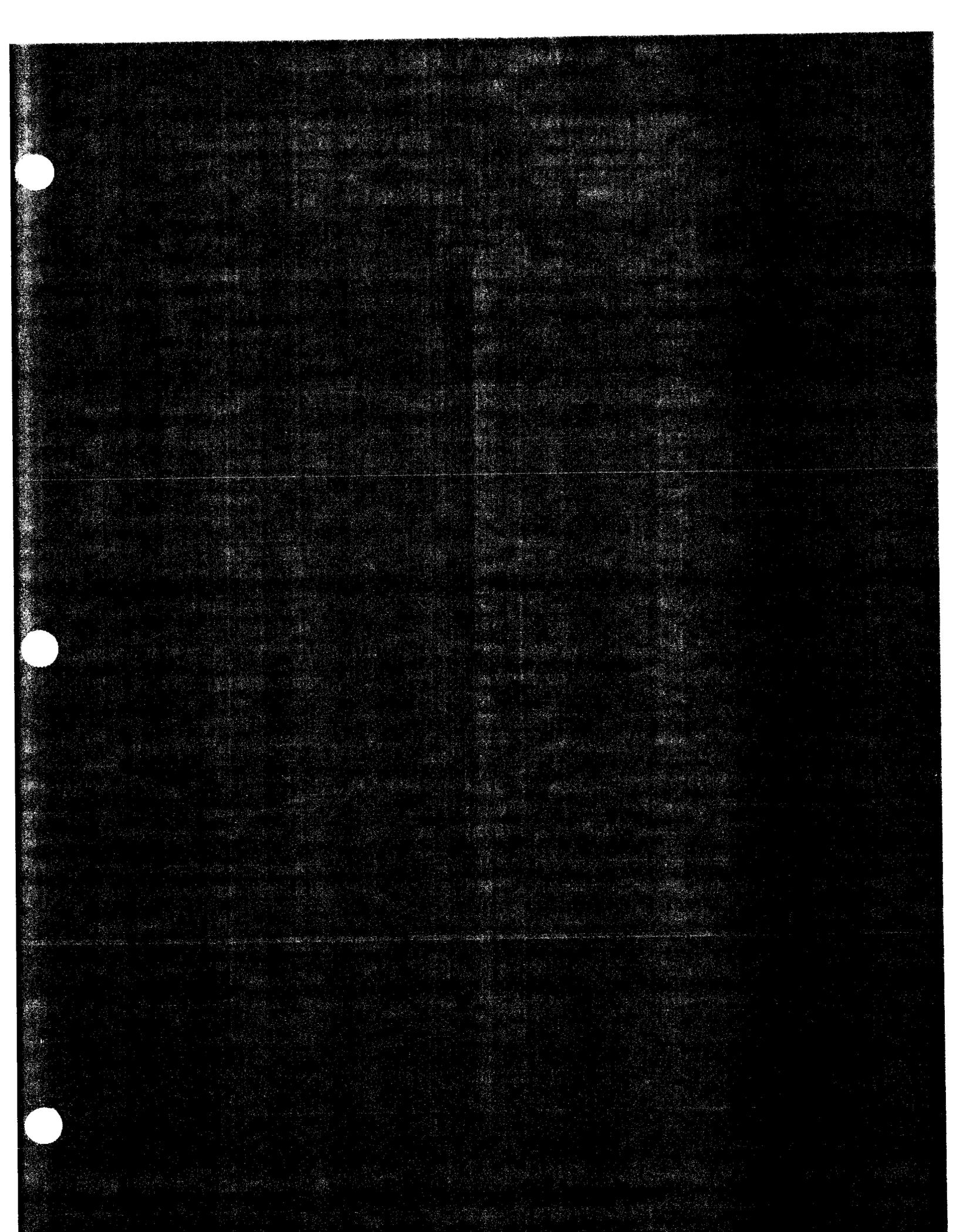
Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
2-Hexanone	27	BQL
Iodomethane	27	BQL
Isopropylbenzene	27	BQL
4-Isopropyltoluene	27	BQL
Methylene chloride	110	BQL
4-Methyl-2-pentanone	27	BQL
Methyl-tert-butyl ether (MTBE)	27	BQL
Naphthalene	27	BQL
n-Propyl benzene	27	BQL
Styrene	27	BQL
1,1,1,2-Tetrachloroethane	27	BQL
1,1,2,2-Tetrachloroethane	27	BQL
Tetrachloroethene	27	BQL
Toluene	27	BQL
1,2,3-Trichlorobenzene	27	BQL
1,2,4-Trichlorobenzene	27	BQL
Trichloroethene	27	BQL
1,1,1-Trichloroethane	27	BQL
1,1,2-Trichloroethane	27	BQL
Trichlorofluoromethane	27	BQL
1,2,3-Trichloropropane	27	BQL
1,2,4-Trimethylbenzene	27	BQL
1,3,5-Trimethylbenzene	27	BQL
Vinyl chloride	27	BQL
m-,p-Xylene	54	BQL
o-Xylene	27	BQL

Surrogate Spike Recoveries			
Compound	Spike Added (ug/KG)	Surrogate Result (ug/KG)	%Rec
Bromofluorobenzene	50	52.7	105
1,2-Dichloroethane-d4	50	56.7	113
Toluene-d8	50	48.3	97

**Comments:**

All results are corrected for dilution.

Reviewed by:



PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates .

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9 (4-6')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/18/00
Dry Weight	94.1
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	45
Aromatic Surrogate % Recovery	80

Comments:

- \* = Excludes any surrogates or internal standards.  
Sample did not require fractionation.

Lab info: G128-616-90533

Reviewed By: WJ

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9 (10-12')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/14/00
Dry Weight	72.8
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	43
Aromatic Surrogate % Recovery	79

Comments:

\* = Excludes any surrogates or internal standards.  
 Sample did not require fractionation.

Lab info: G128-616-90532

Reviewed By: MA

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10 (0-4')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/20/00
Dry Weight	85.7
Dilution Factor	10
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	180 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	84 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	16 (mg/Kg)
Aliphatic Surrogate % Recovery	100
Aromatic Surrogate % Recovery	69
Fractionation Surrogate 1 % Recovery	55

Comments:

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90534

Reviewed By: WJH

PARADIGM ANALYTICAL LABORATORIES, INC.

**EPH (Aliphatics/Aromatics) Results**

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10 (10-12')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/14/00
Dry Weight	94
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	41
Aromatic Surrogate % Recovery	72

**Comments:**

\* = Excludes any surrogates or internal standards.  
 Sample did not require fractionation.

Lab info: G128-616-90535

Reviewed By: MO

**EPH (Aliphatics/Aromatics) Results**

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11 (4-6')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/20/00
Dry Weight	83.3
Dilution Factor	10
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	86
Aromatic Surrogate % Recovery	61
Fractionation Surrogate 1 % Recovery	89

**Comments:**

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90536

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11 (12-14')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/15/00
Dry Weight	86.4
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	38
Aromatic Surrogate % Recovery	76

Comments:

\* = Excludes any surrogates or internal standards.  
 Sample did not require fractionation.

Lab info: G128-616-90537

Reviewed By: W

**EPH (Aliphatics/Aromatics) Results**

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12 (4-6')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/15/00
Dry Weight	89.9
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	32
Aromatic Surrogate % Recovery	63

**Comments:**

\* = Excludes any surrogates or internal standards.  
 Sample did not require fractionation.

Lab info: G128-616-90538

Reviewed By: MM

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12 (10-12')
Sample Matrix	Soil
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/14/00
Dry Weight	90.2
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 10 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 10 (mg/Kg)
Aliphatic Surrogate % Recovery	39
Aromatic Surrogate % Recovery	72

Comments:

\* = Excludes any surrogates or internal standards.

Sample did not require fractionation.

Lab info: G128-616-90539

Reviewed By: MM

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2 (5-6')
Sample Matrix	Soil
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/20/00
Dry Weight	80.7
Dilution Factor	10
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	390 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	1000 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	160 (mg/Kg)
Aliphatic Surrogate % Recovery	62
Aromatic Surrogate % Recovery	95
Fractionation Surrogate 1 % Recovery	73

Comments:

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90540

Reviewed By: Ma

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2 (10-11')
Sample Matrix	Soil
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	07/09/00
Date Analyzed	07/20/00
Dry Weight	93.4
Dilution Factor	10
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	190 (mg/Kg)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	570 (mg/Kg)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	98 (mg/Kg)
Aliphatic Surrogate % Recovery	130
Aromatic Surrogate % Recovery	110
Fractionation Surrogate 1 % Recovery	64

Comments:

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90541

Reviewed By: W

PARADIGM ANALYTICAL LABORATORIES, INC.  
 EPH Laboratory Reporting Form

<b>Calibration and QA/QC Information</b>
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Initial Calibration Date: 07/14/00

**Calibration Ranges and Limits**

Range	MDL		ML		RL	
	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.1	2	0.3	6.5	10	10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.1	1	0.3	3.1	10	10
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.2	2.5	0.6	8	10	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/mL)	(mg/Kg)		
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	8.20	Calibration Factor
	0.15	2.5		
	0.3	5		
	0.6	10		
	1.2	20		
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	2.5	Calibration Factor
	0.2	3.33		
	0.4	6.67		
	0.8	13.3		
	1.6	26.7		
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.12	2	4.6	Calibration Factor
	0.3	5		
	0.6	10		
	1.2	20		
	2.4	40		

Calibration Check Date: 07/17/00

**Calibration Check**

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.6	10	4.0
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.8	13.3	-19.7
C <sub>11</sub> -C <sub>22</sub> Aromatics	1.2	20	-3.0

MDL = Method Detection Limit                      RPD = Relative Percent Difference  
 ML = Minimum Limit                                      %RSD = Percent Relative Standard Deviation  
 RL = Reportable Limit                                    CCC = Correlation Coefficient of Curve

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 07/14/00

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)	(µg/mL)	(mg/Kg)
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.1	2	0.3	6.5	1	10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.1	1	0.3	3.1	1	10
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.2	2.5	0.6	8	1	10

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/mL)	(mg/Kg)		
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	8.20	Calibration Factor
	0.15	2.5		
	0.3	5		
	0.6	10		
	1.2	20		
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	2.5	Calibration Factor
	0.2	3.33		
	0.4	6.67		
	0.8	13.3		
	1.6	26.7		
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.12	2	4.6	Calibration Factor
	0.3	5		
	0.6	10		
	1.2	20		
	2.4	40		

Calibration Check Date: 07/14/00

Calibration Check

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.6	10	6.5
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.8	13.3	0.2
C <sub>11</sub> -C <sub>22</sub> Aromatics	1.2	20	2.3

MDL = Method Detection Limit  
 ML = Minimum Limit  
 RL = Reportable Limit

RPD = Relative Percent Difference  
 %RSD = Percent Relative Standard Deviation  
 CCC = Correlation Coefficient of Curve

EPH Laboratory Reporting Form

Calibration and QA/QC Information

Initial Calibration Date: 07/19/00

**Calibration Ranges and Limits**

Range	MDL		ML		RL	
	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.1	2	0.3	6.5	100	10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.1	1	0.3	3.1	100	10
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.2	2.5	0.6	8	100	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	0.97	Linear Regression
	0.15	2.5		
	0.3	5		
	0.6	10		
	1.2	20		
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	1.0	Linear Regression
	0.2	3.33		
	0.4	6.67		
	0.8	13.3		
	1.6	26.7		
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.12	2	0.967	Linear Regression
	0.3	5		
	0.6	10		
	1.2	20		
	2.4	40		

Calibration Check Date: 07/19/00

**Calibration Check**

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.6	10	-7.2
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.8	13.3	-22.1
C <sub>11</sub> -C <sub>22</sub> Aromatics	1.2	20	-22.6

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

PARADIGM ANALYTICAL LABORATORIES, INC.  
 EPH Laboratory Reporting Form

<b>Calibration and QA/QC Information</b>
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Initial Calibration Date: 07/20/00

**Calibration Ranges and Limits**

Range	MDL (µg/L)		ML (µg/L)		RL (µg/L)	
	(mg/Kg)		(mg/Kg)		(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.1	2	0.3	6.5	100	10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.1	1	0.3	3.1	100	10
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.2	2.5	0.6	8	100	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	2.20	Calibration Factor
	0.15	2.5		
	0.3	5		
	0.6	10		
	1.2	20		
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	6.9	Calibration Factor
	0.2	3.33		
	0.4	6.67		
	0.8	13.3		
	1.6	26.7		
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.12	2	6	Calibration Factor
	0.3	5		
	0.6	10		
	1.2	20		
	2.4	40		

Calibration Check Date: 07/20/00

**Calibration Check**

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	-2.4
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	5.9
C <sub>11</sub> -C <sub>22</sub> Aromatics	1.2	20	-3.1

MDL = Method Detection Limit  
 ML = Minimum Limit  
 RL = Reportable Limit

RPD = Relative Percent Difference  
 %RSD = Percent Relative Standard Deviation  
 CCC = Correlation Coefficient of Curve

PARADIGM ANALYTICAL LABORATORIES, INC.  
EPH Laboratory Reporting Form

<b>Calibration and QA/QC Information</b>
--

Initial Calibration Date: 07/20/00

**Calibration Ranges and Limits**

Range	MDL		ML		RL	
	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.1	2	0.3	6.5	100	10
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.1	1	0.3	3.1	100	10
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.2	2.5	0.6	8	100	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.06	1	2.20	Calibration Factor
	0.15	2.5		
	0.3	5		
	0.6	10		
	1.2	20		
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.08	1.33	6.9	Calibration Factor
	0.2	3.33		
	0.4	6.67		
	0.8	13.3		
	1.6	26.7		
C <sub>11</sub> -C <sub>22</sub> Aromatics	0.12	2	6	Calibration Factor
	0.3	5		
	0.6	10		
	1.2	20		
	2.4	40		

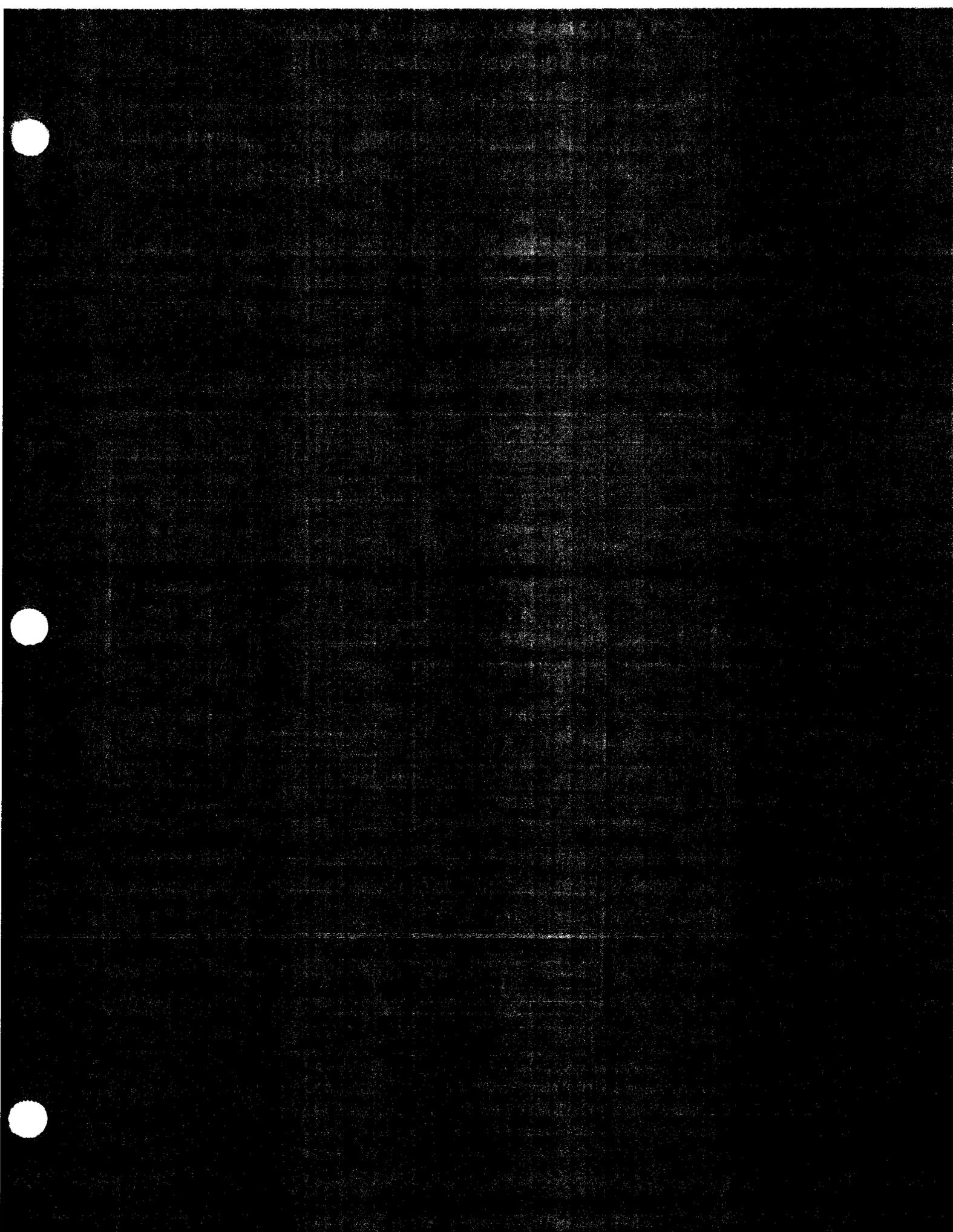
Calibration Check Date: 07/20/00

**Calibration Check**

Range	Levels		RPD
	(µg/mL)	(mg/Kg)	
C <sub>9</sub> -C <sub>18</sub> Aliphatics	0.6	10	4.7
C <sub>19</sub> -C <sub>36</sub> Aliphatics	0.8	13.3	-6.6
C <sub>11</sub> -C <sub>22</sub> Aromatics	1.2	20	-6.5

MDL = Method Detection Limit  
ML = Minimum Limit  
RL = Reportable Limit

RPD = Relative Percent Difference  
%RSD = Percent Relative Standard Deviation  
CCC = Correlation Coefficient of Curve



PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9 (4-6')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/10/00
Dry Weight	94
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	92
Surrogate % Recovery - FID	96

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90533

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9 (10-12')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	73
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	87
Surrogate % Recovery - FID	88

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90532

Reviewed By: ma

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10 (0-4')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/10/00
Dry Weight	86
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	230 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	53 (mg/Kg)
Surrogate % Recovery - PID	94
Surrogate % Recovery - FID	120

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90534

Reviewed By: RW

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10 (10-12')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	94
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	89
Surrogate % Recovery - FID	90

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90535

Reviewed By: WZ

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11 (4-6')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	83
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	88
Surrogate % Recovery - FID	86

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90536

Reviewed By: ma

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11 (12-14')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	86
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	91
Surrogate % Recovery - FID	96

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.  
 \*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90537

Reviewed By: MA

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12 (4-6')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	90
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	13 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	95
Surrogate % Recovery - FID	91

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90538

Reviewed By: MA

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12 (10-12')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	06/29/00
Date Analyzed	07/14/00
Dry Weight	90
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	89
Surrogate % Recovery - FID	89

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90539

Reviewed By: mo

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2 (5-6')
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	06/30/00
Date Analyzed	07/14/00
Dry Weight	81
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	440 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	140 (mg/Kg)
Surrogate % Recovery - PID	130
Surrogate % Recovery - FID	91

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90540

Reviewed By: Ma

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2 (10-1X) DK MDM
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	06/30/00
Date Analyzed	07/14/00
Dry Weight	93
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	180 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	45 (mg/Kg)
Surrogate % Recovery - PID	120
Surrogate % Recovery - FID	99

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90541

Reviewed By: Mo

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Callin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	Trip Blank
Sample Matrix	Soil
Collection Option (for Soil)*	3
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	06/30/00
Date Analyzed	07/13/00
Dry Weight	100
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 10 (mg/Kg)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 10 (mg/Kg)
Surrogate % Recovery - PID	88
Surrogate % Recovery - FID	89

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90542

Reviewed By: MA

PARADIGM ANALYTICAL LABORATORIES, INC.

Attachment 2

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/07/00      PID Initial Calibration Date: 07/07/00

**Calibration Ranges and Limits**

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C <sub>5</sub> -C <sub>8</sub> Aliphatics	2.4	0.12	7.5	0.38	100	10
C <sub>9</sub> -C <sub>12</sub> Aliphatics	1.3	0.065	4.0	0.21	100	10
C <sub>9</sub> -C <sub>10</sub> Aromatics	0.5	0.025	1.6	0.08	100	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>5</sub> -C <sub>8</sub> Aliphatics	40	2	22.6	Calibration Factor
	160	8		
	400	20		
	1600	80		
	4000	200		
C <sub>9</sub> -C <sub>12</sub> Aliphatics	30	1.5	13	Calibration Factor
	120	6		
	300	15		
	1200	60		
	3000	150		
C <sub>9</sub> -C <sub>10</sub> Aromatics	65	3.25	9.6	Calibration Factor
	260	13		
	650	32.5		
	2600	130		
	6500	325		

Calibration Check Date: 07/13/00

**Calibration Check**

Range	Levels		RPD
	(µg/L)	(mg/Kg)	
C <sub>5</sub> -C <sub>8</sub> Aliphatics	400	20	-12.7
C <sub>9</sub> -C <sub>12</sub> Aliphatics	300	15	15.0
C <sub>9</sub> -C <sub>10</sub> Aromatics	650	32.5	6.5

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Reviewed By: 

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
Attachment 2

**VPH Laboratory Reporting Form**

**Calibration and QA/QC Information**

FID Initial Calibration Date: 07/07/00      PID Initial Calibration Date: 07/07/00

**Calibration Ranges and Limits**

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C <sub>5</sub> -C <sub>8</sub> Aliphatics	2.4	0.12	7.5	0.38	100	10
C <sub>9</sub> -C <sub>12</sub> Aliphatics	1.3	0.065	4.0	0.21	100	10
C <sub>9</sub> -C <sub>10</sub> Aromatics	0.5	0.025	1.6	0.08	100	10

**Calibration Concentration Levels**

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>5</sub> -C <sub>8</sub> Aliphatics	40	2	22.6	Calibration Factor
	160	8		
	400	20		
	1600	80		
	4000	200		
C <sub>9</sub> -C <sub>12</sub> Aliphatics	30	1.5	13	Calibration Factor
	120	6		
	300	15		
	1200	60		
	3000	150		
C <sub>9</sub> -C <sub>10</sub> Aromatics	65	3.25	9.6	Calibration Factor
	260	13		
	650	32.5		
	2600	130		
	6500	325		

Calibration Check Date: 07/07/00

**Calibration Check**

Range	Levels		RPD
	(µg/L)	(mg/Kg)	
C <sub>5</sub> -C <sub>8</sub> Aliphatics	400	20	20.1
C <sub>9</sub> -C <sub>12</sub> Aliphatics	300	15	7.5
C <sub>9</sub> -C <sub>10</sub> Aromatics	650	32.5	3.7

MDL = Method Detection Limit

ML = Minimum Limit

RL = Reportable Limit

RPD = Relative Percent Difference

%RSD = Percent Relative Standard Deviation

CCC = Correlation Coefficient of Curve

Reviewed By: MM

PARADIGM ANALYTICAL LABORATORIES, INC.  
Attachment 2

*Bns*  
*7/10/00*

VPH Laboratory Reporting Form

Calibration and QA/QC Information

FID Initial Calibration Date: 07/07/00 PID Initial Calibration Date: 07/07/00

Calibration Ranges and Limits

Range	MDL		ML		RL	
	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)	(µg/L)	(mg/Kg)
C <sub>5</sub> -C <sub>8</sub> Aliphatics	2.4	0.12	7.5	0.38	100	10
C <sub>9</sub> -C <sub>12</sub> Aliphatics	1.3	0.065	4.0	0.21	100	10
C <sub>9</sub> -C <sub>10</sub> Aromatics	0.5	0.025	1.6	0.08	100	10

Calibration Concentration Levels

Range	Levels		%RSD or CCC	Method of Quantitation
	(µg/L)	(mg/Kg)		
C <sub>5</sub> -C <sub>8</sub> Aliphatics	40	2	22.6	Calibration Factor
	160	8		
	400	20		
	1600	80		
	4000	200		
C <sub>9</sub> -C <sub>12</sub> Aliphatics	30	1.5	13	Calibration Factor
	120	6		
	300	15		
	1200	60		
	3000	150		
C <sub>9</sub> -C <sub>10</sub> Aromatics	65	3.25	9.6	Calibration Factor
	260	13		
	650	32.5		
	2600	130		
	6500	325		

Calibration Check Date: 07/10/00

Calibration Check

Range	Levels		RPD
	(µg/L)	(mg/Kg)	
C <sub>5</sub> -C <sub>8</sub> Aliphatics	400	20	10.6
C <sub>9</sub> -C <sub>12</sub> Aliphatics	300	15	4.9
C <sub>9</sub> -C <sub>10</sub> Aromatics	650	32.5	4.7

MDL = Method Detection Limit  
ML = Minimum Limit  
RL = Reportable Limit  
RPD = Relative Percent Difference  
%RSD = Percent Relative Standard Deviation  
CCC = Correlation Coefficient of Curve

Reviewed By: *[Signature]*



PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-9 (4-6')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90533

Lab Project ID: G128-616

Matrix: Soil

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

%Solids: 94.1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	330	BQL
Acenaphthylene	330	BQL
Anthracene	330	BQL
Benzo[a]anthracene	330	BQL
Benzo[a]pyrene	330	BQL
Benzo[b]fluoranthene	330	BQL
Benzo[g,h,i]perylene	330	BQL
Benzo[k]fluoranthene	330	BQL
Benzoic Acid	650	BQL
Bis(2-chloroethoxy)methane	330	BQL
Bis(2-chloroethyl)ether	330	BQL
Bis(2-chloroisopropyl)ether	330	BQL
Bis(2-ethylhexyl)phthalate	330	BQL
4-bromophenyl phenyl ether	330	BQL
Butylbenzylphthalate	330	BQL
4-Chloroaniline	330	BQL
4-Chloro-3-methylphenol	330	BQL
2-Chloronaphthalene	330	BQL
2-Chlorophenol	330	BQL
4-Chlorophenyl phenyl ether	330	BQL
Chrysene	330	BQL
Di-n-Butylphthalate	330	BQL
Di-n-octylphthalate	330	BQL
Dibenzo[a,h]anthracene	330	BQL
Dibenzofuran	330	BQL
1,2-Dichlorobenzene	330	BQL
1,3-Dichlorobenzene	330	BQL
1,4-Dichlorobenzene	330	BQL
3,3'-Dichlorobenzidine	650	BQL
2,4-Dichlorophenol	330	BQL
Diethylphthalate	330	BQL
2,4-Dimethylphenol	330	BQL
Dimethylphthalate	330	BQL
4,6-Dinitro-2-methylphenol	1600	BQL
2,4-Dinitrophenol	1600	BQL
2,4-Dinitrotoluene	330	BQL
2,6-Dinitrotoluene	330	BQL
Fluoranthene	330	BQL
Fluorene	330	BQL
Hexachlorobenzene	330	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles**

by GCMS 8270

Client Sample ID: GP-9 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90533  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 94.1

<b>Compound</b>	<b>Quantitation Limit (ug/KG)</b>	<b>Result (ug/KG)</b>
Hexachlorobutadiene	330	BQL
Hexachlorocyclopentadiene	650	BQL
Hexachloroethane	330	BQL
Indeno(1,2,3-c,d)pyrene	330	BQL
Isophorone	330	BQL
2-Methylnaphthalene	330	BQL
2-Methylphenol	330	BQL
3- & 4-Methylphenol	330	BQL
N-Nitrosodi-n-propylamine	330	BQL
N-Nitrosodiphenylamine	330	BQL
Naphthalene	330	BQL
2-Nitroaniline	330	BQL
3-Nitroaniline	330	BQL
4-Nitroaniline	330	BQL
Nitrobenzene	330	BQL
2-Nitrophenol	330	BQL
4-Nitrophenol	1600	BQL
Pentachlorophenol	1600	BQL
Phenanthrene	330	BQL
Phenol	330	BQL
Pyrene	330	BQL
1,2,4-Trichlorobenzene	330	BQL
2,4,5-Trichlorophenol	330	BQL
2,4,6-Trichlorophenol	330	BQL

<b>Surrogate Spike Recoveries</b>	<b>Spike Added</b>	<b>Spike Result</b>	<b>Percent Recovered</b>
2-Fluorobiphenyl	10	10.9	109
2-Fluorophenol	10	9.9	99
Nitrobenzene-d5	10	10	100
Phenol-d6	10	11	110
2,4,6-Tribromophenol	10	12	120
4-Terphenyl-d14	10	9	90

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-9 (10-12')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90532

Lab Project ID: G128-616

Matrix: Soil

%Solids: 72.8

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	430	BQL
Acenaphthylene	430	BQL
Anthracene	430	BQL
Benzo[a]anthracene	430	BQL
Benzo[a]pyrene	430	BQL
Benzo[b]fluoranthene	430	BQL
Benzo[g,h,i]perylene	430	BQL
Benzo[k]fluoranthene	430	BQL
Benzoic Acid	860	BQL
Bis(2-chloroethoxy)methane	430	BQL
Bis(2-chloroethyl)ether	430	BQL
Bis(2-chloroisopropyl)ether	430	BQL
Bis(2-ethylhexyl)phthalate	430	BQL
4-bromophenyl phenyl ether	430	BQL
Butylbenzylphthalate	430	BQL
4-Chloroaniline	430	BQL
4-Chloro-3-methylphenol	430	BQL
2-Chloronaphthalene	430	BQL
2-Chlorophenol	430	BQL
4-Chlorophenyl phenyl ether	430	BQL
Chrysene	430	BQL
Di-n-Butylphthalate	430	BQL
Di-n-octylphthalate	430	BQL
Dibenzo[a,h]anthracene	430	BQL
Dibenzofuran	430	BQL
1,2-Dichlorobenzene	430	BQL
1,3-Dichlorobenzene	430	BQL
1,4-Dichlorobenzene	430	BQL
3,3'-Dichlorobenzidine	860	BQL
2,4-Dichlorophenol	430	BQL
Diethylphthalate	430	BQL
2,4-Dimethylphenol	430	BQL
Dimethylphthalate	430	BQL
4,6-Dinitro-2-methylphenol	2100	BQL
2,4-Dinitrophenol	2100	BQL
2,4-Dinitrotoluene	430	BQL
2,6-Dinitrotoluene	430	BQL
Fluoranthene	430	BQL
Fluorene	430	BQL
Hexachlorobenzene	430	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles**

by GCMS 8270

Client Sample ID: GP-9 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90532  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 72.8

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	430	BQL
Hexachlorocyclopentadiene	860	BQL
Hexachloroethane	430	BQL
Indeno(1,2,3-c,d)pyrene	430	BQL
Isophorone	430	BQL
2-Methylnaphthalene	430	BQL
2-Methylphenol	430	BQL
3- & 4-Methylphenol	430	BQL
N-Nitrosodi-n-propylamine	430	BQL
N-Nitrosodiphenylamine	430	BQL
Naphthalene	430	BQL
2-Nitroaniline	430	BQL
3-Nitroaniline	430	BQL
4-Nitroaniline	430	BQL
Nitrobenzene	430	BQL
2-Nitrophenol	430	BQL
4-Nitrophenol	2100	BQL
Pentachlorophenol	2100	BQL
Phenanthrene	430	BQL
Phenol	430	BQL
Pyrene	430	BQL
1,2,4-Trichlorobenzene	430	BQL
2,4,5-Trichlorophenol	430	BQL
2,4,6-Trichlorophenol	430	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.6	106
2-Fluorophenol	10	9.3	92
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	10.1	101
2,4,6-Tribromophenol	10	12.9	129
4-Terphenyl-d14	10	8.9	89

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-10 (0-4')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90534

Lab Project ID: G128-616

Matrix: Soil

%Solids: 85.7

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	360	BQL
Acenaphthylene	360	BQL
Anthracene	360	BQL
Benzo[a]anthracene	360	BQL
Benzo[a]pyrene	360	BQL
Benzo[b]fluoranthene	360	BQL
Benzo[g,h,i]perylene	360	BQL
Benzo[k]fluoranthene	360	BQL
Benzoic Acid	720	BQL
Bis(2-chloroethoxy)methane	360	BQL
Bis(2-chloroethyl)ether	360	BQL
Bis(2-chloroisopropyl)ether	360	BQL
Bis(2-ethylhexyl)phthalate	360	BQL
4-bromophenyl phenyl ether	360	BQL
Butylbenzylphthalate	360	490
4-Chloroaniline	360	BQL
4-Chloro-3-methylphenol	360	BQL
2-Chloronaphthalene	360	BQL
2-Chlorophenol	360	BQL
4-Chlorophenyl phenyl ether	360	BQL
Chrysene	360	BQL
Di-n-Butylphthalate	360	BQL
Di-n-octylphthalate	360	BQL
Dibenzo[a,h]anthracene	360	BQL
Dibenzofuran	360	BQL
1,2-Dichlorobenzene	360	BQL
1,3-Dichlorobenzene	360	BQL
1,4-Dichlorobenzene	360	BQL
3,3'-Dichlorobenzidine	720	BQL
2,4-Dichlorophenol	360	BQL
Diethylphthalate	360	BQL
2,4-Dimethylphenol	360	BQL
Dimethylphthalate	360	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	360	BQL
2,6-Dinitrotoluene	360	BQL
Fluoranthene	360	BQL
Fluorene	360	BQL
Hexachlorobenzene	360	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-10 (0-4')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90534

Lab Project ID: G128-616

Matrix: Soil

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

%Solids: 85.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	360	BQL
Hexachlorocyclopentadiene	720	BQL
Hexachloroethane	360	BQL
Indeno(1,2,3-c,d)pyrene	360	BQL
Isophorone	360	BQL
2-Methylnaphthalene	360	2300
2-Methylphenol	360	BQL
3- & 4-Methylphenol	360	BQL
N-Nitrosodi-n-propylamine	360	BQL
N-Nitrosodiphenylamine	360	BQL
Naphthalene	360	1100
2-Nitroaniline	360	BQL
3-Nitroaniline	360	BQL
4-Nitroaniline	360	BQL
Nitrobenzene	360	BQL
2-Nitrophenol	360	BQL
4-Nitrophenol	1800	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	360	BQL
Phenol	360	BQL
Pyrene	360	BQL
1,2,4-Trichlorobenzene	360	BQL
2,4,5-Trichlorophenol	360	BQL
2,4,6-Trichlorophenol	360	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	8.2	82
2-Fluorophenol	10	9.8	98
Nitrobenzene-d5	10	10.2	102
Phenol-d6	10	9.3	93
2,4,6-Tribromophenol	10	10.8	108
4-Terphenyl-d14	10	9.6	96

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: W

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: GP-10 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90535  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 94.0

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	330	BQL
Acenaphthylene	330	BQL
Anthracene	330	BQL
Benzo[a]anthracene	330	BQL
Benzo[a]pyrene	330	BQL
Benzo[b]fluoranthene	330	BQL
Benzo[g,h,i]perylene	330	BQL
Benzo[k]fluoranthene	330	BQL
Benzoic Acid	660	BQL
Bis(2-chloroethoxy)methane	330	BQL
Bis(2-chloroethyl)ether	330	BQL
Bis(2-chloroisopropyl)ether	330	BQL
Bis(2-ethylhexyl)phthalate	330	BQL
4-bromophenyl phenyl ether	330	BQL
Butylbenzylphthalate	330	BQL
4-Chloroaniline	330	BQL
4-Chloro-3-methylphenol	330	BQL
2-Chloronaphthalene	330	BQL
2-Chlorophenol	330	BQL
4-Chlorophenyl phenyl ether	330	BQL
Chrysene	330	BQL
Di-n-Butylphthalate	330	BQL
Di-n-octylphthalate	330	BQL
Dibenzo[a,h]anthracene	330	BQL
Dibenzofuran	330	BQL
1,2-Dichlorobenzene	330	BQL
1,3-Dichlorobenzene	330	BQL
1,4-Dichlorobenzene	330	BQL
3,3'-Dichlorobenzidine	660	BQL
2,4-Dichlorophenol	330	BQL
Diethylphthalate	330	BQL
2,4-Dimethylphenol	330	BQL
Dimethylphthalate	330	BQL
4,6-Dinitro-2-methylphenol	1700	BQL
2,4-Dinitrophenol	1700	BQL
2,4-Dinitrotoluene	330	BQL
2,6-Dinitrotoluene	330	BQL
Fluoranthene	330	BQL
Fluorene	330	BQL
Hexachlorobenzene	330	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles**

by GCMS 8270

Client Sample ID: GP-10 (10-12')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90535  
 Lab Project ID: G128-616

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

Matrix: Soil                      %Solids: 94.0

<b>Compound</b>	<b>Quantitation Limit (ug/KG)</b>	<b>Result (ug/KG)</b>
Hexachlorobutadiene	330	BQL
Hexachlorocyclopentadiene	660	BQL
Hexachloroethane	330	BQL
Indeno(1,2,3-c,d)pyrene	330	BQL
Isophorone	330	BQL
2-Methylnaphthalene	330	BQL
2-Methylphenol	330	BQL
3- & 4-Methylphenol	330	BQL
N-Nitrosodi-n-propylamine	330	BQL
N-Nitrosodiphenylamine	330	BQL
Naphthalene	330	BQL
2-Nitroaniline	330	BQL
3-Nitroaniline	330	BQL
4-Nitroaniline	330	BQL
Nitrobenzene	330	BQL
2-Nitrophenol	330	BQL
4-Nitrophenol	1700	BQL
Pentachlorophenol	1700	BQL
Phenanthrene	330	BQL
Phenol	330	BQL
Pyrene	330	BQL
1,2,4-Trichlorobenzene	330	BQL
2,4,5-Trichlorophenol	330	BQL
2,4,6-Trichlorophenol	330	BQL

<b>Surrogate Spike Recoveries</b>	<b>Spike Added</b>	<b>Spike Result</b>	<b>Percent Recovered</b>
2-Fluorobiphenyl	10	11	110
2-Fluorophenol	10	9.8	98
Nitrobenzene-d5	10	10	100
Phenol-d6	10	10.6	106
2,4,6-Tribromophenol	10	11.8	118
4-Terphenyl-d14	10	9	90

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By: MA

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-11 (4-6')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90536

Lab Project ID: G128-616

Matrix: Soil

%Solids: 83.3

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	370	BQL
Acenaphthylene	370	BQL
Anthracene	370	BQL
Benzo[a]anthracene	370	BQL
Benzo[a]pyrene	370	BQL
Benzo[b]fluoranthene	370	BQL
Benzo[g,h,i]perylene	370	BQL
Benzo[k]fluoranthene	370	BQL
Benzoic Acid	740	BQL
Bis(2-chloroethoxy)methane	370	BQL
Bis(2-chloroethyl)ether	370	BQL
Bis(2-chloroisopropyl)ether	370	BQL
Bis(2-ethylhexyl)phthalate	370	BQL
4-bromophenyl phenyl ether	370	BQL
Butylbenzylphthalate	370	BQL
4-Chloroaniline	370	BQL
4-Chloro-3-methylphenol	370	BQL
2-Chloronaphthalene	370	BQL
2-Chlorophenol	370	BQL
4-Chlorophenyl phenyl ether	370	BQL
Chrysene	370	BQL
Di-n-Butylphthalate	370	BQL
Di-n-octylphthalate	370	BQL
Dibenzo[a,h]anthracene	370	BQL
Dibenzofuran	370	BQL
1,2-Dichlorobenzene	370	BQL
1,3-Dichlorobenzene	370	BQL
1,4-Dichlorobenzene	370	BQL
3,3'-Dichlorobenzidine	740	BQL
2,4-Dichlorophenol	370	BQL
Diethylphthalate	370	BQL
2,4-Dimethylphenol	370	BQL
Dimethylphthalate	370	BQL
4,6-Dinitro-2-methylphenol	1900	BQL
2,4-Dinitrophenol	1900	BQL
2,4-Dinitrotoluene	370	BQL
2,6-Dinitrotoluene	370	BQL
Fluoranthene	370	BQL
Fluorene	370	BQL
Hexachlorobenzene	370	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: GP-11 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90536  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 83.3

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	370	BQL
Hexachlorocyclopentadiene	740	BQL
Hexachloroethane	370	BQL
Indeno(1,2,3-c,d)pyrene	370	BQL
Isophorone	370	BQL
2-Methylnaphthalene	370	BQL
2-Methylphenol	370	BQL
3- & 4-Methylphenol	370	BQL
N-Nitrosodi-n-propylamine	370	BQL
N-Nitrosodiphenylamine	370	BQL
Naphthalene	370	BQL
2-Nitroaniline	370	BQL
3-Nitroaniline	370	BQL
4-Nitroaniline	370	BQL
Nitrobenzene	370	BQL
2-Nitrophenol	370	BQL
4-Nitrophenol	1900	BQL
Pentachlorophenol	1900	BQL
Phenanthrene	370	BQL
Phenol	370	BQL
Pyrene	370	BQL
1,2,4-Trichlorobenzene	370	BQL
2,4,5-Trichlorophenol	370	BQL
2,4,6-Trichlorophenol	370	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.5	95
2-Fluorophenol	10	8.5	85
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	12.3	123
4-Terphenyl-d14	10	8.7	87

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: Yno

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-11 (12-14')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90537  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 86.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	360	BQL
Acenaphthylene	360	BQL
Anthracene	360	BQL
Benzo[a]anthracene	360	BQL
Benzo[a]pyrene	360	BQL
Benzo[b]fluoranthene	360	BQL
Benzo[g,h,i]perylene	360	BQL
Benzo[k]fluoranthene	360	BQL
Benzoic Acid	710	BQL
Bis(2-chloroethoxy)methane	360	BQL
Bis(2-chloroethyl)ether	360	BQL
Bis(2-chloroisopropyl)ether	360	BQL
Bis(2-ethylhexyl)phthalate	360	BQL
4-bromophenyl phenyl ether	360	BQL
Butylbenzylphthalate	360	BQL
4-Chloroaniline	360	BQL
4-Chloro-3-methylphenol	360	BQL
2-Chloronaphthalene	360	BQL
2-Chlorophenol	360	BQL
4-Chlorophenyl phenyl ether	360	BQL
Chrysene	360	BQL
Di-n-Butylphthalate	360	BQL
Di-n-octylphthalate	360	BQL
Dibenzo[a,h]anthracene	360	BQL
Dibenzofuran	360	BQL
1,2-Dichlorobenzene	360	BQL
1,3-Dichlorobenzene	360	BQL
1,4-Dichlorobenzene	360	BQL
3,3'-Dichlorobenzidine	710	BQL
2,4-Dichlorophenol	360	BQL
Diethylphthalate	360	BQL
2,4-Dimethylphenol	360	BQL
Dimethylphthalate	360	BQL
4,6-Dinitro-2-methylphenol	1800	BQL
2,4-Dinitrophenol	1800	BQL
2,4-Dinitrotoluene	360	BQL
2,6-Dinitrotoluene	360	BQL
Fluoranthene	360	BQL
Fluorene	360	BQL
Hexachlorobenzene	360	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: GP-11 (12-14')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90537  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 86.4

<b>Compound</b>	<b>Quantitation Limit (ug/KG)</b>	<b>Result (ug/KG)</b>
Hexachlorobutadiene	360	BQL
Hexachlorocyclopentadiene	710	BQL
Hexachloroethane	360	BQL
Indeno(1,2,3-c,d)pyrene	360	BQL
Isophorone	360	BQL
2-Methylnaphthalene	360	BQL
2-Methylphenol	360	BQL
3- & 4-Methylphenol	360	BQL
N-Nitrosodi-n-propylamine	360	BQL
N-Nitrosodiphenylamine	360	BQL
Naphthalene	360	BQL
2-Nitroaniline	360	BQL
3-Nitroaniline	360	BQL
4-Nitroaniline	360	BQL
Nitrobenzene	360	BQL
2-Nitrophenol	360	BQL
4-Nitrophenol	1800	BQL
Pentachlorophenol	1800	BQL
Phenanthrene	360	BQL
Phenol	360	BQL
Pyrene	360	BQL
1,2,4-Trichlorobenzene	360	BQL
2,4,5-Trichlorophenol	360	BQL
2,4,6-Trichlorophenol	360	BQL

<b>Surrogate Spike Recoveries</b>	<b>Spike Added</b>	<b>Spike Result</b>	<b>Percent Recovered</b>
2-Fluorobiphenyl	10	10.6	106
2-Fluorophenol	10	9.4	94
Nitrobenzene-d5	10	9.3	93
Phenol-d6	10	10.3	103
2,4,6-Tribromophenol	10	11.4	114
4-Terphenyl-d14	10	9.2	92

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-12 (4-6')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90538

Lab Project ID: G128-616

Matrix: Soil

%Solids: 89.9

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	340	BQL
Acenaphthylene	340	BQL
Anthracene	340	BQL
Benzo[a]anthracene	340	BQL
Benzo[a]pyrene	340	BQL
Benzo[b]fluoranthene	340	BQL
Benzo[g,h,i]perylene	340	BQL
Benzo[k]fluoranthene	340	BQL
Benzoic Acid	680	BQL
Bis(2-chloroethoxy)methane	340	BQL
Bis(2-chloroethyl)ether	340	BQL
Bis(2-chloroisopropyl)ether	340	BQL
Bis(2-ethylhexyl)phthalate	340	BQL
4-bromophenyl phenyl ether	340	BQL
Butylbenzylphthalate	340	BQL
4-Chloroaniline	340	BQL
4-Chloro-3-methylphenol	340	BQL
2-Chloronaphthalene	340	BQL
2-Chlorophenol	340	BQL
4-Chlorophenyl phenyl ether	340	BQL
Chrysene	340	BQL
Di-n-Butylphthalate	340	BQL
Di-n-octylphthalate	340	BQL
Dibenzo[a,h]anthracene	340	BQL
Dibenzofuran	340	BQL
1,2-Dichlorobenzene	340	BQL
1,3-Dichlorobenzene	340	BQL
1,4-Dichlorobenzene	340	BQL
3,3'-Dichlorobenzidine	680	BQL
2,4-Dichlorophenol	340	BQL
Diethylphthalate	340	BQL
2,4-Dimethylphenol	340	BQL
Dimethylphthalate	340	BQL
4,6-Dinitro-2-methylphenol	1700	BQL
2,4-Dinitrophenol	1700	BQL
2,4-Dinitrotoluene	340	BQL
2,6-Dinitrotoluene	340	BQL
Fluoranthene	340	BQL
Fluorene	340	BQL
Hexachlorobenzene	340	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles  
by GCMS 8270**

Client Sample ID: GP-12 (4-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90538  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

%Solids: 89.9

<b>Compound</b>	<b>Quantitation Limit (ug/KG)</b>	<b>Result (ug/KG)</b>
Hexachlorobutadiene	340	BQL
Hexachlorocyclopentadiene	680	BQL
Hexachloroethane	340	BQL
Indeno(1,2,3-c,d)pyrene	340	BQL
Isophorone	340	BQL
2-Methylnaphthalene	340	BQL
2-Methylphenol	340	BQL
3- & 4-Methylphenol	340	BQL
N-Nitrosodi-n-propylamine	340	BQL
N-Nitrosodiphenylamine	340	BQL
Naphthalene	340	BQL
2-Nitroaniline	340	BQL
3-Nitroaniline	340	BQL
4-Nitroaniline	340	BQL
Nitrobenzene	340	BQL
2-Nitrophenol	340	BQL
4-Nitrophenol	1700	BQL
Pentachlorophenol	1700	BQL
Phenanthrene	340	BQL
Phenol	340	BQL
Pyrene	340	BQL
1,2,4-Trichlorobenzene	340	BQL
2,4,5-Trichlorophenol	340	BQL
2,4,6-Trichlorophenol	340	BQL

<b>Surrogate Spike Recoveries</b>	<b>Spike Added</b>	<b>Spike Result</b>	<b>Percent Recovered</b>
2-Fluorobiphenyl	10	9.3	93
2-Fluorophenol	10	8	80
Nitrobenzene-d5	10	8.3	83
Phenol-d6	10	8.4	84
2,4,6-Tribromophenol	10	11.1	111
4-Terphenyl-d14	10	7.7	78

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By: MM

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GP-12 (10-12')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90539

Lab Project ID: G128-616

Matrix: Soil

Date Collected: 6/29/00

Date Received: 6/30/00

Date Analyzed: 7/11/00

Analyzed By: MRC

Dilution: 1

%Solids: 90.2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	340	BQL
Acenaphthylene	340	BQL
Anthracene	340	BQL
Benzo[a]anthracene	340	BQL
Benzo[a]pyrene	340	BQL
Benzo[b]fluoranthene	340	BQL
Benzo[g,h,i]perylene	340	BQL
Benzo[k]fluoranthene	340	BQL
Benzoic Acid	690	BQL
Bis(2-chloroethoxy)methane	340	BQL
Bis(2-chloroethyl)ether	340	BQL
Bis(2-chloroisopropyl)ether	340	BQL
Bis(2-ethylhexyl)phthalate	340	BQL
4-bromophenyl phenyl ether	340	BQL
Butylbenzylphthalate	340	BQL
4-Chloroaniline	340	BQL
4-Chloro-3-methylphenol	340	BQL
2-Chloronaphthalene	340	BQL
2-Chlorophenol	340	BQL
4-Chlorophenyl phenyl ether	340	BQL
Chrysene	340	BQL
Di-n-Butylphthalate	340	BQL
Di-n-octylphthalate	340	BQL
Dibenzo[a,h]anthracene	340	BQL
Dibenzofuran	340	BQL
1,2-Dichlorobenzene	340	BQL
1,3-Dichlorobenzene	340	BQL
1,4-Dichlorobenzene	340	BQL
3,3'-Dichlorobenzidine	690	BQL
2,4-Dichlorophenol	340	BQL
Diethylphthalate	340	BQL
2,4-Dimethylphenol	340	BQL
Dimethylphthalate	340	BQL
4,6-Dinitro-2-methylphenol	1700	BQL
2,4-Dinitrophenol	1700	BQL
2,4-Dinitrotoluene	340	BQL
2,6-Dinitrotoluene	340	BQL
Fluoranthene	340	BQL
Fluorene	340	BQL
Hexachlorobenzene	340	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: GP-12 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90539  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

%Solids: 90.2

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	340	BQL
Hexachlorocyclopentadiene	690	BQL
Hexachloroethane	340	BQL
Indeno(1,2,3-c,d)pyrene	340	BQL
Isophorone	340	BQL
2-Methylnaphthalene	340	BQL
2-Methylphenol	340	BQL
3- & 4-Methylphenol	340	BQL
N-Nitrosodi-n-propylamine	340	BQL
N-Nitrosodiphenylamine	340	BQL
Naphthalene	340	BQL
2-Nitroaniline	340	BQL
3-Nitroaniline	340	BQL
4-Nitroaniline	340	BQL
Nitrobenzene	340	BQL
2-Nitrophenol	340	BQL
4-Nitrophenol	1700	BQL
Pentachlorophenol	1700	BQL
Phenanthrene	340	BQL
Phenol	340	BQL
Pyrene	340	BQL
1,2,4-Trichlorobenzene	340	BQL
2,4,5-Trichlorophenol	340	BQL
2,4,6-Trichlorophenol	340	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.2	92
2-Fluorophenol	10	8.5	85
Nitrobenzene-d5	10	8.6	86
Phenol-d6	10	9.2	92
2,4,6-Tribromophenol	10	12.3	123
4-Terphenyl-d14	10	8.4	85

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 8270

Client Sample ID: GW-2 (5-6")  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90540  
Lab Project ID: G128-616  
Matrix: Soil

Date Collected: 6/30/00  
Date Received: 6/30/00  
Date Analyzed: 7/12/00  
Analyzed By: MRC  
Dilution: 10

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	3800	BQL
Acenaphthylene	3800	BQL
Anthracene	3800	BQL
Benzo[a]anthracene	3800	BQL
Benzo[a]pyrene	3800	BQL
Benzo[b]fluoranthene	3800	BQL
Benzo[g,h,i]perylene	3800	BQL
Benzo[k]fluoranthene	3800	BQL
Benzoic Acid	7700	BQL
Bis(2-chloroethoxy)methane	3800	BQL
Bis(2-chloroethyl)ether	3800	BQL
Bis(2-chloroisopropyl)ether	3800	BQL
Bis(2-ethylhexyl)phthalate	3800	BQL
4-bromophenyl phenyl ether	3800	BQL
Butylbenzylphthalate	3800	BQL
4-Chloroaniline	3800	BQL
4-Chloro-3-methylphenol	3800	BQL
2-Chloronaphthalene	3800	BQL
2-Chlorophenol	3800	BQL
4-Chlorophenyl phenyl ether	3800	BQL
Chrysene	3800	BQL
Di-n-Butylphthalate	3800	BQL
Di-n-octylphthalate	3800	BQL
Dibenzo[a,h]anthracene	3800	BQL
Dibenzofuran	3800	BQL
1,2-Dichlorobenzene	3800	BQL
1,3-Dichlorobenzene	3800	BQL
1,4-Dichlorobenzene	3800	BQL
3,3'-Dichlorobenzidine	7700	BQL
2,4-Dichlorophenol	3800	BQL
Diethylphthalate	3800	BQL
2,4-Dimethylphenol	3800	BQL
Dimethylphthalate	3800	BQL
4,6-Dinitro-2-methylphenol	19000	BQL
2,4-Dinitrophenol	19000	BQL
2,4-Dinitrotoluene	3800	BQL
2,6-Dinitrotoluene	3800	BQL
Fluoranthene	3800	BQL
Fluorene	3800	BQL
Hexachlorobenzene	3800	BQL

**PARADIGM ANALYTICAL LABORATORIES, INC.**

**Results for Semivolatiles**

by GCMS 8270

Client Sample ID: GW-2 (5-6')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90540  
 Lab Project ID: G128-616  
 Matrix: Soil

Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/12/00  
 Analyzed By: MRC  
 Dilution: 10

%Solids: 80.7

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	3800	BQL
Hexachlorocyclopentadiene	7700	BQL
Hexachloroethane	3800	BQL
Indeno(1,2,3-c,d)pyrene	3800	BQL
Isophorone	3800	BQL
2-Methylnaphthalene	3800	12000
2-Methylphenol	3800	BQL
3- & 4-Methylphenol	3800	BQL
N-Nitrosodi-n-propylamine	3800	BQL
N-Nitrosodiphenylamine	3800	BQL
Naphthalene	3800	5000
2-Nitroaniline	3800	BQL
3-Nitroaniline	3800	BQL
4-Nitroaniline	3800	BQL
Nitrobenzene	3800	BQL
2-Nitrophenol	3800	BQL
4-Nitrophenol	19000	BQL
Pentachlorophenol	19000	BQL
Phenanthrene	3800	3800
Phenol	3800	BQL
Pyrene	3800	BQL
1,2,4-Trichlorobenzene	3800	BQL
2,4,5-Trichlorophenol	3800	BQL
2,4,6-Trichlorophenol	3800	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

**Comments:**

Results are corrected for %solids and dilution where applicable.  
 Sample diluted due to high concentration of non-target interference.

**Flags:** NA = Not applicable, surrogates diluted out.  
 BQL = Below Quantitation Limit.

Reviewed By:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GW-2 (10-11')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90541

Lab Project ID: G128-616

Matrix: Soil

Date Collected: 6/30/00

Date Received: 6/30/00

Date Analyzed: 7/12/00

Analyzed By: MRC

Dilution: 10

%Solids: 93.4

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Acenaphthene	3300	BQL
Acenaphthylene	3300	BQL
Anthracene	3300	BQL
Benzo[a]anthracene	3300	BQL
Benzo[a]pyrene	3300	BQL
Benzo[b]fluoranthene	3300	BQL
Benzo[g,h,i]perylene	3300	BQL
Benzo[k]fluoranthene	3300	BQL
Benzoic Acid	6600	BQL
Bis(2-chloroethoxy)methane	3300	BQL
Bis(2-chloroethyl)ether	3300	BQL
Bis(2-chloroisopropyl)ether	3300	BQL
Bis(2-ethylhexyl)phthalate	3300	BQL
4-bromophenyl phenyl ether	3300	BQL
Butylbenzylphthalate	3300	BQL
4-Chloroaniline	3300	BQL
4-Chloro-3-methylphenol	3300	BQL
2-Chloronaphthalene	3300	BQL
2-Chlorophenol	3300	BQL
4-Chlorophenyl phenyl ether	3300	BQL
Chrysene	3300	BQL
Di-n-Butylphthalate	3300	BQL
Di-n-octylphthalate	3300	BQL
Dibenzo[a,h]anthracene	3300	BQL
Dibenzofuran	3300	BQL
1,2-Dichlorobenzene	3300	BQL
1,3-Dichlorobenzene	3300	BQL
1,4-Dichlorobenzene	3300	BQL
3,3'-Dichlorobenzidine	6600	BQL
2,4-Dichlorophenol	3300	BQL
Diethylphthalate	3300	BQL
2,4-Dimethylphenol	3300	BQL
Dimethylphthalate	3300	BQL
4,6-Dinitro-2-methylphenol	17000	BQL
2,4-Dinitrophenol	17000	BQL
2,4-Dinitrotoluene	3300	BQL
2,6-Dinitrotoluene	3300	BQL
Fluoranthene	3300	BQL
Fluorene	3300	BQL
Hexachlorobenzene	3300	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 8270

Client Sample ID: GW-2 (10-11')

Client Project ID: MCAS-CP Bldg. 1773

Lab Sample ID: 90541

Lab Project ID: G128-616

Matrix: Soil

%Solids: 93.4

Date Collected: 6/30/00

Date Received: 6/30/00

Date Analyzed: 7/12/00

Analyzed By: MRC

Dilution: 10

Compound	Quantitation Limit (ug/KG)	Result (ug/KG)
Hexachlorobutadiene	3300	BQL
Hexachlorocyclopentadiene	6600	BQL
Hexachloroethane	3300	BQL
Indeno(1,2,3-c,d)pyrene	3300	BQL
Isophorone	3300	BQL
2-Methylnaphthalene	3300	BQL
2-Methylphenol	3300	BQL
3- & 4-Methylphenol	3300	BQL
N-Nitrosodi-n-propylamine	3300	BQL
N-Nitrosodiphenylamine	3300	BQL
Naphthalene	3300	BQL
2-Nitroaniline	3300	BQL
3-Nitroaniline	3300	BQL
4-Nitroaniline	3300	BQL
Nitrobenzene	3300	BQL
2-Nitrophenol	3300	BQL
4-Nitrophenol	17000	BQL
Pentachlorophenol	17000	BQL
Phenanthrene	3300	BQL
Phenol	3300	BQL
Pyrene	3300	BQL
1,2,4-Trichlorobenzene	3300	BQL
2,4,5-Trichlorophenol	3300	BQL
2,4,6-Trichlorophenol	3300	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	NA	NA
2-Fluorophenol	10	NA	NA
Nitrobenzene-d5	10	NA	NA
Phenol-d6	10	NA	NA
2,4,6-Tribromophenol	10	NA	NA
4-Terphenyl-d14	10	NA	NA

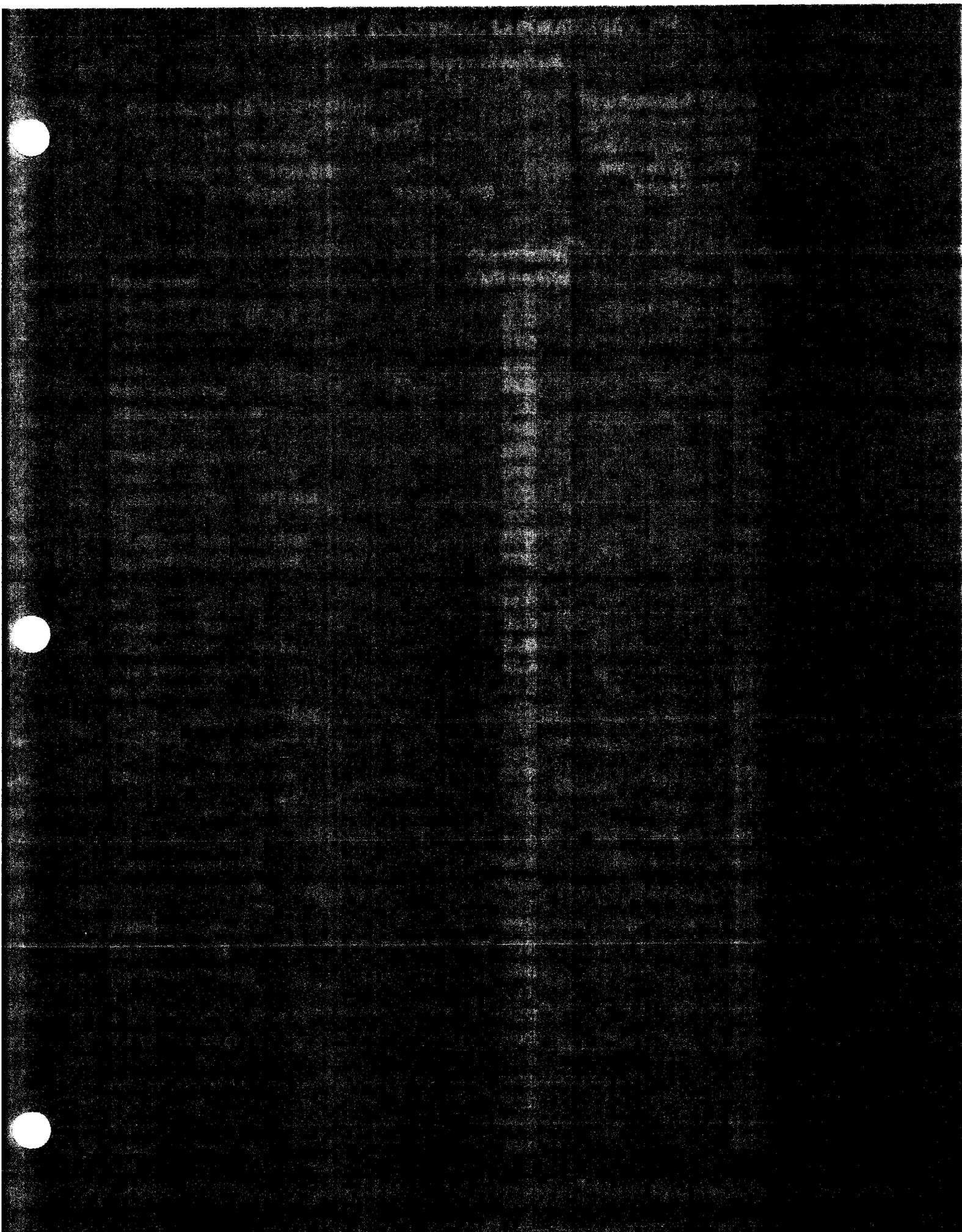
Comments:

Results are corrected for %solids and dilution where applicable.  
Sample diluted due to high concentration of non-target interference.

Flags: NA = Not applicable, surrogates diluted out.

BQL = Below Quantitation Limit.

Reviewed By: MRC



PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-9 (4-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90533  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Soil

Solids 94.14

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	2.72	1.02	MG/KG	6010B	7/10/00
Lead	1.56	1.02	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-9 (10-12') Analyzed By: JMF  
Client Project ID: MCAS-CP Bldg. 1773 Date Collected: 6/29/00  
Lab Sample ID: 90532 Date Received: 6/30/00  
Lab Project ID: G128-616 Matrix: Soil

Solids 72.82

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	7.75	1.32	MG/KG	6010B	7/10/00
Lead	2.26	1.32	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: mm

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Inorganics

Client Sample ID: GP-10 (0-4')  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90534  
 Lab Project ID: G128-616

Analyzed By: JMF  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Matrix: Soil

Solids 85.67

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	6.31	1.17	MG/KG	6010B	7/10/00
Lead	21.9	1.17	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: 

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
 Results for Inorganics

Client Sample ID:	GP-11 (4-6')	Analyzed By:	JMF
Client Project ID:	MCAS-CP Bldg. 1773	Date Collected:	6/29/00
Lab Sample ID:	90536	Date Received:	6/30/00
Lab Project ID:	G128-616	Matrix:	Soil

Solids 83.29

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	18.4	1.20	MG/KG	6010B	7/10/00
Lead	4.79	1.20	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: lm

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-11 (12-14')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90537  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Soil

Solids 86.41

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	3.99	1.10	MG/KG	6010B	7/10/00
Lead	1.80	1.10	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Inorganics**

Client Sample ID: GP-12 (4-6")	Analyzed By: JMF
Client Project ID: MCAS-CP Bldg. 1773	Date Collected: 6/29/00
Lab Sample ID: 90538	Date Received: 6/30/00
Lab Project ID: G128-616	Matrix: Soil

Solids 89.94

<b>Metals</b>	<b>Result</b>	<b>Quantitation Limit</b>	<b>Units</b>	<b>Procedure</b>	<b>Date Analyzed</b>
Chromium	<b>9.09</b>	1.11	MG/KG	6010B	7/10/00
Lead	<b>3.15</b>	1.11	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: mw

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-12 (10-12')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90539  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Soil

Solids 90.20

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	8.26	1.06	MG/KG	6010B	7/10/00
Lead	BQL	1.06	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GW-2 (5-6')  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90540  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/30/00  
Date Received: 6/30/00  
Matrix: Soil

Solids 80.65

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	16.8	1.18	MG/KG	6010B	7/10/00
Lead	23.5	1.18	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

Reviewed By: 

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Inorganics**

Client Sample ID:	GW-2 (10-1/1') <sup>ok</sup> <sub>MDM</sub>	Analyzed By:	JMF
Client Project ID:	MCAS-CP Bldg. 1773	Date Collected:	6/30/00
Lab Sample ID:	90541	Date Received:	6/30/00
Lab Project ID:	G128-616	Matrix:	Soil

Solids 93.43

<b>Metals</b>	<b>Result</b>	<b>Quantitation Limit</b>	<b>Units</b>	<b>Procedure</b>	<b>Date Analyzed</b>
Chromium	<b>2.48</b>	1.07	MG/KG	6010B	7/10/00
Lead	<b>2.85</b>	1.07	MG/KG	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits



**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
 by GCMS 6210D

Client Sample ID: GP-9  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90543  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	BQL
sec-Butylbenzene	0.5	BQL
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	1
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	BQL
4-Isopropyltoluene	0.5	BQL
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
 by GCMS 6210D

Client Sample ID: GP-9  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90543  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	BQL
n-Propyl benzene	0.5	BQL
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL <sup>2</sup>
o-Xylene	0.5	BQL

Surrogate Spike Recoveries	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Compound			
Bromofluorobenzene	10.0	9.7	97
1,2-Dichloroethane-d4	10.0	10.3	103
Toluene-d8	10.0	9.9	99

**Comments:**

All results are corrected for dilution.

Reviewed by: IVM

PARADIGM ANALYTICAL LABORATORIES, INC.  
 Results for Volatiles  
 by GCMS 6210D

Client Sample ID: GP-10  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90544  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	6
sec-Butylbenzene	0.5	7
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	12
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	0.5
4-Isopropyltoluene	0.5	4
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

Reviewed by:

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 6210D*

Client Sample ID: GP-10  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90544  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	2
n-Propyl benzene	0.5	0.6
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	0.5
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL
o-Xylene	0.5	BQL

Surrogate Spike Recoveries	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Compound			
Bromofluorobenzene	10.0	10.3	103
1,2-Dichloroethane-d4	10.0	10.4	104
Toluene-d8	10.0	9.9	99

**Comments:**

All results are corrected for dilution.

Reviewed by: YWD

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 6210D*

Client Sample ID: GP-11  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90545  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	BQL
sec-Butylbenzene	0.5	BQL
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	0.8
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	BQL
4-Isopropyltoluene	0.5	BQL
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

Reviewed by:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 6210D

Client Sample ID: GP-11  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90545  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	BQL
n-Propyl benzene	0.5	BQL
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL
o-Xylene	0.5	BQL

Surrogate Spike Recoveries			
Compound	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Bromofluorobenzene	10.0	9.8	98
1,2-Dichloroethane-d4	10.0	10.1	101
Toluene-d8	10.0	9.9	99

Comments:

All results are corrected for dilution.

Reviewed by: IVR

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 6210D

Client Sample ID: GP-12  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90546  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	BQL
sec-Butylbenzene	0.5	BQL
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	BQL
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	BQL
4-Isopropyltoluene	0.5	BQL
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

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Reviewed by:                     

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**  
*by GCMS 6210D*

Client Sample ID: GP-12  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90546  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/6/00  
 Analyzed By: EKR  
 Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	BQL
n-Propyl benzene	0.5	BQL
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL
o-Xylene	0.5	BQL

Surrogate Spike Recoveries			
Compound	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Bromofluorobenzene	10.0	9.6	96
1,2-Dichloroethane-d4	10.0	10.4	104
Toluene-d8	10.0	9.8	98

**Comments:**

All results are corrected for dilution.

Reviewed by:

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 6210D

Client Sample ID: GW-2  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90547  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/14/00  
 Analyzed By: EKR  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	BQL
sec-Butylbenzene	0.5	BQL
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	0.7
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	BQL
4-Isopropyltoluene	0.5	BQL
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

Reviewed by: MA

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**

by GCMS 6210D

Client Sample ID: GW-2  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90547  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/14/00  
 Analyzed By: EKR  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 1.0

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	BQL
n-Propyl benzene	0.5	BQL
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL
o-Xylene	0.5	BQL

Surrogate Spike Recoveries			
Compound	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Bromofluorobenzene	10.0	10.8	108
1,2-Dichloroethane-d4	10.0	9.9	99
Toluene-d8	10.0	10.0	100

**Comments:**

All results are corrected for dilution.

Reviewed by:                     

Flags: BQL = Below Quantitation Limit

**PARADIGM ANALYTICAL LABORATORIES, INC.**  
**Results for Volatiles**

by GCMS 6210D

Client Sample ID: Trip Blank  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90548  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/7/00  
 Analyzed By: EKR  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 1.0

<b>Compound</b>	<b>Quantitation Limit (ug/L)</b>	<b>Result (ug/L)</b>
Benzene	0.5	BQL
Bromobenzene	0.5	BQL
Bromochloromethane	0.5	BQL
Bromodichloromethane	0.5	BQL
Bromoform	0.5	BQL
Bromomethane	0.5	BQL
n-Butylbenzene	0.5	BQL
sec-Butylbenzene	0.5	BQL
tert-Butylbenzene	0.5	BQL
Carbon tetrachloride	0.5	BQL
Chlorobenzene	0.5	BQL
Chloroethane	0.5	BQL
Chloroform	0.5	BQL
Chloromethane	0.5	BQL
2-Chlorotoluene	0.5	BQL
4-Chlorotoluene	0.5	BQL
Dibromochloromethane	0.5	BQL
1,2-Dibromo-3-chloropropane	5	BQL
Dibromomethane	0.5	BQL
1,2-Dibromoethane (EDB)	0.5	BQL
1,2-Dichlorobenzene	0.5	BQL
1,3-Dichlorobenzene	0.5	BQL
1,4-Dichlorobenzene	0.5	BQL
1,1-Dichloroethane	0.5	BQL
1,1-Dichloroethene	0.5	BQL
1,2-Dichloroethane	0.5	BQL
cis-1,2-Dichloroethene	0.5	BQL
trans-1,2-dichloroethene	0.5	BQL
1,2-Dichloropropane	0.5	BQL
1,3-Dichloropropane	0.5	BQL
2,2-Dichloropropane	0.5	BQL
1,1-Dichloropropene	0.5	BQL
Dichlorodifluoromethane	5	BQL
Diisopropyl ether (DIPE)	0.5	BQL
Ethylbenzene	0.5	BQL
Hexachlorobutadiene	0.5	BQL
Isopropylbenzene	0.5	BQL
4-Isopropyltoluene	0.5	BQL
Methylene chloride	5	BQL
Methyl-tert-butyl ether (MTBE)	0.5	BQL

Reviewed by: Ma

Flags: BQL = Below Quantitation Limit

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Volatiles

by GCMS 6210D

Client Sample ID: Trip Blank  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90548  
 Lab Project ID: G128-616  
 Matrix: Water

Date Analyzed: 7/7/00  
 Analyzed By: EKR  
 Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Dilution: 1.0

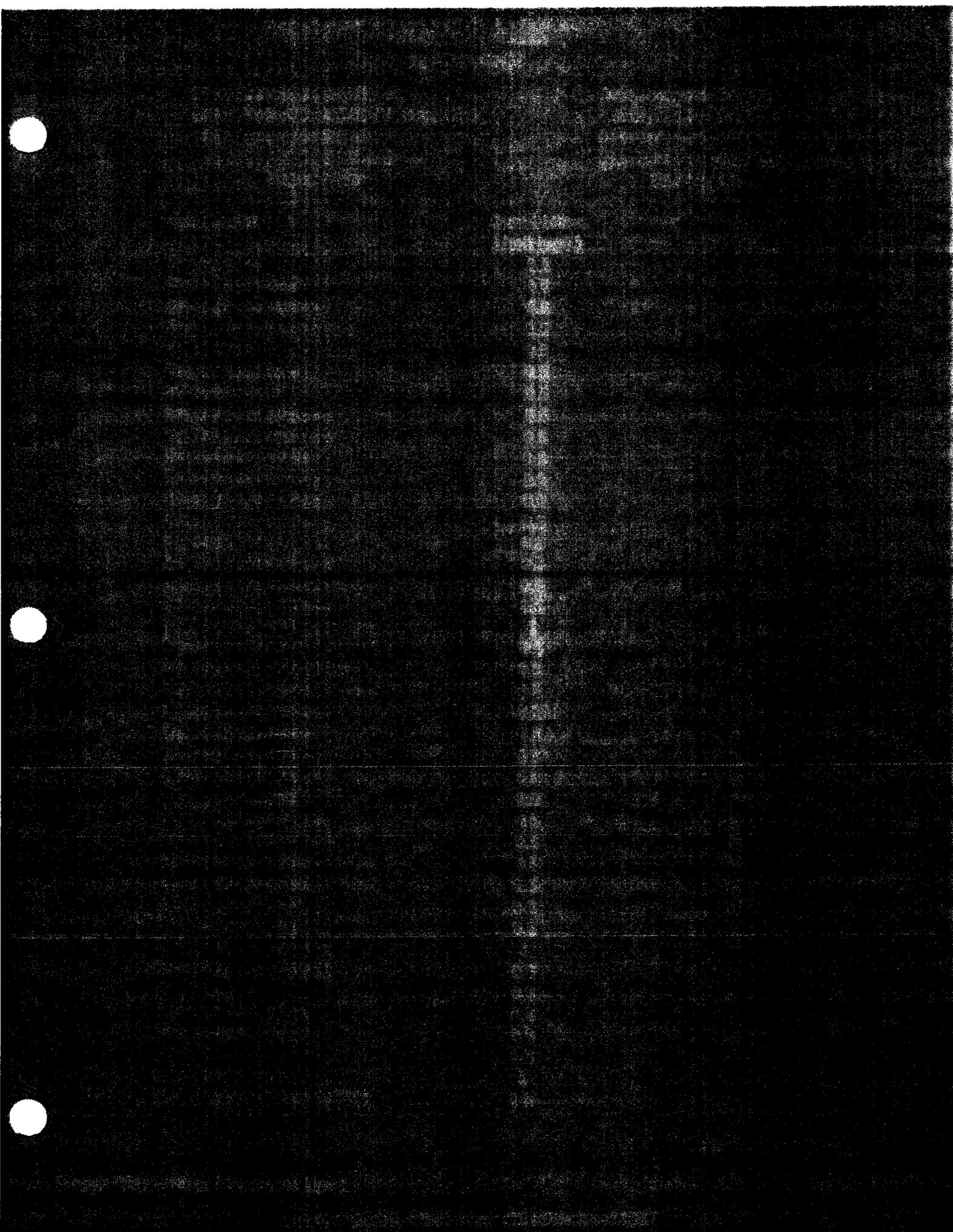
Compound	Quantitation Limit (ug/L)	Result (ug/L)
Naphthalene	0.5	BQL
n-Propyl benzene	0.5	BQL
Styrene	0.5	BQL
1,1,1,2-Tetrachloroethane	0.5	BQL
1,1,2,2-Tetrachloroethane	0.5	BQL
Tetrachloroethene	0.5	BQL
Toluene	0.5	BQL
1,2,3-Trichlorobenzene	0.5	BQL
1,2,4-Trichlorobenzene	0.5	BQL
Trichloroethene	0.5	BQL
1,1,1-Trichloroethane	0.5	BQL
1,1,2-Trichloroethane	0.5	BQL
Trichlorofluoromethane	0.5	BQL
1,2,3-Trichloropropane	0.5	BQL
1,2,4-Trimethylbenzene	0.5	BQL
1,3,5-Trimethylbenzene	0.5	BQL
Vinyl chloride	0.5	BQL
m-,p-Xylene	1	BQL
o-Xylene	0.5	BQL

Surrogate Spike Recoveries	Spike Added (ug/L)	Surrogate Result (ug/L)	%Rec
Compound			
Bromofluorobenzene	10.0	9.9	99
1,2-Dichloroethane-d4	10.0	9.7	97
Toluene-d8	10.0	9.7	97

Comments:

All results are corrected for dilution.

Reviewed by: MS



**EPH (Aliphatics/Aromatics) Results**

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9
Sample Matrix	Water
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/06/00
Date Analyzed	07/20/00
Dry Weight	
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 100 (µg/L)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 100 (µg/L)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 100 (µg/L)
Aliphatic Surrogate % Recovery	74
Aromatic Surrogate % Recovery	80

**Comments:**

\* = Excludes any surrogates or internal standards.

Sample did not require fractionation.

Lab info: G128-616-90543

Reviewed By: mm

PARADIGM ANALYTICAL LABORATORIES, INC.

**EPH (Aliphatics/Aromatics) Results**

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10
Sample Matrix	Water
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/06/00
Date Analyzed	07/19/00
Dry Weight	
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	830 (µg/L)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 100 (µg/L)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	270 (µg/L)
Aliphatic Surrogate % Recovery	110
Aromatic Surrogate % Recovery	130
Fractionation Surrogate 1 % Recovery	57

**Comments:**

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90544

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Callin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11
Sample Matrix	Water
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/06/00
Date Analyzed	07/20/00
Dry Weight	
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 100 (µg/L)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 100 (µg/L)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 100 (µg/L)
Aliphatic Surrogate % Recovery	75
Aromatic Surrogate % Recovery	81

Comments:

\* = Excludes any surrogates or internal standards.  
Sample did not require fractionation.

Lab info: G128-616-90545

Reviewed By: mw

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12
Sample Matrix	Water
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/06/00
Date Analyzed	07/20/00
Dry Weight	
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	< 100 (µg/L)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	< 100 (µg/L)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	< 100 (µg/L)
Aliphatic Surrogate % Recovery	70
Aromatic Surrogate % Recovery	78

**Comments:**

\* = Excludes any surrogates or internal standards.  
 Sample did not require fractionation.

Lab info: G128-616-90546

Reviewed By: Wm

PARADIGM ANALYTICAL LABORATORIES, INC.

EPH (Aliphatics/Aromatics) Results

by MDEP-EPH

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2
Sample Matrix	Water
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/19/00
Dry Weight	
Dilution Factor	1
C <sub>9</sub> -C <sub>18</sub> Aliphatics*	1600 (µg/L)
C <sub>19</sub> -C <sub>36</sub> Aliphatics*	4200 (µg/L)
C <sub>11</sub> -C <sub>22</sub> Aromatics*	1400 (µg/L)
Aliphatic Surrogate % Recovery	66
Aromatic Surrogate % Recovery	110
Fractionation Surrogate 1 % Recovery	81

Comments:

\* = Excludes any surrogates or internal standards.

Lab info: G128-616-90547

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-9
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/07/00
Dry Weight	
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	98
Surrogate % Recovery - FID	91

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90543

Reviewed By: MA

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Callin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-10
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/07/00
Dry Weight	
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	280 (µg/L)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	180 (µg/L)
Surrogate % Recovery - PID	110
Surrogate % Recovery - FID	110

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90544

Reviewed By: mm

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Callin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-11
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/07/00
Dry Weight	
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	95

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90545

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GP-12
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/29/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/07/00
Dry Weight	
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	100
Surrogate % Recovery - FID	95

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90546

Reviewed By: me

PARADIGM ANALYTICAL LABORATORIES, INC.

VPH (Aliphatics/Aromatics) Laboratory Reporting Form

Client Name: Richard Catlin & Associates

Project Name: MCAS-CP Bldg. 1773

Sample Information and Analytical Results	
Sample Identification	GW-2
Sample Matrix	Water
Collection Option (for Soil)*	
Date Collected	06/30/00
Date Received	06/30/00
Date Extracted	07/07/00
Date Analyzed	07/07/00
Dry Weight	
Dilution Factor	1
C <sub>5</sub> -C <sub>8</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>12</sub> Aliphatics**	< 100 (µg/L)
C <sub>9</sub> -C <sub>10</sub> Aromatics**	< 100 (µg/L)
Surrogate % Recovery - PID	99
Surrogate % Recovery - FID	98

\* = Option 1 = Established fill line on vial, Option 2 = Sampling Device/Brand, or Option 3 = Field weight of soil.

\*\* = Excludes any surrogates or internal standards.

Lab Info: G128-616-90547

Reviewed By: mm



PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 625

Client Sample ID: GP-9  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90543  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Acenaphthene	10	BQL
Acenaphthylene	10	BQL
Anthracene	10	BQL
Benzo[a]anthracene	10	BQL
Benzo[a]pyrene	10	BQL
Benzo[b]fluoranthene	10	BQL
Benzo[g,h,i]perylene	10	BQL
Benzo[k]fluoranthene	10	BQL
Bis(2-chloroethoxy)methane	10	BQL
Bis(2-chloroethyl)ether	10	BQL
Bis(2-chloroisopropyl)ether	10	BQL
Bis(2-ethylhexyl)phthalate	10	BQL
4-bromophenyl phenyl ether	10	BQL
Butylbenzylphthalate	10	BQL
4-Chloro-3-methylphenol	10	BQL
2-Chloronaphthalene	10	BQL
2-Chlorophenol	10	BQL
4-Chlorophenyl phenyl ether	10	BQL
Chrysene	10	BQL
Di-n-Butylphthalate	10	BQL
Di-n-octylphthalate	10	BQL
Dibenzo[a,h]anthracene	10	BQL
1,2-Dichlorobenzene	10	BQL
1,3-Dichlorobenzene	10	BQL
1,4-Dichlorobenzene	10	BQL
3,3'-Dichlorobenzidine	20	BQL
2,4-Dichlorophenol	10	BQL
Diethylphthalate	10	BQL
2,4-Dimethylphenol	10	BQL
Dimethylphthalate	10	BQL
4,6-Dinitro-2-methylphenol	50	BQL
2,4-Dinitrophenol	50	BQL
2,4-Dinitrotoluene	10	BQL
2,6-Dinitrotoluene	10	BQL
Fluoranthene	10	BQL
Fluorene	10	BQL
Hexachlorobenzene	10	BQL
Hexachlorobutadiene	10	BQL
Hexachlorocyclopentadiene	20	BQL
Hexachloroethane	10	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 625

Client Sample ID: GP-9  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90543  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Indeno(1,2,3-c,d)pyrene	10	BQL
Isophorone	10	BQL
N-Nitrosodi-n-propylamine	10	BQL
N-Nitrosodiphenylamine	10	BQL
Naphthalene	10	BQL
Nitrobenzene	10	BQL
2-Nitrophenol	10	BQL
4-Nitrophenol	50	BQL
Pentachlorophenol	50	BQL
Phenanthrene	10	BQL
Phenol	10	BQL
Pyrene	10	BQL
1,2,4-Trichlorobenzene	10	BQL
2,4,6-Trichlorophenol	10	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.8	108
2-Fluorophenol	10	9.8	98
Nitrobenzene-d5	10	10	100
Phenol-d6	10	9.6	96
2,4,6-Tribromophenol	10	9.1	91
4-Terphenyl-d14	10	10.4	104

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By:



PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 625

Client Sample ID: GP-10  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90544  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Acenaphthene	10	BQL
Acenaphthylene	10	BQL
Anthracene	10	BQL
Benzo[a]anthracene	10	BQL
Benzo[a]pyrene	10	BQL
Benzo[b]fluoranthene	10	BQL
Benzo[g,h,i]perylene	10	BQL
Benzo[k]fluoranthene	10	BQL
Bis(2-chloroethoxy)methane	10	BQL
Bis(2-chloroethyl)ether	10	BQL
Bis(2-chloroisopropyl)ether	10	BQL
Bis(2-ethylhexyl)phthalate	10	BQL
4-bromophenyl phenyl ether	10	BQL
Butylbenzylphthalate	10	BQL
4-Chloro-3-methylphenol	10	BQL
2-Chloronaphthalene	10	BQL
2-Chlorophenol	10	BQL
4-Chlorophenyl phenyl ether	10	BQL
Chrysene	10	BQL
Di-n-Butylphthalate	10	BQL
Di-n-octylphthalate	10	BQL
Dibenzo[a,h]anthracene	10	BQL
1,2-Dichlorobenzene	10	BQL
1,3-Dichlorobenzene	10	BQL
1,4-Dichlorobenzene	10	BQL
3,3'-Dichlorobenzidine	20	BQL
2,4-Dichlorophenol	10	BQL
Diethylphthalate	10	BQL
2,4-Dimethylphenol	10	BQL
Dimethylphthalate	10	BQL
4,6-Dinitro-2-methylphenol	50	BQL
2,4-Dinitrophenol	50	BQL
2,4-Dinitrotoluene	10	BQL
2,6-Dinitrotoluene	10	BQL
Fluoranthene	10	BQL
Fluorene	10	BQL
Hexachlorobenzene	10	BQL
Hexachlorobutadiene	10	BQL
Hexachlorocyclopentadiene	20	BQL
Hexachloroethane	10	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 625

Client Sample ID: GP-10  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90544  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Indeno(1,2,3-c,d)pyrene	10	BQL
Isophorone	10	BQL
N-Nitrosodi-n-propylamine	10	BQL
N-Nitrosodiphenylamine	10	BQL
Naphthalene	10	BQL
Nitrobenzene	10	BQL
2-Nitrophenol	10	BQL
4-Nitrophenol	50	BQL
Pentachlorophenol	50	BQL
Phenanthrene	10	BQL
Phenol	10	BQL
Pyrene	10	BQL
1,2,4-Trichlorobenzene	10	BQL
2,4,6-Trichlorophenol	10	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	11.9	119
2-Fluorophenol	10	11.3	113
Nitrobenzene-d5	10	11.4	114
Phenol-d6	10	10.6	106
2,4,6-Tribromophenol	10	9.4	94
4-Terphenyl-d14	10	11.4	114

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: MM

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results of Library Search for Semivolatile Compounds  
by GCMS

Client Sample ID: GP-10  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90544  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/11/00  
Analyzed By: MRC  
Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/L)
1	Alkane, Unknown			90
2	Alkane, Unknown			86
3	Unknown			82
4	Alkane, Unknown			78
5	Alkane, Unknown			62
6	Alkane, Unknown			49
7	Alkane, Unknown			36
8	Tetramethylbenzene, Isomer of			36
9	Alkane, Unknown			33
10	Diethylmethylbenzene, Isomer of			28

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by: MRC

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 625

Client Sample ID: GP-11  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90545  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Acenaphthene	10	BQL
Acenaphthylene	10	BQL
Anthracene	10	BQL
Benzo[a]anthracene	10	BQL
Benzo[a]pyrene	10	BQL
Benzo[b]fluoranthene	10	BQL
Benzo[g,h,i]perylene	10	BQL
Benzo[k]fluoranthene	10	BQL
Bis(2-chloroethoxy)methane	10	BQL
Bis(2-chloroethyl)ether	10	BQL
Bis(2-chloroisopropyl)ether	10	BQL
Bis(2-ethylhexyl)phthalate	10	BQL
4-bromophenyl phenyl ether	10	BQL
Butylbenzylphthalate	10	BQL
4-Chloro-3-methylphenol	10	BQL
2-Chloronaphthalene	10	BQL
2-Chlorophenol	10	BQL
4-Chlorophenyl phenyl ether	10	BQL
Chrysene	10	BQL
Di-n-Butylphthalate	10	BQL
Di-n-octylphthalate	10	BQL
Dibenzo[a,h]anthracene	10	BQL
1,2-Dichlorobenzene	10	BQL
1,3-Dichlorobenzene	10	BQL
1,4-Dichlorobenzene	10	BQL
3,3'-Dichlorobenzidine	20	BQL
2,4-Dichlorophenol	10	BQL
Diethylphthalate	10	BQL
2,4-Dimethylphenol	10	BQL
Dimethylphthalate	10	BQL
4,6-Dinitro-2-methylphenol	50	BQL
2,4-Dinitrophenol	50	BQL
2,4-Dinitrotoluene	10	BQL
2,6-Dinitrotoluene	10	BQL
Fluoranthene	10	BQL
Fluorene	10	BQL
Hexachlorobenzene	10	BQL
Hexachlorobutadiene	10	BQL
Hexachlorocyclopentadiene	20	BQL
Hexachloroethane	10	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles

by GCMS 625

Client Sample ID: GP-11  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90545  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/11/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Indeno(1,2,3-c,d)pyrene	10	BQL
Isophorone	10	BQL
N-Nitrosodi-n-propylamine	10	BQL
N-Nitrosodiphenylamine	10	BQL
Naphthalene	10	BQL
Nitrobenzene	10	BQL
2-Nitrophenol	10	BQL
4-Nitrophenol	50	BQL
Pentachlorophenol	50	BQL
Phenanthrene	10	BQL
Phenol	10	BQL
Pyrene	10	BQL
1,2,4-Trichlorobenzene	10	BQL
2,4,6-Trichlorophenol	10	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.7	97
2-Fluorophenol	10	7.6	76
Nitrobenzene-d5	10	8.5	85
Phenol-d6	10	8.3	83
2,4,6-Tribromophenol	10	8.5	85
4-Terphenyl-d14	10	11.3	114

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By:



PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 625

Client Sample ID: GP-12  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90546  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/29/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/27/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Acenaphthene	10	BQL
Acenaphthylene	10	BQL
Anthracene	10	BQL
Benzo[a]anthracene	10	BQL
Benzo[a]pyrene	10	BQL
Benzo[b]fluoranthene	10	BQL
Benzo[g,h,i]perylene	10	BQL
Benzo[k]fluoranthene	10	BQL
Bis(2-chloroethoxy)methane	10	BQL
Bis(2-chloroethyl)ether	10	BQL
Bis(2-chloroisopropyl)ether	10	BQL
Bis(2-ethylhexyl)phthalate	10	BQL
4-bromophenyl phenyl ether	10	BQL
Butylbenzylphthalate	10	BQL
4-Chloro-3-methylphenol	10	BQL
2-Chloronaphthalene	10	BQL
2-Chlorophenol	10	BQL
4-Chlorophenyl phenyl ether.	10	BQL
Chrysene	10	BQL
Di-n-Butylphthalate	10	BQL
Di-n-octylphthalate	10	BQL
Dibenzo[a,h]anthracene	10	BQL
1,2-Dichlorobenzene	10	BQL
1,3-Dichlorobenzene	10	BQL
1,4-Dichlorobenzene	10	BQL
3,3'-Dichlorobenzidine	20	BQL
2,4-Dichlorophenol	10	BQL
Diethylphthalate	10	BQL
2,4-Dimethylphenol	10	BQL
Dimethylphthalate	10	BQL
4,6-Dinitro-2-methylphenol	50	BQL
2,4-Dinitrophenol	50	BQL
2,4-Dinitrotoluene	10	BQL
2,6-Dinitrotoluene	10	BQL
Fluoranthene	10	BQL
Fluorene	10	BQL
Hexachlorobenzene	10	BQL
Hexachlorobutadiene	10	BQL
Hexachlorocyclopentadiene	20	BQL
Hexachloroethane	10	BQL

Results for Semivolatiles  
by GCMS 625

Client Sample ID: GP-12  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90546  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/29/00  
Date Received: 6/30/00  
Date Analyzed: 7/27/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Indeno(1,2,3-c,d)pyrene	10	BQL
Isophorone	10	BQL
N-Nitrosodi-n-propylamine	10	BQL
N-Nitrosodiphenylamine	10	BQL
Naphthalene	10	BQL
Nitrobenzene	10	BQL
2-Nitrophenol	10	BQL
4-Nitrophenol	50	BQL
Pentachlorophenol	50	BQL
Phenanthrene	10	BQL
Phenol	10	BQL
Pyrene	10	BQL
1,2,4-Trichlorobenzene	10	BQL
2,4,6-Trichlorophenol	10	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	10.2	102
2-Fluorophenol	10	8.1	81
Nitrobenzene-d5	10	9.6	96
Phenol-d6	10	11.8	118
2,4,6-Tribromophenol	10	9	90
4-Terphenyl-d14	10	11.1	111

**Comments:**

Results are corrected for %solids and dilution where applicable.

**Flags:**

BQL = Below Quantitation Limit.

Reviewed By: mw



**Results for Semivolatiles**  
by GCMS 625

Client Sample ID: GW-2  
 Client Project ID: MCAS-CP Bldg. 1773  
 Lab Sample ID: 90547  
 Lab Project ID: G128-616  
 Matrix: Water

Date Collected: 6/30/00  
 Date Received: 6/30/00  
 Date Analyzed: 7/27/00  
 Analyzed By: MRC  
 Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Acenaphthene	10	BQL
Acenaphthylene	10	BQL
Anthracene	10	BQL
Benzo[a]anthracene	10	BQL
Benzo[a]pyrene	10	BQL
Benzo[b]fluoranthene	10	BQL
Benzo[g,h,i]perylene	10	BQL
Benzo[k]fluoranthene	10	BQL
Bis(2-chloroethoxy)methane	10	BQL
Bis(2-chloroethyl)ether	10	BQL
Bis(2-chloroisopropyl)ether	10	BQL
Bis(2-ethylhexyl)phthalate	10	BQL
4-bromophenyl phenyl ether	10	BQL
Butylbenzylphthalate	10	BQL
4-Chloro-3-methylphenol	10	BQL
2-Chloronaphthalene	10	BQL
2-Chlorophenol	10	BQL
4-Chlorophenyl phenyl ether	10	BQL
Chrysene	10	BQL
Di-n-Butylphthalate	10	BQL
Di-n-octylphthalate	10	BQL
Dibenzo[a,h]anthracene	10	BQL
1,2-Dichlorobenzene	10	BQL
1,3-Dichlorobenzene	10	BQL
1,4-Dichlorobenzene	10	BQL
3,3'-Dichlorobenzidine	20	BQL
2,4-Dichlorophenol	10	BQL
Diethylphthalate	10	BQL
2,4-Dimethylphenol	10	BQL
Dimethylphthalate	10	BQL
4,6-Dinitro-2-methylphenol	50	BQL
2,4-Dinitrophenol	50	BQL
2,4-Dinitrotoluene	10	BQL
2,6-Dinitrotoluene	10	BQL
Fluoranthene	10	BQL
Fluorene	10	BQL
Hexachlorobenzene	10	BQL
Hexachlorobutadiene	10	BQL
Hexachlorocyclopentadiene	20	BQL
Hexachloroethane	10	BQL

PARADIGM ANALYTICAL LABORATORIES, INC.

Results for Semivolatiles  
by GCMS 625

Client Sample ID: GW-2  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90547  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/30/00  
Date Received: 6/30/00  
Date Analyzed: 7/27/00  
Analyzed By: MRC  
Dilution: 1

Compound	Quantitation Limit (ug/L)	Result (ug/L)
Indeno(1,2,3-c,d)pyrene	10	BQL
Isophorone	10	BQL
N-Nitrosodi-n-propylamine	10	BQL
N-Nitrosodiphenylamine	10	BQL
Naphthalene	10	BQL
Nitrobenzene	10	BQL
2-Nitrophenol	10	BQL
4-Nitrophenol	50	BQL
Pentachlorophenol	50	BQL
Phenanthrene	10	BQL
Phenol	10	BQL
Pyrene	10	BQL
1,2,4-Trichlorobenzene	10	BQL
2,4,6-Trichlorophenol	10	BQL

Surrogate Spike Recoveries	Spike Added	Spike Result	Percent Recovered
2-Fluorobiphenyl	10	9.8	98
2-Fluorophenol	10	8.3	83
Nitrobenzene-d5	10	10.1	101
Phenol-d6	10	11.9	119
2,4,6-Tribromophenol	10	9.4	94
4-Terphenyl-d14	10	7.4	74

Comments:

Results are corrected for %solids and dilution where applicable.

Flags:

BQL = Below Quantitation Limit.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.

Results of Library Search for Semivolatile Compounds  
by GCMS

Client Sample ID: GW-2  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90547  
Lab Project ID: G128-616  
Matrix: Water

Date Collected: 6/30/00  
Date Received: 6/30/00  
Date Analyzed: 7/27/00  
Analyzed By: MRC  
Dilution: 1

Num.	Compound	CAS#	Match Probability	Result (ug/L)
1	Alkane, Unknown			16
2	Alkane, Unknown			14
3	Alkane, Unknown			10
4	Unknown			9
5	Unknown			8.8
6	Alkane, Unknown			8.3
7	Unknown			8
8	Alkane, Unknown			7.1
9	Alkane, Unknown			6.8
10	Alkane, Unknown			6.8

**Comment:**

Tentatively Identified Compound (TIC) refers to substances which are not present in the list of target compounds. Therefore, not all TICs are identified and quantitated using individual standards. TIC listings are prepared utilizing a computerized library search of electron impact mass spectral data and evaluation of the relevant data by a mass spectral data specialist.

Quantitation is accomplished by relative peak height of the compound compared to that of the nearest internal standard from the total ion chromatogram. TICs are identified and quantitated only if the peak height is equal to or greater than 10% of that of the nearest internal standard. Quantitation provided is an estimate.

Reviewed by:     MRC

RECEIVED  
BY BWC DATE 8-8-00

PARADIGM ANALYTICAL LABORATORIES, INC.  
2627 Northchase Parkway S.E.  
Wilmington, North Carolina 28405  
(910) 350-1903  
Fax (910) 350-1557

August 1, 2000

Mr. Tom Landis  
Richard Catlin & Associates  
P.O. Box 10279  
Wilmington, NC 28404-0279

Report Number: G128-616

RE: Additional Data

Dear Mr. Landis,

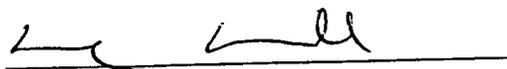
Enclosed are the results of the analytical services performed under the referenced project. Copies of this report and supporting data will be retained in our files for a period of five years in the event they are required for future reference. Any samples submitted to our laboratory will be retained for a maximum of thirty (30) days from the date of this report unless other arrangements are requested.

If there are any questions about the report or the services performed during this project, please call for assistance. We will be happy to answer any questions or concerns which you may have.

Thank you for using Paradigm Analytical Labs for your analytical services. We look forward to working with you again on any additional analytical needs which you may have.

Sincerely,

Paradigm Analytical Laboratories, Inc.



Laboratory Director  
Mark Randall



PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-9  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90543  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Water

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	BQL	0.0100	MG/L	6010B	7/10/00
Lead	BQL	0.0100	MG/L	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

**Comments**

Sample was extracted by SM3030C prior to analysis.

Reviewed By: mm

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-10  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90544  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Water

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	BQL	0.0100	MG/L	6010B	7/10/00
Lead	BQL	0.0100	MG/L	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

**Comments**

Sample was extracted by SM3030C prior to analysis.

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-11  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90545  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Water

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	BQL	0.0100	MG/L	6010B	7/10/00
Lead	BQL	0.0100	MG/L	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

**Comments**

Sample was extracted by SM3030C prior to analysis.

Reviewed By: mm

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GP-12  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90546  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/29/00  
Date Received: 6/30/00  
Matrix: Water

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	BQL	0.0100	MG/L	6010B	7/10/00
Lead	BQL	0.0100	MG/L	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

**Comments**

Sample was extracted by SM3030C prior to analysis.

Reviewed By: 

PARADIGM ANALYTICAL LABORATORIES, INC.  
Results for Inorganics

Client Sample ID: GW-2  
Client Project ID: MCAS-CP Bldg. 1773  
Lab Sample ID: 90547  
Lab Project ID: G128-616

Analyzed By: JMF  
Date Collected: 6/30/00  
Date Received: 6/30/00  
Matrix: Water

Metals	Result	Quantitation Limit	Units	Procedure	Date Analyzed
Chromium	BQL	0.0100	MG/L	6010B	7/10/00
Lead	0.0162	0.0100	MG/L	6010B	7/10/00

**Comments**

BQL = Below Quantitation Limits

**Comments**

Sample was extracted by SM3030C prior to analysis.

Client: CATLIN Engineers and Surveyors Project ID: MCAS-CP 1773 Bldg. 220 Old Dairy Rd. Date: 6-30 Report To: Tom Landis @ Catlin  
 Address: Wilm, NC. 28405 Contact: Tom Landis Turnaround: std.  
 Quote #: 1489 Phone: 952-5861 Job Number: 200-113-20  
 Fax: 452-7563 P.O. Number: 200430-10 Invoice To: CATLIN

Sample ID	Date	Time	Matrix	Preservatives			Analyses						Comments: Please specify any special reporting requirements				
				IC	Methanol (VPH only)		8081/8082	8270	EPH	VPH	3050-16CA	8260					
GP-9 (10-12')	6-29-00	1705	Soil	✓	✓		✓	✓	✓	✓	✓	✓					Detection Limits - Soil to Ing, COMM MSCCs
GP-9 (4-6')		1705		✓	✓		✓	✓	✓	✓	✓	✓					Cherry Point - EDD Format
GP-10 (0-4')		1130		✓	✓		✓	✓	✓	✓	✓	✓					
GP-10 (10-12')		1130		✓	✓		✓	✓	✓	✓	✓	✓					
GP-11 (4-6')		1300		✓	✓		✓	✓	✓	✓	✓	✓					
GP-11 (12-14')		1300		✓	✓		✓	✓	✓	✓	✓	✓					
GP-12 (4-6')		1500		✓	✓		✓	✓	✓	✓	✓	✓					
GP-12 (10-12')		1500		✓	✓		✓	✓	✓	✓	✓	✓					
GW-2 (5-6')	6-30-00	1000		✓	✓		✓	✓	✓	✓	✓	✓					
GW-2 (10-11')	6-30-00	1000		✓	✓		✓	✓	✓	✓	✓	✓					
Relinquished By				Date	Time	Received By				Date	Time	Temperature	State Certification Requested				
<i>[Signature]</i>				6/30/00	1740	<i>[Signature]</i>				6/30/00	1740	ice - walkin	NC _____ SC _____ Other _____ SEE REVERSE FOR				

Client: Catlin Engineers; Scientist  
 Address: 220 Old Dairy Rd  
Wilm, NC 28405  
 Quote #: 1489

Project ID: MEAS-CP <sup>Bldg. 1773</sup>  
 Contact: Tom Landis  
 Phone: 452-5861  
 Fax: 452-7563

Date: 6-30  
 Turnaround: std.  
 Job Number: 200-113-20  
 P.O. Number: 200630-10

Report To: Tom Landis & Catlin  
 Invoice To: Catlin

Sample ID	Date	Time	Matrix	Preservatives			Analyses					Comments: Please specify any special reporting requirements			
				ICL	HCL	HNO <sub>3</sub> (3030G)	VPH	EPH	6210 D	6025 + 10 hrs	3630 - <del>EPH</del> Pb, Cd				
GP-9	6-29	<del>#20</del> 1215	Ground H <sub>2</sub> O	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Dct Limits - Ground H <sub>2</sub> O to 2L std.
GP-10	6-29	<del>#30</del> 1250	↓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GP-11	6-29	<del>#300</del> 1500	↓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	6128-016
GP-12	6-29	1600	↓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
GW-2	6-30	1115	↓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Relinquished By	Date	Time	Received By	Date	Time	Temperature	State Certification Requested
<i>[Signature]</i>	6/30/00	1740	<i>[Signature]</i>	6/30/00	1740	ICL - walkin	NC _____ SC _____ Other _____ SEE REVERSE FOR