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SITE INVESTIGATION REPORT BUILDING 222 NS GREAT LAKES IL
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BLOOM COMPANIES, LLC

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NAVFAC
Naval Facilities Engineering Command
MIDWEST

SITE INVESTIGATION REPORT
BUILDING 222
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Prepared For:

DEPARTMENT OF THE NAVY
NAVAL STATION GREAT LAKES
ENVIRONMENTAL DEPARTMENT
BUILDING 1-A, 201 DECATUR AVENUE
GREAT LAKES, ILLINOIS

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SITE INVESTIGATION REPORT

AREA OF CONCERN 222
NAVAL STATION GREAT LAKES
GREAT LAKES, ILLINOIS

Submitted by:

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Bloom Companies, LLC. hereby certifies that, to the best of its knowledge and belief, the technical data delivered herewith under this contract is complete, accurate, and complies with all requirements of the contract.

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EXECUTIVE SUMMARY

This investigation report documents the sampling activities at Area of Concern 222 (AOC 222) in the vicinity of Building 222, Naval Station Great Lakes (NAVSTA GL), Great Lakes, Illinois. This work was performed pursuant to Contract Number N40083-10-C-0043 and was completed to address contaminants identified during evaluation of releases from USTs at B229 that appeared to be attributable to previous operations and may not have been a release from the USTS. Initial samples indicating a potential environmental concern may be present in this area were collected in May of 2004 during LUST relative risk sampling. An Illinois Emergency Management Agency (IEMA) incident number has not been assigned to this site. Previous information related to the identification of contaminants at this location are noted in the Corrective Action Completion Report for IEMA Incident #990458, associated with the UST system located at Building 229 under Illinois EPA LPC#0971255004.

AOC 222 is located in the vicinity of Building 222, a small maintenance building located at the west end of Clark but previous operations in this area consisted of an incinerator, a foundry, two firing ranges, a temporary transformer storage area, and a pesticide storage location.

In May of 2004, six soil samples were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and total and synthetic precipitation leaching procedure (SPLP) RCRA metals along the west side of the B229 access road. Four water samples were also collected and analyzed for VOCs and RCRA metals. The sample results indicated significant soil contamination including VOCs, SVOCs and metals was present at location 229-GP6. No groundwater sample was collected at 229-GP6 however groundwater impacts were noted at the other sampling locations. Additional investigation was warranted because the soil sampling results from 229-GP6 exceeded the Illinois EPA guidelines for closure.

Soil and groundwater sampling was conducted in January and July of 2013 to determine the nature and extent of soil and groundwater impacts at AOC 222. The overall objective is to seek a no further remediation letter from the Illinois Environmental Protection Agency (Illinois EPA) by meeting the requirements of the Groundwater and Soil Remediation Objectives. Eight GeoProbe borings with temporary wells were completed at AOC 222 in January of 2013. Soil analyses were conducted for VOCs, SVOCs, total metals, SPLP lead, pH, and polychlorinated biphenyls (PCBs). Water analyses included VOCs, SVOCs, PCBs, metals, and dissolved metals. Seven additional GeoProbe borings with temporary wells were completed in July of 2013. Soil analyses were conducted for VOCs, SVOCs, total metals, SPLP lead and pH. Water analyses included VOCs, SVOCs, metals, and dissolved metals.

Analytical results from the soil samples were compared to the Illinois EPA TACO soil remediation objectives (SROs).

- Although 229-GP6 reported VOCs including tetrachloroethene present in soils at concentrations significantly above SROs, only B222J had detectable levels of tetrachlorethene, and present at concentrations slightly in excess of SROs.
- SVOCs were reported in soil samples from ten of the fifteen borings completed in 2013 and in the 229-GP6 boring completed in 2004. Of the samples collected in 2013, benzo(a)pyrene exceeded SROs at four locations while benzo(b)fluoranthene, and dibenzo(a,h)anthracene were reported at one locations at concentrations in excess of

SROs. The sample from 229-GP6 exceeded SROs for additional SVOCs and had the highest overall SVOC concentrations of any of the samples collected.

- Eight RCRA metals, including arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver were reported in site soils. Two samples exceeded SROs for arsenic. Three samples exceeded SROs for lead for soil ingestion and four samples exceeded SROs for lead for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value. Five samples exceeded SROs for mercury for the soil inhalation standard for construction workers. One sample exceeded the SRO for selemium for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value.
- SPLP lead exceeded the 0.0075 mg/kg published value for Class I SRO for Residential Properties for four of the samples collected, however the SPLP lead levels were less than the Class II published value of 0.1 mg/kg.
- No PCBs were reported above the method detection limits in the soil samples, thus no SROs for PCBs were exceeded.

Analytical results from the groundwater samples collected in 2013 indicate that:

- VOCs were not reported in groundwater from the temporary wells sampled, thus no GROs were exceeded.
- SVOCs were not reported in groundwater from the eleven wells sampled, thus no GROs were exceeded.
- Analysis of total RCRA metals was conducted at fourteen wells and dissolved (filtered) RCRA metals were analyzed at twelve well locations. Five of the eight RCRA metals (arsenic, barium, chromium, lead, and selenium) were detected above the method detection limit in unfiltered groundwater. Lead was the only RCRA metal reported at concentrations in excess of GROs in the unfiltered samples. None of the twelve filtered samples exceeded the GRO for lead indicating the high sediment content in the groundwater is the source of the lead.
- PCBs were not reported in the groundwater from the seven wells sampled, thus no GROs were exceeded.

The fill material/soil in AOC 222 is diverse. No clear pattern of impacts is identifiable and it is anticipated that contaminants are likely related to the various fill materials encountered at the site. The absence of impacts that exceed GROs at AOC 222 indicate contaminants are not significant in groundwater in this area. This provides additional evidence that the contaminants noted in soil in this area are likely related to the various fill materials encountered at the site and are unlikely to present significant environmental concern.

A No Further Remediation Letter is requested for this site. Land Use Controls have been developed incorporating the groundwater use restriction mandated by the Naval Station Great Lakes Instruction 11130.1, and existing Land Use Control Memorandum of Agreement (LUC MOA) between the Navy and Illinois EPA.

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LIST OF ACRONYMS

bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, xylenes
COC	Contaminant of Concern
GRO	Groundwater Remediation Objective
HDPE	High Density Polyethylene
IAC	Illinois Administrative Code
IEMA	Illinois Emergency Management Agency
Illinois EPA	Illinois Environmental Protection Agency
ISGS	Illinois State Geologic Survey
LUC	Land Use Control
LUST	Leaking Underground Storage Tanks
MDL	Method Detection Limit
MTBE	Methyl tertiary butyl ether
MW	Monitoring Well
NAVSTA GL	Naval Station Great Lakes
PCBs	Polychlorinated biphenyls
PID	Photo Ionization Detector
PNA	Polynuclear aromatic
PVC	Polyvinyl Chloride
SB	Soil Boring
SPLP	Synthetic Precipitation Leaching Procedure
SRO	Soil Remediation Objective
SVOC	Semi-volatile organic compound
TACO	Tiered Approach to Corrective Action Objectives
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

This investigation report documents the sampling activities at Area of Concern 222 (AOC 222) in the vicinity of Building 222, Naval Station Great Lakes (NAVSTA GL), Great Lakes, Illinois (Figure 1). This investigation was performed pursuant to Contract Number N40083-10-C-0043. It was completed to address contaminants identified during evaluation of releases from USTs at B229 that appeared to be attributable to previous operations and may not have been a release from the USTs. The investigation included soil sampling via Geoprobe and installation of temporary monitoring wells.

The initial samples indicating potential environmental concern may be present in this area were collected in May of 2004 by TolTest, Inc. during LUST relative risk sampling. Bloom conducted Geoprobe investigation to define the potential impacts in January and July of 2013. This report is intended to confirm the nature and extent of soil and groundwater contamination, if any, resulting from past operations at this location. An Illinois Emergency Management Agency (IEMA) incident number has not been assigned to this site. Previous information related to the identification of contaminants at this location are noted in the Corrective Action Completion Report for IEMA Incident #990458, associated with the UST system located at Building 229 under Illinois EPA LPC#0971255004 (TolTest, Inc., 2006).

AOC 222 is located in the vicinity of Building 222 (Figure 2). Building 222 is a small maintenance building located at the west end of Clark Avenue at the Naval Station Great Lakes, Lake County, Illinois. The site is located at N42.316600°, W87.842800°. The site is surrounded by Navy property in all directions. The local geography consists of Building 229 to the east, a small recreation area with volleyball nets and horseshoe pits to the north, and gravel covered parking and storage area to the south. Sheridan Avenue borders the Navy property about 150 feet to the west of AOC 222. The local topography at AOC 222 is relatively flat, with a topographic drop to the west between the unpaved roadway west of Building 222 and Sheridan Avenue. This location is currently a maintenance facility but previous operations in this area consisted of an incinerator, a foundry, two firing ranges, a temporary transformer storage area, and a pesticide storage location.

In May of 2004, soil and groundwater samples were collected west of B229 during LUST relative risk sampling indicating a potential environmental concern may be present in this area. Samples for laboratory analysis were taken along the west side of the B229 access road. Six soil samples were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and total and synthetic precipitation leaching procedure (SPLP) RCRA metals. Four water samples were collected and analyzed for VOCs and RCRA metals. Sample locations and results of analyses are included in Appendix A. The sample results indicate significant soil contamination including VOCs, SVOCs and metals was present at location 229-GP6. No groundwater sample was collected at the 229-GP6 location. Additional investigation was warranted because the soil sampling results from 229-GP6 exceeded the Illinois EPA guidelines for closure.

This report summarizes the soil and groundwater sampling conducted in January and July of 2013 to determine the nature and extent of soil and groundwater impacts at AOC 222.

2.0 GEOLOGY

2.1 Regional Geology

According to Hansel & Johnson (Illinois State Geologic Survey (ISGS) Bulletin 104, 1996), the site overlies Lake Plain sediments of Wisconsin Pleistocene Age. The Lake Plain sediments consist of predominantly silty clay deposits, and may contain thin beds of sand and gravel. These fine-grained sediments are over 20 feet thick in this area, and may be interbedded with similar silty clay till of the Wadsworth formation. Bedrock beneath the site dips to the east at 10 to 15 feet per mile and consists of the Paleozoic Silurian dolomite of the Racine Formation, approximately 150 to 200 feet thick.

2.2 Site Stratigraphy

The AOC 222 area is characterized by eight to more than twenty feet of non-native fill material underlain by native soil consisting of silts and clayey silts, which in turn overly clay. Maximum depths of borings conducted in this area were 20 feet below ground surface (bgs).

2.3 Regional Hydrogeology

Hydrogeology of the Great Lakes area is characterized by three major potable aquifer systems: (1) glacial; (2) shallow bedrock (Silurian Dolomite); (3) deep bedrock (Ordovician or Cambrian Sandstone). In addition to these three major potable aquifer systems, shallow near-surface groundwater typically occurs in various areas of the Chicago and surrounding areas within 20 feet of the ground surface. The potable aquifer systems lie deeper than the limits of this investigation and shallow water bearing units above the bedrock are not hydraulically connected to deeper aquifers. Potable water is supplied to the Navy Base by the bases own water treatment plant that obtains its source water from Lake Michigan.

2.4 Site Hydrogeology

The *Potential for Contamination of Shallow Aquifers from Land Burial of Municipal Wastes* identified the site within an area of a Type E geologic sequence. The potential for contamination in Type E areas is low because of low hydraulic conductivity, typically 1 $x10^{-9}$ to 1 $x10^{-7}$ centimeters per second (cm/sec), and good attenuation capacities.

2.5 Remediation Objectives

The groundwater at the site meets the criteria for Class II: General Resource Groundwater in accordance with Title 35 of the Illinois Administrative Code, Part 620, Section 620.220 based on the following information:

- According to the *Potential for Contamination of Shallow Aquifers from Land Burial of Municipal* Wastes the site is within a Type E geologic sequence which has a hydraulic conductivity less than Class I water bearing soil of 1 x 10-4 cm/sec.

- Extremely slow well recover during groundwater sampling confirmed the shallow aquifer hydraulic conductivity was likely on the order of 1.0 x 10^{-5} cm/sec, which is in the typical range for silty clays and clayey sands.
- No unconsolidated sand, gravel, or sand-gravel layer, which is 5 feet or more in thickness, was identified during any of the investigations conducted by Bloom.
- No sandstone layer, which is 10 feet or more in thickness or fractured carbonate layer which is 15 feet or more in thickness, was encountered during any of the environmental investigations.
- The site is not located within a Groundwater Management Zone (Class 4 groundwater) and no Special Resource Groundwater (Class 3) has been designated for this area.

3.0 SOIL CLOSURE SAMPLING

3.1 Previous Site Investigations

In May of 2004, soil and groundwater samples collected west of B229 during LUST relative risk sampling indicated a potential environmental concern may be present in this area. Samples for laboratory analysis were taken along the west side of the B229 access road. Six soil samples were collected and analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) and total and synthetic precipitation leaching procedure (SPLP) RCRA metals. The sample results indicated significant soil contamination including VOCs, SVOCs and metals was present at location 229-GP6. Additional investigation was warranted because the soil sampling results from 229-GP6 exceeded the Illinois EPA SROs for closure. Sample locations and results of analyses are included in Appendix E. The potentially contaminated area southwest of B229 identified through 229-GP6 sampling is referenced as AOC 222.

An Illinois Emergency Management Agency (IEMA) incident number has not been assigned to this site. Previous information related to the identification of contaminants at this location are noted in the Corrective Action Completion Report for IEMA Incident #990458, associated with the UST system located at Building 229 under Illinois EPA LPC#0971255004.

AOC 222 is located in the vicinity of Building 222. This location is currently a maintenance facility but previous operations in this area consisted of an incinerator, a foundry, two firing ranges, a temporary transformer storage area, and a pesticide storage location.

3.2 Soil Sampling Locations

Geoprobe investigation to define soil impacts at AOC 222 took place in January and July of 2013. Eight boring locations were complete in January and seven in July to define the nature and extent of impacts present in AOC 222. Upon completion of the Geoprobe soil borings, temporary 1-inch polyvinyl chloride (PVC) monitoring wells were installed for the purpose of collecting groundwater samples and measuring groundwater elevations. The boring locations are shown on Figure 2 in Appendix A.

3.3 Sampling Methodology

The soil borings were advanced to approximately 20-25 feet bgs via direct push method using a Geoprobe© rig and macro-core sampler. Soil samples were collected on a continuous basis using a 2-inch direct push spoon sampler equipped with a disposable acetate liner. Each soil boring was given a unique identification number and the Bloom geologist documented the boring activities using soil boring log forms. The soil was classified on the boring logs indicating lithologic descriptions and Unified Soil Classification System descriptions (based upon visual evaluation), degree of sorting, sedimentary contacts, relative moisture content, photoionization detector (PID) readings, etc. Soil boring logs for the closure confirmation sampling are provided in Appendix B.

Samples were collected at 2-foot intervals from the borehole. The samples were placed into two large self-sealing plastic bags. The first was filled as full as possible to eliminate as much air as

possible from the bag. While filling the self-sealing plastic bags, care was taken to minimize the amount of disturbance to the soil. After filling the first bag it was sealed and placed on ice. The headspace of the second bag was analyzed with a PID after 10-20 minutes. Soil samples were submitted for analysis from the layer with the highest PID readings, odor or highest visible contamination as described below. If no contamination was observed visually or with a PID, a soil sample was collected from the unsaturated zone immediately above the watertable to document site conditions. Soil analyses were conducted for VOCs, SVOCs, total metals, SPLP lead, pH, and PCBs.

Samples for VOC analysis were collected using Encore ™ sampling devices. The following procedures were followed:

1. Removed sampler from the package and attached T-handle to the sampler body.
2. Quickly pushed the sampler into the soil until the sampler (coring body) was completely full (observe O-ring in viewing window).
3. Removed the sampler from the soil and wiped excess soil from the coring body exterior.
4. Pushed the cap on with a twisting motion to firmly attach the cap. Pushed and twisted over the bottom until the locking arms seated over the ridge on the sampler body.
5. Completely filled out the label (from the EnCore™ sampler bag) and attached it to the sampler.
6. Returned the sample-filled sampler to a self-sealing bag. Sealed the bag and stored the samples immediately on ice.

Samples were collected with clean pair of nitrile disposable sampling gloves and transferred to the appropriate sample containers. The sample jars were quickly capped. The labels were completely filled out and attached to the sample jars. The sample jars were placed in zip lock plastic bags and placed in an iced cooler held at a temperature below 4°C for transportation to the laboratory by the designated courier.

3.4 Sample Results

Eight soil samples were evaluated in January for VOCs, SVOCs, total metals, SPLP lead, pH and PCBs. Seven additional soil samples were evaluated in July for VOCs, SVOCs, total metals, SPLP lead, and pH. Illinois EPA Tiered Approach to Corrective Action Objectives (TACO) soil remediation objectives (SROs) provided in 35 IAC Section 742 for Residential Properties were determined by using the lowest or most conservative values from within all the listed exposure pathways while taking into account the background values. Background values are provided in 35 IAC Section 742 Appendix A Table G for RCRA metals and Appendix A Table H for SVOCs. The SROs, including Tables G and H background levels from the TACO regulations for the primary contaminants of concern at this site, are shown on the applicable soil results summary tables (Tables 1-5) in Appendix C.

VOCs - Several VOCs were reported in soil from one or more locations including benzene, carbon disulfide, ethyl benzene, tetrachlorethene and toluene. Only tetrachloroethene was

reported to be present at concentrations in excess of SROs. Tetracholorethene was reported at 229-GP6 in the May 2004 sample and at B222J in the 2013 sample (Table 1; Figure 3).

SVOCs - SVOCs were reported in soil samples from ten of the fifteen borings completed in 2013 and in the 229-GP6 boring completed in 2004. Of the samples collected in 2013, only benzo(a)pyrene, benzo(b)fluoranthene, and dibenzo(a,h)anthracene were reported at one or more locations at concentrations in excess of the Appendix B Table A Tier 1 SRO for residential properties. Benzo(a)pyrene was reported at 0.135 mg/kg at B222E, at 0.21 mg/kg at B222G, at 0.498 mg/kg at B222J and at 0.629 mg/kg at B222K which exceeds the 0.09 mg/kg SRO for residential ingestion but is less than the 0.8 mg/kg industrial/commercial SRO (Table 2; Figure 4). Benzo(a)pyrene was also reported at 229-GP6 at 3.5 mg/kg in the sample collected in 2004. Two additional compounds were also reported at B222K, including benzo(b)fluoranthene at 1.11 mg/kg exceeding the SRO of 0.09 mg/kg and dibenzo(a,h)anthracene at 0.12 mg/kg exceeding the SRO of 0.09 mg/kg. 35 IAC Section 742 Appendix A Table H lists Background Concentrations for PAHs in metropolitan and non-metropolitan area soils. Benzo(a)pyrene background concentrations are listed at 0.98 mg/kg for non-metropolitan areas and 2.1 mg.kg for metropolitan areas. AOC 222 is located within Lake County which is classified as a metropolitan area. All soil samples analyzed in 2013 for benzo(a)pyrene for this investigation were reported at concentrations below the listed background concentrations for metropolitan and non-metropolitan areas. The sample from 229-GP6 exceeded SROs for additional SVOCs and had the highest overall SVOC concentrations of any of the samples collected.

Metals - Eight RCRA metals, including arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver were reported in site soils. Soil remediation objectives for the exposure routes (i.e., soil ingestion exposure route, inhalation exposure route, and soil component of the groundwater ingestion exposure route) were used to compare the concentrations of soil contaminants of concern (Table 3 and Figures 5 and 6). The SRO for inorganic metals for the soil component of the groundwater ingestion route was determined from 35 IAC Section 742 Appendix B Table C.

Arsenic - Soil samples from B222D and B222E exceeded SROs for arsenic for soil ingestion and from B222E for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value.

Lead - Soil samples from B222E, B222J and B222N exceeded SROs for lead for soil ingestion and samples from 229-GP6, B222E, B222J and B222N exceeded SROs for lead for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value.

Mercury – Five samples, 229-GP6, B222A, B222B, B222C and B222J exceeded SROs for the soil inhalation standard for construction workers.

Selenium - The soil sample from B222N exceeded the SRO for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value.

None of the other samples analyzed exceeded SROs for the applicable exposure pathways.

Table 3 summarizes the results and compares them to the SROs including values from Tables C and D in Appendix B in TACO and background concentrations published in 35 IAC Section 742

Appendix A Table G, Concentrations of Inorganic Chemicals in Background Soils, Counties Within Metropolitan Statistical Areas.

SPLP lead - SPLP lead exceeded the 0.0075 mg/kg published value for Class I SRO for Residential Properties for the samples collected from B222B; B222C, B222E and B222N, however the SPLP lead levels were less than the Class II published value of 0.1 mg/kg (Table 4; Figure 6).

PCBs - No PCBs were reported above the method detection limits in the soil samples, thus no SROs for PCBs were exceeded (Table 5).

Tables summarizing soil sample results and comparison to the SROs and background values from Tables G and/or H of Appendix A in TACO are provided in Appendix C as Tables 1 through 5 and laboratory soil analytical data is included as Appendix D.

4.0 GROUNDWATER SAMPLING

4.1 Previous Site Investigations

In May of 2004, soil and groundwater samples collected west of B229 during LUST relative risk sampling indicated a potential environmental concern may be present in this area. Samples for laboratory analysis were taken along the west side of the B229 access road. Five water samples were collected and analyzed for VOCs and RCRA metals. The sample results indicated several VOCs including toluene and methylene chloride were widespread and trichlorofluoromethane and bis(2-ethylhexyl)phthalate were each reported at one location. Toluene and methylene chloride exceeded GROs at all five locations. Bis(2-ethylhexyl)phthalate exceeded the GRO at one location. Seven of the eight RCRA metals were also reported in one or more of the water samples, with arsenic, barium, chromium, and lead present at concentrations that exceed GROs. Highest levels of soil contamination including VOCs, SVOCs and metals were reported at location 229-GP6 but no groundwater sample was submitted for analysis from the 229-GP6 location. Sample locations and results of analyses are included in Appendix E.

4.2 Groundwater Sampling

Temporary wells were installed at eight locations for groundwater sampling in January 2013 and at seven additional locations in July of 2013. Groundwater elevations were measured on January 18 and 24, and July 15, 2013. The watertable configuration at AOC 222 was evaluated. Two of the wells near the center of the AOC222 had groundwater elevations more than eight feet lower than measured at the north and south ends of AOC 222. The groundwater elevations are presented on Table 5 and watertable configuration, as measured on July 15, 2013 is presented on Figure 8. The variations in fill material at the site appear to control the watertable configuration.

Groundwater analysis was conducted for VOCs, SVOCs, total metals, dissolved metals, and PCBs in January 2013 and for VOCs, SVOCs, total metals and dissolved metals in July 2013. Temporary monitoring wells were purged prior to collecting groundwater samples. Temporary well B222D did not produce adequate water for sample collection. Temporary wells B222E, B222I and B222K had minimal water and required several days following purging to recover; samples from these locations did not include analysis for SVOCs and/or filtered RCRA metals. Analytical results for groundwater samples collected from the temporary wells were compared to the Illinois EPA TACO groundwater remediation objectives (GROs) for Class I. Tables 7 through 10 in Appendix C summarize the analysis results and compare them to GROs. The laboratory groundwater analytical data is included as Appendix D.

VOCs - VOCs were not reported in groundwater from the temporary wells sampled for this parameter, thus no GROs were exceeded (Table 7).

SVOCs – SVOCs were not reported in groundwater from the eleven wells sampled, thus no GROs were exceeded (Table 8).

Metals – Fourteen temporary wells were sampled for total metals and twelve temporary well locations provided adequate water for collection of dissolved (filtered) metals samples. Adequate water was not present at B222D, B222E or B222I for collection of a filtered sample at

these locations. Five of the eight RCRA metals (arsenic, barium, chromium, lead, and selenium) were detected above the method detection limit in unfiltered groundwater (Table 9; Figure 7). Lead was the only RCRA metal reported at concentrations in excess of GROs in the unfiltered samples. When samples were collected sediment was clearly present in the water. High silt and clay content of the subsurface materials in combination with the very low water recharge rates made sediment free sample collection impossible. None of the twelve filtered samples exceeded the GRO for lead indicating the high sediment content in the groundwater is the source of the lead.

PCBs - PCBs were not reported in the groundwater from the seven wells sampled, thus no GROs were exceeded (Table 10).

5.0 CONCLUSIONS AND RECOMMENDATIONS

Soil - Analytical results from the soil samples collected in 2013 indicate that:

- Although 229-GP6 reported VOCs including tetrachloroethene present in soils at concentrations significantly above SROs, only B222J had detectable levels of tetrachlorethene, and present at concentrations slightly in excess of SROs.
- SVOCs were reported in soil samples from ten of the fifteen borings completed in 2013 and in the 229-GP6 boring completed in 2004. Of the samples collected in 2013, benzo(a)pyrene exceeded SROs at four locations while benzo(b)fluoranthene, and dibenzo(a,h)anthracene were reported at one locations at concentrations in excess of SROs. The sample from 229-GP6 exceeded SROs for additional SVOCs and had the highest overall SVOC concentrations of any of the samples collected.
- Eight RCRA metals, including arsenic, barium, cadmium, chromium, lead, mercury, selenium and silver were reported in site soils. Two samples exceeded SROs for arsenic. Three samples exceeded SROs for lead for soil ingestion and four samples exceeded SROs for lead for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value. Five samples exceeded SROs for mercury for the soil inhalation standard for construction workers. One sample exceeded the SRO for selemium for Class I of the pH Specific Soil Component of the Groundwater Ingestion Exposure Route Value.
- SPLP lead exceeded the 0.0075 mg/kg published value for Class I SRO for Residential Properties for four of the samples collected, however the SPLP lead levels were less than the Class II published value of 0.1 mg/kg.
- No PCBs were reported above the method detection limits in the soil samples, thus no SROs for PCBs were exceeded.

The fill material/soil in AOC 222 is diverse. No clear pattern of impacts is identifiable and it is anticipated that contaminants are likely related to the various fill materials encountered at the site.

Groundwater - Analytical results from the groundwater samples collected in 2013 indicate that:

- VOCs were not reported in groundwater from the temporary wells sampled, thus no GROs were exceeded.
- SVOCs were not reported in groundwater from the eleven wells sampled, thus no GROs were exceeded.
- Analysis of total RCRA metals was conducted at fourteen wells and dissolved (filtered) RCRA metals were analyzed at twelve well locations. Five of the eight RCRA metals (arsenic, barium, chromium, lead, and selenium) were detected above the method detection limit in unfiltered groundwater. Lead was the only RCRA metal reported at concentrations in excess of GROs in the unfiltered samples. None of the twelve filtered

samples exceeded the GRO for lead indicating the high sediment content in the groundwater is the source of the lead.

- PCBs were not reported in the groundwater from the seven wells sampled, thus no GROs were exceeded.

The absence of impacts that exceed GROs at AOC 222 indicate contaminants are not significant in groundwater in this area. This provides additional evidence that the contaminants noted in soil in this area are likely related to the various fill materials encountered at the site and are unlikely to present significant environmental concern.

The 35 IAC Part 742 Section 742.500 b), states "although Tier 1 allows for differentiation between residential and industrial/commercial property use of a site, an institutional control under Subpart J is required where remediation objectives are based on an industrial/commercial property use." Since the site did not meet the residential standards and does not meet the definition of residential property per the 35 IAC Part 742, the site was evaluated under the industrial/commercial standards which is consistent with the current land use. The compounds of concern that did not meet the residential standards, with the exception of lead in soil at B222E, B222J and B222N, were in compliance with the industrial/commercial standards.

Per the 35 IAC Subpart J, institutional controls must be placed on the property when remediation objectives are based on factors which include industrial/commercial property use. The institutional controls proposed would restrict site use to industrial/commercial and prohibit groundwater use.

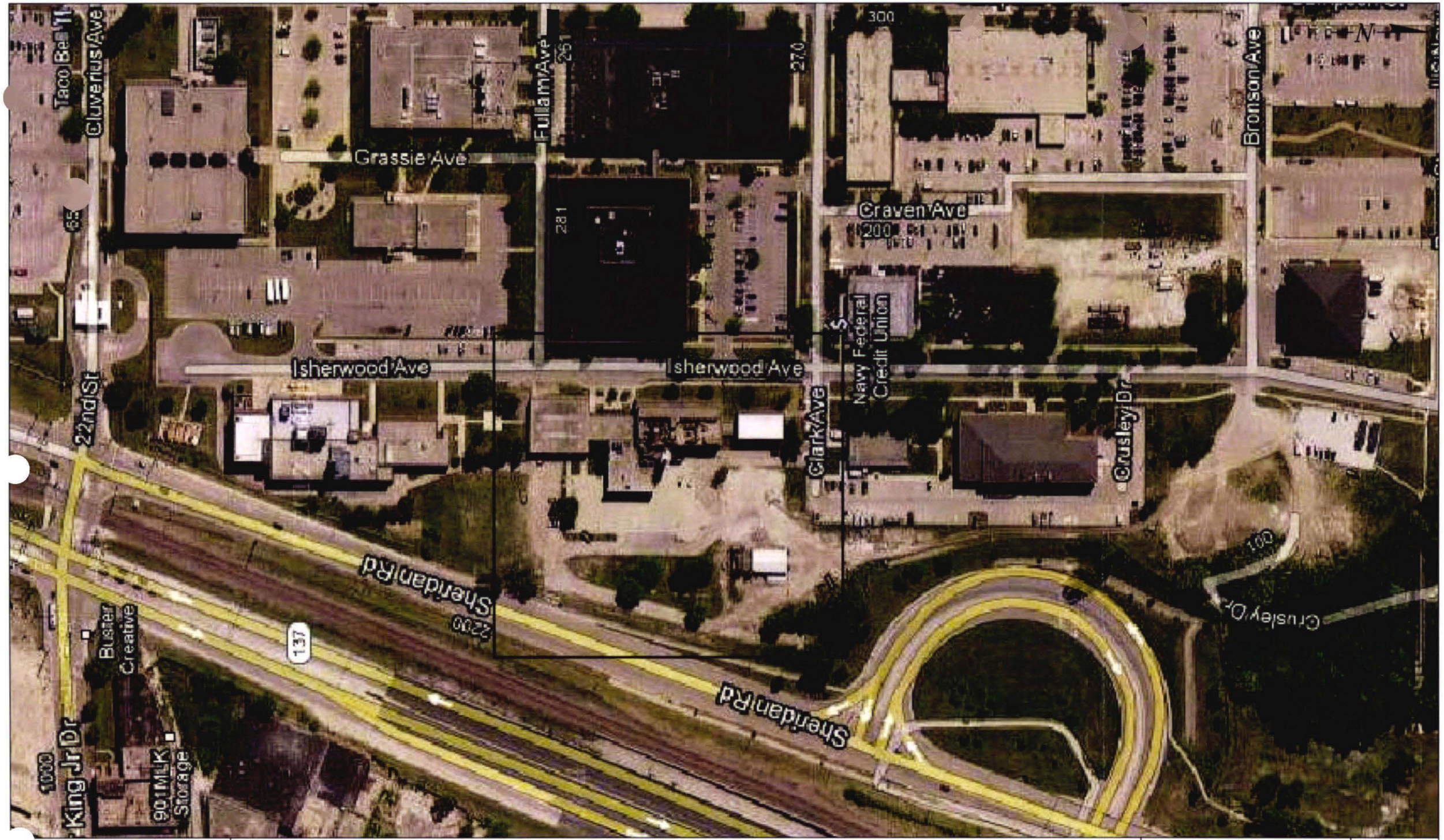
AOC 222 is currently occupied by Building 222 and associated storage and currently is used for industrial/commercial purposes.

The Navy has already adopted a groundwater use restriction base wide. This has been documented in a letter dated September 29, 2003 prepared by the Navy. A copy of the Naval Station Great Lakes Instruction 11130.1 "Ground Water Use Restriction" is included in Appendix F.

A No Further Remediation Letter is requested for this site based on the Land Use Controls to be developed for this site, the groundwater use restriction mandated by the Naval Station Great Lakes Instruction 11130.1, and existing Land Use Control Memorandum of Agreement (LUC MOA) between the Navy and Illinois EPA. This site will be added to the LUC MOA. After approval of the NFA, the temporary monitor wells will be abandoned in place in accordance with State law.

APPENDIX A

FIGURES



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NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
SITE LOCATION MAP

Scale	Date
0 16.65' 33.3' 66.6'	9/05/2013

Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	1

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NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
SAMPLE LOCATION MAP

Scale	Date
0 16.65' 33.3' 66.6'	9/05/2013

Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	2

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NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
REPORTED SOIL VOC DETECTIONS

Scale	Date			
0 16.65' 33.3' 66.6'	9/05/2013			
Designer	Technician	Approval	Sheet Number	
JLF	JAD	JLF	3	

B222E

	Result	Residential Ingestion Class I SRO	Residential Ingestion Class II SRO
Benzo(a)pyrene	0.135 mg/kg	0.09 mg/kg	0.8 mg/kg

B222G

	Result	Residential Ingestion Class I SRO	Residential Ingestion Class II SRO
Benzo(a)pyrene	0.21 mg/kg	0.09 mg/kg	0.8 mg/kg

B222K

	Result	Residential Ingestion Class I SRO	Industrial Ingestion Class II SRO
Benzo(a)pyrene	0.629 mg/kg	0.09 mg/kg	0.8 mg/kg
Benzo(b)fluoranthene	1.11 mg/kg	0.9 mg/kg	8 mg/kg
Dibenzo(a,h)anthracene	0.12 mg/kg	0.09 mg/kg	0.8 mg/kg

229-GP6

	Result	Residential Ingestion Class I SRO	Industrial Ingestion Class II SRO
Benzo(a)pyrene	3.5 mg/kg	0.09 mg/kg	0.8 mg/kg
Benzo(b)fluoranthene	3.7 mg/kg	0.9 mg/kg	8 mg/kg
Dibenzo(a,h)anthracene	0.67 mg/kg	0.09 mg/kg	0.8 mg/kg

Other SVOCs also Exceed SROs See Table Data

B222J

	Result	Residential Ingestion Class I SRO	Residential Ingestion Class II SRO
Benzo(a)pyrene	0.498 mg/kg	0.09 mg/kg	0.8 mg/kg

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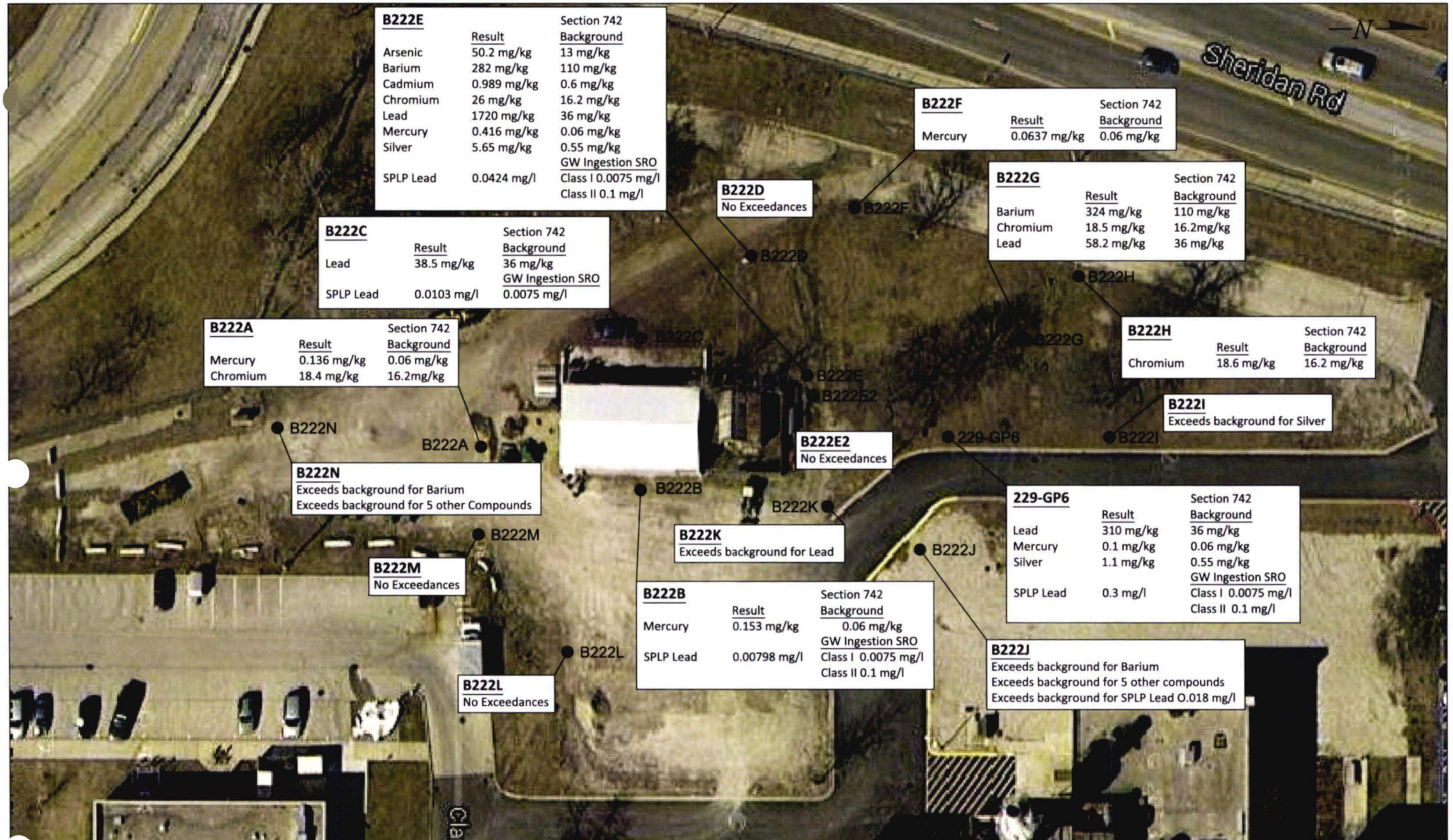
NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
REPORTED SOIL SVOC CLASS 1 EXCEEDANCES

Scale	Date			
0 16.65' 33.3' 66.6'	9/05/2013			
Designer	Technician	Approval	Sheet Number	
JLF	JAD	JLF	4	



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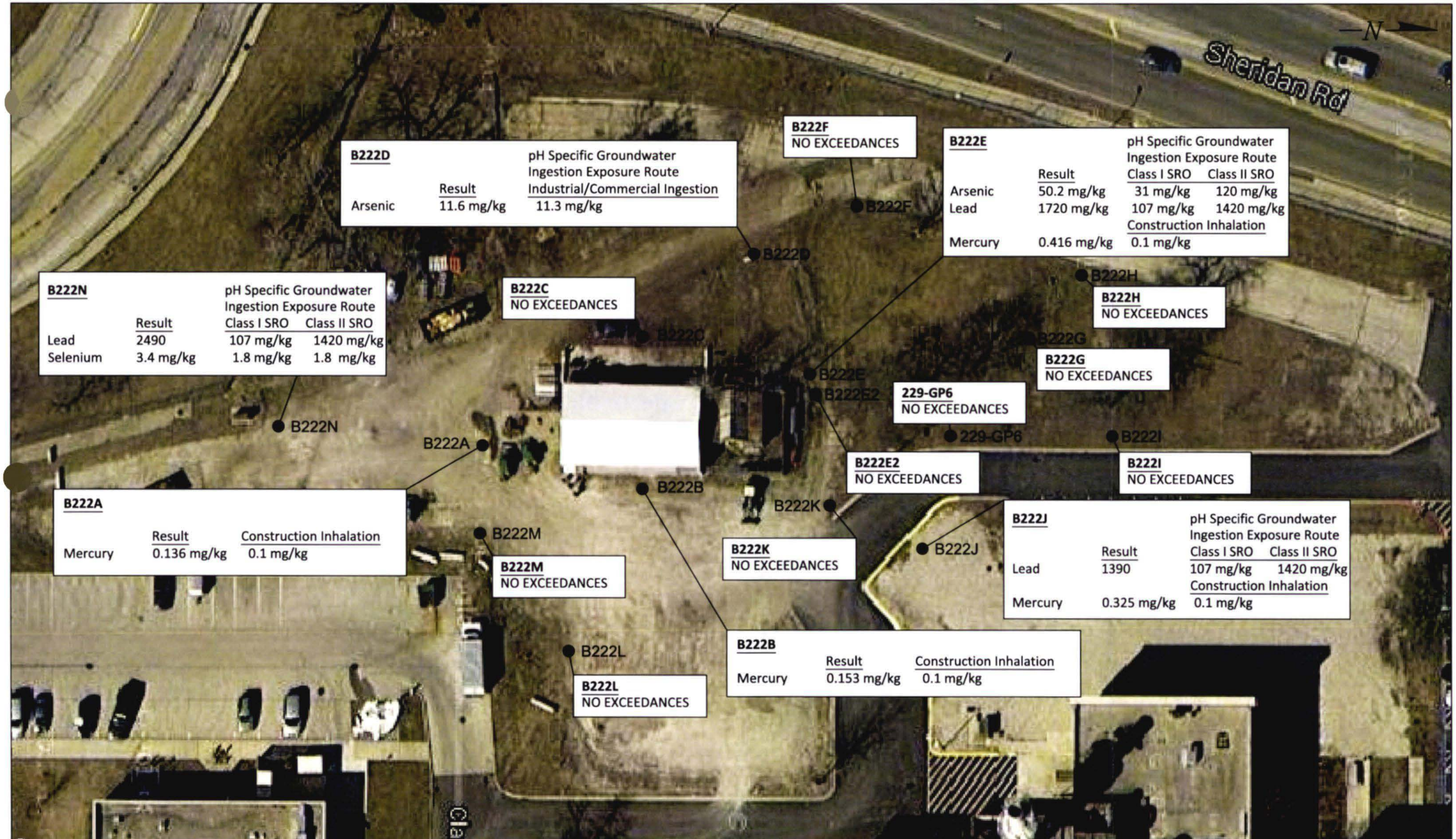
NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
METALS IN SOIL EXCEEDING BACKGROUND PER APPENDIX A TABLE G

Scale	Date
0 16.65' 33.3' 66.6'	9/05/2013

Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	5



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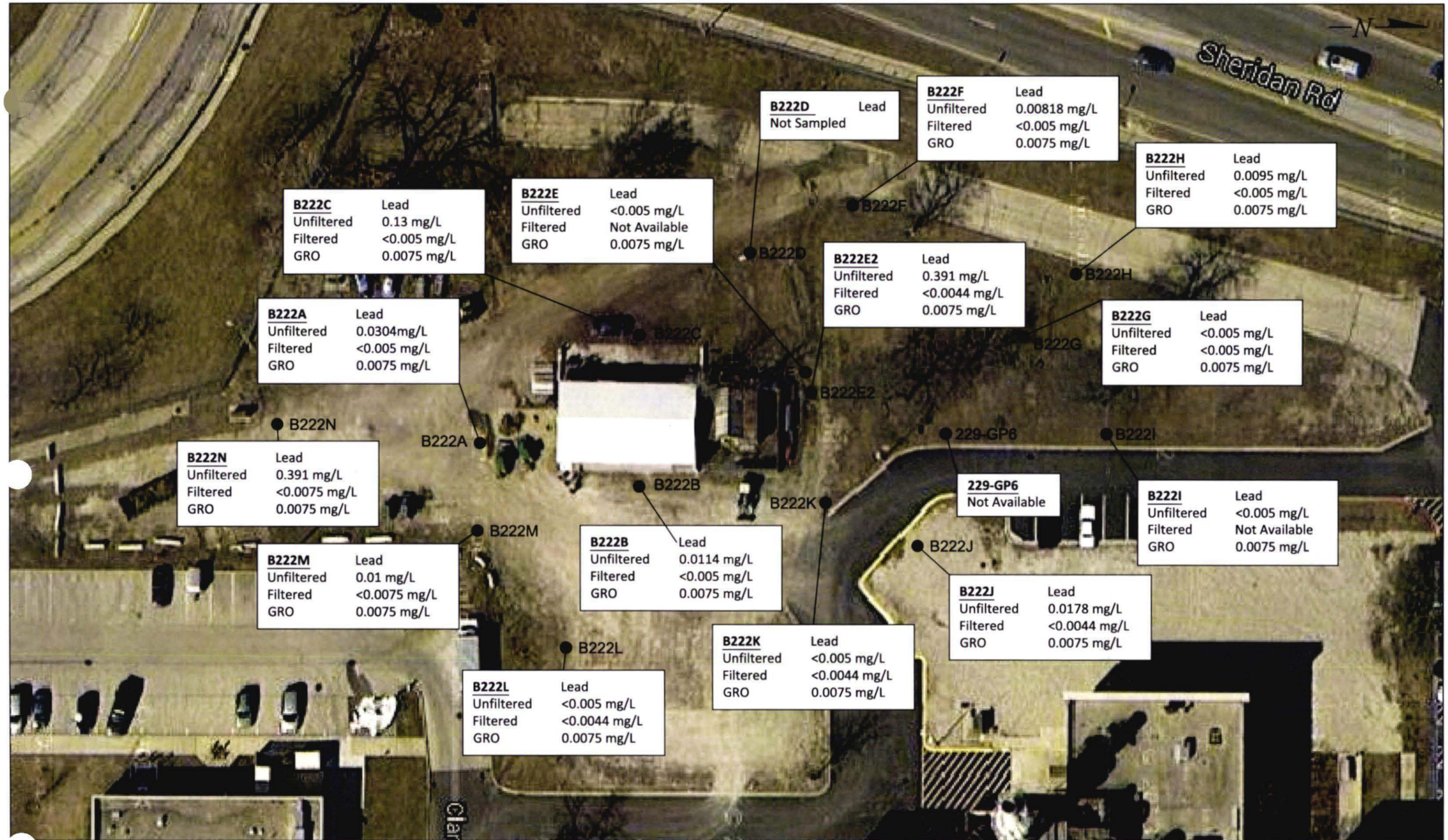
NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
METALS IN SOIL EXCEEDING ONE OR MORE SRO

Scale	Date		
0 16.65' 33.3' 66.6'	9/05/2013		
Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	6



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NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
LEAD IN GROUNDWATER

Scale	Date
0 16.65' 33.3' 66.6'	9/05/2013

Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	7

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NAVAL STATION GREAT LAKES - AREA OF CONCERN 222
WATERTABLE MAP - JULY 15, 2013

Scale	Date		
0 16.65' 33.3' 66.6'	9/05/2013		
Designer	Technician	Approval	Sheet Number
JLF	JAD	JLF	8

APPENDIX B

SOIL BORING LOGS

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 A

CLIENT: Naval Station Great Lakes, IL	LOCATION: South End of B222 Drive slab
DATE: 1/11/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): 20'	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRATA CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				—		0-0.1 Asphalt ~2"
2			1.5				0.1-0.5 Concrete 6"
3	02				1		0.5-4 Granule Silty Clay Fill mud Brown Dry No odor No STAIN Poor Recovery
4							
5	03				—		
6			0.5				6-7 mud to Fine Sand mud Brown Moist No odor Poor Recovery
7	04				0		7-8 Black organic Silty Clay Trace No odor Moist
8							
9	05				0		8-18 Silty Sand, Some gravel mud debris Bricks
10			2				
11	06				0		
12					0		10-20 Silty Clay Some gravel in Zones 10-12 12-14 Black in some Zone - Primarily Dark Grey very ductile wet No odor
			4		0		
14							
16							14-20 Silty Clay As Above - Grey TAN
			4		0		sampled Black 12-14
					0		Grey @ 20 very Dense Slightly ductile No odor No STAINING from 16-20
20							No Sand Zone 14-20'
							EOB, 20'

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 B

CLIENT: Naval Station Great Lakes, IL	LOCATION: East Side of B222
DATE: 1-11-13 GEOLOGIST: JFassbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): —	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				0		0-2 Silty Clay with much Gravel - Angular DK Grey Dry No odor Fill
2							
3	02		4		0		2-3 Clayey Silt Some Fine gravel Medium Brown Dry No odor
4							
5	03				0		3-10 Sand Medium to Fine grained Very well sorted Medium Brown Dry No odor
6			4				
7	04				0		
8							
9	05				0		— Contacts @ 9' Bgs —
10			4				Move East 2 3' East + 1' South 3 South End of Sliding Door
11	06				0		10' Gravel Angular WET Stained DK grey
12							
13					0		10-14 Silt Very well sorted Lt Brownish Tan - some Orange
14			4				
15					0		
16							14-20 Silty Clay Few Gravel - well sorted Very Dense WET Medium Gray No odor No color variation
			4		0		
					0		
20			1				

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 C

CLIENT: Naval Station Great Lakes, IL	LOCATION: West Side of B222
DATE: 1/11/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READINGS (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01		2		0	0-2	Gravel w/ Some Sand & Silt Lt Brown, Black Dry No Odor Fill
2							
3	02				0		2-4 Clayey Silt w/ much Gravel mud Brown Dry No odor Fill
4							
5	03				0		
6			1				4-6 Silty Sand mud Brown much Gravel Brick Piece @ ~ 5' → Incl Recovery
7	04				—		
8							WET NO STAINS No odor
9	05				0		6-8 No Recovery
10			3				8-14 Sand Fine grained Some Silt
11	06				0		Some zones Miscellaneous Debris
12							Brick, lg Gravel Aggregate w/ Cement matrix
			3		0		Dry No Odor No Staining Wet @ 12'
					0		
16' ≠ 16					0		14-14.5 Clay w/ Angular gravel Fill silty DK grey
			4		0		14.5-20 very fine grained sand some gravel medium Brown to Grey Wet No odor Possible stain @ 15'-16'
20							Pods of Clay, Brick-Ground up & other debris to 20'

EOB 20'

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222-D

CLIENT: Naval Station Great Lakes, IL	LOCATION: West of Fenced Storage
DATE: 1/10/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): 20'	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				0		0-1 Clayey Silt w/ Few Gravel DK Grey Dry
2			3		0		1-2 Silty Sand BLACK Dry No odor (no odor) Fill (foundry lite)
3	02				0		2-3 Large Gravel w/ Silty Sand Lt Brown Dry No odor Fill
4							
5	03				0		3-4 Silty Sand Black Dry No odor Fill (foundry lite)
6			3.5		0		4-8 Silty Clay Some Fine Gravel Yellow Brown Highly Mottled Damp at Base No odor Fill ▽@10
7	04						
8							
9	05				0		
10			3.5				8-12 Same
11	06				0		
12					0		Black Stain @ Base - Some Glass & Gravel
			2		0		12-16 Clay Greenish Grey, Some Gravel, Mottled, Very Ductile, Not Dense Wet No odor
16							16-20 Clay Green Mottled Wet, No odor Ductile, Not Dense
			3		0		
					0		
20							EOB 20' bgs

Well set @ 19.5 bgs

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 E

CLIENT: Naval Station Great Lakes, IL	LOCATION: NW Corner of Fenced Storage
DATE: GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READINGS (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				0		0-0.5 TOP SOIL
2			4ft				0.5-1.5 Black soil
3	02				0		1.5-4 multi Colored Fill Bright orange/Black/white
4							Clay, sand, Gravel - ~~Well Grade~~ Very Poorly sorted
5	03		3'		0		
6							4-7 Black Ash/charcoal sand to fine Gravel
7	04				0		
8							
9	05		4'		0		7-8 silty sand yellow brown Moist
10							
11	06				0		8-9 sand fine grained Black
12							
					0		9-11 sand/Gravel/silt orange/Brown/Black debris type material
					0		
16			3				11-17 sand medium grained well sorted
					0		Damp yellow Brown No staining No odor
					0		17-20 sand medium grained some silt some Gravel Black to dark grey
			4				Appears stained - No odor wet

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222F

CLIENT: Naval Station Great Lakes, IL	LOCATION: NEAR Dog Rd @ SW
DATE: 1/10/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): 16	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				0		0-0.5 Topsoil DK Grey to Black
2			3.5				0.5-1.5 Sand / NON NATIVE / Black ASH Few Gravel
3	02				0		1.5-2.5 Silty Clay yellow Grey mottled Dry, Moist, No odor
4							
5	03				0		2.5-5 Clay lt Gray Fracture into horizontal layers Dry No odor
6			4				
7	04				0		5-7 Silty Clay yellow gray Dry dense sl. silty Ductile Dry No odor
8							
9	05				0		
10							7-12 Silt to Very Fine grained sand Not Cohesive Orange brown Wet @ 7.5 No odor
11	06		4		6		
12							12-16 Silt Grey - Zones of Organic oxidation near 12' Some Silt loose wet zones No odor
			4		0		
					0		
							EOB 16'
							▽ @ 7.5
							well set @ 16'
							Refusal x 2 Closer to Curb

2x

Volley Ball Area

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222G

CLIENT: Naval Station Great Lakes, IL	LOCATION: Volley Ball Area
DATE: 8/10/03 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): 20	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01		4		0		0-0.5 Topsoil Black Dry
2							0.5-2.5 Silt with Sand & Gravel Some Clay Black to dark grey Dolomite Gravel
3	02				0		
4							2.5-4 Silty Clay Yellow Brown Dry No odor mottled Few fine gravel
5	03				0		
6							
7	04		4		0		4' Sand Coarse to medium 2" Sand Orange Dry No Odor
8							
9	05				0		4-5.5 Clay Well sorted Blue Grey Mottled No odor Some mottling
10			4				
11	06				0		5.5-6.5 Wood Clay Sand Gravel discolored Yellow Brown & other colors
12							
			4		0		6.5-8 Silty Clay Well sorted Grey & Brown mottled wet No odor ductile
					0		
			4		0		8-12 Clayey Silt Yellowish brown No odor wet @ 12' very well sorted Not ductile Slightly Dense Limited mottling
					0		
							12-17 Silty Clay Yellowish brown wet No odor Few Sand lenses - orange well sorted Dense Sand lense Fine grained grey wet @ 17'
							17-20 Silty Clay Grey wet Very Dense Very Ductile very well sorted No Odor
							Well @ 20'

5.7 7*
6.5

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 H

CLIENT: Naval Station Great Lakes, IL	LOCATION: Pond - Far North
DATE: 1/10/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm)	TYPE	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				0			0-4 Silty Clay Soil Some Gravel Well graded Black to dark gray Dry No odor
2			4					
3	02				0			4-8 Clayey Silt yellow Gray well graded some mottling Damp @ 7'
4								NOT DUCTILE Dense throughout
5	03				0			
6			4					Mottled Black mottling @ 7-8'
7	04				0			8-12 Silt yellowish brown & gray
8								Very well sorted Moist No odor
9	05				3			Native - Consistent color & texture
10			4					12-14 Silty sand Fine grained Sand
11	06				0			Zone @ 12.5-13 - Very wet
12								yellowish brown No odor
			4		0			very well sorted
					0			14-16 Silty Clay Grey well graded
								Some fine coarse grained - Consolid
					0			Damp - No odor
			4		0			16-18 Silty Fine grained Sand some Gravel
								Grey - WET Poor recovery No odor
								18-20 Clay Grey well graded Very Dense
								Slight ductile
								EOB 20'

8' ±

South of B222

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222N

CLIENT: Naval Station Great Lakes, IL	LOCATION: GREAT LAKES NAVY
DATE: 7/09/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01		18"		ND		0-1.0 Gravel w/ much sand & silt, lt Grey Dry, no odor, no stain
2							
3	02				ND		1-2 Silt w/ much sand & Gravel - some large gravel >1" diam, Black
4							
5	03				ND		2.0-11.5 SAND - Coarse some gravel - Poorly sorted, Black Fill Ash/ NONE NATIVE ORIGIN - Crunchy Dry No odor Poor Recovery
6			12"				
7	04				ND		
8							
9	05				NR		
10			6"				11.5-14 Silt some gravel medium Brown well sorted WET No odor No stain
11	06				ND		
12							
13					ND		14-24 Silt MEDIUM Grey VERY WELL sorted WET No odor No STAIN monochromatic Dense Few Horizontal seams of Silt w/ VERY FINE SAND 1/4" thick @ 18-22
14			40				
15					ND		
16							
17					ND		
18			48				
19					ND		
20							
21							EOB @ 24.0'
22			48				
23							
24							
25							

* sample

NORTH WEST Corner of B222 STORAGE YARD

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B122 E2

CLIENT: Naval Station Great Lakes, IL	LOCATION: NAVAL STATION GREAT LAKES B222
DATE: 7/8/2013 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft): 25'	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				ND		0-3' ORGANIC-SOIL BLACK Dry no odor NOT COHESIVE
2			36				
3	02				ND		3'-6' SAND Yellow Brown w/ some Black Fine grained well sorted Few Black cinders Dry No odor more cinders w/ Depth
4							
5	03						
6			18		ND		6-8 CLAYEY Silt Yellow Brown Some Black DAMP well sorted Fill
7	04						
8							8-10 Silt much Black semi vitreous MATERIAL Dry No odor Fill
9	05				ND		
10			40				10-16 SAND Medium to Fine grained very well sorted TAN No odor Damp
11	06				ND		
12							16-20 STONE IN Tipping sampler Appears to be sand as above but only Slough Recovered
13					ND		
14			30				
15					ND		
16							20-25 CLAYEY Silt Well sorted MED Brown Tough not Ductile Dry No odor NOT likely Fill
17							
18			~0		NA		
19							
20							
21					ND		
22							
23			48+				
24					ND		
25							

LAB *

West 6 B229 Parking Area
Under locust tree
between manholes in Access Road

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 I

Page 1 of 1

LOCATION: Naval Station Great Lakes B222

CLIENT: Naval Station Great Lakes, IL

SURFACE ELEVATION (ft.):

DATE: 7/03/13 GEOLOGIST: JPAssbender

CASING ELEVATION (ft.):

TOTAL DEPTH (ft): 25'

DEPTH TO WATER (ft.)/DATE:

DRILLING METHOD: GeoProbe

DEPTH TO WATER (ft.)/DATE:

DRILLING COMPANY: Terra-Trace

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (cm)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				ND		0-2" Soil - Grass covered
2			48"				2"-2' Silt w/ some clay, gravel, sand mixed colors Dk Brown w/ some orange & Black, Dry. No odor, Fill
3	02				ND		
4							2'-4' Silt very poorly sorted Med Brown To grey Brown some Gravel Dry No odor Fill
5	03				ND		
6							4'-10' Silt Yellow Brown poorly sorted @ 4'; Very well sorted by 10' Dry Friable No odor Some orange spots & weathering No staining; No Debris/Non Native; Fill
7	04		48"		ND		
8							
9	05				ND		
10			48"				10-12 SAND Fine to Medium Grained well graded Yellow Brown w/ some orange & some Black spots Damp, No odor, Fill
11	06				ND		
12							
13					ND		12-25 CLAY Few Fine Gravel in some areas Very Well sorted Medium Grey; Uniform in color; Highly Ductile Dense Wet No odor, Native
14			42"				
15					ND		
16							
17					ND		EOB @ 25'
18			46"				
19					ND		
20							
21					ND		
22							
23			48+				
24					ND		
25							

Sample *

South End of B229 Parking in Gravel of Former Bldg Footprint

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 J

CLIENT: Naval Station Great Lakes, IL	LOCATION: Naval Station Great Lakes
DATE: 7/08/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				ND		#1 STONE Gravel → 6" Top
2			24"				0.6-2 Concrete & Building MATERIAL - Gravel Sand, Fine Gravel lt grey Dry No odor
3	02				ND		2-4 Coarse sand much gravel, grey, Dry
4							No odor Fill very poorly sorted
5	03				ND		4-7 Sand Fine grained some silt some
6			30				Fine gravel medium Brown Fairly well
7	04				15		sorted Damp No odor some orange & Black discoloration
8							7-12 silt/sand Black Fill Bits of
9	05				ND		NOT NATURAL Debris - Glass, rusty colored
10			24				1/8" clumps, Bright white Lime? Bits
11	06				ND		Damp some orange Discoloration No odor
12							12-14 Sand medium to Fine grained
13					ND		Some silt some gravel Very Poorly
14			18				sorted Dry No Odor Grey Brown
15					ND		14-16 - Silty Sand some gravel Black
16							with Orange STAINING - WET - WATER
17					NA		Visible w/ orange color, some sharp gravel
18			0				Fill No odor
19					NA		16-20 No recovery - very soft
20							
21					ND		20-24 CLAY some silt medium Grey
22			40				Very Dense Ductile wet No odor
23					ND		
24							NATIVE MATERIAL Monochromatic
25							

EOB 24.0

Sample *

Near NE corner of B 222
Fenced storage
2' From Curb End

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222K

CLIENT: Naval Station Great Lakes, IL	LOCATION: Great Lakes NAVY
DATE: 7/8/13 GEOLOGIST: JPassbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01				ND		0-1 Gravel much sand some silt DK grey. Dry, No odor Parking lot material
2			36				1-5 Silt w/sand, cinders, glass, ash
3	02				ND.		medium brown silt w/ much black addedmaterial
4							Dense, Dry, No odor
5	03				ND		5-10 Clayey silt med Brown to Grey some
6			30				Fine gravel few orange discolored areas near 5' bgs
7	04				ND		Dense; Not Ductile, Dry No odor Fill
8							
9	05				ND		
10			42				10-16 Silty Clay medium Brown with Grey to Black
11	06				ND		staining; Few sand & gravel, WET, No odor
12							looks impacted; looks NATIVE but had wood
13					ND		mixed in - Not NATIVE
14			40				
15					ND		16-24 Silty Clay medium Brown Few sand &
16							Fine gravel monochromatic Dense
17					ND		Not Friable No odor Damp NATIVE
18			42				No sand seams or other indications
19					ND		of Migration Routes
20							
21					ND		
22							
23			48+				EOB 24.0'
24					ND		
25							

Sample & Sample * * Most Black stain

Due East of SE B222 Building Corner
~ 20' from Hydrant

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 L

CLIENT: Naval Station Great Lakes, IL	LOCATION: GREAT LAKES NAVY
DATE: 7/8/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
1	01						0-0.5 GRAVEL w/ SAND & Silt - Parking lot MATERIAL lt gray Dry No odor
2			36				
3	02						0.5-6 Silt Some Fine SAND & Clay Medium TAN to med Brown Dry HORIZONTAL PLATE FRACTURES No Discoloration No odor
4							
5	03						
6			42				
7	04						6-10 SAME AS ABOVE but Wet with some orange STAIN less SAND & Clay
8							
9	05						10-12 Silt AS ABOVE NO clay or SAND gray color with some orange STAIN in HORIZONTAL FRACTURES WET NO odor - mostly monochromatic gray
10			42				
11	06						
12							12-24 CLAY monochromatic medium gray Very Very well sorted Very Dense, Not ductile WET but NOT WATER yielding. NO odor
13							
14			48				
15							
16							
17							
18			48+				
19							
20							
21							
22							
23							
24							EOB 24.0

~ sample

Along Jersey BARRIER
@ Curve of Alignment

PROJECT NUMBER: BMF-1114

SOIL BORING LOG OF B222 M

CLIENT: Naval Station Great Lakes, IL	LOCATION: GREAT LAKES NAVY
DATE: 7/09/13 GEOLOGIST: JFAssbender	SURFACE ELEVATION (ft.):
TOTAL DEPTH (ft):	CASING ELEVATION (ft.):
DRILLING METHOD: GeoProbe	DEPTH TO WATER (ft.)/DATE:
DRILLING COMPANY: Terra-Trace	DEPTH TO WATER (ft.)/DATE:

DEPTH (feet)	SAMPLE TYPE AND NUMBER	SPT BLOWS PER 0.5 feet	RECOVERY (feet)	PENETROMETER READING (TSF)	PID READING (ppm) TYPE:	STRAT CHANGE DEPTH (feet)	GEOLOGIC DESCRIPTION
							0-0.5' Few Grass in Minor Soil
1	01				ND		Gravel much sand lt Grey Parking lot Dry
2			18"				0.5-4.0 SAND FINE GRAINED very well sorted
3	02				ND.		light Brown to tan / Monochromatic
4							No Discoloration, No odor, Dry
5	03				ND		
6			24"				4.0-20.0 Silt Few gravel From 4-6'
7	04				ND		No gravel below 6' w/ Exception of
8							#2 stone in 3" zone @ ~7'
9	05				ND		Remainder is very well sorted Silt
10			40"				Medium Brown to tan Monochromatic
11	06				ND		to 11.5' — Horizontal Seams of orange
12							color change to Grey 100% @ 11.5'
13					ND		
14			48"				
15					ND		18-20 Few Gravel in Silt Same as Above
16							Grey Very wet, No odor, No Discoloration
17					ND		
18			48"				
19					ND		
20							Very Wet/very Stiff
21					X		
22			X				EOB 20.0
23					X		
24							
25							

Sample #

APPENDIX C

ANALYTICAL SUMMARY TABLES

Table 1. Soil VOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of GW Ingestion Route*		B222 A	B222 B	B222 C	B222 D	B222 E	B222EZ 14'-16'	B222 F	B222 G	B222 H	B222I 10'-12'	B222J 6'-8'	B222 K 12'-14'	B222 L 4'-6'	B222M 6'-8'	B222 N 4'-6'
	Industrial/Commercial		*Construction Worker*		Class I	Class II															
	ingestion	inhalation	ingestion	inhalation																	
VOCs							**1/11/13**	**1/11/13**	**1/11/13**	**1/10/13**	**1/10/13**	**7/8/13**	**1/10/13**	**1/10/13**	**1/10/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/9/13**	**7/9/13**
1,1,1-Trichloroethane	NRO	1,200	NRO	1,200	2	9.6	< 0.000791	< 0.00069	< 0.000795	< 0.000883	< 0.000797	< 0.00194	< 0.000618	< 0.000714	< 0.000638	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,1,2,2-Tetrachloroethane^	8,200	2,000	2,000	2,000	0.22	0.22	< 0.000656	< 0.000573	< 0.00066	< 0.000733	< 0.000662	< 0.00194	< 0.000513	< 0.000593	< 0.00053	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,1,2-Trichloroethane	8,200	1,800	8,200	1,800	0.02	0.3	< 0.000606	< 0.000529	< 0.00061	< 0.000677	< 0.000612	< 0.00194	< 0.000474	< 0.000547	< 0.000489	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,1-Dichloroethane	200,000	1,700	200,000	130	23	110	< 0.0017	< 0.00148	< 0.00171	< 0.0019	< 0.00171	< 0.00194	< 0.00133	< 0.00154	< 0.00137	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,1-Dichloroethene	18,000	1,500	1,800	300	0.06	0.3	< 0.00133	< 0.00116	< 0.00134	< 0.00149	< 0.00135	< 0.00194	< 0.00104	< 0.00121	< 0.00108	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,2-Dibromo-3-chloropropane	4	17	89	0.11	0.002	0.002	< 0.002	< 0.00175	< 0.002	< 0.002	< 0.002	< 0.00194	< 0.00156	< 0.00181	< 0.00161	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.002
1,2 Dibromoethane	0.07	0.32	1.5000	4.5000	0.000	0.004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.00174	< 0.0004	< 0.0004	< 0.00192	< 0.000453
1,2-Dichloroethane	63	0.7	1,400	0.99	0.02	0.1	< 0.00108	< 0.000947	< 0.00109	< 0.00121	< 0.00109	< 0.00194	< 0.000848	< 0.000979	< 0.000875	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,2-Dichloropropane	84	23	1,800	0.5	0.03	0.15	< 0.0015	< 0.00131	< 0.00151	< 0.00168	< 0.00152	< 0.00194	< 0.00118	< 0.00136	< 0.00121	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
1,3-Dichloropropene (cis & trans)	57	2.1	1,200	0.39	0.004	0.02	< 0.00121	< 0.00106	< 0.00122	< 0.00135	< 0.00122	< 0.00387	< 0.000948	< 0.00109	< 0.000978	< 0.0035	< 0.00349	< 0.004	< 0.0034	< 0.00383	< 0.004
1-Butanol	200,000	10,000	200,000	10,000	17	17	< 0.207	< 0.18	< 0.208	< 0.231	< 0.208	< 0.192	< 0.162	< 0.187	< 0.167	< 0.174	< 0.173	< 0.199	< 0.168	< 0.19	< 0.313
2- Butanone (MEK)^	NRO	NRO	NRO	NRO	NRO	NRO	< 0.099	< 0.0864	< 0.0996	< 0.111	< 0.0998	< 0.092	< 0.0774	< 0.0894	< 0.0799	< 0.0832	< 0.0828	< 0.0956	< 0.0807	< 0.091	< 0.15
2-Hexanone^	NRO	NRO	NRO	NRO	NRO	NRO	< 0.104	< 0.0904	< 0.104	< 0.116	< 0.104	< 0.0962	< 0.081	< 0.0935	< 0.0836	< 0.0871	< 0.0867	< 0.1	< 0.0844	< 0.0952	< 0.157
4-Methyl-2-Pentanone (MIBK)^	NRO	3,100	NRO	340	NRO	NRO	< 0.0571	< 0.0498	< 0.0574	< 0.0638	< 0.0576	< 0.0531	< 0.0447	< 0.0516	< 0.0461	< 0.048	< 0.0478	< 0.0551	< 0.0465	< 0.0525	< 0.0865
Acetone	200,000	100,000	200,000	100,000	16	16	< 0.0609	< 0.0531	< 0.0612	< 0.068	< 0.0614	< 0.0566	< 0.0476	< 0.055	< 0.0491	< 0.0512	< 0.0509	< 0.0588	< 0.0496	< 0.056	< 0.0922
Acrylonitrile^	11	0.54	230	0.17	0.0006	0.0006	< 0.0106	< 0.00922	< 0.0106	< 0.0118	< 0.0107	< 0.00982	< 0.00826	< 0.00954	< 0.00853	< 0.00888	< 0.00884	< 0.0102	< 0.00861	< 0.00971	< 0.016
Benzene	100	1.6	2,300	2.2	0.03	0.17	< 0.000516	0.00186	0.00118	< 0.000576	0.0259	0.00456	< 0.000403	0.000698	0.00134	< 0.00175	0.0077	< 0.00201	< 0.0017	0.002	< 0.00315
Bromodichloromethane	92	3,000	2,000	3,000	0.6	0.6	< 0.000969	< 0.000846	< 0.000975	< 0.00108	< 0.000977	< 0.00194	< 0.000758	< 0.000875	< 0.000782	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Bromoform	720	100	16,000	140	0.8	0.8	< 0.000662	< 0.000578	< 0.000667	< 0.00074	< 0.000668	< 0.00194	< 0.000518	< 0.000598	< 0.000535	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Bromomethane	2,900	15	1,000	3.9	0.2	1.2	< 0.00705	< 0.00615	< 0.00709	< 0.00788	< 0.00711	< 0.00655	< 0.00551	< 0.00637	< 0.00569	< 0.00593	< 0.0059	< 0.00681	< 0.00574	< 0.00648	< 0.0107
Carbon disulfide	200,000	720	20,000	9.0	32	160	0.0166	0.00136	0.00116	0.00238	0.00298	< 0.00194	< 0.000408	< 0.000471	< 0.000421	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	0.0211
Carbon Tetrachloride	44	0.64	410	0.9	0.07	0.33	< 0.00192	< 0.00167	< 0.00193	< 0.00214	< 0.00193	< 0.00194	< 0.0015	< 0.00173	< 0.00155	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Chlorobenzene	41,000	210	4,100	1.3	1	6.5	< 0.00123	< 0.00107	< 0.00124	< 0.00137	< 0.00124	< 0.00194	< 0.000961	< 0.00111	< 0.000991	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Chloroethane^	NRO	1500	NRO	97	NRO	NRO	< 0.0108	< 0.00943	< 0.0109	< 0.0121	< 0.0109	< 0.01	< 0.00845	< 0.00976	< 0.00872	< 0.00909	< 0.00904	< 0.0104	< 0.00881	< 0.00993	< 0.0164
Chloroform	940	0.54	2,000	0.76	0.6	2.9	< 0.000762	< 0.000666	< 0.000767	< 0.000852	< 0.000769	< 0.00194	< 0.000596	< 0.000689	< 0.000615	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Chloromethane^	NRO	180	NRO	11	NRO	NRO	< 0.00124	< 0.00108	< 0.00125	< 0.00138	< 0.00125	< 0.00194	< 0.000968	< 0.00112	< 0.000999	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
cis-1,2-Dichloroethene	20,000	1,200	20,000	1,200	0.4	1.1	< 0.000444	< 0.000387	< 0.000446	< 0.000496	< 0.000448	< 0.00194	< 0.000347	< 0.000401	< 0.000358	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Dibromochloromethane	41,000	1,300	41,000	1,300	0.4	0.4	< 0.00107	< 0.00093	< 0.00107	< 0.00119	< 0.00107	< 0.00194	< 0.000833	< 0.000962	< 0.00086	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Ethylbenzene	200,000	400	20,000	58	13	19	< 0.000766	< 0.000668	< 0.00077	< 0.000855	< 0.000772	0.00223	< 0.000599	< 0.000691	0.000815	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
m,p-xylenes	NRO	NRO	NRO	NRO	NRO	NRO	< 0.00242	< 0.00212	< 0.00244	< 0.00271	< 0.00245	0.0029	< 0.0019	< 0.00219	< 0.00196	< 0.00204	< 0.00203	< 0.00234	< 0.00198	< 0.00223	< 0.00367
Methyl tert-butyl ether	20,000	8800	2000	140	0.32	0.32	< 0.0016	< 0.00139	< 0.00161	< 0.00178	< 0.00161	< 0.00194	< 0.00125	< 0.00144	< 0.00129	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Methylene chloride	760	24	12,000	34	0.02	0.2	< 0.00276	< 0.00241	< 0.00278	< 0.00309	< 0.00279	< 0.00257	< 0.00216	< 0.00249	< 0.00223	< 0.00232	< 0.00231	< 0.00267	< 0.00225	< 0.00254	< 0.00418
o-xylenes	NRO	NRO	NRO	NRO	NRO	NRO	< 0.00127	< 0.00111	< 0.00128	< 0.00142	< 0.00128	< 0.00194	< 0.000995	< 0.00115	< 0.00103	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Styrene	410,000	1,500	41,000	430	4	18	< 0.00164	< 0.00143	< 0.00165	< 0.00183	< 0.00165	< 0.00194	< 0.00128	< 0.00148	< 0.00132	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Tetrachloroethene	110	20	2,400	28	0.06	0.3	< 0.00155	0.00691	< 0.00156	< 0.00174	< 0.00157	< 0.00194	< 0.00121	< 0.0014	< 0.00125	< 0.00175	0.0311	< 0.00201	0.00227	0.00329	0.00725
Toluene	410,000	650	410,000	42	12	29	< 0.00117	0.00209	0.00171	< 0.0013	0.00865	0.00854	< 0.000912	< 0.00105	0.00222	0.0018	0.00466	< 0.00201	< 0.0017	0.00238	< 0.00315
trans-1,2-Dichloroethene	NRO	NRO	NRO	NRO	0.7	3.4	< 0.00228	< 0.00199	< 0.00229	< 0.00254	< 0.00229	< 0.00211	< 0.00178	< 0.00205	< 0.00184	< 0.00191	< 0.0019	< 0.0022	< 0.00185	< 0.00209	< 0.00344
Trichloroethene	520	8.9	1,200	12	0.06	0.3	< 0.000956	< 0.000835	< 0.000962	< 0.00107	< 0.000965	< 0.00194	< 0.000748	< 0.000864	< 0.000772	< 0.00175	0.00476	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Vinyl Acetate	1,000,000	1600	200,000	10	170	170	< 0.029	< 0.0253	< 0.0291	< 0.0324	< 0.0292	< 0.0269	< 0.0227	< 0.0262	< 0.0234	< 0.0244	< 0.0242	< 0.028	< 0.0236	< 0.0266	< 0.0315
Vinyl chloride	7.9	1.1	170	1.1	0.01	0.07	< 0.000406	< 0.000355	< 0.000409	< 0.000454	< 0.00041	< 0.00194	< 0.000318	< 0.000367	< 0.000328	< 0.00175	< 0.00174	< 0.00201	< 0.0017	< 0.00192	< 0.00315
Xylenes (total)	410,000	320	41,000	5.6	150	150	< 0.0037	< 0.00323	< 0.00372	< 0.00413	< 0.00373	0.0045	< 0.00289	< 0.00334	< 0.00298	< 0.00379	< 0.00377	< 0.00435	< 0.00367	< 0.00414	< 0.00683

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table B (Industrial/Commercial)

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

a = Carcinogenic b = Noncarcinogenic

Results in **Bold/Shaded** indicate concentrations exceeding most stringent Tier 1 SROs.

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - 01/06/09.

Table 2. Soil SVOC Analytical Results

Chemical Name	Exposure Route-Specific SROs*						Soil Component of GW Ingestion Route*		B222 A	B222 B	B222 C	B222 D	B222 E	B222EZ 14'-16'	B222 F	B222 G	B222 H	B222I 10'-12'	B222J 6'-8'	B222 K 12'-14'	B222 L 4'-6'	B222M 6'-8'	B222 N 4'-6'
	Residential		*Industrial/Commercial*		*Construction Worker*																		
	ingestion	inhalation	ingestion	inhalation	ingestion	inhalation	Class I	Class II															
SVOCs									**1/11/13**	**1/11/13**	**1/11/13**	**1/10/13**	**1/10/13**	**7/8/13**	**1/10/13**	**1/10/13**	**1/10/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**
1,2,4-Trichlorobenzene	780	3,200	20,000	3,200	2,000	920	5	53	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
1,2-Dichlorobenzene	7,000	560	180,000	560	18,000	310	17	43	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
1,3-Dichlorobenzene	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
1,4-Dichlorobenzene	NRO	11,000	NRO	17,000	NRO	340	2	11	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
2,4,5-Trichlorophenol	7,800	NRO	200,000	NRO	200,000	NRO	270	1400	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.764	< 0.0991	< 0.55	< 0.106	< 0.81	< 1.65	< 0.923	< 0.847	< 0.891	< 8.88
2,4,6-Trichlorophenol	58	200	520	390	11,000	540	0.20	0.77	< 0.113	< 0.0999	< 0.108	< 0.2	< 0.2	< 0.2	< 0.0991	< 0.2	< 0.106	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.277
2,4-Dichlorophenol	230	NRO	6,100	NRO	610	NRO	1	1	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.764	< 0.0991	< 0.55	< 0.106	< 0.81	< 1	< 0.923	< 0.847	< 0.891	< 1
2,4-Dimethylphenol	1,600	NRO	41,000	NRO	41,000	NRO	9	9	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
2,4-Dinitrophenol	160	NRO	4,100	NRO	410	NRO	0.2	0.2	< 0.113	< 0.0999	< 0.108	< 0.2	< 0.2	< 0.2	< 0.0991	< 0.2	< 0.106	< 0.2	< 0.341	< 0.2	< 0.2	< 0.2	< 1.83
2,4-Dinitrotoluene	0.9	NRO	8.4	NRO	180	NRO	0.0008	0.0008	< 0.113	< 0.0999	< 0.108	< 0.25	< 0.25	< 0.25	< 0.0991	< 0.25	< 0.106	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.277
2,6-Dinitrotoluene	0.9	NRO	8.4	NRO	180	NRO	0.0007	0.0007	< 0.113	< 0.0999	< 0.108	< 0.26	< 0.26	< 0.26	< 0.0991	< 0.26	< 0.106	< 0.26	< 0.26	< 0.26	< 0.26	< 0.26	< 0.277
2-Chloronaphthalene^	6,300	NRO	160,000	NRO	160,000	NRO	49	240	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
2-Chlorophenol	390	53,000	10,000	53,000	10,000	53,000	4	20	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.0382	< 0.00396	< 0.022	< 0.00426	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
2-Nitrophenol	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
3,3'-Dichlorobenzidine	1.0	NRO	13	NRO	280	NRO	0.007	0.033	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.191	< 0.0991	< 0.55	< 0.106	< 0.203	< 0.413	< 0.231	< 0.212	< 0.223	< 1.3
4,6-Dinitro-2-methylphenol	7.8	NRO	200	NRO	800	NRO	pH specific	pH specific	< 0.0282	< 0.025	< 0.027	< 0.101	< 0.129	< 0.289	< 0.0248	< 0.138	< 0.0266	< 0.306	< 0.625	< 0.349	< 0.32	< 0.337	< 3.36
4-Bromophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
4-Chloro-3-methylphenol	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
4-Chloroaniline	310	NRO	8,200	NRO	820	NRO	0.7	0.7	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.7	< 0.462	< 0.423	< 0.446	< 0.7
4-Chlorophenyl phenyl ether	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.0382	< 0.00396	< 0.022	< 0.00426	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
4-Nitrophenol	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.764	< 0.0991	< 0.55	< 0.106	< 0.81	< 1.65	< 0.923	< 0.847	< 0.891	< 8.88
Acenaphthene	4,700	NRO	120,000	NRO	120,000	NRO	570	2,900	< 0.00451	< 0.004	0.00617	< 0.0161	0.0291	< 0.00764	< 0.00396	0.0354	0.0593	< 0.0081	0.0934	0.0464	< 0.00847	< 0.00891	< 0.0888
Acenaphthylene^	2,300	NRO	61,000	NRO	61,000	NRO	85	420	< 0.00451	0.00911	0.0139	< 0.0161	< 0.0206	< 0.0955	< 0.00396	< 0.022	< 0.00426	< 0.101	< 0.207	< 0.115	< 0.106	< 0.111	< 1.11
Anthracene	23,000	NRO	610,000	NRO	610,000	NRO	12,000	59,000	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	0.341	0.32	< 0.0423	< 0.0446	< 0.444
Benz(a)anthracene	0.9	NRO	8	NRO	170	NRO	2	8.00	0.00794	0.0234	0.0614	0.0439	0.157	0.0816	< 0.00396	0.228	0.00809	< 0.0405	0.634	0.784	< 0.0423	< 0.0446	< 0.444
Benzidine^	0.003	0.009	0.02	0.02	0.054	0.02	0.0000022	0.0000022	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.228	< 0.0991	< 0.55	< 0.106	< 0.241	< 0.492	< 0.275	< 0.252	< 0.265	< 2.64
Benzo(a)pyrene	0.09	NRO	0.8	NRO	17	NRO	8	82	< 0.0226	0.0208	0.0493	< 0.0807	**0.135**	< 0.09	< 0.0198	**0.21**	< 0.0213	< 0.09	**0.498**	**0.629**	< 0.09	< 0.09	< 0.09
Benzo(b)fluoranthene	0.9	NRO	8	NRO	17	NRO	5	25	0.0151	0.0222	0.0605	0.0799	0.172	< 0.0955	< 0.00495	0.244	< 0.00532	< 0.101	0.614	**1.11**	< 0.106	< 0.111	< 1.11
Benzo(g,h,i)perylene^	2,300	NRO	610,000	NRO	610,000	NRO	27000	130,000	0.00948	0.0238	0.0342	0.0854	0.205	0.0512	< 0.00495	0.169	< 0.00532	< 0.0405	0.306	0.366	< 0.0423	< 0.0446	< 0.444
Benzo(k)fluoranthene	9	NRO	78	NRO	1,700	NRO	49	250	< 0.00564	0.00783	0.0213	0.0271	0.0605	0.0318	< 0.00495	0.0889	< 0.00532	< 0.0203	0.208	0.361	< 0.0212	< 0.0223	< 0.222
Benzoic Acid	310,000	NRO	1,000,000	NRO	820,000	NRO	400	400	< 0.451	< 0.4	< 0.432	< 1.61	< 2.06	< 0.764	< 0.396	< 2.2	< 0.426	< 0.81	< 1.65	< 0.923	< 0.847	< 0.891	< 8.88
Bis(2-chloroethyl)ether	0.6	0.2	5	0.47	75	0.66	0.0004	0.0004	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
Bis(2-chloroisopropyl)ether^	3,100	1,300	82,000	1,300	8,200	1,300	2.4	2.4	< 0.00451	< 0.004	< 0.00432	< 0.0161	< 0.0206	< 0.00764	< 0.00396	< 0.022	< 0.00426	< 0.0081	< 0.0165	< 0.00923	< 0.00847	< 0.00891	< 0.0888
Bis(2-ethylhexyl)phthalate	46	31,000	410	31,000	4,100	31,000	3,600	31,000	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
Butyl benzyl phthalate	16,000	930	410,000	930	410,000	930	930	930	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
Carbazole	32	NRO	290	NRO	6,200	NRO	0.6	2.8	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	0.0945	0.112	< 0.0423	< 0.0446	< 0.444
Chrysene	88	NRO	780	NRO	17,000	NRO	160	800	0.0101	0.0207	0.0501	0.0418	0.143	0.0707	< 0.00495	0.186	0.00724	< 0.0405	0.52	0.754	< 0.0423	< 0.0446	< 0.444
Di-N-butyl phthalate	7,800	2,300	200,000	2,300	200,000	2,300	2,300	2,300	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.0382	< 0.0991	< 0.55	< 0.106	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Di-N-octyl phthalate	1,600	10,000	41,000	10,000	4,100	10,000	10,000	10,000	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.0382	< 0.0991	< 0.55	< 0.106	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Dibenzo(a,h)anthracene	0.09	NRO	0.8	NRO	17	NRO	2	7.6	< 0.0113	< 0.00999	< 0.0108	< 0.0404	< 0.0516	< 0.09	< 0.00991	< 0.055	< 0.0106	< 0.09	< 0.09	**0.12**	< 0.09	< 0.09	< 0.09
Diethyl phthalate	63,000	2,000	1,000,000	2,000	1,000,000	2,000	470	470	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
Dimethyl phthalate	NRO	NRO	NRO	NRO	NRO	NRO	NRO	NRO	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
Fluoranthene	3,100	NRO	82,000	NRO	82,000	NRO	4,300	21,000	0.0198	0.0418	0.122	0.0552	0.346	0.153	< 0.00495	0.525	0.0207	< 0.0405	1.72	2.36	< 0.0423	< 0.0446	< 0.444
Fluorene	3,100	NRO	82,000	NRO	82,000	NRO	560	2800	< 0.00564	< 0.00499	0.00734	< 0.0202	0.0299	< 0.0382	< 0.00495	0.0484	0.188	< 0.0405	0.0996	0.0829	< 0.0423	< 0.0446	< 0.444
Hexachlorobenzene	0.4	1	4	1.8	78	2.6	2	11	< 0.00564	< 0.00499	< 0.0054	< 0.0202	< 0.0258	< 0.0382	< 0.00495	< 0.0275	< 0.00532	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.4
Hexachlorobutadiene^	78	150	2,000	150	200	72	2.2	11	< 0.00564	< 0.00499	< 0.0054	< 0.0202	< 0.0258	< 0.0382	< 0.00495	< 0.0275	< 0.00532	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Hexachlorocyclopentadiene	550	10	14,000	16	14,000	1.1	400	2200	< 0.113	< 0.0999	< 0.108	< 0.404	< 0.516	< 0.382	< 0.0991	< 0.55	< 0.106	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 4.44
Hexachloroethane	78	NRO	2,000	NRO	2,000	NRO	0.50	2.60	< 0.0113	< 0.00999	< 0.0108	< 0.0404	< 0.0516	< 0.0382	< 0.00991	< 0.055	< 0.0106	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Indeno(1,2,3-cd)pyrene	0.9	NRO	8	NRO	170	NRO	14	69	0.00961	0.0143	0.0362	0.0455	0.105	< 0.0955	< 0.00495	0.16	< 0.00532	< 0.101	0.307	0.446	< 0.106	< 0.111	< 0.9
Isophorone	15,600	4,600	410,000	4,600	410,000	4,600	8	8	< 0.00564	< 0.00499	< 0.0054	< 0.0202	< 0.0258	< 0.0955	< 0.00495	< 0.0275	< 0.00532	< 0.101	< 0.207	< 0.115	< 0.106	< 0.111	< 1.11
3 & 4-Methylphenol (m & p-cresol)^	390	NRO	10,000	8,411	1,000	8,100	0.2	0.2	< 0.00564	< 0.00499	< 0.0054	< 0.0202	< 0.0258	< 0.0382	< 0.00495	< 0.0275	< 0.00532	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.2
N-Nitrosodi-N-propylamine	0.09	NRO	0.8	NRO	18	NRO	0.00005	0.00005	< 0.0018	< 0.0018	< 0.0018	< 0.00404	< 0.00516	< 0.0018	< 0.0018	< 0.0055	< 0.0018	< 0.0018	< 0.00324	< 0.00181	< 0.0018	< 0.0018	< 0.0174
N-Nitrosodiphenylamine	130	NRO	1,200	NRO	25,000	NRO	1.0	5.6	< 0.0282	< 0.025	< 0.027	< 0.101	< 0.129	< 0.382	< 0.0248	< 0.138	< 0.0266	< 0.405	< 0.826	< 0.462	< 0.423	< 0.446	< 1
Naphthalene	1,600	170	41,000	270	4,100	1.8	12	18	< 0.00451	< 0.004	< 0.00432	< 0.0161	0.0586	< 0.0382	< 0.00396	< 0.022	< 0.00426	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Nitrobenzene	39	92	1,000	140	1,000	9.4	0.10	0.10	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.1	< 0.0955	< 0.0198	< 0.1	< 0.0213	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.133
2-Methylphenol (o-cresol)	3,900	NRO	100,000	NRO	100,000	NRO	15	15	< 0.0226	< 0.02	< 0.0216	< 0.0807	< 0.103	< 0.0382	< 0.0198	< 0.11	< 0.0213	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Pentachlorophenol	3	NRO	24	NRO	52	NRO	0.03	0.14	< 0.03	< 0.03	< 0.03	< 0.101	< 0.129	< 0.03	< 0.03	< 0.138	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.111
Phenanthrene^	2,300	NRO	61,000	NRO	61,000	NRO	200	1000	0.00587	0.0215	0.0726	< 0.0202	0.332	0.0794	< 0.00495	0.407	< 0.00532	< 0.0405	1.55	1.14	< 0.0423	< 0.0446	< 0.444
Phenol	23,000	NRO	610,000	NRO	61,000	NRO	100	100	< 0.0282	< 0.025	< 0.027	< 0.101	< 0.129	< 0.0382	< 0.0248	< 0.138	< 0.0266	< 0.0405	< 0.0826	< 0.0462	< 0.0423	< 0.0446	< 0.444
Pyrene	2,300	NRO	61,000	NRO	61,000	NRO	4,200	21,000	0.021	0.0495	0.123	0.063	0.333	0.143	< 0.00495	0.496	0.063	< 0.0405	1.42	1.7	< 0.0423	< 0.0446	< 0.444

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

a = Carcinogenic b = Noncarcinogenic

Results in **Bold** indicate concentrations exceeding most stringent Tier 1 SROs.

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - 01/06/09

Table 3. Soil Total Metals Analytical Results

Chemical Name	Exposure Route-Specific SROs*				Soil Component of Class I GW Ingestion Route		Soil Component of Class Ii GW Ingestion Route		Section 742 Table G Concentrations of Inorganic Chemicals in Background Soils (Metropolitan Areas)	B222 A	B222 B	B222 C	B222 D	B222 E	B222EZ 14'-16'	B222 F	B222 G	B222 H	B222I 10'-12'	B222J 6'-8'	B222 K 12'-14'	B222 L 4'-6'	B222M 6'-8'	B222 N 4'-6'
	Industrial/Commercial		*Construction Worker*		pH 7.75 to 8.24	pH 8.25 to 8.74	pH 7.75 to 8.24	pH 8.25 to 8.74																
	ingestion	inhalation	ingestion	inhalation																				
Metals										**1/11/13**	**1/11/13**	**1/11/13**	**1/10/13**	**1/10/13**	**7/8/13**	**1/10/13**	**1/10/13**	**1/10/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**	**7/8/13**
pH										8.15	8.21	8.48	7.89	7.78	8.05	8.45	8.08	8.14	7.69	7.74	7.85	8.18	7.67	6.78
Arsenic	11.3	1,200	61	25,000	31	32	120	130	13	< 10.8	< 10.9	<10.2	**11.6**	**50.2**	< 5	< 10.7	< 10.5	< 10.2	11.1	< 5.64	7.72	< 7.11	< 7.66	< 14.1
Barium	140,000	910,000	14,000	870,000	2,100	NRO	2,100	NRO	110	49	< 13.7	18.2	24.5	282	< 12.5	25	324	62.3	20.5	342	69.3	22.8	34.4	792
Cadmium	2,000	2,800	200	59,000	430	NRO	4300	NRO	0.6	< 0.461	< 0.41	< 0.437	< 0.413	0.989	< 0.25	< 0.402	< 0.45	< 0.437	< 0.274	0.657	0.425	< 0.284	0.514	0.928
Chromium	6,100	420	4,100	690	28	24	NRO	NRO	16.2	18.4	< 6.83	7.62	7.81	26	< 6.25	12.4	18.5	18.6	9.65	19.2	16	8.72	13.1	26.9
Lead	800	NRO	700	NRO	107	107	1420	1420	36	16.8	< 13.7	38.5	27.9	**1720**	16.4	< 13.4	58.2	< 14.6	< 13.7	**1390**	68.2	< 14.2	22.3	**2490**
Mercury	610	16	61	0.1	8.0	NRO	40	NRO	0.06	**0.136**	**0.153**	0.05	< 0.0283	**0.416**	< 0.0314	0.0637	< 0.0311	< 0.0313	< 0.0332	**0.325**	< 0.0381	< 0.0346	< 0.0367	0.0459
Selenium	10,000	NRO	1,000	NRO	2.4	1.8	2.4	1.8	0.48	< 1.44	< 1.28	< 1.37	< 1.3	< 1.31	< 1.17	< 1.26	< 1.41	< 1.37	< 1.29	< 1.32	< 1.45	< 1.34	< 1.44	**3.4**
Silver	10,000	NRO	1,000	NRO	110	NRO	110	NRO	0.55	< 1.54	< 1.37	< 1.46	< 1.38	5.65	< 1.25	< 1.34	< 1.5	< 1.46	2.53	2.82	< 1.54	< 1.42	< 1.53	2.84

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs); 35 IAC 742, Appendix B, Table A (Residential)

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

NRO = No Remediation Objective

Results in **Bold** indicate concentrations exceeding most stringent Tier 1 SROs

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - 01/06/09.

Table 4. Soil SPLP Lead Analytical Results

Chemical Name	Soil Component of the Groundwater Ingestion Exposure Route Value		B222 A	B222 B	B222 C	B222 D	B222 E	B222 E2	B222 F	B222 G	B222 H	B222 I	B222 J	B222 K	B222 L	B222 M	B222 N
	Class I (mg/L)	Class II (mg/L)															
			1/11/13	1/11/13	1/11/13	1/10/13	1/10/13	7/8/13	1/10/13	1/10/13	1/10/13	7/8/13	7/8/13	7/8/13	7/8/13	7/8/13	7/8/13
Lead	0.0075	0.1	< 0.005	**0.00798**	**0.0103**	< 0.005	**0.0424**	0.00708	< 0.005	< 0.005	< 0.005	< 0.005	**0.018**	0.00505	< 0.005	< 0.005	< 0.005

* Illinois EPA Tier 1 Soil Remediation Objectives (SROs) for Residential Properties; 35 IAC 742, Appendix B, Table A

All results in parts per million (**mg/L**) unless noted otherwise

NRO = No Remediation Objective

Table 5. Soil PCB Analytical Results

Analyte	Exposure Route-Specific SROs			Soil Component of Class I GW Ingestion Route		1/11/13	1/11/13	1/11/13	1/10/13	1/10/13	1/10/13	1/10/13	1/10/13
	*Residential**		Construction Worker	Class I	Class II	B222 A	B222 B	B222 C	B222 D	B222 E	B222 F	B222 G	B222 H
	ingestion	inhalation	inhalation										
Aroclor 1016	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
Aroclor 1221	1h	c,h	c,h	h	h	< 0.245	< 0.221	< 0.238	< 0.221	< 0.22	< 0.218	< 0.239	< 0.228
Aroclor 1232	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
Aroclor 1242	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
Aroclor 1248	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
Aroclor 1254	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
Aroclor 1260	1h	c,h	c,h	h	h	< 0.122	< 0.111	< 0.119	< 0.111	< 0.11	< 0.109	< 0.12	< 0.114
PCB, Total	1h	c,h	c,h	h	h	< 0.98	< 0.884	< 0.951	< 0.885	< 0.878	< 0.873	< 0.957	< 0.912

All results in parts per million (**mg/Kg**) based on dry weight unless noted otherwise.

c = No toxicity criteria available for the route of exposure

h = 40 CFR 761 contains applicability requirements and methodologies for the development of PCB remediation objectives.
Requests for approval of Tier 3 evaluation must address the applicability of 40 CFR 761.

Results in **Bold** indicate concentrations exceeding most stringent Tier 1 SROs.

Table 6. Groundwater Elevation Measurements

		January 18, 2013		January 25, 2013		July 15, 2013	
Well ID	Well Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation	Depth to Water	Groundwater Elevation
B222A	65.51	10.76	54.75	11.14	54.37	NA	NA
B222B	65.53	10.64	54.89	11.08	54.45	NA	NA
B222C	65.47	13.58	51.89	13.57	51.90	12.31	53.16
B222D	65.52	18.4	47.12	18.69	46.83	NA	NA
B222E	65.26	18.28	46.98	18.31	46.95	NA	NA
B222F	65.53	12.57	52.96	12.58	52.95	11.98	53.55
B222G	65.60	12.68	52.92	12.71	52.89	12.03	53.57
B222H	65.74	10.74	55.00	10.84	54.90	9.97	55.77
B222I	65.98					17.81	48.17
B222J	66.00					14.18	51.82
B222K	65.84					16.49	49.35
B222L	65.92					8.1	57.82
B222M	65.93					8.92	57.01
B222N	65.95					10.34	55.61
B222EZ	65.60					17.95	47.65

Table 7. Groundwater VOC Analytical Results

Chemical Name	GRO (mg/L)*		B222A	B222B	B222C	B222E	AOC 222 E2	B222F	B222G	B222H	AOC 222 I	AOC 222 J	AOC 222 K	AOC 222 L	AOC 222 M	AOC 222 N	AOC 222 TB
	Class I	Class II															
VOCs			1/24/13	1/24/13	1/24/13	1/24/13	7/22/13	1/24/13	1/24/13	1/24/13	7/22/13	7/22/13	7/22/13	7/22/13	7/22/13	7/22/13	7/22/13
1,1,1-Trichloroethane	0.2	1	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,1,2,2-Tetrachloroethane^	0.42	0.42	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,1,2-Trichloroethane	0.005	0.05	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,1-Dichloroethane	0.7	3.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,1-Dichloroethene	0.007	0.035	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromo-3-chloropropane	0.0002	0.0002	< 0.000636	< 0.000636	< 0.000636	< 0.000636	< 0.002	< 0.000636	< 0.000636	< 0.000636	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dibromoethane	0.00005	0.0005	< 0.000278	< 0.000278	< 0.000278	< 0.000278	< 0.002	< 0.000278	< 0.000278	< 0.000278	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dichloroethane	0.005	0.025	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,2-Dichloropropane	0.005	0.025	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
1,3-Dichloropropene (cis & trans)	0.001	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.004	< 0.001	< 0.001	< 0.001	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
1-Butanol	0.7	0.7	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
2-Butanone (MEK)^	NRO	NRO	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Hexanone	NRO	NRO	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Methyl-2-Pentanone (MIBK)	NRO	NRO	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Acetone	6.3	6.3	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	0.0448	< 0.04	< 0.04	< 0.04	< 0.04
Acrylonitrile^	0.001	0.001	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.005	0.025	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Bromodichloromethane	0.0002	0.0002	< 0.000501	< 0.000501	< 0.000501	< 0.000501	< 0.002	< 0.000501	< 0.000501	< 0.000501	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Bromoform	0.001	0.001	< 0.000588	< 0.000588	< 0.000588	< 0.000588	< 0.002	< 0.000588	< 0.000588	< 0.000588	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Bromomethane	0.0098	0.049	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621	< 0.00621
Carbon disulfide	0.7	3.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Carbon Tetrachloride	0.005	0.025	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chlorobenzene	0.1	0.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chloroethane	NRO	NRO	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chloroform	0.0002	0.001	< 0.000511	< 0.000511	< 0.000511	< 0.000511	< 0.002	< 0.000511	< 0.000511	< 0.000511	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Chloromethane	NRO	NRO	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327	< 0.00327
cis-1,2-Dichloroethene	0.07	0.2	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372	< 0.00372
Chlorodibromomethane	0.14	0.14	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Ethylbenzene	0.7	1	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
m,p-Xylenes	NRO	NRO	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
Methyl tert-butyl ether	0.0700	0.0700	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Methylene Chloride	0.005	0.05	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
o-Xylene	NRO	NRO	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Styrene	0.1	0.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Tetrachloroethene	0.005	0.025	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Toluene	1	2.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
trans-1,2-Dichloroethene	0.1	0.5	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Trichloroethene	0.005	0.025	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl Acetate	7.0	7.0	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Vinyl chloride	0.002	0.01	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Xylenes (total)	10.0	10.0	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006	< 0.006

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

All results in parts per million (**mg/L**) unless noted otherwise.

NRO = No Remediation Objective

Results in **Bold** indicate concentrations exceeding most stringent Tier 1 GROs.

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - 01/06/09.

Table 8. Water SVOC Analytical Results

Chemical Name	GRO (mg/L)*		B222A	B222B	B222C	AOC 222 EZ	B222F	B222G	B222H	AOC 222 J	AOC 222 L	AOC 222 M	AOC 222 N
	Class I	Class II											
SVOCs			**1/18/13**	**1/18/13**	**1/18/13**	**7/22/13**	**1/18/13**	**1/18/13**	**1/18/13**	**7/22/13**	**7/22/13**	**7/22/13**	**7/22/13**
1,2,4-Trichlorobenzene	0.07	0.7	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
1,2-Dichlorobenzene	0.6	1.5	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
1,3-Dichlorobenzene^	NRO	NRO	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
1,4-Dichlorobenzene	0.075	0.375	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
2,4,5-Trichlorophenol	0.7	0.7	< 0.00155	< 0.00195	< 0.00133	< 0.00331	< 0.00622	< 0.00295	< 0.00133	< 0.00332	< 0.00704	< 0.00333	< 0.00332
2,4,6-Trichlorophenol	0.01	0.01	< 0.00155	< 0.00195	< 0.00133	< 0.00331	< 0.00622	< 0.00295	< 0.00133	< 0.00332	< 0.00704	< 0.00333	< 0.00332
2,4-Dichlorophenol	0.021	0.021	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
2,4-Dimethylphenol	0.14	0.14	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
2,4-Dinitrophenol	0.014	0.014	< 0.00773	< 0.00973	< 0.00664	< 0.0133	< 0.014	< 0.014	< 0.00666	< 0.0133	< 0.014	< 0.0133	< 0.0133
2,4-Dinitrotoluene	0.00002	0.00002	< 0.000216	< 0.000272	< 0.000186	< 0.0000811	< 0.000871	< 0.000413	< 0.000187	< 0.0000813	< 0.000172	< 0.0000815	< 0.0000812
2,6-Dinitrotoluene	0.00031	0.00031	< 0.00031	< 0.00031	< 0.00031	< 0.00031	< 0.000809	< 0.000383	< 0.00031	< 0.00031	< 0.00031	< 0.00031	< 0.00031
2-Chloronaphthalene^	0.56	2.8	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
2-Chlorophenol	0.035	0.035	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
3,3'-Dichlorobenzidine	0.02	0.1	< 0.00773	< 0.00973	< 0.00664	< 0.00331	< 0.02	< 0.0147	< 0.00666	< 0.00332	< 0.00704	< 0.00333	< 0.00332
3-Nitroaniline	0.0021	0.0021	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
4,6-Dinitro-2-methylphenol^	0.0007	0.0007	< 0.0007	< 0.0007	< 0.0007	< 0.00294	< 0.0007	< 0.0007	< 0.0007	< 0.00295	< 0.00624	< 0.00295	< 0.00294
4-Bromophenyl phenyl ether	NRO	NRO	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
4-Chloro-3-methylphenol	NRO	NRO	< 0.00155	< 0.00195	< 0.00133	< 0.00331	< 0.00622	< 0.00295	< 0.00133	< 0.00332	< 0.00704	< 0.00333	< 0.00332
4-Chloroaniline	0.028	0.028	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
4-Chlorophenyl phenyl ether	NRO	NRO	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
4-Nitrophenol	NRO	NRO	< 0.00773	< 0.00973	< 0.00664	< 0.00331	< 0.0311	< 0.0147	< 0.00666	< 0.00332	< 0.00704	< 0.00333	< 0.00332
Acenaphthene	0.42	2.1	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Acenaphthylene^	0.21	1.05	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Anthracene	2.1	10.5	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Benzo(a)anthracene	0.00013	0.00065	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.00013	< 0.000141	< 0.00013	< 0.00013
Benzidine^	0.00000037	0.00000037	< 0.00773	< 0.00973	< 0.00664	< 0.00663	< 0.0311	< 0.0147	< 0.00666	< 0.00664	< 0.0141	< 0.00666	< 0.00663
Benzo(a)pyrene	0.0002	0.002	< 0.000155	< 0.000195	< 0.000133	< 0.0002	< 0.000311	< 0.0002	< 0.000133	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Benzo(b)fluoranthene	0.00018	0.0009	< 0.000155	< 0.00018	< 0.000133	< 0.00018	< 0.00018	< 0.00018	< 0.000133	< 0.00018	< 0.00018	< 0.00018	< 0.00018
Benzo(g,h,i)perylene^	0.21	1.05	< 0.000155	< 0.000195	< 0.000133	< 0.00133	< 0.000622	< 0.000295	< 0.000133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Benzo(k)fluoranthene	0.00017	0.00085	< 0.000155	< 0.00017	< 0.000133	< 0.00017	< 0.00017	< 0.00017	< 0.000133	< 0.00017	< 0.00017	< 0.00017	< 0.00017
Benzoic Acid	28	28	< 0.00773	< 0.00973	< 0.00664	< 0.0265	< 0.0311	< 0.0147	< 0.00666	< 0.0266	< 0.0563	< 0.0266	< 0.0265
Bis(2-chloroethyl)ether	0.01	0.01	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Bis(2-chloroisopropyl)ether^	0.28	0.28	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Bis(2-ethylhexyl)phthalate	0.006	0.06	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.006	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Butyl benzyl phthalate	1.4	7.0	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Carbazole	NRO	NRO	< 0.000773	< 0.000973	< 0.000664	< 0.000663	< 0.00311	< 0.00147	< 0.000666	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Chrysene	0.0015	0.0075	< 0.000155	< 0.000195	< 0.000133	< 0.000663	< 0.000622	< 0.000295	< 0.000133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Dibenzo(a,h)anthracene	0.0003	0.0015	< 0.000309	< 0.000383	< 0.0003	< 0.00133	< 0.00124	< 0.000589	< 0.0003	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Diethyl phthalate	5.6	5.6	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Dimethyl phthalate^	NRO	NRO	< 0.00155	< 0.00195	< 0.00133	< 0.0003	< 0.00622	< 0.00295	< 0.00133	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Di-N-butyl phthalate	0.7	3.5	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Di-N-octyl phthalate	0.14	0.7	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Fluoranthene	0.28	1.4	< 0.000155	< 0.000195	0.000267	< 0.00133	< 0.000622	< 0.000295	< 0.000133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Fluorene	0.28	1.4	< 0.000155	< 0.000195	< 0.000133	< 0.000663	< 0.000622	< 0.000295	< 0.000133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Hexachlorobenzene	0.00006	0.0003	< 0.000155	< 0.000195	< 0.000133	< 0.000102	< 0.000622	< 0.000295	< 0.000133	< 0.000102	< 0.000216	< 0.000102	< 0.000102
Hexachlorobutadiene^	0.007	0.035	< 0.000773	< 0.000973	< 0.000664	< 0.000663	< 0.00311	< 0.00147	< 0.000666	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Hexachlorocyclopentadiene	0.05	0.5	< 0.000773	< 0.000973	< 0.000664	< 0.00133	< 0.00311	< 0.00147	< 0.000666	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Hexachloroethane	0.007	0.035	< 0.000773	< 0.000973	< 0.000664	< 0.000663	< 0.00311	< 0.00147	< 0.000666	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Indeno(1,2,3-cd)pyrene	0.00043	0.00215	< 0.00043	< 0.00043	< 0.00043	< 0.00043	< 0.00124	< 0.000589	< 0.00043	< 0.00043	< 0.000446	< 0.00043	< 0.00043
Isophorone	1.4	1.4	< 0.000773	< 0.000973	< 0.000664	< 0.00133	< 0.00311	< 0.00147	< 0.000666	< 0.00133	< 0.00281	< 0.00133	< 0.00133
3 & 4-Methylphenol (m & p-cresc	0.035	0.035	< 0.00155	< 0.00195	< 0.00133	< 0.00133	< 0.00622	< 0.00295	< 0.00133	< 0.00133	< 0.00281	< 0.00133	< 0.00133
Naphthalene	0.14	0.22	< 0.000773	< 0.000973	< 0.000664	< 0.00133	< 0.00311	< 0.00147	< 0.000666	< 0.00133	< 0.0018	< 0.00133	< 0.00133
Nitrobenzene	0.0035	0.0035	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.0035	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
N-Nitrosodi-N-propylamine	0.0018	0.0018	< 0.00155	< 0.0018	< 0.00133	< 0.000663	< 0.0018	< 0.0018	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
N-Nitrosodiphenylamine	0.0032	0.016	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.0032	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
2-Methylphenol (o-cresol)	0.35	0.35	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Pentachlorophenol	0.001	0.005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.00124	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Phenanthrene^	0.21	1.05	< 0.000155	< 0.000195	0.0003	< 0.000663	< 0.000622	< 0.000295	< 0.000133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Phenol	0.1	0.1	< 0.00155	< 0.00195	< 0.00133	< 0.000663	< 0.00622	< 0.00295	< 0.00133	< 0.000664	< 0.00141	< 0.000666	< 0.000663
Pyrene	0.21	1.05	< 0.000155	< 0.000195	0.000209	< 0.000663	< 0.000622	< 0.000295	< 0.000133	< 0.000664	< 0.00141	< 0.000666	< 0.000663

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

All results in parts per million (**mg/L**) unless noted otherwise.

NRO = No Remediation Objective

Results in **Bold** indicate concentrations exceeding most stringent Tier 1 GROs.

^--Non-TACO Chemical. Limits prepared by IEPA Toxicity Assessment Unit - 01/06/09.

Table 9. Groundwater RCRA Metal Analytical Results

Chemical Name	GRO (mg/L)*		B222A Unfiltered	B222A Filtered	B222B Unfiltered	B222B Filtered	B222C Unfiltered	B222C Filtered	B222E Unfiltered	AOC 222 EZ Unfiltered	AOC 222 EZ Filtered	B222F Unfiltered	B222F Filtered	B222G Unfiltered	B222G Filtered	B222H Unfiltered	B222H Filtered	AOC 222 I Unfiltered	AOC 222 J Unfiltered	AOC 222 J Filtered	AOC 222 K Unfiltered	AOC 222 K Filtered	AOC 222 L Unfiltered	AOC 222 L Filtered	AOC 222 M Unfiltered	AOC 222 M Filtered	AOC 222 N Unfiltered	AOC 222 N Filtered
	Class I	Class II																										
Total Metals			**25-Jan**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**07/23/13**	**07/23/13**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**01/25/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**	**07/23/13**
Arsenic	0.05	0.2	< 0.0125	< 0.0125	0.0136	< 0.0125	0.0442	< 0.0125	< 0.0125	< 0.015	< 0.0133	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.0125	< 0.015	< 0.015	< 0.0133	< 0.015	< 0.0133	< 0.015	< 0.0133	< 0.05	< 0.05	< 0.05	< 0.05
Barium	2	2	0.104	0.0687	0.0693	0.0325	0.178	0.0533	0.164	0.116	0.101	0.0534	0.0365	0.0677	0.0544	0.115	0.111	0.178	0.113	0.108	0.0681	0.0668	0.0416	0.0389	< 2	< 2	< 2	< 2
Cadmium	0.005	0.05	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.00222	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.00222	< 0.0025	< 0.00222	< 0.0025	< 0.00222	< 0.005	< 0.005	< 0.005	< 0.005
Chromium	0.1	1	< 0.0175	< 0.0175	0.0178	< 0.0175	0.0407	< 0.0175	< 0.0175	< 0.01	< 0.00889	< 0.0175	< 0.0175	< 0.0175	< 0.0175	< 0.0175	< 0.0175	< 0.01	< 0.01	< 0.00889	< 0.01	< 0.00889	< 0.01	< 0.00889	< 0.1	< 0.1	< 0.1	< 0.1
Lead	0.0075	0.1	**0.0304**	< 0.005	**0.0114**	< 0.005	**0.304**	< 0.005	**0.13**	**0.0077**	< 0.00444	**0.00910**	< 0.005	< 0.005	< 0.005	**0.0095**	< 0.005	< 0.005	**0.0178**	< 0.00444	< 0.005	< 0.00444	< 0.005	< 0.00444	**0.01**	< 0.0075	**0.391**	< 0.0075
Mercury	0.002	0.01	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Selenium	0.05	0.05	0.00655	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.00222	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	< 0.0025	0.00284	0.0123	0.00278	< 0.0025	< 0.00222	< 0.05	< 0.05	< 0.05	< 0.05
Silver	0.05	NRO	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.00444	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.00444	< 0.005	< 0.00444	< 0.005	< 0.00444	< 0.05	< 0.05	< 0.05	< 0.05

* Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs, 35 IAC 742, Appendix B, Table E)

All results in parts per million (**mg/L**) unless noted otherwise

NRO = No Remediation Objective

Results in **Bold/Shaded** indicate concentrations exceeding most stringent Tier 1 GROs

Table 10. Groundwater PCB Analytical Results

Chemical Name	GRO (mg/L)		B222A	B222B	B222C	B222E	B222F	B222G	B222H
	Class I	Class II							
Polychlorinated Biphenyls			1/24/13	1/24/13	1/24/13	1/25/13	1/25/13	1/25/13	1/25/13
Aroclor 1016	0.0005c	0.0025c	< 0.0000365	< 0.0000365	< 0.0000365	< 0.000105	< 0.0000367	< 0.000036	< 0.0000366
Aroclor 1221	0.0005c	0.0025c	< 0.0000663	< 0.0000663	< 0.0000663	< 0.000191	< 0.0000667	< 0.0000655	< 0.0000665
Aroclor 1232	0.0005c	0.0025c	< 0.0000332	< 0.0000331	< 0.0000331	< 0.0000956	< 0.0000333	< 0.0000327	< 0.0000332
Aroclor 1242	0.0005c	0.0025c	< 0.0000332	< 0.0000331	< 0.0000331	< 0.0000956	< 0.0000333	< 0.0000327	< 0.0000332
Aroclor 1248	0.0005c	0.0025c	< 0.0000332	< 0.0000331	< 0.0000331	< 0.0000956	< 0.0000333	< 0.0000327	< 0.0000332
Aroclor 1254	0.0005c	0.0025c	< 0.0000332	< 0.0000331	< 0.0000331	< 0.0000956	< 0.0000333	< 0.0000327	< 0.0000332
Aroclor 1260	0.0005c	0.0025c	< 0.0000332	< 0.0000331	< 0.0000331	< 0.0000956	< 0.0000333	< 0.0000327	< 0.0000332
PCB, Total			< 0.000269	< 0.000268	< 0.000268	< 0.000774	< 0.00027	< 0.000265	< 0.000269

Notes:

Illinois EPA Tier 1 Groundwater Remediation Objectives (GROs; 35 IAC 742, Appendix B, Table E)

All results in parts per million (mg/L) unless noted otherwise.

c - Value listed is also the Groundwater Quality Standard for this chemical puruant to 35 Ill. Adm. Code 620.410 for Class I Groundwater or 35 Ill. Adm. Code 620.420 for Class II

GRO - Groundwater Remediation Objective

Results that are highlighted and in bold are compounds that exceed the GRO for the site.

APPENDIX D

LABORATORY SOIL ANALYTICAL DATA

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin • Morton Grove, IL 60053-3203
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

January 18, 2013

RE Bloom Great Lakes Soil

Lab Orders:
13010185 13010230

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

ıthan Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 45 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

maintains A2LA accreditation to ISO/IEC 17025 for the specific tests listed in A2LA certificate # 2407.02, demonstrating the laboratory's compliance with ISO/IEC 17025, the 2003 NELAC Chapter 5 Standard, and the requirements of the DoD Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in the current DoD QSM for Environmental Laboratories.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin • Morton Grove, IL 60053-3203
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: Bloom Companies, LLC

Date: *1/18/2013*

Project: Bloom Great Lakes Soil

Lab Orders: 13010185 13010230

CASE NARRATIVE

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the its column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively ·nerals indicate a preparation batch.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

CLIENT: Bloom Companies, LLC

Date: *1/18/2013*

Project: Bloom Great Lakes Soil

CASE NARRATIVE

Lab Orders: 13010185 13010230

Analytical Comments for METHOD 8270_SSON, 13010185-01A: Surrogate recoveries were below the laboratory limits.

Analytical Comments for METHOD 8270_SSON, 13010185-02A: The reporting limits have been increased due to high concentration of some target and non-target compounds and sample dilution.

Analytical Comments for METHOD 8270_SSON, 13010185-03A: The reporting limits have been increased due to high concentration of some target and non-target compounds and sample dilution.

Analytical Comments for METHOD 6020_SPLP_LIST, 13010230-02AMSD: MSD recovery was above the laboratory control limit.

Analytical Comments for METHOD 8270_SSON, 13010230-01A: The reporting limits have been increased due to high concentration of some target and non-target compounds and sample dilution.

ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

8100 North Austin • Morton Grove, IL 60053-3203
847.967.6666 • 800.246.0663 • fax: 847.967.6735 • www.emt.com

Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-01

Client Sample ID: B222 F
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.45			pH Units	1/14/13 13:45	R180279	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	9.21	0.03		% (Percent)	1/10/13 15:45	R180198	LS3
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.7	10.7		mg/Kg-dry	1/15/13 18:17	79331	AG
Barium	25.	13.4		mg/Kg-dry	1/15/13 18:17	79331	AG
Cadmium	< 0.402	0.402		mg/Kg-dry	1/15/13 18:17	79331	AG
Chromium	12.4	6.7		mg/Kg-dry	1/15/13 18:17	79331	AG
Lead	< 13.4	13.4		mg/Kg-dry	1/15/13 18:17	79331	AG
Selenium	< 1.26	1.26		mg/Kg-dry	1/15/13 18:17	79331	AG
Silver	< 1.34	1.34		mg/Kg-dry	1/15/13 18:17	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	0.0637	0.0322		mg/Kg-dry	1/11/13 01:13	79307	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	< 0.005	0.005		mg/L	1/15/13 12:33	79362	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.218	0.218		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.109	0.109		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.873	0.873	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	78.9	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	105	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-01

Client Sample ID: B222 F
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 19.8	19.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
1,2-Dichlorobenzene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
1,3-Dichlorobenzene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
1,4-Dichlorobenzene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4,5-Trichlorophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4,6-Trichlorophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4-Dichlorophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4-Dimethylphenol	< 19.8	19.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4-Dinitrophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,4-Dinitrotoluene	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2,6-Dinitrotoluene	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
2-Chloronaphthalene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Chlorophenol	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Nitrophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
3,3'-Dichlorobenzidine	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
4,6-Dinitro-2-methylphenol	< 24.8	24.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
4-Bromophenyl phenyl ether	< 19.8	19.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
4-Chloro-3-methylphenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
4-Chloroaniline	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
4-Chlorophenyl phenyl ether	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
4-Nitrophenol	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
Acenaphthene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Acenaphthylene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Anthracene	< 19.8	19.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benz(a)anthracene	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzidine	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzo(a)pyrene	< 19.8	19.8	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzo(b)fluoranthene	< 4.95	4.95	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzo(g,h,i)perylene	< 4.95	4.95	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzo(k)fluoranthene	< 4.95	4.95	µg/Kg-dry	1/18/13 00:07	79294	RYL
Benzoic acid	< 396.	396.	µg/Kg-dry	1/18/13 00:07	79294	RYL
Bis(2-chloroethyl)ether	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Bis(2-chloroisopropyl)ether	< 3.96	3.96	µg/Kg-dry	1/18/13 00:07	79294	RYL
Bis(2-ethylhexyl)phthalate	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL
Butyl benzyl phthalate	< 99.1	99.1	µg/Kg-dry	1/18/13 00:07	79294	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-01

Client Sample ID: B222 F
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Carbazole	< 19.8	19.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
Chrysene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Di-n-butyl phthalate	< 99.1	99.1		µg/Kg-dry	1/18/13 00:07	79294	RYL
Di-n-octyl phthalate	< 99.1	99.1		µg/Kg-dry	1/18/13 00:07	79294	RYL
Dibenz(a,h)anthracene	< 9.91	9.91		µg/Kg-dry	1/18/13 00:07	79294	RYL
Diethyl phthalate	< 99.1	99.1		µg/Kg-dry	1/18/13 00:07	79294	RYL
Dimethyl phthalate	< 99.1	99.1		µg/Kg-dry	1/18/13 00:07	79294	RYL
Fluoranthene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Fluorene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Hexachlorobenzene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Hexachlorobutadiene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Hexachlorocyclopentadiene	< 99.1	99.1		µg/Kg-dry	1/18/13 00:07	79294	RYL
ɜxachloroethane	< 9.91	9.91		µg/Kg-dry	1/18/13 00:07	79294	RYL
deno(1,2,3-cd)pyrene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Isophorone	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
m,p-Cresol	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
N-Nitrosodiphenylamine	< 24.8	24.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
Naphthalene	< 3.96	3.96		µg/Kg-dry	1/18/13 00:07	79294	RYL
Nitrobenzene	< 19.8	19.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
o-Cresol	< 19.8	19.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	1/18/13 00:07	79294	RYL
Phenanthrene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Phenol	< 24.8	24.8		µg/Kg-dry	1/18/13 00:07	79294	RYL
Pyrene	< 4.95	4.95		µg/Kg-dry	1/18/13 00:07	79294	RYL
Surrogates:							
2,4,6-Tribromophenol	45.8	35-125		%REC	1/18/13 00:07	79294	RYL
2-Fluorobiphenyl	36.6	45-105	S	%REC	1/18/13 00:07	79294	RYL
2-Fluorophenol	24.7	35-105	S	%REC	1/18/13 00:07	79294	RYL
4-Terphenyl-d14	74.7	30-125		%REC	1/18/13 00:07	79294	RYL
Nitrobenzene-d5	26.9	35-100	S	%REC	1/18/13 00:07	79294	RYL
Phenol-d5	30.9	40-100	S	%REC	1/18/13 00:07	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.618	0.618		µg/Kg-dry	1/16/13 20:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-01

Client Sample ID: B222 F
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.513	0.513		µg/Kg-dry	1/16/13 20:02	79434	JL
1,1,2-Trichloroethane	< 0.474	0.474		µg/Kg-dry	1/16/13 20:02	79434	JL
1,1-Dichloroethane	< 1.33	1.33		µg/Kg-dry	1/16/13 20:02	79434	JL
1,1-Dichloroethene	< 1.04	1.04		µg/Kg-dry	1/16/13 20:02	79434	JL
1,2-Dibromo-3-chloropropane	< 1.56	1.56		µg/Kg-dry	1/16/13 20:02	79434	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/16/13 20:02	79434	JL
1,2-Dichloroethane	< 0.848	0.848		µg/Kg-dry	1/16/13 20:02	79434	JL
1,2-Dichloropropane	< 1.18	1.18		µg/Kg-dry	1/16/13 20:02	79434	JL
1-Butanol	< 162.	162.	C	µg/Kg-dry	1/16/13 20:02	79434	JL
2-Butanone	< 77.4	77.4		µg/Kg-dry	1/16/13 20:02	79434	JL
2-Hexanone	< 81.	81.		µg/Kg-dry	1/16/13 20:02	79434	JL
4-Methyl-2-pentanone	< 44.7	44.7		µg/Kg-dry	1/16/13 20:02	79434	JL
ɔetone	< 47.6	47.6		µg/Kg-dry	1/16/13 20:02	79434	JL
.crylonitrile	< 8.26	8.26		µg/Kg-dry	1/16/13 20:02	79434	JL
Benzene	< 0.403	0.403		µg/Kg-dry	1/16/13 20:02	79434	JL
Bromodichloromethane	< 0.758	0.758		µg/Kg-dry	1/16/13 20:02	79434	JL
Bromoform	< 0.518	0.518		µg/Kg-dry	1/16/13 20:02	79434	JL
Bromomethane	< 5.51	5.51		µg/Kg-dry	1/16/13 20:02	79434	JL
Carbon disulfide	< 0.408	0.408		µg/Kg-dry	1/16/13 20:02	79434	JL
Carbon tetrachloride	< 1.5	1.5		µg/Kg-dry	1/16/13 20:02	79434	JL
Chlorobenzene	< 0.961	0.961		µg/Kg-dry	1/16/13 20:02	79434	JL
Chloroethane	< 8.45	8.45		µg/Kg-dry	1/16/13 20:02	79434	JL
Chloroform	< 0.596	0.596		µg/Kg-dry	1/16/13 20:02	79434	JL
Chloromethane	< 0.968	0.968		µg/Kg-dry	1/16/13 20:02	79434	JL
cis-1,2-Dichloroethene	< 0.347	0.347		µg/Kg-dry	1/16/13 20:02	79434	JL
Dibromochloromethane	< 0.833	0.833		µg/Kg-dry	1/16/13 20:02	79434	JL
Ethylbenzene	< 0.599	0.599		µg/Kg-dry	1/16/13 20:02	79434	JL
m,p-Xylene	< 1.9	1.9		µg/Kg-dry	1/16/13 20:02	79434	JL
Methyl tert-butyl ether	< 1.25	1.25		µg/Kg-dry	1/16/13 20:02	79434	JL
Methylene chloride	< 2.16	2.16		µg/Kg-dry	1/16/13 20:02	79434	JL
o-Xylene	< 0.995	0.995		µg/Kg-dry	1/16/13 20:02	79434	JL
Styrene	< 1.28	1.28		µg/Kg-dry	1/16/13 20:02	79434	JL
Tetrachloroethene	< 1.21	1.21		µg/Kg-dry	1/16/13 20:02	79434	JL
Toluene	< 0.912	0.912		µg/Kg-dry	1/16/13 20:02	79434	JL
trans-1,2-Dichloroethene	< 1.78	1.78		µg/Kg-dry	1/16/13 20:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-01

Client Sample ID: B222 F
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.748	0.748		µg/Kg-dry	1/16/13 20:02	79434	JL
Vinyl acetate	< 22.7	22.7		µg/Kg-dry	1/16/13 20:02	79434	JL
Vinyl chloride	< 0.318	0.318		µg/Kg-dry	1/16/13 20:02	79434	JL
1,3-Dichloropropene, Total	< 0.948	0.948	C	µg/Kg-dry	1/16/13 20:02	79434	JL
Xylenes, Total	< 2.89	2.89		µg/Kg-dry	1/16/13 20:02	79434	JL
Surrogates:							
1,2-Dichloroethane-d4	116	80-120		%REC	1/16/13 20:02	79434	JL
4-Bromofluorobenzene	111	80-120		%REC	1/16/13 20:02	79434	JL
d4-1,2-Dichlorobenzene	112	80-120		%REC	1/16/13 20:02	79434	JL
Dibromofluoromethane	100	80-120		%REC	1/16/13 20:02	79434	JL
Fluorobenzene	98.4	80-120		%REC	1/16/13 20:02	79434	JL
Toluene-d8	101	80-120		%REC	1/16/13 20:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-02

Client Sample ID: B222 D
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	7.89			pH Units	1/14/13 13:45	R180279	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	10.5	0.03		% (Percent)	1/10/13 15:45	R180198	LS3
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	11.6	11.		mg/Kg-dry	1/15/13 18:22	79331	AG
Barium	24.5	13.8		mg/Kg-dry	1/15/13 18:22	79331	AG
Cadmium	< 0.413	0.413		mg/Kg-dry	1/15/13 18:22	79331	AG
Chromium	7.81	6.89		mg/Kg-dry	1/15/13 18:22	79331	AG
Lead	27.9	13.8		mg/Kg-dry	1/15/13 18:22	79331	AG
Selenium	< 1.3	1.3		mg/Kg-dry	1/15/13 18:22	79331	AG
Silver	< 1.38	1.38		mg/Kg-dry	1/15/13 18:22	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	< 0.0283	0.0283		mg/Kg-dry	1/11/13 01:13	79307	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	< 0.005	0.005		mg/L	1/15/13 12:33	79362	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.221	0.221		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.885	0.885	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	86.1	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	106	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-02

Client Sample ID: B222 D
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
1,2-Dichlorobenzene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
1,3-Dichlorobenzene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
1,4-Dichlorobenzene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4,5-Trichlorophenol	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4-Dichlorophenol	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4-Dimethylphenol	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	1/18/13 00:50	79294	RYL
2-Chloronaphthalene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Chlorophenol	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
·Nitrophenol	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
3,3'-Dichlorobenzidine	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
4,6-Dinitro-2-methylphenol	< 101.	101.	µg/Kg-dry	1/18/13 00:50	79294	RYL
4-Bromophenyl phenyl ether	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
4-Chloro-3-methylphenol	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
4-Chloroaniline	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
4-Chlorophenyl phenyl ether	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
4-Nitrophenol	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Acenaphthene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Acenaphthylene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Anthracene	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benz(a)anthracene	43.9	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzidine	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzo(a)pyrene	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzo(b)fluoranthene	79.9	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzo(g,h,i)perylene	85.4	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzo(k)fluoranthene	27.1	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Benzoic acid	< 1610.	1610.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Bis(2-chloroethyl)ether	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Bis(2-chloroisopropyl)ether	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Bis(2-ethylhexyl)phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Butyl benzyl phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-02

Client Sample ID: B222 D
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
Chrysene	41.8	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Di-n-butyl phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Di-n-octyl phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Dibenz(a,h)anthracene	< 40.4	40.4	µg/Kg-dry	1/18/13 00:50	79294	RYL
Diethyl phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Dimethyl phthalate	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Fluoranthene	55.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Fluorene	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Hexachlorobenzene	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Hexachlorobutadiene	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Hexachlorocyclopentadiene	< 404.	404.	µg/Kg-dry	1/18/13 00:50	79294	RYL
ɜxachloroethane	< 40.4	40.4	µg/Kg-dry	1/18/13 00:50	79294	RYL
.deno(1,2,3-cd)pyrene	45.5	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Isophorone	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
m,p-Cresol	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
N-Nitrosodi-n-propylamine	< 4.04	4.04	µg/Kg-dry	1/18/13 00:50	79294	RYL
N-Nitrosodiphenylamine	< 101.	101.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Naphthalene	< 16.1	16.1	µg/Kg-dry	1/18/13 00:50	79294	RYL
Nitrobenzene	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
o-Cresol	< 80.7	80.7	µg/Kg-dry	1/18/13 00:50	79294	RYL
Pentachlorophenol	< 101.	101.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Phenanthrene	< 20.2	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Phenol	< 101.	101.	µg/Kg-dry	1/18/13 00:50	79294	RYL
Pyrene	63.	20.2	µg/Kg-dry	1/18/13 00:50	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	64.6	35-125	%REC	1/18/13 00:50	79294	RYL
2-Fluorobiphenyl	71.0	45-105	%REC	1/18/13 00:50	79294	RYL
2-Fluorophenol	56.0	35-105	%REC	1/18/13 00:50	79294	RYL
4-Terphenyl-d14	91.8	30-125	%REC	1/18/13 00:50	79294	RYL
Nitrobenzene-d5	58.7	35-100	%REC	1/18/13 00:50	79294	RYL
Phenol-d5	63.4	40-100	%REC	1/18/13 00:50	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.883	0.883	µg/Kg-dry	1/17/13 19:12	79429	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-02

Client Sample ID: B222 D
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.733	0.733		µg/Kg-dry	1/17/13 19:12	79429	JL
1,1,2-Trichloroethane	< 0.677	0.677		µg/Kg-dry	1/17/13 19:12	79429	JL
1,1-Dichloroethane	< 1.9	1.9		µg/Kg-dry	1/17/13 19:12	79429	JL
1,1-Dichloroethene	< 1.49	1.49		µg/Kg-dry	1/17/13 19:12	79429	JL
1,2-Dibromo-3-chloropropane	< 2.	2.		µg/Kg-dry	1/17/13 19:12	79429	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/17/13 19:12	79429	JL
1,2-Dichloroethane	< 1.21	1.21		µg/Kg-dry	1/17/13 19:12	79429	JL
1,2-Dichloropropane	< 1.68	1.68		µg/Kg-dry	1/17/13 19:12	79429	JL
1-Butanol	< 231.	231.	C	µg/Kg-dry	1/17/13 19:12	79429	JL
2-Butanone	< 111.	111.		µg/Kg-dry	1/17/13 19:12	79429	JL
2-Hexanone	< 116.	116.		µg/Kg-dry	1/17/13 19:12	79429	JL
4-Methyl-2-pentanone	< 63.8	63.8		µg/Kg-dry	1/17/13 19:12	79429	JL
Acetone	< 68.	68.		µg/Kg-dry	1/17/13 19:12	79429	JL
Acrylonitrile	< 11.8	11.8		µg/Kg-dry	1/17/13 19:12	79429	JL
Benzene	< 0.576	0.576		µg/Kg-dry	1/17/13 19:12	79429	JL
Bromodichloromethane	< 1.08	1.08		µg/Kg-dry	1/17/13 19:12	79429	JL
Bromoform	< 0.74	0.74		µg/Kg-dry	1/17/13 19:12	79429	JL
Bromomethane	< 7.88	7.88		µg/Kg-dry	1/17/13 19:12	79429	JL
Carbon disulfide	2.38	0.583		µg/Kg-dry	1/17/13 19:12	79429	JL
Carbon tetrachloride	< 2.14	2.14		µg/Kg-dry	1/17/13 19:12	79429	JL
Chlorobenzene	< 1.37	1.37		µg/Kg-dry	1/17/13 19:12	79429	JL
Chloroethane	< 12.1	12.1		µg/Kg-dry	1/17/13 19:12	79429	JL
Chloroform	< 0.852	0.852		µg/Kg-dry	1/17/13 19:12	79429	JL
Chloromethane	< 1.38	1.38		µg/Kg-dry	1/17/13 19:12	79429	JL
cis-1,2-Dichloroethene	< 0.496	0.496		µg/Kg-dry	1/17/13 19:12	79429	JL
Dibromochloromethane	< 1.19	1.19		µg/Kg-dry	1/17/13 19:12	79429	JL
Ethylbenzene	< 0.855	0.855		µg/Kg-dry	1/17/13 19:12	79429	JL
m,p-Xylene	< 2.71	2.71		µg/Kg-dry	1/17/13 19:12	79429	JL
Methyl tert-butyl ether	< 1.78	1.78		µg/Kg-dry	1/17/13 19:12	79429	JL
Methylene chloride	< 3.09	3.09		µg/Kg-dry	1/17/13 19:12	79429	JL
o-Xylene	< 1.42	1.42		µg/Kg-dry	1/17/13 19:12	79429	JL
Styrene	< 1.83	1.83		µg/Kg-dry	1/17/13 19:12	79429	JL
Tetrachloroethene	< 1.74	1.74		µg/Kg-dry	1/17/13 19:12	79429	JL
Toluene	< 1.3	1.3		µg/Kg-dry	1/17/13 19:12	79429	JL
trans-1,2-Dichloroethene	< 2.54	2.54		µg/Kg-dry	1/17/13 19:12	79429	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-02

Client Sample ID: B222 D
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 1.07	1.07		µg/Kg-dry	1/17/13 19:12	79429	JL
Vinyl acetate	< 32.4	32.4		µg/Kg-dry	1/17/13 19:12	79429	JL
Vinyl chloride	< 0.454	0.454		µg/Kg-dry	1/17/13 19:12	79429	JL
1,3-Dichloropropene, Total	< 1.35	1.35	C	µg/Kg-dry	1/17/13 19:12	79429	JL
Xylenes, Total	< 4.13	4.13		µg/Kg-dry	1/17/13 19:12	79429	JL
Surrogates:							
1,2-Dichloroethane-d4	115	80-120		%REC	1/17/13 19:12	79429	JL
4-Bromofluorobenzene	104	80-120		%REC	1/17/13 19:12	79429	JL
d4-1,2-Dichlorobenzene	105	80-120		%REC	1/17/13 19:12	79429	JL
Dibromofluoromethane	107	80-120		%REC	1/17/13 19:12	79429	JL
Fluorobenzene	104	80-120		%REC	1/17/13 19:12	79429	JL
Toluene-d8	109	80-120		%REC	1/17/13 19:12	79429	JL

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222 G
Lab Order:	13010185	**Report Date:**	1/18/2013
Project:	Bloom Great Lakes Soil	**Collection Date:**	1/10/2013
Lab ID:	13010185-03	**Matrix:**	Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.08			pH Units	1/14/13 13:45	R180279	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	18.1	0.03		% (Percent)	1/10/13 15:45	R180198	LS3
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.5	10.5		mg/Kg-dry	1/15/13 18:27	79331	AG
Barium	324.	15.		mg/Kg-dry	1/15/13 18:27	79331	AG
Cadmium	< 0.45	0.45		mg/Kg-dry	1/15/13 18:27	79331	AG
Chromium	18.5	7.5		mg/Kg-dry	1/15/13 18:27	79331	AG
Lead	58.2	15.		mg/Kg-dry	1/15/13 18:27	79331	AG
Selenium	< 1.41	1.41		mg/Kg-dry	1/15/13 18:27	79331	AG
Silver	< 1.5	1.5		mg/Kg-dry	1/15/13 18:27	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	< 0.0311	0.0311		mg/Kg-dry	1/11/13 01:13	79307	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	< 0.005	0.005		mg/L	1/15/13 12:33	79362	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.239	0.239		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.12	0.12		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.957	0.957	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	89.2	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	107	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-03

Client Sample ID: B222 G
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
1,2-Dichlorobenzene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
1,3-Dichlorobenzene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
1,4-Dichlorobenzene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4,5-Trichlorophenol	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4-Dichlorophenol	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4-Dimethylphenol	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	1/18/13 01:33	79294	RYL
2-Chloronaphthalene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Chlorophenol	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
-Nitrophenol	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
3,3'-Dichlorobenzidine	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4,6-Dinitro-2-methylphenol	< 138.	138.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4-Bromophenyl phenyl ether	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4-Chloro-3-methylphenol	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4-Chloroaniline	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4-Chlorophenyl phenyl ether	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
4-Nitrophenol	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Acenaphthene	35.4	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Acenaphthylene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Anthracene	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benz(a)anthracene	228.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzidine	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzo(a)pyrene	210.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzo(b)fluoranthene	244.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzo(g,h,i)perylene	169.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzo(k)fluoranthene	88.9	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Benzoic acid	< 2200.	2200.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Bis(2-chloroethyl)ether	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Bis(2-chloroisopropyl)ether	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Bis(2-ethylhexyl)phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Butyl benzyl phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-03

Client Sample ID: B222 G
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Chrysene	186.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Di-n-butyl phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Di-n-octyl phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Dibenz(a,h)anthracene	< 55.	55.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Diethyl phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Dimethyl phthalate	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Fluoranthene	525.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Fluorene	48.4	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Hexachlorobenzene	< 27.5	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Hexachlorobutadiene	< 27.5	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Hexachlorocyclopentadiene	< 550.	550.	µg/Kg-dry	1/18/13 01:33	79294	RYL
ɔxachloroethane	< 55.	55.	µg/Kg-dry	1/18/13 01:33	79294	RYL
.deno(1,2,3-cd)pyrene	160.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Isophorone	< 27.5	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
m,p-Cresol	< 27.5	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
N-Nitrosodi-n-propylamine	< 5.5	5.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
N-Nitrosodiphenylamine	< 138.	138.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Naphthalene	< 22.	22.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Nitrobenzene	< 100.	100.	µg/Kg-dry	1/18/13 01:33	79294	RYL
o-Cresol	< 110.	110.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Pentachlorophenol	< 138.	138.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Phenanthrene	407.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Phenol	< 138.	138.	µg/Kg-dry	1/18/13 01:33	79294	RYL
Pyrene	496.	27.5	µg/Kg-dry	1/18/13 01:33	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	68.7	35-125	%REC	1/18/13 01:33	79294	RYL
2-Fluorobiphenyl	75.8	45-105	%REC	1/18/13 01:33	79294	RYL
2-Fluorophenol	67.5	35-105	%REC	1/18/13 01:33	79294	RYL
4-Terphenyl-d14	99.2	30-125	%REC	1/18/13 01:33	79294	RYL
Nitrobenzene-d5	62.8	35-100	%REC	1/18/13 01:33	79294	RYL
Phenol-d5	76.0	40-100	%REC	1/18/13 01:33	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.714	0.714	µg/Kg-dry	1/16/13 21:02	79434	JL

Qualifiers:

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ENVIRONMENTAL MONITORING AND TECHNOLOGIES, INC.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-03

Client Sample ID: B222 G
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.593	0.593		µg/Kg-dry	1/16/13 21:02	79434	JL
1,1,2-Trichloroethane	< 0.547	0.547		µg/Kg-dry	1/16/13 21:02	79434	JL
1,1-Dichloroethane	< 1.54	1.54		µg/Kg-dry	1/16/13 21:02	79434	JL
1,1-Dichloroethene	< 1.21	1.21		µg/Kg-dry	1/16/13 21:02	79434	JL
1,2-Dibromo-3-chloropropane	< 1.81	1.81		µg/Kg-dry	1/16/13 21:02	79434	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/16/13 21:02	79434	JL
1,2-Dichloroethane	< 0.979	0.979		µg/Kg-dry	1/16/13 21:02	79434	JL
1,2-Dichloropropane	< 1.36	1.36		µg/Kg-dry	1/16/13 21:02	79434	JL
1-Butanol	< 187.	187.	C	µg/Kg-dry	1/16/13 21:02	79434	JL
2-Butanone	< 89.4	89.4		µg/Kg-dry	1/16/13 21:02	79434	JL
2-Hexanone	< 93.5	93.5		µg/Kg-dry	1/16/13 21:02	79434	JL
4-Methyl-2-pentanone	< 51.6	51.6		µg/Kg-dry	1/16/13 21:02	79434	JL
›etone	< 55.	55.		µg/Kg-dry	1/16/13 21:02	79434	JL
;rylonitrile	< 9.54	9.54		µg/Kg-dry	1/16/13 21:02	79434	JL
Benzene	0.698	0.466		µg/Kg-dry	1/16/13 21:02	79434	JL
Bromodichloromethane	< 0.875	0.875		µg/Kg-dry	1/16/13 21:02	79434	JL
Bromoform	< 0.598	0.598		µg/Kg-dry	1/16/13 21:02	79434	JL
Bromomethane	< 6.37	6.37		µg/Kg-dry	1/16/13 21:02	79434	JL
Carbon disulfide	< 0.471	0.471		µg/Kg-dry	1/16/13 21:02	79434	JL
Carbon tetrachloride	< 1.73	1.73		µg/Kg-dry	1/16/13 21:02	79434	JL
Chlorobenzene	< 1.11	1.11		µg/Kg-dry	1/16/13 21:02	79434	JL
Chloroethane	< 9.76	9.76		µg/Kg-dry	1/16/13 21:02	79434	JL
Chloroform	< 0.689	0.689		µg/Kg-dry	1/16/13 21:02	79434	JL
Chloromethane	< 1.12	1.12		µg/Kg-dry	1/16/13 21:02	79434	JL
cis-1,2-Dichloroethene	< 0.401	0.401		µg/Kg-dry	1/16/13 21:02	79434	JL
Dibromochloromethane	< 0.962	0.962		µg/Kg-dry	1/16/13 21:02	79434	JL
Ethylbenzene	< 0.691	0.691		µg/Kg-dry	1/16/13 21:02	79434	JL
m,p-Xylene	< 2.19	2.19		µg/Kg-dry	1/16/13 21:02	79434	JL
Methyl tert-butyl ether	< 1.44	1.44		µg/Kg-dry	1/16/13 21:02	79434	JL
Methylene chloride	< 2.49	2.49		µg/Kg-dry	1/16/13 21:02	79434	JL
o-Xylene	< 1.15	1.15		µg/Kg-dry	1/16/13 21:02	79434	JL
Styrene	< 1.48	1.48		µg/Kg-dry	1/16/13 21:02	79434	JL
Tetrachloroethene	< 1.4	1.4		µg/Kg-dry	1/16/13 21:02	79434	JL
Toluene	< 1.05	1.05		µg/Kg-dry	1/16/13 21:02	79434	JL
trans-1,2-Dichloroethene	< 2.05	2.05		µg/Kg-dry	1/16/13 21:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-03

Client Sample ID: B222 G
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.864	0.864		µg/Kg-dry	1/16/13 21:02	79434	JL
Vinyl acetate	< 26.2	26.2		µg/Kg-dry	1/16/13 21:02	79434	JL
Vinyl chloride	< 0.367	0.367		µg/Kg-dry	1/16/13 21:02	79434	JL
1,3-Dichloropropene, Total	< 1.09	1.09	C	µg/Kg-dry	1/16/13 21:02	79434	JL
Xylenes, Total	< 3.34	3.34		µg/Kg-dry	1/16/13 21:02	79434	JL
Surrogates:							
1,2-Dichloroethane-d4	112	80-120		%REC	1/16/13 21:02	79434	JL
4-Bromofluorobenzene	103	80-120		%REC	1/16/13 21:02	79434	JL
d4-1,2-Dichlorobenzene	113	80-120		%REC	1/16/13 21:02	79434	JL
Dibromofluoromethane	105	80-120		%REC	1/16/13 21:02	79434	JL
Fluorobenzene	103	80-120		%REC	1/16/13 21:02	79434	JL
Toluene-d8	101	80-120		%REC	1/16/13 21:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-04

Client Sample ID: B222 H
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.14			pH Units	1/14/13 13:45	R180279	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	14.9	0.03		% (Percent)	1/10/13 15:45	R180198	LS3
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.2	10.2		mg/Kg-dry	1/15/13 18:33	79331	AG
Barium	62.3	14.6		mg/Kg-dry	1/15/13 18:33	79331	AG
Cadmium	< 0.437	0.437		mg/Kg-dry	1/15/13 18:33	79331	AG
Chromium	18.6	7.29		mg/Kg-dry	1/15/13 18:33	79331	AG
Lead	14.6	14.6		mg/Kg-dry	1/15/13 18:33	79331	AG
Selenium	< 1.37	1.37		mg/Kg-dry	1/15/13 18:33	79331	AG
Silver	< 1.46	1.46		mg/Kg-dry	1/15/13 18:33	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	< 0.0313	0.0313		mg/Kg-dry	1/11/13 01:13	79307	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	< 0.005	0.005		mg/L	1/15/13 12:33	79362	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.228	0.228		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.114	0.114		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.912	0.912	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	94.3	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	128	60-125	S	%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-04

Client Sample ID: B222 H
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
1,2-Dichlorobenzene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
1,3-Dichlorobenzene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
1,4-Dichlorobenzene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4,5-Trichlorophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4,6-Trichlorophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4-Dichlorophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4-Dimethylphenol	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4-Dinitrophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,4-Dinitrotoluene	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2,6-Dinitrotoluene	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
2-Chloronaphthalene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
·Chlorophenol	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
·Nitrophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
3,3'-Dichlorobenzidine	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
4,6-Dinitro-2-methylphenol	< 26.6	26.6	µg/Kg-dry	1/18/13 02:16	79294	RYL
4-Bromophenyl phenyl ether	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
4-Chloro-3-methylphenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
4-Chloroaniline	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
4-Chlorophenyl phenyl ether	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
4-Nitrophenol	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Acenaphthene	59.3	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Acenaphthylene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Anthracene	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benz(a)anthracene	8.09	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzidine	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzo(a)pyrene	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzo(b)fluoranthene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzo(g,h,i)perylene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzo(k)fluoranthene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Benzoic acid	< 426.	426.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Bis(2-chloroethyl)ether	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Bis(2-chloroisopropyl)ether	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Bis(2-ethylhexyl)phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Butyl benzyl phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-04

Client Sample ID: B222 H
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
Chrysene	7.24	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Di-n-butyl phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Di-n-octyl phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Dibenz(a,h)anthracene	< 10.6	10.6	µg/Kg-dry	1/18/13 02:16	79294	RYL
Diethyl phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Dimethyl phthalate	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Fluoranthene	20.7	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Fluorene	188.	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Hexachlorobenzene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Hexachlorobutadiene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Hexachlorocyclopentadiene	< 106.	106.	µg/Kg-dry	1/18/13 02:16	79294	RYL
'exachloroethane	< 10.6	10.6	µg/Kg-dry	1/18/13 02:16	79294	RYL
.deno(1,2,3-cd)pyrene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Isophorone	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
m,p-Cresol	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/Kg-dry	1/18/13 02:16	79294	RYL
N-Nitrosodiphenylamine	< 26.6	26.6	µg/Kg-dry	1/18/13 02:16	79294	RYL
Naphthalene	< 4.26	4.26	µg/Kg-dry	1/18/13 02:16	79294	RYL
Nitrobenzene	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
o-Cresol	< 21.3	21.3	µg/Kg-dry	1/18/13 02:16	79294	RYL
Pentachlorophenol	< 30.	30.	µg/Kg-dry	1/18/13 02:16	79294	RYL
Phenanthrene	< 5.32	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Phenol	< 26.6	26.6	µg/Kg-dry	1/18/13 02:16	79294	RYL
Pyrene	63.	5.32	µg/Kg-dry	1/18/13 02:16	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	62.3	35-125	%REC	1/18/13 02:16	79294	RYL
2-Fluorobiphenyl	51.9	45-105	%REC	1/18/13 02:16	79294	RYL
2-Fluorophenol	45.0	35-105	%REC	1/18/13 02:16	79294	RYL
4-Terphenyl-d14	81.3	30-125	%REC	1/18/13 02:16	79294	RYL
Nitrobenzene-d5	53.1	35-100	%REC	1/18/13 02:16	79294	RYL
Phenol-d5	57.1	40-100	%REC	1/18/13 02:16	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.638	0.638	µg/Kg-dry	1/16/13 21:32	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-04

Client Sample ID: B222 H
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.53	0.53		µg/Kg-dry	1/16/13 21:32	79434	JL
1,1,2-Trichloroethane	< 0.489	0.489		µg/Kg-dry	1/16/13 21:32	79434	JL
1,1-Dichloroethane	< 1.37	1.37		µg/Kg-dry	1/16/13 21:32	79434	JL
1,1-Dichloroethene	< 1.08	1.08		µg/Kg-dry	1/16/13 21:32	79434	JL
1,2-Dibromo-3-chloropropane	< 1.61	1.61		µg/Kg-dry	1/16/13 21:32	79434	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/16/13 21:32	79434	JL
1,2-Dichloroethane	< 0.875	0.875		µg/Kg-dry	1/16/13 21:32	79434	JL
1,2-Dichloropropane	< 1.21	1.21		µg/Kg-dry	1/16/13 21:32	79434	JL
1-Butanol	< 167.	167.	C	µg/Kg-dry	1/16/13 21:32	79434	JL
2-Butanone	< 79.9	79.9		µg/Kg-dry	1/16/13 21:32	79434	JL
2-Hexanone	< 83.6	83.6		µg/Kg-dry	1/16/13 21:32	79434	JL
4-Methyl-2-pentanone	< 46.1	46.1		µg/Kg-dry	1/16/13 21:32	79434	JL
`cetone	< 49.1	49.1		µg/Kg-dry	1/16/13 21:32	79434	JL
.crylonitrile	< 8.53	8.53		µg/Kg-dry	1/16/13 21:32	79434	JL
Benzene	1.34	0.416		µg/Kg-dry	1/16/13 21:32	79434	JL
Bromodichloromethane	< 0.782	0.782		µg/Kg-dry	1/16/13 21:32	79434	JL
Bromoform	< 0.535	0.535		µg/Kg-dry	1/16/13 21:32	79434	JL
Bromomethane	< 5.69	5.69		µg/Kg-dry	1/16/13 21:32	79434	JL
Carbon disulfide	< 0.421	0.421		µg/Kg-dry	1/16/13 21:32	79434	JL
Carbon tetrachloride	< 1.55	1.55		µg/Kg-dry	1/16/13 21:32	79434	JL
Chlorobenzene	< 0.991	0.991		µg/Kg-dry	1/16/13 21:32	79434	JL
Chloroethane	< 8.72	8.72		µg/Kg-dry	1/16/13 21:32	79434	JL
Chloroform	< 0.615	0.615		µg/Kg-dry	1/16/13 21:32	79434	JL
Chloromethane	< 0.999	0.999		µg/Kg-dry	1/16/13 21:32	79434	JL
cis-1,2-Dichloroethene	< 0.358	0.358		µg/Kg-dry	1/16/13 21:32	79434	JL
Dibromochloromethane	< 0.86	0.86		µg/Kg-dry	1/16/13 21:32	79434	JL
Ethylbenzene	0.815	0.618		µg/Kg-dry	1/16/13 21:32	79434	JL
m,p-Xylene	< 1.96	1.96		µg/Kg-dry	1/16/13 21:32	79434	JL
Methyl tert-butyl ether	< 1.29	1.29		µg/Kg-dry	1/16/13 21:32	79434	JL
Methylene chloride	< 2.23	2.23		µg/Kg-dry	1/16/13 21:32	79434	JL
o-Xylene	< 1.03	1.03		µg/Kg-dry	1/16/13 21:32	79434	JL
Styrene	< 1.32	1.32		µg/Kg-dry	1/16/13 21:32	79434	JL
Tetrachloroethene	< 1.25	1.25		µg/Kg-dry	1/16/13 21:32	79434	JL
Toluene	2.22	0.941		µg/Kg-dry	1/16/13 21:32	79434	JL
trans-1,2-Dichloroethene	< 1.84	1.84		µg/Kg-dry	1/16/13 21:32	79434	JL

Qualifiers:

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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010185
Project: Bloom Great Lakes Soil
Lab ID: 13010185-04

Client Sample ID: B222 H
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.772	0.772		µg/Kg-dry	1/16/13 21:32	79434	JL
Vinyl acetate	< 23.4	23.4		µg/Kg-dry	1/16/13 21:32	79434	JL
Vinyl chloride	< 0.328	0.328		µg/Kg-dry	1/16/13 21:32	79434	JL
1,3-Dichloropropene, Total	< 0.978	0.978	C	µg/Kg-dry	1/16/13 21:32	79434	JL
Xylenes, Total	< 2.98	2.98		µg/Kg-dry	1/16/13 21:32	79434	JL
Surrogates:							
1,2-Dichloroethane-d4	116	80-120		%REC	1/16/13 21:32	79434	JL
4-Bromofluorobenzene	98.9	80-120		%REC	1/16/13 21:32	79434	JL
d4-1,2-Dichlorobenzene	118	80-120		%REC	1/16/13 21:32	79434	JL
Dibromofluoromethane	102	80-120		%REC	1/16/13 21:32	79434	JL
Fluorobenzene	101	80-120		%REC	1/16/13 21:32	79434	JL
Toluene-d8	96.6	80-120		%REC	1/16/13 21:32	79434	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-01

Client Sample ID: B222 E
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	7.78			pH Units	1/15/13 13:20	R180323	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	12.2	0.03		% (Percent)	1/14/13 09:20	R180292	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	50.2	11.1		mg/Kg-dry	1/15/13 18:38	79331	AG
Barium	282.	13.9		mg/Kg-dry	1/15/13 18:38	79331	AG
Cadmium	0.989	0.418		mg/Kg-dry	1/15/13 18:38	79331	AG
Chromium	26.	6.96		mg/Kg-dry	1/15/13 18:38	79331	AG
Lead	1720.	13.9		mg/Kg-dry	1/15/13 18:38	79331	AG
`elenium	< 1.31	1.31		mg/Kg-dry	1/15/13 18:38	79331	AG
ılver	5.65	1.39		mg/Kg-dry	1/15/13 18:38	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	0.416	0.0296		mg/Kg-dry	1/15/13 12:13	79367	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	0.0424	0.005		mg/L	1/17/13 11:14	79388	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.22	0.22		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.11	0.11		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.878	0.878	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	80.4	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	97.7	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-01

Client Sample ID: B222 E
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
1,2-Dichlorobenzene	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
1,3-Dichlorobenzene	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
1,4-Dichlorobenzene	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4,5-Trichlorophenol	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4-Dichlorophenol	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4-Dimethylphenol	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	1/18/13 02:59	79294	RYL
2-Chloronaphthalene	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Chlorophenol	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
-Nitrophenol	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
3,3'-Dichlorobenzidine	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
4,6-Dinitro-2-methylphenol	< 129.	129.	µg/Kg-dry	1/18/13 02:59	79294	RYL
4-Bromophenyl phenyl ether	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
4-Chloro-3-methylphenol	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
4-Chloroaniline	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
4-Chlorophenyl phenyl ether	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
4-Nitrophenol	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Acenaphthene	29.1	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Acenaphthylene	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Anthracene	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benz(a)anthracene	157.	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzidine	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzo(a)pyrene	135.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzo(b)fluoranthene	172.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzo(g,h,i)perylene	205.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzo(k)fluoranthene	60.5	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Benzoic acid	< 2060.	2060.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Bis(2-chloroethyl)ether	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Bis(2-chloroisopropyl)ether	< 20.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Bis(2-ethylhexyl)phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Butyl benzyl phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-01

Client Sample ID: B222 E
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Chrysene	143.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Di-n-butyl phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Di-n-octyl phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Dibenz(a,h)anthracene	< 51.6	51.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Diethyl phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Dimethyl phthalate	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Fluoranthene	346.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Fluorene	29.9	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Hexachlorobenzene	< 25.8	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Hexachlorobutadiene	< 25.8	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Hexachlorocyclopentadiene	< 516.	516.	µg/Kg-dry	1/18/13 02:59	79294	RYL
exachloroethane	< 51.6	51.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
deno(1,2,3-cd)pyrene	105.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Isophorone	< 25.8	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
m,p-Cresol	< 25.8	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
N-Nitrosodi-n-propylamine	< 5.16	5.16	µg/Kg-dry	1/18/13 02:59	79294	RYL
N-Nitrosodiphenylamine	< 129.	129.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Naphthalene	58.6	20.6	µg/Kg-dry	1/18/13 02:59	79294	RYL
Nitrobenzene	< 100.	100.	µg/Kg-dry	1/18/13 02:59	79294	RYL
o-Cresol	< 103.	103.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Pentachlorophenol	< 129.	129.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Phenanthrene	332.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Phenol	< 129.	129.	µg/Kg-dry	1/18/13 02:59	79294	RYL
Pyrene	333.	25.8	µg/Kg-dry	1/18/13 02:59	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	53.3	35-125	%REC	1/18/13 02:59	79294	RYL
2-Fluorobiphenyl	55.2	45-105	%REC	1/18/13 02:59	79294	RYL
2-Fluorophenol	48.5	35-105	%REC	1/18/13 02:59	79294	RYL
4-Terphenyl-d14	74.4	30-125	%REC	1/18/13 02:59	79294	RYL
Nitrobenzene-d5	47.9	35-100	%REC	1/18/13 02:59	79294	RYL
Phenol-d5	50.5	40-100	%REC	1/18/13 02:59	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.797	0.797	µg/Kg-dry	1/16/13 22:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-01

Client Sample ID: B222 E
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.662	0.662		µg/Kg-dry	1/16/13 22:02	79434	JL
1,1,2-Trichloroethane	< 0.612	0.612		µg/Kg-dry	1/16/13 22:02	79434	JL
1,1-Dichloroethane	< 1.71	1.71		µg/Kg-dry	1/16/13 22:02	79434	JL
1,1-Dichloroethene	< 1.35	1.35		µg/Kg-dry	1/16/13 22:02	79434	JL
1,2-Dibromo-3-chloropropane	< 2.	2.		µg/Kg-dry	1/16/13 22:02	79434	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/16/13 22:02	79434	JL
1,2-Dichloroethane	< 1.09	1.09		µg/Kg-dry	1/16/13 22:02	79434	JL
1,2-Dichloropropane	< 1.52	1.52		µg/Kg-dry	1/16/13 22:02	79434	JL
1-Butanol	< 208.	208.	C	µg/Kg-dry	1/16/13 22:02	79434	JL
2-Butanone	< 99.8	99.8		µg/Kg-dry	1/16/13 22:02	79434	JL
2-Hexanone	< 104.	104.		µg/Kg-dry	1/16/13 22:02	79434	JL
4-Methyl-2-pentanone	< 57.6	57.6		µg/Kg-dry	1/16/13 22:02	79434	JL
Acetone	< 61.4	61.4		µg/Kg-dry	1/16/13 22:02	79434	JL
Acrylonitrile	< 10.7	10.7		µg/Kg-dry	1/16/13 22:02	79434	JL
Benzene	25.9	0.52		µg/Kg-dry	1/16/13 22:02	79434	JL
Bromodichloromethane	< 0.977	0.977		µg/Kg-dry	1/16/13 22:02	79434	JL
Bromoform	< 0.668	0.668		µg/Kg-dry	1/16/13 22:02	79434	JL
Bromomethane	< 7.11	7.11		µg/Kg-dry	1/16/13 22:02	79434	JL
Carbon disulfide	2.98	0.526		µg/Kg-dry	1/16/13 22:02	79434	JL
Carbon tetrachloride	< 1.93	1.93		µg/Kg-dry	1/16/13 22:02	79434	JL
Chlorobenzene	< 1.24	1.24		µg/Kg-dry	1/16/13 22:02	79434	JL
Chloroethane	< 10.9	10.9		µg/Kg-dry	1/16/13 22:02	79434	JL
Chloroform	< 0.769	0.769		µg/Kg-dry	1/16/13 22:02	79434	JL
Chloromethane	< 1.25	1.25		µg/Kg-dry	1/16/13 22:02	79434	JL
cis-1,2-Dichloroethene	< 0.448	0.448		µg/Kg-dry	1/16/13 22:02	79434	JL
Dibromochloromethane	< 1.07	1.07		µg/Kg-dry	1/16/13 22:02	79434	JL
Ethylbenzene	< 0.772	0.772		µg/Kg-dry	1/16/13 22:02	79434	JL
m,p-Xylene	< 2.45	2.45		µg/Kg-dry	1/16/13 22:02	79434	JL
Methyl tert-butyl ether	< 1.61	1.61		µg/Kg-dry	1/16/13 22:02	79434	JL
Methylene chloride	< 2.79	2.79		µg/Kg-dry	1/16/13 22:02	79434	JL
o-Xylene	< 1.28	1.28		µg/Kg-dry	1/16/13 22:02	79434	JL
Styrene	< 1.65	1.65		µg/Kg-dry	1/16/13 22:02	79434	JL
Tetrachloroethene	< 1.57	1.57		µg/Kg-dry	1/16/13 22:02	79434	JL
Toluene	8.65	1.18		µg/Kg-dry	1/16/13 22:02	79434	JL
trans-1,2-Dichloroethene	< 2.29	2.29		µg/Kg-dry	1/16/13 22:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-01

Client Sample ID: B222 E
Report Date: 1/18/2013
Collection Date: 1/10/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.965	0.965		µg/Kg-dry	1/16/13 22:02	79434	JL
Vinyl acetate	< 29.2	29.2		µg/Kg-dry	1/16/13 22:02	79434	JL
Vinyl chloride	< 0.41	0.41		µg/Kg-dry	1/16/13 22:02	79434	JL
1,3-Dichloropropene, Total	< 1.22	1.22	C	µg/Kg-dry	1/16/13 22:02	79434	JL
Xylenes, Total	< 3.73	3.73		µg/Kg-dry	1/16/13 22:02	79434	JL
Surrogates:							
1,2-Dichloroethane-d4	108	80-120		%REC	1/16/13 22:02	79434	JL
4-Bromofluorobenzene	115	80-120		%REC	1/16/13 22:02	79434	JL
d4-1,2-Dichlorobenzene	107	80-120		%REC	1/16/13 22:02	79434	JL
Dibromofluoromethane	106	80-120		%REC	1/16/13 22:02	79434	JL
Fluorobenzene	96.1	80-120		%REC	1/16/13 22:02	79434	JL
Toluene-d8	107	80-120		%REC	1/16/13 22:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-02

Client Sample ID: B222 A
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.15			pH Units	1/15/13 13:20	R180323	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	20.	0.03		% (Percent)	1/14/13 09:20	R180292	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.8	10.8		mg/Kg-dry	1/15/13 18:44	79331	AG
Barium	49.	15.4		mg/Kg-dry	1/15/13 18:44	79331	AG
Cadmium	< 0.461	0.461		mg/Kg-dry	1/15/13 18:44	79331	AG
Chromium	18.4	7.68		mg/Kg-dry	1/15/13 18:44	79331	AG
Lead	16.8	15.4		mg/Kg-dry	1/15/13 18:44	79331	AG
Selenium	< 1.44	1.44		mg/Kg-dry	1/15/13 18:44	79331	AG
Silver	< 1.54	1.54		mg/Kg-dry	1/15/13 18:44	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	0.136	0.0311		mg/Kg-dry	1/15/13 12:13	79367	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	< 0.005	0.005		mg/L	1/17/13 11:14	79388	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.245	0.245		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.122	0.122		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.98	0.98	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	95.7	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	110	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

Qualifiers:

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J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-02

Client Sample ID: B222 A
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
1,2-Dichlorobenzene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
1,3-Dichlorobenzene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
1,4-Dichlorobenzene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4,5-Trichlorophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4,6-Trichlorophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4-Dichlorophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4-Dimethylphenol	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4-Dinitrophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,4-Dinitrotoluene	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2,6-Dinitrotoluene	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
2-Chloronaphthalene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
`-Chlorophenol	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Nitrophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
3,3'-Dichlorobenzidine	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
4,6-Dinitro-2-methylphenol	< 28.2	28.2	µg/Kg-dry	1/18/13 03:43	79294	RYL
4-Bromophenyl phenyl ether	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
4-Chloro-3-methylphenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
4-Chloroaniline	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
4-Chlorophenyl phenyl ether	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
4-Nitrophenol	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Acenaphthene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Acenaphthylene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Anthracene	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benz(a)anthracene	7.94	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzidine	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzo(a)pyrene	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzo(b)fluoranthene	15.1	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzo(g,h,i)perylene	9.48	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzo(k)fluoranthene	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Benzoic acid	< 451.	451.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Bis(2-chloroethyl)ether	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Bis(2-chloroisopropyl)ether	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Bis(2-ethylhexyl)phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Butyl benzyl phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-02

Client Sample ID: B222 A
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
Chrysene	10.1	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Di-n-butyl phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Di-n-octyl phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Dibenz(a,h)anthracene	< 11.3	11.3	µg/Kg-dry	1/18/13 03:43	79294	RYL
Diethyl phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Dimethyl phthalate	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Fluoranthene	19.8	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Fluorene	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Hexachlorobenzene	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Hexachlorobutadiene	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Hexachlorocyclopentadiene	< 113.	113.	µg/Kg-dry	1/18/13 03:43	79294	RYL
'exachloroethane	< 11.3	11.3	µg/Kg-dry	1/18/13 03:43	79294	RYL
.ıdeno(1,2,3-cd)pyrene	9.61	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Isophorone	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
m,p-Cresol	< 5.64	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/Kg-dry	1/18/13 03:43	79294	RYL
N-Nitrosodiphenylamine	< 28.2	28.2	µg/Kg-dry	1/18/13 03:43	79294	RYL
Naphthalene	< 4.51	4.51	µg/Kg-dry	1/18/13 03:43	79294	RYL
Nitrobenzene	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
o-Cresol	< 22.6	22.6	µg/Kg-dry	1/18/13 03:43	79294	RYL
Pentachlorophenol	< 30.	30.	µg/Kg-dry	1/18/13 03:43	79294	RYL
Phenanthrene	5.87	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Phenol	< 28.2	28.2	µg/Kg-dry	1/18/13 03:43	79294	RYL
Pyrene	21.	5.64	µg/Kg-dry	1/18/13 03:43	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	75.6	35-125	%REC	1/18/13 03:43	79294	RYL
2-Fluorobiphenyl	57.7	45-105	%REC	1/18/13 03:43	79294	RYL
2-Fluorophenol	48.0	35-105	%REC	1/18/13 03:43	79294	RYL
4-Terphenyl-d14	99.4	30-125	%REC	1/18/13 03:43	79294	RYL
Nitrobenzene-d5	51.3	35-100	%REC	1/18/13 03:43	79294	RYL
Phenol-d5	57.9	40-100	%REC	1/18/13 03:43	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.791	0.791	µg/Kg-dry	1/17/13 20:18	79429	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-02

Client Sample ID: B222 A
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.656	0.656		µg/Kg-dry	1/17/13 20:18	79429	JL
1,1,2-Trichloroethane	< 0.606	0.606		µg/Kg-dry	1/17/13 20:18	79429	JL
1,1-Dichloroethane	< 1.7	1.7		µg/Kg-dry	1/17/13 20:18	79429	JL
1,1-Dichloroethene	< 1.33	1.33		µg/Kg-dry	1/17/13 20:18	79429	JL
1,2-Dibromo-3-chloropropane	< 2.	2.		µg/Kg-dry	1/17/13 20:18	79429	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/17/13 20:18	79429	JL
1,2-Dichloroethane	< 1.08	1.08		µg/Kg-dry	1/17/13 20:18	79429	JL
1,2-Dichloropropane	< 1.5	1.5		µg/Kg-dry	1/17/13 20:18	79429	JL
1-Butanol	< 207.	207.	C	µg/Kg-dry	1/17/13 20:18	79429	JL
2-Butanone	< 99.	99.		µg/Kg-dry	1/17/13 20:18	79429	JL
2-Hexanone	< 104.	104.		µg/Kg-dry	1/17/13 20:18	79429	JL
4-Methyl-2-pentanone	< 57.1	57.1		µg/Kg-dry	1/17/13 20:18	79429	JL
cetone	< 60.9	60.9		µg/Kg-dry	1/17/13 20:18	79429	JL
crylonitrile	< 10.6	10.6		µg/Kg-dry	1/17/13 20:18	79429	JL
Benzene	< 0.516	0.516		µg/Kg-dry	1/17/13 20:18	79429	JL
Bromodichloromethane	< 0.969	0.969		µg/Kg-dry	1/17/13 20:18	79429	JL
Bromoform	< 0.662	0.662		µg/Kg-dry	1/17/13 20:18	79429	JL
Bromomethane	< 7.05	7.05		µg/Kg-dry	1/17/13 20:18	79429	JL
Carbon disulfide	16.6	0.522		µg/Kg-dry	1/17/13 20:18	79429	JL
Carbon tetrachloride	< 1.92	1.92		µg/Kg-dry	1/17/13 20:18	79429	JL
Chlorobenzene	< 1.23	1.23		µg/Kg-dry	1/17/13 20:18	79429	JL
Chloroethane	< 10.8	10.8		µg/Kg-dry	1/17/13 20:18	79429	JL
Chloroform	< 0.762	0.762		µg/Kg-dry	1/17/13 20:18	79429	JL
Chloromethane	< 1.24	1.24		µg/Kg-dry	1/17/13 20:18	79429	JL
cis-1,2-Dichloroethene	< 0.444	0.444		µg/Kg-dry	1/17/13 20:18	79429	JL
Dibromochloromethane	< 1.07	1.07		µg/Kg-dry	1/17/13 20:18	79429	JL
Ethylbenzene	< 0.766	0.766		µg/Kg-dry	1/17/13 20:18	79429	JL
m,p-Xylene	< 2.42	2.42		µg/Kg-dry	1/17/13 20:18	79429	JL
Methyl tert-butyl ether	< 1.6	1.6		µg/Kg-dry	1/17/13 20:18	79429	JL
Methylene chloride	< 2.76	2.76		µg/Kg-dry	1/17/13 20:18	79429	JL
o-Xylene	< 1.27	1.27		µg/Kg-dry	1/17/13 20:18	79429	JL
Styrene	< 1.64	1.64		µg/Kg-dry	1/17/13 20:18	79429	JL
Tetrachloroethene	< 1.55	1.55		µg/Kg-dry	1/17/13 20:18	79429	JL
Toluene	< 1.17	1.17		µg/Kg-dry	1/17/13 20:18	79429	JL
trans-1,2-Dichloroethene	< 2.28	2.28		µg/Kg-dry	1/17/13 20:18	79429	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-02

Client Sample ID: B222 A
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.956	0.956		µg/Kg-dry	1/17/13 20:18	79429	JL
Vinyl acetate	< 29.	29.		µg/Kg-dry	1/17/13 20:18	79429	JL
Vinyl chloride	< 0.406	0.406		µg/Kg-dry	1/17/13 20:18	79429	JL
1,3-Dichloropropene, Total	< 1.21	1.21	C	µg/Kg-dry	1/17/13 20:18	79429	JL
Xylenes, Total	< 3.7	3.7		µg/Kg-dry	1/17/13 20:18	79429	JL
Surrogates:							
1,2-Dichloroethane-d4	115	80-120		%REC	1/17/13 20:18	79429	JL
4-Bromofluorobenzene	124	80-120	S	%REC	1/17/13 20:18	79429	JL
d4-1,2-Dichlorobenzene	97.1	80-120		%REC	1/17/13 20:18	79429	JL
Dibromofluoromethane	108	80-120		%REC	1/17/13 20:18	79429	JL
Fluorobenzene	104	80-120		%REC	1/17/13 20:18	79429	JL
Toluene-d8	115	80-120		%REC	1/17/13 20:18	79429	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-03

Client Sample ID: B222 B
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.21			pH Units	1/15/13 13:20	R180323	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	10.3	0.03		% (Percent)	1/14/13 09:20	R180292	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.9	10.9		mg/Kg-dry	1/15/13 18:49	79331	AG
Barium	< 13.7	13.7		mg/Kg-dry	1/15/13 18:49	79331	AG
Cadmium	< 0.41	0.41		mg/Kg-dry	1/15/13 18:49	79331	AG
Chromium	< 6.83	6.83		mg/Kg-dry	1/15/13 18:49	79331	AG
Lead	< 13.7	13.7		mg/Kg-dry	1/15/13 18:49	79331	AG
Selenium	< 1.28	1.28		mg/Kg-dry	1/15/13 18:49	79331	AG
Silver	< 1.37	1.37		mg/Kg-dry	1/15/13 18:49	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	0.153	0.0293		mg/Kg-dry	1/15/13 12:13	79367	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	0.008	0.005		mg/L	1/17/13 11:14	79388	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.221	0.221		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.111	0.111		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.884	0.884	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	90.1	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	108	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-03

Client Sample ID: B222 B
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
1,2-Dichlorobenzene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
1,3-Dichlorobenzene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
1,4-Dichlorobenzene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4,5-Trichlorophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4,6-Trichlorophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4-Dichlorophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4-Dimethylphenol	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4-Dinitrophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,4-Dinitrotoluene	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2,6-Dinitrotoluene	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
2-Chloronaphthalene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Chlorophenol	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
-Nitrophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
3,3'-Dichlorobenzidine	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
4,6-Dinitro-2-methylphenol	< 25.	25.	µg/Kg-dry	1/18/13 04:27	79294	RYL
4-Bromophenyl phenyl ether	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
4-Chloro-3-methylphenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
4-Chloroaniline	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
4-Chlorophenyl phenyl ether	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
4-Nitrophenol	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Acenaphthene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Acenaphthylene	9.11	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Anthracene	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benz(a)anthracene	23.4	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzidine	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzo(a)pyrene	20.8	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzo(b)fluoranthene	22.2	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzo(g,h,i)perylene	23.8	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzo(k)fluoranthene	7.83	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Benzoic acid	< 400.	400.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Bis(2-chloroethyl)ether	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Bis(2-chloroisopropyl)ether	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Bis(2-ethylhexyl)phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Butyl benzyl phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-03

Client Sample ID: B222 B
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Chrysene	20.7	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Di-n-butyl phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Di-n-octyl phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Dibenz(a,h)anthracene	< 9.99	9.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Diethyl phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Dimethyl phthalate	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
Fluoranthene	41.8	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Fluorene	< 4.99	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Hexachlorobenzene	< 4.99	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Hexachlorobutadiene	< 4.99	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Hexachlorocyclopentadiene	< 99.9	99.9	µg/Kg-dry	1/18/13 04:27	79294	RYL
'exachloroethane	< 9.99	9.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
ıdeno(1,2,3-cd)pyrene	14.3	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Isophorone	< 4.99	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
m,p-Cresol	< 4.99	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/Kg-dry	1/18/13 04:27	79294	RYL
N-Nitrosodiphenylamine	< 25.	25.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Naphthalene	< 4.	4.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Nitrobenzene	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
o-Cresol	< 20.	20.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Pentachlorophenol	< 30.	30.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Phenanthrene	21.5	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Phenol	< 25.	25.	µg/Kg-dry	1/18/13 04:27	79294	RYL
Pyrene	49.5	4.99	µg/Kg-dry	1/18/13 04:27	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	63.0	35-125	%REC	1/18/13 04:27	79294	RYL
2-Fluorobiphenyl	52.0	45-105	%REC	1/18/13 04:27	79294	RYL
2-Fluorophenol	36.8	35-105	%REC	1/18/13 04:27	79294	RYL
4-Terphenyl-d14	88.8	30-125	%REC	1/18/13 04:27	79294	RYL
Nitrobenzene-d5	37.8	35-100	%REC	1/18/13 04:27	79294	RYL
Phenol-d5	45.7	40-100	%REC	1/18/13 04:27	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.69	0.69	µg/Kg-dry	1/16/13 23:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-03

Client Sample ID: B222 B
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.573	0.573		µg/Kg-dry	1/16/13 23:02	79434	JL
1,1,2-Trichloroethane	< 0.529	0.529		µg/Kg-dry	1/16/13 23:02	79434	JL
1,1-Dichloroethane	< 1.48	1.48		µg/Kg-dry	1/16/13 23:02	79434	JL
1,1-Dichloroethene	< 1.16	1.16		µg/Kg-dry	1/16/13 23:02	79434	JL
1,2-Dibromo-3-chloropropane	< 1.75	1.75		µg/Kg-dry	1/16/13 23:02	79434	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/16/13 23:02	79434	JL
1,2-Dichloroethane	< 0.947	0.947		µg/Kg-dry	1/16/13 23:02	79434	JL
1,2-Dichloropropane	< 1.31	1.31		µg/Kg-dry	1/16/13 23:02	79434	JL
1-Butanol	< 180.	180.	C	µg/Kg-dry	1/16/13 23:02	79434	JL
2-Butanone	< 86.4	86.4		µg/Kg-dry	1/16/13 23:02	79434	JL
2-Hexanone	< 90.4	90.4		µg/Kg-dry	1/16/13 23:02	79434	JL
4-Methyl-2-pentanone	< 49.8	49.8		µg/Kg-dry	1/16/13 23:02	79434	JL
cetone	< 53.1	53.1		µg/Kg-dry	1/16/13 23:02	79434	JL
,crylonitrile	< 9.22	9.22		µg/Kg-dry	1/16/13 23:02	79434	JL
Benzene	1.86	0.45		µg/Kg-dry	1/16/13 23:02	79434	JL
Bromodichloromethane	< 0.846	0.846		µg/Kg-dry	1/16/13 23:02	79434	JL
Bromoform	< 0.578	0.578		µg/Kg-dry	1/16/13 23:02	79434	JL
Bromomethane	< 6.15	6.15		µg/Kg-dry	1/16/13 23:02	79434	JL
Carbon disulfide	1.36	0.456		µg/Kg-dry	1/16/13 23:02	79434	JL
Carbon tetrachloride	< 1.67	1.67		µg/Kg-dry	1/16/13 23:02	79434	JL
Chlorobenzene	< 1.07	1.07		µg/Kg-dry	1/16/13 23:02	79434	JL
Chloroethane	< 9.43	9.43		µg/Kg-dry	1/16/13 23:02	79434	JL
Chloroform	< 0.666	0.666		µg/Kg-dry	1/16/13 23:02	79434	JL
Chloromethane	< 1.08	1.08		µg/Kg-dry	1/16/13 23:02	79434	JL
cis-1,2-Dichloroethene	< 0.387	0.387		µg/Kg-dry	1/16/13 23:02	79434	JL
Dibromochloromethane	< 0.93	0.93		µg/Kg-dry	1/16/13 23:02	79434	JL
Ethylbenzene	< 0.668	0.668		µg/Kg-dry	1/16/13 23:02	79434	JL
m,p-Xylene	< 2.12	2.12		µg/Kg-dry	1/16/13 23:02	79434	JL
Methyl tert-butyl ether	< 1.39	1.39		µg/Kg-dry	1/16/13 23:02	79434	JL
Methylene chloride	< 2.41	2.41		µg/Kg-dry	1/16/13 23:02	79434	JL
o-Xylene	< 1.11	1.11		µg/Kg-dry	1/16/13 23:02	79434	JL
Styrene	< 1.43	1.43		µg/Kg-dry	1/16/13 23:02	79434	JL
Tetrachloroethene	6.91	1.36		µg/Kg-dry	1/16/13 23:02	79434	JL
Toluene	2.09	1.02		µg/Kg-dry	1/16/13 23:02	79434	JL
trans-1,2-Dichloroethene	< 1.99	1.99		µg/Kg-dry	1/16/13 23:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-03

Client Sample ID: B222 B
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.835	0.835		µg/Kg-dry	1/16/13 23:02	79434	JL
Vinyl acetate	< 25.3	25.3		µg/Kg-dry	1/16/13 23:02	79434	JL
Vinyl chloride	< 0.355	0.355		µg/Kg-dry	1/16/13 23:02	79434	JL
1,3-Dichloropropene, Total	< 1.06	1.06	C	µg/Kg-dry	1/16/13 23:02	79434	JL
Xylenes, Total	< 3.23	3.23		µg/Kg-dry	1/16/13 23:02	79434	JL
Surrogates:							
1,2-Dichloroethane-d4	96.6	80-120		%REC	1/16/13 23:02	79434	JL
4-Bromofluorobenzene	116	80-120		%REC	1/16/13 23:02	79434	JL
d4-1,2-Dichlorobenzene	108	80-120		%REC	1/16/13 23:02	79434	JL
Dibromofluoromethane	94.7	80-120		%REC	1/16/13 23:02	79434	JL
Fluorobenzene	94.5	80-120		%REC	1/16/13 23:02	79434	JL
Toluene-d8	95.2	80-120		%REC	1/16/13 23:02	79434	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-04

Client Sample ID: B222 C
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**				
pH	8.48			pH Units	1/15/13 13:20	R180323	YW
Percent Moisture		**Method:**	**SM2540G**				
Percent Moisture	16.3	0.03		% (Percent)	1/14/13 09:20	R180292	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**				
Arsenic	< 10.2	10.2		mg/Kg-dry	1/15/13 18:54	79331	AG
Barium	18.2	14.6		mg/Kg-dry	1/15/13 18:54	79331	AG
Cadmium	< 0.437	0.437		mg/Kg-dry	1/15/13 18:54	79331	AG
Chromium	7.62	7.28		mg/Kg-dry	1/15/13 18:54	79331	AG
Lead	38.5	14.6		mg/Kg-dry	1/15/13 18:54	79331	AG
elenium	< 1.37	1.37		mg/Kg-dry	1/15/13 18:54	79331	AG
ilver	< 1.46	1.46		mg/Kg-dry	1/15/13 18:54	79331	AG
Mercury, Total		**Method:**	**SW7471B**				
Mercury	0.05	0.033		mg/Kg-dry	1/15/13 12:13	79367	IG
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**				
Lead	0.0103	0.005		mg/L	1/17/13 11:14	79388	AG
Polychlorinated biphenyls (PCBs)		**Method:**	**SW8082 / SW3540C**				
Aroclor 1016	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1221	< 0.238	0.238		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1232	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1242	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1248	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1254	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
Aroclor 1260	< 0.119	0.119		mg/Kg-dry	1/17/13	79308	NCH
PCB, Total	< 0.951	0.951	C	mg/Kg-dry	1/17/13	79308	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	83.1	31.6-194		%REC	1/17/13	79308	NCH
Decachlorobiphenyl	99.6	60-125		%REC	1/17/13	79308	NCH
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**				

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-04

Client Sample ID: B222 C
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
1,2,4-Trichlorobenzene	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
1,2-Dichlorobenzene	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
1,3-Dichlorobenzene	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
1,4-Dichlorobenzene	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4,5-Trichlorophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4,6-Trichlorophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4-Dichlorophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4-Dimethylphenol	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4-Dinitrophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,4-Dinitrotoluene	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2,6-Dinitrotoluene	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
2-Chloronaphthalene	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
·Chlorophenol	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
·Nitrophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
3,3'-Dichlorobenzidine	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
4,6-Dinitro-2-methylphenol	< 27.	27.	µg/Kg-dry	1/18/13 05:10	79294	RYL
4-Bromophenyl phenyl ether	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
4-Chloro-3-methylphenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
4-Chloroaniline	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
4-Chlorophenyl phenyl ether	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
4-Nitrophenol	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Acenaphthene	6.17	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Acenaphthylene	13.9	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Anthracene	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benz(a)anthracene	61.4	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzidine	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzo(a)pyrene	49.3	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzo(b)fluoranthene	60.5	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzo(g,h,i)perylene	34.2	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzo(k)fluoranthene	21.3	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Benzoic acid	< 432.	432.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Bis(2-chloroethyl)ether	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Bis(2-chloroisopropyl)ether	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Bis(2-ethylhexyl)phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Butyl benzyl phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-04

Client Sample ID: B222 C
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Carbazole	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
Chrysene	50.1	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Di-n-butyl phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Di-n-octyl phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Dibenz(a,h)anthracene	< 10.8	10.8	µg/Kg-dry	1/18/13 05:10	79294	RYL
Diethyl phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Dimethyl phthalate	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Fluoranthene	122.	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Fluorene	7.34	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Hexachlorobenzene	< 5.4	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Hexachlorobutadiene	< 5.4	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Hexachlorocyclopentadiene	< 108.	108.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Hexachloroethane	< 10.8	10.8	µg/Kg-dry	1/18/13 05:10	79294	RYL
deno(1,2,3-cd)pyrene	36.2	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Isophorone	< 5.4	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
m,p-Cresol	< 5.4	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/Kg-dry	1/18/13 05:10	79294	RYL
N-Nitrosodiphenylamine	< 27.	27.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Naphthalene	< 4.32	4.32	µg/Kg-dry	1/18/13 05:10	79294	RYL
Nitrobenzene	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
o-Cresol	< 21.6	21.6	µg/Kg-dry	1/18/13 05:10	79294	RYL
Pentachlorophenol	< 30.	30.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Phenanthrene	72.6	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Phenol	< 27.	27.	µg/Kg-dry	1/18/13 05:10	79294	RYL
Pyrene	123.	5.4	µg/Kg-dry	1/18/13 05:10	79294	RYL
Surrogates:						
2,4,6-Tribromophenol	57.4	35-125	%REC	1/18/13 05:10	79294	RYL
2-Fluorobiphenyl	46.2	45-105	%REC	1/18/13 05:10	79294	RYL
2-Fluorophenol	35.3	35-105	%REC	1/18/13 05:10	79294	RYL
4-Terphenyl-d14	85.4	30-125	%REC	1/18/13 05:10	79294	RYL
Nitrobenzene-d5	35.7	35-100	%REC	1/18/13 05:10	79294	RYL
Phenol-d5	41.4	40-100	%REC	1/18/13 05:10	79294	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 0.795	0.795	µg/Kg-dry	1/17/13 19:45	79429	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-04

Client Sample ID: B222 C
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
1,1,2,2-Tetrachloroethane	< 0.66	0.66		µg/Kg-dry	1/17/13 19:45	79429	JL
1,1,2-Trichloroethane	< 0.61	0.61		µg/Kg-dry	1/17/13 19:45	79429	JL
1,1-Dichloroethane	< 1.71	1.71		µg/Kg-dry	1/17/13 19:45	79429	JL
1,1-Dichloroethene	< 1.34	1.34		µg/Kg-dry	1/17/13 19:45	79429	JL
1,2-Dibromo-3-chloropropane	< 2.	2.		µg/Kg-dry	1/17/13 19:45	79429	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	1/17/13 19:45	79429	JL
1,2-Dichloroethane	< 1.09	1.09		µg/Kg-dry	1/17/13 19:45	79429	JL
1,2-Dichloropropane	< 1.51	1.51		µg/Kg-dry	1/17/13 19:45	79429	JL
1-Butanol	< 208.	208.	C	µg/Kg-dry	1/17/13 19:45	79429	JL
2-Butanone	< 99.6	99.6		µg/Kg-dry	1/17/13 19:45	79429	JL
2-Hexanone	< 104.	104.		µg/Kg-dry	1/17/13 19:45	79429	JL
4-Methyl-2-pentanone	< 57.4	57.4		µg/Kg-dry	1/17/13 19:45	79429	JL
Acetone	< 61.2	61.2		µg/Kg-dry	1/17/13 19:45	79429	JL
Acrylonitrile	< 10.6	10.6		µg/Kg-dry	1/17/13 19:45	79429	JL
Benzene	1.18	0.519		µg/Kg-dry	1/17/13 19:45	79429	JL
Bromodichloromethane	< 0.975	0.975		µg/Kg-dry	1/17/13 19:45	79429	JL
Bromoform	< 0.667	0.667		µg/Kg-dry	1/17/13 19:45	79429	JL
Bromomethane	< 7.09	7.09		µg/Kg-dry	1/17/13 19:45	79429	JL
Carbon disulfide	1.16	0.525		µg/Kg-dry	1/17/13 19:45	79429	JL
Carbon tetrachloride	< 1.93	1.93		µg/Kg-dry	1/17/13 19:45	79429	JL
Chlorobenzene	< 1.24	1.24		µg/Kg-dry	1/17/13 19:45	79429	JL
Chloroethane	< 10.9	10.9		µg/Kg-dry	1/17/13 19:45	79429	JL
Chloroform	< 0.767	0.767		µg/Kg-dry	1/17/13 19:45	79429	JL
Chloromethane	< 1.25	1.25		µg/Kg-dry	1/17/13 19:45	79429	JL
cis-1,2-Dichloroethene	< 0.446	0.446		µg/Kg-dry	1/17/13 19:45	79429	JL
Dibromochloromethane	< 1.07	1.07		µg/Kg-dry	1/17/13 19:45	79429	JL
Ethylbenzene	< 0.77	0.77		µg/Kg-dry	1/17/13 19:45	79429	JL
m,p-Xylene	< 2.44	2.44		µg/Kg-dry	1/17/13 19:45	79429	JL
Methyl tert-butyl ether	< 1.61	1.61		µg/Kg-dry	1/17/13 19:45	79429	JL
Methylene chloride	< 2.78	2.78		µg/Kg-dry	1/17/13 19:45	79429	JL
o-Xylene	< 1.28	1.28		µg/Kg-dry	1/17/13 19:45	79429	JL
Styrene	< 1.65	1.65		µg/Kg-dry	1/17/13 19:45	79429	JL
Tetrachloroethene	< 1.56	1.56		µg/Kg-dry	1/17/13 19:45	79429	JL
Toluene	1.71	1.17		µg/Kg-dry	1/17/13 19:45	79429	JL
trans-1,2-Dichloroethene	< 2.29	2.29		µg/Kg-dry	1/17/13 19:45	79429	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
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C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010230
Project: Bloom Great Lakes Soil
Lab ID: 13010230-04

Client Sample ID: B222 C
Report Date: 1/18/2013
Collection Date: 1/11/2013
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Trichloroethene	< 0.962	0.962		µg/Kg-dry	1/17/13 19:45	79429	JL
Vinyl acetate	< 29.1	29.1		µg/Kg-dry	1/17/13 19:45	79429	JL
Vinyl chloride	< 0.409	0.409		µg/Kg-dry	1/17/13 19:45	79429	JL
1,3-Dichloropropene, Total	< 1.22	1.22	C	µg/Kg-dry	1/17/13 19:45	79429	JL
Xylenes, Total	< 3.72	3.72		µg/Kg-dry	1/17/13 19:45	79429	JL
Surrogates:							
1,2-Dichloroethane-d4	116	80-120		%REC	1/17/13 19:45	79429	JL
4-Bromofluorobenzene	96.6	80-120		%REC	1/17/13 19:45	79429	JL
d4-1,2-Dichlorobenzene	99.6	80-120		%REC	1/17/13 19:45	79429	JL
Dibromofluoromethane	105	80-120		%REC	1/17/13 19:45	79429	JL
Fluorobenzene	104	80-120		%REC	1/17/13 19:45	79429	JL
Toluene-d8	104	80-120		%REC	1/17/13 19:45	79429	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118376

Company: Bloom Companies, LLC
Address: 10501 W. Research Dr
STE 100
Milwaukee, WI 53226
Phone #: (414) 292 4545 Fax #: (____) ____-____
P.O. #: ____ Proj. #: BMF - 1114
Client Contact: Judy Fassbender
Project ID / Location: NAVFAC UST - Great Lakes IL

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	RCRA METALS	SPLP LEAD	SVOCs	Ph	PCBs	VOCs						EMT USE ONLY EMT WORKORDER #300185
B222 F	3	8	G	1	JLF	1/10	1200					X	X	X	X	X							1A
B222 D	3	8	G	1	↓	↓	1100					X	X	X	X	X							2A
B222 G	3	8	G	1	↓	↓	1300					X	X	X	X	X							3A
B222 H	3	8	G	1	↓	↓	1400					X	X	X	X	X							4A
B222 F	3	5g	O	3	JLF	1/10	1200										X						1BC
B222 D	3	5g	O	3	↓	↓	1100										X						2BC
B222 G	3	5g	O	3	↓	↓	1300										X						3BC
B222 H	3	5g	O	3	↓	↓	1400										X						4BC

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	EMT USE ONLY	
Judy Fassbender	1-10-13 14:40	[signature]	1-10-13 14:40	Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE
Relinquished By: [signature]	Date: 1-10-13 Time: 1525	Received By:	Date: - - Time: :	EMT Project I.D. Bloom Great Lakes Soil	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) -
Relinquished By:	Date: - - Time: :	Received For Lab By: Marmott	Date: 1-10-13 Time: 1525	Jar Lot No.	2C EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118377

Company: Bloom Companies LLC
Address: 10501 W Research Dr STE 100 Milwaukee WI 53226
Phone #: (414) 292 4545 Fax #: (____) ____-____
P.O. #: ____ Proj. #: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: Great Lakes Navy B-222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	RCRA METALS	SPLP LEAD	SVOCs	PM	PCBs	VOCs						EMT WORKORDER # 130023
B222 E	3	8oz	G	1	JLF	1/10	1500					X	X	X	X	X							1A
B222 A	3	↓	↓	1	↓	1/11	0930					X	X	X	X	X							2A
B222 B	3	↓	↓	1	↓	↓	1100					X	X	X	X	X							3A
B222 C	3	↓	↓	1	↓	↓	0830					X	X	X	X	X							4A
B222 E	3	3x5g	O	3	↓	1/10	1500										X						1BC
B222 A	3	↓	↓	3	↓	1/11	0930										X						2BC
B222 B	3	↓	↓	3	↓	↓	1100										X						3BC
B222 C	3	↓	↓	3	↓	↓	0830										X						4BC

Relinquished By:	Date: 1-11-13 Time: 1400	Received By:	Date: 1-11-13 Time: 1400	EMT USE ONLY Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: 1-11-13 Time: 1430	Received By:	Date: - - Time: :	EMT Project I.D. Bloom Great Lakes Soil	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 2C
Relinquished By:	Date: - - Time: :	Received For Lab By:	Date: 1-11-13 Time: 1430	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

January 29, 2013

RE Bloom Great Lakes GW

Lab Orders:
13010459 13010462

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

.than Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 24 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

naintains accreditation PJLA accreditation to ISO/IEC 17025 for the specific tests listed in PJLA certificate no. L13-6, demonstrating compliance with ..IEC 17025, the 2003 NELAC Chapter 5 Standard, and the requirements of the DoD Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in the current DoD QSM for Environmental Laboratories.

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CLIENT: Bloom Companies, LLC

Date: *1/29/2013*

Project: Bloom Great Lakes GW

CASE NARRATIVE

Lab Orders: 13010459 13010462

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the its column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively merals indicate a preparation batch.

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CLIENT: Bloom Companies, LLC

Date: *1/29/2013*

Project: Bloom Great Lakes GW

CASE NARRATIVE

Lab Orders: 13010459 13010462

Analytical Comments for METHOD 8270_WNEW, 13010459-04A: Surrogate recoveries were below the laboratory limits. The reporting limits for some compounds are based on MDL values.

Analytical Comments for METHOD 8270_WNEW, 13010459-05A: The reporting limits for some compounds are based on MDL values.

Analytical Comments for METHOD 8270_WNEW, 13010459-06A: Acid surrogate recoveries were below the laboratory limits. The reporting limits for some compounds are based on MDL values.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-01

Client Sample ID: B222A
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,2-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,3-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,4-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4,5-Trichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4,6-Trichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dimethylphenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dinitrophenol	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
2,4-Dinitrotoluene	< 0.22	0.22	µg/L	1/29/13 01:14	79570	RYL
`6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 01:14	79570	RYL
Chloronaphthalene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2-Chlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
3,3'-Dichlorobenzidine	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
3-Nitroaniline	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 01:14	79570	RYL
4-Bromophenyl phenyl ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chloro-3-methylphenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chloroaniline	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chlorophenyl phenyl ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Nitrophenol	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Acenaphthene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Acenaphthylene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Anthracene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 01:14	79570	RYL
Benzidine	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Benzo(a)pyrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(b)fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(g,h,i)perylene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(k)fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzoic acid	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Bis(2-chloroethyl)ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-01

Client Sample ID: B222A
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Butyl benzyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Carbazole	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Chrysene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Di-n-butyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Di-n-octyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Dibenz(a,h)anthracene	< 0.31	0.31	µg/L	1/29/13 01:14	79570	RYL
Diethyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Dimethyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Fluorene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Hexachlorobenzene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
exachlorobutadiene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
exachlorocyclopentadiene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Hexachloroethane	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 01:14	79570	RYL
Isophorone	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
m,p-Cresol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
N-Nitrosodi-n-propylamine	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
N-Nitrosodiphenylamine	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Naphthalene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Nitrobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
o-Cresol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 01:14	79570	RYL
Phenanthrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Phenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Pyrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	73.3	40-125	%REC	1/29/13 01:14	79570	RYL
2-Fluorobiphenyl	73.0	50-110	%REC	1/29/13 01:14	79570	RYL
2-Fluorophenol	31.8	20-110	%REC	1/29/13 01:14	79570	RYL
4-Terphenyl-d14	87.7	50-135	%REC	1/29/13 01:14	79570	RYL
Nitrobenzene-d5	69.1	40-110	%REC	1/29/13 01:14	79570	RYL
Phenol-d5	20.5	10-115	%REC	1/29/13 01:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-02

Client Sample ID: B222B
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,2-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,3-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,4-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4,5-Trichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4,6-Trichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dimethylphenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dinitrophenol	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
2,4-Dinitrotoluene	< 0.27	0.27	µg/L	1/29/13 01:59	79570	RYL
` 6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 01:59	79570	RYL
Chloronaphthalene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2-Chlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
3,3'-Dichlorobenzidine	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
3-Nitroaniline	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 01:59	79570	RYL
4-Bromophenyl phenyl ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chloro-3-methylphenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chloroaniline	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chlorophenyl phenyl ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Nitrophenol	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Acenaphthene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Acenaphthylene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Anthracene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 01:59	79570	RYL
Benzidine	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Benzo(a)pyrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 01:59	79570	RYL
Benzo(g,h,i)perylene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 01:59	79570	RYL
Benzoic acid	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Bis(2-chloroethyl)ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL

Qualifiers:
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E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-02

Client Sample ID: B222B
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Butyl benzyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Carbazole	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Chrysene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Di-n-butyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Di-n-octyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Dibenz(a,h)anthracene	< 0.38	0.38	µg/L	1/29/13 01:59	79570	RYL
Diethyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Dimethyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Fluoranthene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Fluorene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Hexachlorobenzene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
exachlorobutadiene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
.exachlorocyclopentadiene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Hexachloroethane	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 01:59	79570	RYL
Isophorone	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
m,p-Cresol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/L	1/29/13 01:59	79570	RYL
N-Nitrosodiphenylamine	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Naphthalene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Nitrobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
o-Cresol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 01:59	79570	RYL
Phenanthrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Phenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Pyrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	60.1	40-125	%REC	1/29/13 01:59	79570	RYL
2-Fluorobiphenyl	65.3	50-110	%REC	1/29/13 01:59	79570	RYL
2-Fluorophenol	35.6	20-110	%REC	1/29/13 01:59	79570	RYL
4-Terphenyl-d14	92.5	50-135	%REC	1/29/13 01:59	79570	RYL
Nitrobenzene-d5	61.2	40-110	%REC	1/29/13 01:59	79570	RYL
Phenol-d5	25.0	10-115	%REC	1/29/13 01:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
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H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-03

Client Sample ID: B222C
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,2-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,3-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,4-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4,5-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4,6-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dimethylphenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dinitrophenol	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
2,4-Dinitrotoluene	< 0.19	0.19	µg/L	1/29/13 02:44	79570	RYL
` 6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 02:44	79570	RYL
Chloronaphthalene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2-Chlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
3,3'-Dichlorobenzidine	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
3-Nitroaniline	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 02:44	79570	RYL
4-Bromophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chloro-3-methylphenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chloroaniline	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chlorophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Nitrophenol	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Acenaphthene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Acenaphthylene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Anthracene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Benz(a)anthracene	0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzidine	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Benzo(a)pyrene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(b)fluoranthene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(g,h,i)perylene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(k)fluoranthene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzoic acid	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Bis(2-chloroethyl)ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-03

Client Sample ID: B222C
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Butyl benzyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Carbazole	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Chrysene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Di-n-butyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Di-n-octyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Dibenz(a,h)anthracene	< 0.3	0.3	µg/L	1/29/13 02:44	79570	RYL
Diethyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Dimethyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Fluoranthene	0.27	0.13	µg/L	1/29/13 02:44	79570	RYL
Fluorene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Hexachlorobenzene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Hexachlorobutadiene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Hexachlorocyclopentadiene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Hexachloroethane	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 02:44	79570	RYL
Isophorone	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
m,p-Cresol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
N-Nitrosodi-n-propylamine	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
N-Nitrosodiphenylamine	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Naphthalene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Nitrobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
o-Cresol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 02:44	79570	RYL
Phenanthrene	0.3	0.13	µg/L	1/29/13 02:44	79570	RYL
Phenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Pyrene	0.21	0.13	µg/L	1/29/13 02:44	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	73.8	40-125	%REC	1/29/13 02:44	79570	RYL
2-Fluorobiphenyl	64.1	50-110	%REC	1/29/13 02:44	79570	RYL
2-Fluorophenol	25.0	20-110	%REC	1/29/13 02:44	79570	RYL
4-Terphenyl-d14	93.6	50-135	%REC	1/29/13 02:44	79570	RYL
Nitrobenzene-d5	57.1	40-110	%REC	1/29/13 02:44	79570	RYL
Phenol-d5	16.9	10-115	%REC	1/29/13 02:44	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-04

Client Sample ID: B222F
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,2-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,3-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,4-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4,5-Trichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4,6-Trichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dimethylphenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dinitrophenol	< 14.	14.	µg/L	1/29/13 03:29	79570	RYL
2,4-Dinitrotoluene	< 0.87	0.87	µg/L	1/29/13 03:29	79570	RYL
ˆ.6-Dinitrotoluene	< 0.81	0.81	µg/L	1/29/13 03:29	79570	RYL
Chloronaphthalene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2-Chlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
3,3'-Dichlorobenzidine	< 20.	20.	µg/L	1/29/13 03:29	79570	RYL
3-Nitroaniline	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 03:29	79570	RYL
4-Bromophenyl phenyl ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chloro-3-methylphenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chloroaniline	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chlorophenyl phenyl ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Nitrophenol	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Acenaphthene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Acenaphthylene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Anthracene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 03:29	79570	RYL
Benzidine	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Benzo(a)pyrene	< 0.31	0.31	µg/L	1/29/13 03:29	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 03:29	79570	RYL
Benzo(g,h,i)perylene	< 0.62	0.62	µg/L	1/29/13 03:29	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 03:29	79570	RYL
Benzoic acid	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Bis(2-chloroethyl)ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Bis(2-chloroisopropyl)ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-04

Client Sample ID: B222F
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 6.	6.		µg/L	1/29/13 03:29	79570	RYL
Butyl benzyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Carbazole	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Chrysene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Di-n-butyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Di-n-octyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Dibenz(a,h)anthracene	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Diethyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Dimethyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Fluoranthene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Fluorene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Hexachlorobenzene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
exachlorobutadiene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
.exachlorocyclopentadiene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Hexachloroethane	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Indeno(1,2,3-cd)pyrene	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Isophorone	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
m,p-Cresol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/L	1/29/13 03:29	79570	RYL
N-Nitrosodiphenylamine	< 3.2	3.2		µg/L	1/29/13 03:29	79570	RYL
Naphthalene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Nitrobenzene	< 3.5	3.5		µg/L	1/29/13 03:29	79570	RYL
o-Cresol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Pentachlorophenol	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Phenanthrene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Phenol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Pyrene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	60.9	40-125		%REC	1/29/13 03:29	79570	RYL
2-Fluorobiphenyl	38.5	50-110	S	%REC	1/29/13 03:29	79570	RYL
2-Fluorophenol	26.7	20-110		%REC	1/29/13 03:29	79570	RYL
4-Terphenyl-d14	96.4	50-135		%REC	1/29/13 03:29	79570	RYL
Nitrobenzene-d5	30.7	40-110	S	%REC	1/29/13 03:29	79570	RYL
Phenol-d5	28.0	10-115		%REC	1/29/13 03:29	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-05

Client Sample ID: B222G
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,2-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,3-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,4-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4,5-Trichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4,6-Trichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dimethylphenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dinitrophenol	< 14.	14.	µg/L	1/29/13 04:14	79570	RYL
2,4-Dinitrotoluene	< 0.41	0.41	µg/L	1/29/13 04:14	79570	RYL
?.6-Dinitrotoluene	< 0.38	0.38	µg/L	1/29/13 04:14	79570	RYL
Chloronaphthalene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2-Chlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
3,3'-Dichlorobenzidine	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
3-Nitroaniline	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 04:14	79570	RYL
4-Bromophenyl phenyl ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chloro-3-methylphenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chloroaniline	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chlorophenyl phenyl ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Nitrophenol	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Acenaphthene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Acenaphthylene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Anthracene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 04:14	79570	RYL
Benzidine	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Benzo(a)pyrene	< 0.2	0.2	µg/L	1/29/13 04:14	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 04:14	79570	RYL
Benzo(g,h,i)perylene	< 0.29	0.29	µg/L	1/29/13 04:14	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 04:14	79570	RYL
Benzoic acid	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Bis(2-chloroethyl)ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Bis(2-chloroisopropyl)ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-05

Client Sample ID: B222G
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Butyl benzyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Carbazole	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Chrysene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Di-n-butyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Di-n-octyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Dibenz(a,h)anthracene	< 0.59	0.59		µg/L	1/29/13 04:14	79570	RYL
Diethyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Dimethyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Fluoranthene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Fluorene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Hexachlorobenzene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Hexachlorobutadiene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Hexachlorocyclopentadiene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Hexachloroethane	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.59	0.59		µg/L	1/29/13 04:14	79570	RYL
Isophorone	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
m,p-Cresol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/L	1/29/13 04:14	79570	RYL
N-Nitrosodiphenylamine	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Naphthalene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Nitrobenzene	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
o-Cresol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Pentachlorophenol	< 1.	1.		µg/L	1/29/13 04:14	79570	RYL
Phenanthrene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Phenol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Pyrene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	80.0	40-125		%REC	1/29/13 04:14	79570	RYL
2-Fluorobiphenyl	49.9	50-110	S	%REC	1/29/13 04:14	79570	RYL
2-Fluorophenol	27.6	20-110		%REC	1/29/13 04:14	79570	RYL
4-Terphenyl-d14	108	50-135		%REC	1/29/13 04:14	79570	RYL
Nitrobenzene-d5	40.9	40-110		%REC	1/29/13 04:14	79570	RYL
Phenol-d5	23.7	10-115		%REC	1/29/13 04:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-06

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,2-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,3-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,4-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4,5-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4,6-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dimethylphenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dinitrophenol	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
2,4-Dinitrotoluene	< 0.19	0.19	µg/L	1/29/13 04:59	79570	RYL
2,6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 04:59	79570	RYL
Chloronaphthalene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2-Chlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
3,3'-Dichlorobenzidine	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
3-Nitroaniline	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 04:59	79570	RYL
4-Bromophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chloro-3-methylphenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chloroaniline	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chlorophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Nitrophenol	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Acenaphthene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Acenaphthylene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Anthracene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzidine	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Benzo(a)pyrene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(b)fluoranthene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(g,h,i)perylene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(k)fluoranthene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzoic acid	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Bis(2-chloroethyl)ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-06

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Butyl benzyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Carbazole	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Chrysene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Di-n-butyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Di-n-octyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Dibenz(a,h)anthracene	< 0.3	0.3		µg/L	1/29/13 04:59	79570	RYL
Diethyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Dimethyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Fluoranthene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Fluorene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Hexachlorobenzene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
'exachlorobutadiene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
exachlorocyclopentadiene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Hexachloroethane	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43		µg/L	1/29/13 04:59	79570	RYL
Isophorone	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
m,p-Cresol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
N-Nitrosodi-n-propylamine	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
N-Nitrosodiphenylamine	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Naphthalene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Nitrobenzene	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
o-Cresol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Pentachlorophenol	< 1.	1.		µg/L	1/29/13 04:59	79570	RYL
Phenanthrene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Phenol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Pyrene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	58.1	40-125		%REC	1/29/13 04:59	79570	RYL
2-Fluorobiphenyl	75.5	50-110		%REC	1/29/13 04:59	79570	RYL
2-Fluorophenol	14.3	20-110	S	%REC	1/29/13 04:59	79570	RYL
4-Terphenyl-d14	93.1	50-135		%REC	1/29/13 04:59	79570	RYL
Nitrobenzene-d5	70.5	40-110		%REC	1/29/13 04:59	79570	RYL
Phenol-d5	8.21	10-115	S	%REC	1/29/13 04:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222A
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-01	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 19:10	79496	AG
Barium	0.104	0.0125	mg/L	1/22/13 19:10	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:10	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 19:10	79496	AG
Lead	0.0304	0.005	mg/L	1/22/13 19:10	79496	AG
Selenium	0.00655	0.0025	mg/L	1/22/13 19:10	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:10	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-02

Client Sample ID: B222B
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	0.0138	0.0125	mg/L	1/22/13 19:43	79496	AG
Barium	0.0593	0.0125	mg/L	1/22/13 19:43	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:43	79496	AG
Chromium	0.0178	0.0175	mg/L	1/22/13 19:43	79496	AG
Lead	0.0114	0.005	mg/L	1/22/13 19:43	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:43	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:43	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222C
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-03	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	0.0442	0.0125	mg/L	1/22/13 19:49	79496	AG
Barium	0.178	0.0125	mg/L	1/22/13 19:49	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:49	79496	AG
Chromium	0.0407	0.0175	mg/L	1/22/13 19:49	79496	AG
Lead	0.304	0.005	mg/L	1/22/13 19:49	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:49	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:49	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222E
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-04	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 19:54	79496	AG
Barium	0.164	0.0125	mg/L	1/22/13 19:54	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:54	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 19:54	79496	AG
Lead	0.13	0.005	mg/L	1/22/13 19:54	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:54	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:54	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222F
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-05	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 20:00	79496	AG
Barium	0.0534	0.0125	mg/L	1/22/13 20:00	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 20:00	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 20:00	79496	AG
Lead	0.00818	0.005	mg/L	1/22/13 20:00	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 20:00	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 20:00	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222G
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-06	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 20:05	79496	AG
Barium	0.0677	0.0125	mg/L	1/22/13 20:05	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 20:05	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 20:05	79496	AG
Lead	< 0.005	0.005	mg/L	1/22/13 20:05	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 20:05	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 20:05	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-07

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 11:46	79496	AG
Barium	0.115	0.0125	mg/L	1/22/13 11:46	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 11:46	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 11:46	79496	AG
Lead	0.0095	0.005	mg/L	1/22/13 11:46	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 11:46	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 11:46	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118379

Company: Bloom Companies LLC
Address: 10501 W. Research Dr
STE 100
Milwaukee, WI 53226
Phone #: (414) 292-4545 Fax #: (____) ____-____
P.O. #: ____ Proj.#: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: ~~B22~~ NAVFAC B222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses: SVOCs

EMT USE ONLY
EMT WORKORDER #3904459

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	SVOCs	EMT USE ONLY
B222A	G	1l	G	2	JLF	1/18	1630			1		X	1A
B222B	↓	↓	↓	2	↓	↓	↓			1		X	2A
B222C	↓	↓	↓	2	↓	↓	↓			1		X	3A
B222F	↓	↓	↓	1	↓	↓	↓			1		X	4A
B222G	↓	↓	↓	1	↓	↓	↓			1		X	5A
B222H	↓	↓	↓	2	↓	↓	↓			1		X	6A
				*some only Partially Filled									

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	EMT USE ONLY	
Judy Fassbender	1-21-13 1120	[signature]	1-21-13 1120	Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE
[signature]	1-21-13 1315	Received By:	- - :	EMT Project I.D. Bloom Great Lakes Gu	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 3C
Relinquished By:	- - :	Received For Lab By: [signature]	1/21/13 1315	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118380

Company: Bloom Companies, LLC
Address: 10501 W. Research Dr
STE 100
Milwaukee, WI 53226
Phone #: (414) 292-4545 Fax #: (____) ____-____
P.O. #: ~~BMF-1114~~ Proj.#: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: NAVFAC B222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater _____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag _____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH _____

Analyses

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	RCRA METALS	EMT USE ONLY
B222A	6	500ml	P	1	JLF	1/18	1630			3		X	1A
B222B	6	↓	↓	1	↓	↓	↓			3		X	2A
B222C	6			1						3		X	3A
B222E	6			1						3		X	4A
B222F	6			1						3		X	5A
B222G	6			1						3		X	6A
B222H	6			1						3		X	7A

EMT WORKORDER #13010462

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	EMT USE ONLY
Judy Fassbender	1-21-13 1120	[signature]	1-21-13 1120	Client Code: Bloom
[signature]	1-21-13 1315		- - / :	EMT Project I.D. Bloom Great Lakes GW
	- - / :	Received For Lab By: Martinatt	1/21/13 1315	Jar Lot No.

☐ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
3c

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

24

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Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

January 29, 2013

RE Bloom Great Lakes GW

Lab Orders:
13010459 13010462

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

than Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 24 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

aintains accreditation PJLA accreditation to ISO/IEC 17025 for the specific tests listed in PJLA certificate no. L13-6, demonstrating compliance with .EC 17025, the 2003 NELAC Chapter 5 Standard, and the requirements of the DoD Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in the current DoD QSM for Environmental Laboratories.

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CLIENT: Bloom Companies, LLC

Date: *1/29/2013*

Project: Bloom Great Lakes GW

CASE NARRATIVE

Lab Orders: 13010459 13010462

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the its column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively nerals indicate a preparation batch.

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CLIENT: Bloom Companies, LLC

Date: *1/29/2013*

Project: Bloom Great Lakes GW

Lab Orders: 13010459 13010462

CASE NARRATIVE

Analytical Comments for METHOD 8270_WNEW, 13010459-04A: Surrogate recoveries were below the laboratory limits. The reporting limits for some compounds are based on MDL values.

Analytical Comments for METHOD 8270_WNEW, 13010459-05A: The reporting limits for some compounds are based on MDL values.

Analytical Comments for METHOD 8270_WNEW, 13010459-06A: Acid surrogate recoveries were below the laboratory limits. The reporting limits for some compounds are based on MDL values.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-01

Client Sample ID: B222A
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,2-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,3-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
1,4-Dichlorobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4,5-Trichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4,6-Trichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dichlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dimethylphenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2,4-Dinitrophenol	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
2,4-Dinitrotoluene	< 0.22	0.22	µg/L	1/29/13 01:14	79570	RYL
?,6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 01:14	79570	RYL
Chloronaphthalene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
2-Chlorophenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
3,3'-Dichlorobenzidine	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
3-Nitroaniline	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 01:14	79570	RYL
4-Bromophenyl phenyl ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chloro-3-methylphenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chloroaniline	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Chlorophenyl phenyl ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
4-Nitrophenol	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Acenaphthene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Acenaphthylene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Anthracene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 01:14	79570	RYL
Benzidine	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Benzo(a)pyrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(b)fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(g,h,i)perylene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzo(k)fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Benzoic acid	< 7.73	7.73	µg/L	1/29/13 01:14	79570	RYL
Bis(2-chloroethyl)ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-01

Client Sample ID: B222A
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Butyl benzyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Carbazole	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Chrysene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Di-n-butyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Di-n-octyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Dibenz(a,h)anthracene	< 0.31	0.31	µg/L	1/29/13 01:14	79570	RYL
Diethyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Dimethyl phthalate	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Fluoranthene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Fluorene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Hexachlorobenzene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
'exachlorobutadiene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
axachlorocyclopentadiene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Hexachloroethane	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 01:14	79570	RYL
Isophorone	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
m,p-Cresol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
N-Nitrosodi-n-propylamine	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
N-Nitrosodiphenylamine	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Naphthalene	< 0.77	0.77	µg/L	1/29/13 01:14	79570	RYL
Nitrobenzene	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
o-Cresol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 01:14	79570	RYL
Phenanthrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Phenol	< 1.55	1.55	µg/L	1/29/13 01:14	79570	RYL
Pyrene	< 0.16	0.16	µg/L	1/29/13 01:14	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	73.3	40-125	%REC	1/29/13 01:14	79570	RYL
2-Fluorobiphenyl	73.0	50-110	%REC	1/29/13 01:14	79570	RYL
2-Fluorophenol	31.8	20-110	%REC	1/29/13 01:14	79570	RYL
4-Terphenyl-d14	87.7	50-135	%REC	1/29/13 01:14	79570	RYL
Nitrobenzene-d5	69.1	40-110	%REC	1/29/13 01:14	79570	RYL
Phenol-d5	20.5	10-115	%REC	1/29/13 01:14	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-02

Client Sample ID: B222B
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,2-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,3-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
1,4-Dichlorobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4,5-Trichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4,6-Trichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dichlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dimethylphenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2,4-Dinitrophenol	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
2,4-Dinitrotoluene	< 0.27	0.27	µg/L	1/29/13 01:59	79570	RYL
2,6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 01:59	79570	RYL
Chloronaphthalene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
2-Chlorophenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
3,3'-Dichlorobenzidine	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
3-Nitroaniline	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 01:59	79570	RYL
4-Bromophenyl phenyl ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chloro-3-methylphenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chloroaniline	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Chlorophenyl phenyl ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
4-Nitrophenol	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Acenaphthene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Acenaphthylene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Anthracene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 01:59	79570	RYL
Benzidine	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Benzo(a)pyrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 01:59	79570	RYL
Benzo(g,h,i)perylene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 01:59	79570	RYL
Benzoic acid	< 9.73	9.73	µg/L	1/29/13 01:59	79570	RYL
Bis(2-chloroethyl)ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-02

Client Sample ID: B222B
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Butyl benzyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Carbazole	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Chrysene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Di-n-butyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Di-n-octyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Dibenz(a,h)anthracene	< 0.38	0.38	µg/L	1/29/13 01:59	79570	RYL
Diethyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Dimethyl phthalate	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Fluoranthene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Fluorene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Hexachlorobenzene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
'exachlorobutadiene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
exachlorocyclopentadiene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Hexachloroethane	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 01:59	79570	RYL
Isophorone	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
m,p-Cresol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8	µg/L	1/29/13 01:59	79570	RYL
N-Nitrosodiphenylamine	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Naphthalene	< 0.97	0.97	µg/L	1/29/13 01:59	79570	RYL
Nitrobenzene	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
o-Cresol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 01:59	79570	RYL
Phenanthrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Phenol	< 1.95	1.95	µg/L	1/29/13 01:59	79570	RYL
Pyrene	< 0.2	0.2	µg/L	1/29/13 01:59	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	60.1	40-125	%REC	1/29/13 01:59	79570	RYL
2-Fluorobiphenyl	65.3	50-110	%REC	1/29/13 01:59	79570	RYL
2-Fluorophenol	35.6	20-110	%REC	1/29/13 01:59	79570	RYL
4-Terphenyl-d14	92.5	50-135	%REC	1/29/13 01:59	79570	RYL
Nitrobenzene-d5	61.2	40-110	%REC	1/29/13 01:59	79570	RYL
Phenol-d5	25.0	10-115	%REC	1/29/13 01:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-03

Client Sample ID: B222C
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,2-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,3-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
1,4-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4,5-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4,6-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dichlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dimethylphenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2,4-Dinitrophenol	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
2,4-Dinitrotoluene	< 0.19	0.19	µg/L	1/29/13 02:44	79570	RYL
2,6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 02:44	79570	RYL
Chloronaphthalene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
2-Chlorophenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
3,3'-Dichlorobenzidine	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
3-Nitroaniline	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 02:44	79570	RYL
4-Bromophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chloro-3-methylphenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chloroaniline	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Chlorophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
4-Nitrophenol	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Acenaphthene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Acenaphthylene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Anthracene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Benz(a)anthracene	0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzidine	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Benzo(a)pyrene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(b)fluoranthene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(g,h,i)perylene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzo(k)fluoranthene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Benzoic acid	< 6.64	6.64	µg/L	1/29/13 02:44	79570	RYL
Bis(2-chloroethyl)ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-03

Client Sample ID: B222C
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Butyl benzyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Carbazole	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Chrysene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Di-n-butyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Di-n-octyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Dibenz(a,h)anthracene	< 0.3	0.3	µg/L	1/29/13 02:44	79570	RYL
Diethyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Dimethyl phthalate	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Fluoranthene	0.27	0.13	µg/L	1/29/13 02:44	79570	RYL
Fluorene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
Hexachlorobenzene	< 0.13	0.13	µg/L	1/29/13 02:44	79570	RYL
'exachlorobutadiene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
›xachlorocyclopentadiene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Hexachloroethane	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43	µg/L	1/29/13 02:44	79570	RYL
Isophorone	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
m,p-Cresol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
N-Nitrosodi-n-propylamine	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
N-Nitrosodiphenylamine	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Naphthalene	< 0.66	0.66	µg/L	1/29/13 02:44	79570	RYL
Nitrobenzene	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
o-Cresol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Pentachlorophenol	< 1.	1.	µg/L	1/29/13 02:44	79570	RYL
Phenanthrene	0.3	0.13	µg/L	1/29/13 02:44	79570	RYL
Phenol	< 1.33	1.33	µg/L	1/29/13 02:44	79570	RYL
Pyrene	0.21	0.13	µg/L	1/29/13 02:44	79570	RYL
Surrogates:						
2,4,6-Tribromophenol	73.8	40-125	%REC	1/29/13 02:44	79570	RYL
2-Fluorobiphenyl	64.1	50-110	%REC	1/29/13 02:44	79570	RYL
2-Fluorophenol	25.0	20-110	%REC	1/29/13 02:44	79570	RYL
4-Terphenyl-d14	93.6	50-135	%REC	1/29/13 02:44	79570	RYL
Nitrobenzene-d5	57.1	40-110	%REC	1/29/13 02:44	79570	RYL
Phenol-d5	16.9	10-115	%REC	1/29/13 02:44	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-04

Client Sample ID: B222F
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,2-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,3-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
1,4-Dichlorobenzene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4,5-Trichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4,6-Trichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dichlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dimethylphenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2,4-Dinitrophenol	< 14.	14.	µg/L	1/29/13 03:29	79570	RYL
2,4-Dinitrotoluene	< 0.87	0.87	µg/L	1/29/13 03:29	79570	RYL
2,6-Dinitrotoluene	< 0.81	0.81	µg/L	1/29/13 03:29	79570	RYL
Chloronaphthalene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
2-Chlorophenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
3,3'-Dichlorobenzidine	< 20.	20.	µg/L	1/29/13 03:29	79570	RYL
3-Nitroaniline	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 03:29	79570	RYL
4-Bromophenyl phenyl ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chloro-3-methylphenol	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chloroaniline	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Chlorophenyl phenyl ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
4-Nitrophenol	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Acenaphthene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Acenaphthylene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Anthracene	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 03:29	79570	RYL
Benzidine	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Benzo(a)pyrene	< 0.31	0.31	µg/L	1/29/13 03:29	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 03:29	79570	RYL
Benzo(g,h,i)perylene	< 0.62	0.62	µg/L	1/29/13 03:29	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 03:29	79570	RYL
Benzoic acid	< 31.1	31.1	µg/L	1/29/13 03:29	79570	RYL
Bis(2-chloroethyl)ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL
Bis(2-chloroisopropyl)ether	< 6.22	6.22	µg/L	1/29/13 03:29	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-04

Client Sample ID: B222F
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 6.	6.		µg/L	1/29/13 03:29	79570	RYL
Butyl benzyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Carbazole	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Chrysene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Di-n-butyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Di-n-octyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Dibenz(a,h)anthracene	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Diethyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Dimethyl phthalate	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Fluoranthene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Fluorene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Hexachlorobenzene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
exachlorobutadiene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
exachlorocyclopentadiene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Hexachloroethane	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Indeno(1,2,3-cd)pyrene	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Isophorone	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
m,p-Cresol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/L	1/29/13 03:29	79570	RYL
N-Nitrosodiphenylamine	< 3.2	3.2		µg/L	1/29/13 03:29	79570	RYL
Naphthalene	< 3.11	3.11		µg/L	1/29/13 03:29	79570	RYL
Nitrobenzene	< 3.5	3.5		µg/L	1/29/13 03:29	79570	RYL
o-Cresol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Pentachlorophenol	< 1.24	1.24		µg/L	1/29/13 03:29	79570	RYL
Phenanthrene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Phenol	< 6.22	6.22		µg/L	1/29/13 03:29	79570	RYL
Pyrene	< 0.62	0.62		µg/L	1/29/13 03:29	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	60.9	40-125		%REC	1/29/13 03:29	79570	RYL
2-Fluorobiphenyl	38.5	50-110	S	%REC	1/29/13 03:29	79570	RYL
2-Fluorophenol	26.7	20-110		%REC	1/29/13 03:29	79570	RYL
4-Terphenyl-d14	96.4	50-135		%REC	1/29/13 03:29	79570	RYL
Nitrobenzene-d5	30.7	40-110	S	%REC	1/29/13 03:29	79570	RYL
Phenol-d5	28.0	10-115		%REC	1/29/13 03:29	79570	RYL

Qualifiers:
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E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-05

Client Sample ID: B222G
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,2-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,3-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
1,4-Dichlorobenzene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4,5-Trichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4,6-Trichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dichlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dimethylphenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2,4-Dinitrophenol	< 14.	14.	µg/L	1/29/13 04:14	79570	RYL
2,4-Dinitrotoluene	< 0.41	0.41	µg/L	1/29/13 04:14	79570	RYL
2,6-Dinitrotoluene	< 0.38	0.38	µg/L	1/29/13 04:14	79570	RYL
Chloronaphthalene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
2-Chlorophenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
3,3'-Dichlorobenzidine	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
3-Nitroaniline	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 04:14	79570	RYL
4-Bromophenyl phenyl ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chloro-3-methylphenol	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chloroaniline	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Chlorophenyl phenyl ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
4-Nitrophenol	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Acenaphthene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Acenaphthylene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Anthracene	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 04:14	79570	RYL
Benzidine	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Benzo(a)pyrene	< 0.2	0.2	µg/L	1/29/13 04:14	79570	RYL
Benzo(b)fluoranthene	< 0.18	0.18	µg/L	1/29/13 04:14	79570	RYL
Benzo(g,h,i)perylene	< 0.29	0.29	µg/L	1/29/13 04:14	79570	RYL
Benzo(k)fluoranthene	< 0.17	0.17	µg/L	1/29/13 04:14	79570	RYL
Benzoic acid	< 14.7	14.7	µg/L	1/29/13 04:14	79570	RYL
Bis(2-chloroethyl)ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL
Bis(2-chloroisopropyl)ether	< 2.95	2.95	µg/L	1/29/13 04:14	79570	RYL

Qualifiers:
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E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-05

Client Sample ID: B222G
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Butyl benzyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Carbazole	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Chrysene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Di-n-butyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Di-n-octyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Dibenz(a,h)anthracene	< 0.59	0.59		µg/L	1/29/13 04:14	79570	RYL
Diethyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Dimethyl phthalate	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Fluoranthene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Fluorene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Hexachlorobenzene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Hexachlorobutadiene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Hexachlorocyclopentadiene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Hexachloroethane	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.59	0.59		µg/L	1/29/13 04:14	79570	RYL
Isophorone	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
m,p-Cresol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/L	1/29/13 04:14	79570	RYL
N-Nitrosodiphenylamine	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Naphthalene	< 1.47	1.47		µg/L	1/29/13 04:14	79570	RYL
Nitrobenzene	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
o-Cresol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Pentachlorophenol	< 1.	1.		µg/L	1/29/13 04:14	79570	RYL
Phenanthrene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Phenol	< 2.95	2.95		µg/L	1/29/13 04:14	79570	RYL
Pyrene	< 0.29	0.29		µg/L	1/29/13 04:14	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	80.0	40-125		%REC	1/29/13 04:14	79570	RYL
2-Fluorobiphenyl	49.9	50-110	S	%REC	1/29/13 04:14	79570	RYL
2-Fluorophenol	27.6	20-110		%REC	1/29/13 04:14	79570	RYL
4-Terphenyl-d14	108	50-135		%REC	1/29/13 04:14	79570	RYL
Nitrobenzene-d5	40.9	40-110		%REC	1/29/13 04:14	79570	RYL
Phenol-d5	23.7	10-115		%REC	1/29/13 04:14	79570	RYL

Qualifiers:
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J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-06

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Semivolatile Organic Compounds GC/MS		**Method:**	**SW8270D / SW3510C**			
1,2,4-Trichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,2-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,3-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
1,4-Dichlorobenzene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4,5-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4,6-Trichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dichlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dimethylphenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2,4-Dinitrophenol	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
2,4-Dinitrotoluene	< 0.19	0.19	µg/L	1/29/13 04:59	79570	RYL
ˆ 6-Dinitrotoluene	< 0.31	0.31	µg/L	1/29/13 04:59	79570	RYL
Chloronaphthalene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
2-Chlorophenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
3,3'-Dichlorobenzidine	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
3-Nitroaniline	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4,6-Dinitro-2-methylphenol	< 0.7	0.7	µg/L	1/29/13 04:59	79570	RYL
4-Bromophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chloro-3-methylphenol	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chloroaniline	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Chlorophenyl phenyl ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
4-Nitrophenol	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Acenaphthene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Acenaphthylene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Anthracene	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Benz(a)anthracene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzidine	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Benzo(a)pyrene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(b)fluoranthene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(g,h,i)perylene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzo(k)fluoranthene	< 0.13	0.13	µg/L	1/29/13 04:59	79570	RYL
Benzoic acid	< 6.66	6.66	µg/L	1/29/13 04:59	79570	RYL
Bis(2-chloroethyl)ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL
Bis(2-chloroisopropyl)ether	< 1.33	1.33	µg/L	1/29/13 04:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010459
Project: Bloom Great Lakes GW
Lab ID: 13010459-06

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Bis(2-ethylhexyl)phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Butyl benzyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Carbazole	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Chrysene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Di-n-butyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Di-n-octyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Dibenz(a,h)anthracene	< 0.3	0.3		µg/L	1/29/13 04:59	79570	RYL
Diethyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Dimethyl phthalate	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Fluoranthene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Fluorene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Hexachlorobenzene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
exachlorobutadiene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
exachlorocyclopentadiene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Hexachloroethane	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Indeno(1,2,3-cd)pyrene	< 0.43	0.43		µg/L	1/29/13 04:59	79570	RYL
Isophorone	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
m,p-Cresol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
N-Nitrosodi-n-propylamine	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
N-Nitrosodiphenylamine	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Naphthalene	< 0.67	0.67		µg/L	1/29/13 04:59	79570	RYL
Nitrobenzene	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
o-Cresol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Pentachlorophenol	< 1.	1.		µg/L	1/29/13 04:59	79570	RYL
Phenanthrene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Phenol	< 1.33	1.33		µg/L	1/29/13 04:59	79570	RYL
Pyrene	< 0.13	0.13		µg/L	1/29/13 04:59	79570	RYL
Surrogates:							
2,4,6-Tribromophenol	58.1	40-125		%REC	1/29/13 04:59	79570	RYL
2-Fluorobiphenyl	75.5	50-110		%REC	1/29/13 04:59	79570	RYL
2-Fluorophenol	14.3	20-110	S	%REC	1/29/13 04:59	79570	RYL
4-Terphenyl-d14	93.1	50-135		%REC	1/29/13 04:59	79570	RYL
Nitrobenzene-d5	70.5	40-110		%REC	1/29/13 04:59	79570	RYL
Phenol-d5	8.21	10-115	S	%REC	1/29/13 04:59	79570	RYL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222A
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-01	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 19:10	79496	AG
Barium	0.104	0.0125	mg/L	1/22/13 19:10	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:10	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 19:10	79496	AG
Lead	0.0304	0.005	mg/L	1/22/13 19:10	79496	AG
Selenium	0.00655	0.0025	mg/L	1/22/13 19:10	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:10	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222B
Lab Order:	13010462	**Report Date:**	1/29/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/18/2013 4:30:00 PM
Lab ID:	13010462-02	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	0.0138	0.0125	mg/L	1/22/13 19:43	79496	AG
Barium	0.0593	0.0125	mg/L	1/22/13 19:43	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:43	79496	AG
Chromium	0.0178	0.0175	mg/L	1/22/13 19:43	79496	AG
Lead	0.0114	0.005	mg/L	1/22/13 19:43	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:43	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:43	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-03

Client Sample ID: B222C
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	0.0442	0.0125	mg/L	1/22/13 19:49	79496	AG
Barium	0.178	0.0125	mg/L	1/22/13 19:49	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:49	79496	AG
Chromium	0.0407	0.0175	mg/L	1/22/13 19:49	79496	AG
Lead	0.304	0.005	mg/L	1/22/13 19:49	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:49	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:49	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-04

Client Sample ID: B222E
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 19:54	79496	AG
Barium	0.164	0.0125	mg/L	1/22/13 19:54	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 19:54	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 19:54	79496	AG
Lead	0.13	0.005	mg/L	1/22/13 19:54	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 19:54	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 19:54	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-05

Client Sample ID: B222F
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 20:00	79496	AG
Barium	0.0534	0.0125	mg/L	1/22/13 20:00	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 20:00	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 20:00	79496	AG
Lead	0.00818	0.005	mg/L	1/22/13 20:00	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 20:00	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 20:00	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-06

Client Sample ID: B222G
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 20:05	79496	AG
Barium	0.0677	0.0125	mg/L	1/22/13 20:05	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 20:05	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 20:05	79496	AG
Lead	< 0.005	0.005	mg/L	1/22/13 20:05	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 20:05	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 20:05	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010462
Project: Bloom Great Lakes GW
Lab ID: 13010462-07

Client Sample ID: B222H
Report Date: 1/29/2013
Collection Date: 1/18/2013 4:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/22/13 12:38	79526	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/22/13 11:46	79496	AG
Barium	0.115	0.0125	mg/L	1/22/13 11:46	79496	AG
Cadmium	< 0.0025	0.0025	mg/L	1/22/13 11:46	79496	AG
Chromium	< 0.0175	0.0175	mg/L	1/22/13 11:46	79496	AG
Lead	0.0095	0.005	mg/L	1/22/13 11:46	79496	AG
Selenium	< 0.0025	0.0025	mg/L	1/22/13 11:46	79496	AG
Silver	< 0.005	0.005	mg/L	1/22/13 11:46	79496	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118379

Company: Bloom Companies LLC
Address: 10501 W. Research Dr
STE 100
Milwaukee, WI 53226
Phone #: (414) 292-4545 Fax #: (____) ____-____
P.O. #: ____ Proj.#: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: ~~B22~~ NAVFAC B222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses: 8260 SVOCs

EMT USE ONLY
EMT WORKORDER #3904553

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	8260	SVOCs	EMT USE ONLY
B222A	G	1l	G	2	JLF	1/18	1630			1		X		1A
B222B	↓	↓	↓	2	↓	↓	↓			1		X		2A
B222C				2						1		X		3A
B222F				1						1		X		4M
B222G				1						1		X		5N
B222H				2						1		X		6N
				*Some only Partially Filled										

Relinquished By: Judy Fassbender	Date: 1-21-13 Time: 1120	Received By: [signature]	Date: 1-21-13 Time: 1120	EMT USE ONLY Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE ☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 3C
Relinquished By: [signature]	Date: 1-21-13 Time: 1315	Received By:	Date: - - Time: :	EMT Project I.D. Bloom Great Lakes Gu	
Relinquished By:	Date: - - Time: :	Received For Lab By: [signature]	Date: 1/21/13 Time: 1315	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Morton Grove, Illinois 60053-3203

847-967-6666
FAX: 847-967-6735
www.emt.com

Chain of Custody Record

TURNAROUND TIME:
☐ RUSH ____ day turnaround
☐ ROUTINE

Due Date: ____-____-____ COC #: 118380

Company: Bloom Companies, LLC
Address: 10501 W. Research Dr STE 100 Milwaukee, WI 53226
Phone #: (414) 292-4545 Fax #: (____) ____-____
P.O. #: ~~BMF-1114~~ Proj.#: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: NAVFAC B222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

EMT USE ONLY

EMT WORKORDER #13010462

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	RCRA METALS											
B222A	6	500ml	P	1	JLF	1/18	1630			3		X											1A
B222B	6	↓	↓	1	↓	↓	↓			3		X											2A
B222C	6			1						3		X											3A
B222E	6			1						3		X											4A
B222F	6			1						3		X											5A
B222G	6			1						3		X											6A
B222H	6			1						3		X											7A

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY	
Judy Fassbender	1-21-13 Time: 1120	[signature]	1-21-13 Time: 1120	Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE
Relinquished By: [signature]	1-21-13 Time: 1315	Received By:	- - Time: :	EMT Project I.D. Bloom Great Lakes GW	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 3c
Relinquished By:	- - Time: :	Received For Lab By: Martinatt	1/21/13 Time: 1315	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

January 31, 2013

RE Bloom Great Lakes GW

Lab Orders:
13010570 13010624

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

.than Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 29 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

naintains accreditation PJLA accreditation to ISO/IEC 17025 for the specific tests listed in PJLA certificate no. L13-6, demonstrating compliance with .IEC 17025, the 2003 NELAC Chapter 5 Standard, and the requirements of the DoD Environmental Laboratory Accreditation Program (DoD ELAP) as detailed in the current DoD QSM for Environmental Laboratories.

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CLIENT: Bloom Companies, LLC

Date: *1/31/2013*

Project: Bloom Great Lakes GW

CASE NARRATIVE

Lab Orders: 13010570 13010624

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the ·its column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively ·merals indicate a preparation batch.

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CLIENT: Bloom Companies, LLC

Date: *1/31/2013*

Project: Bloom Great Lakes GW

CASE NARRATIVE

Lab Orders: 13010570 13010624

Analytical Comments for METHOD 8082_WPPM, 13010570-01B: The reporting limits are based on MDL values.

Analytical Comments for METHOD 8082_WPPM, 13010570-02B: The reporting limits are based on MDL values.

Analytical Comments for METHOD 8082_WPPM, 13010570-03B: The reporting limits are based on MDL values.

Analytical Comments for METHOD 8082_WPPM, 13010624-07A: The reporting limits are based on MDL values.

.alytical Comments for METHOD 8082_WPPM, 13010624-08A: The reporting limits are based on MDL values.

Analytical Comments for METHOD 8082_WPPM, 13010624-09A: The reporting limits are based on MDL values.

Analytical Comments for METHOD 8082_WPPM, 13010624-10A: Decachlorobiphenyl surrogate recovery was above the limit. The reporting limits are based on MDL values.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-01

Client Sample ID: B222A
Report Date: 1/31/2013
Collection Date: 1/24/2013 12:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000037	0.000037		mg/L	1/28/13	79601	NCH
Aroclor 1221	< 0.000066	0.000066		mg/L	1/28/13	79601	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
PCB, Total	< 0.000269	0.000269	C	mg/L	1/28/13	79601	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	46.2	5-116		%REC	1/28/13	79601	NCH
Decachlorobiphenyl	69.6	40-135		%REC	1/28/13	79601	NCH
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5030A**				
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 20:03	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 20:03	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 20:03	79657	JL
2-Butanone	< 20.	20.		µg/L	1/25/13 20:03	79657	JL
2-Hexanone	< 20.	20.		µg/L	1/25/13 20:03	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 20:03	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 20:03	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 20:03	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 20:03	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 20:03	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 20:03	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 20:03	79657	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-01

Client Sample ID: B222A
Report Date: 1/31/2013
Collection Date: 1/24/2013 12:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 20:03	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 20:03	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 20:03	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 20:03	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 20:03	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
tyrene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
etrachloroethene	< 10.	10.		µg/L	1/25/13 20:03	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 20:03	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 20:03	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 20:03	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	121	70-120	S	%REC	1/25/13 20:03	79657	JL
4-Bromofluorobenzene	99.3	75-120		%REC	1/25/13 20:03	79657	JL
d4-1,2-Dichlorobenzene	107	80-120		%REC	1/25/13 20:03	79657	JL
Dibromofluoromethane	115	85-115		%REC	1/25/13 20:03	79657	JL
Fluorobenzene	104	80-120		%REC	1/25/13 20:03	79657	JL
Toluene-d8	101	85-120		%REC	1/25/13 20:03	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-02

Client Sample ID: B222B
Report Date: 1/31/2013
Collection Date: 1/24/2013 11:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000037	0.000037		mg/L	1/28/13	79601	NCH
Aroclor 1221	< 0.000066	0.000066		mg/L	1/28/13	79601	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
PCB, Total	< 0.000268	0.000268	C	mg/L	1/28/13	79601	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	32.5	5-116		%REC	1/28/13	79601	NCH
'ecachlorobiphenyl	53.7	40-135		%REC	1/28/13	79601	NCH
ʌolatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5030A**				
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 19:03	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 19:03	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 19:03	79657	JL
2-Butanone	< 20.	20.		µg/L	1/25/13 19:03	79657	JL
2-Hexanone	< 20.	20.		µg/L	1/25/13 19:03	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 19:03	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 19:03	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 19:03	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 19:03	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 19:03	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 19:03	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 19:03	79657	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-02

Client Sample ID: B222B
Report Date: 1/31/2013
Collection Date: 1/24/2013 11:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 19:03	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 19:03	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 19:03	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 19:03	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 19:03	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
'yrene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
ɜtrachloroethene	< 10.	10.		µg/L	1/25/13 19:03	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 19:03	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 19:03	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 19:03	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	113	70-120		%REC	1/25/13 19:03	79657	JL
4-Bromofluorobenzene	99.2	75-120		%REC	1/25/13 19:03	79657	JL
d4-1,2-Dichlorobenzene	104	80-120		%REC	1/25/13 19:03	79657	JL
Dibromofluoromethane	110	85-115		%REC	1/25/13 19:03	79657	JL
Fluorobenzene	98.6	80-120		%REC	1/25/13 19:03	79657	JL
Toluene-d8	101	85-120		%REC	1/25/13 19:03	79657	JL

Qualifiers:

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R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-03

Client Sample ID: B222C
Report Date: 1/31/2013
Collection Date: 1/24/2013 11:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000037	0.000037		mg/L	1/28/13	79601	NCH
Aroclor 1221	< 0.000066	0.000066		mg/L	1/28/13	79601	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/28/13	79601	NCH
PCB, Total	< 0.000268	0.000268	C	mg/L	1/28/13	79601	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	40.7	5-116		%REC	1/28/13	79601	NCH
Decachlorobiphenyl	61.5	40-135		%REC	1/28/13	79601	NCH
volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5030A**				
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 17:34	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 17:34	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 17:34	79657	JL
2-Butanone	< 20.	20.		µg/L	1/25/13 17:34	79657	JL
2-Hexanone	< 20.	20.		µg/L	1/25/13 17:34	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 17:34	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 17:34	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 17:34	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 17:34	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 17:34	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 17:34	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 17:34	79657	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-03

Client Sample ID: B222C
Report Date: 1/31/2013
Collection Date: 1/24/2013 11:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 17:34	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 17:34	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 17:34	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 17:34	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 17:34	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Styrene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Tetrachloroethene	< 10.	10.		µg/L	1/25/13 17:34	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 17:34	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 17:34	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 17:34	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	115	70-120		%REC	1/25/13 17:34	79657	JL
4-Bromofluorobenzene	103	75-120		%REC	1/25/13 17:34	79657	JL
d4-1,2-Dichlorobenzene	102	80-120		%REC	1/25/13 17:34	79657	JL
Dibromofluoromethane	113	85-115		%REC	1/25/13 17:34	79657	JL
Fluorobenzene	102	80-120		%REC	1/25/13 17:34	79657	JL
Toluene-d8	96.5	85-120		%REC	1/25/13 17:34	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-04

Client Sample ID: B222E
Report Date: 1/31/2013
Collection Date: 1/24/2013 9:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 18:33	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 18:33	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 18:33	79657	JL
⁻-Butanone	< 20.	20.		µg/L	1/25/13 18:33	79657	JL
Hexanone	< 20.	20.		µg/L	1/25/13 18:33	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 18:33	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 18:33	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 18:33	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 18:33	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 18:33	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 18:33	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 18:33	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 18:33	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 18:33	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 18:33	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 18:33	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Styrene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-04

Client Sample ID: B222E
Report Date: 1/31/2013
Collection Date: 1/24/2013 9:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.	10.		µg/L	1/25/13 18:33	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 18:33	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 18:33	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 18:33	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	114	70-120		%REC	1/25/13 18:33	79657	JL
4-Bromofluorobenzene	97.3	75-120		%REC	1/25/13 18:33	79657	JL
d4-1,2-Dichlorobenzene	106	80-120		%REC	1/25/13 18:33	79657	JL
ibromofluoromethane	112	85-115		%REC	1/25/13 18:33	79657	JL
-luorobenzene	100	80-120		%REC	1/25/13 18:33	79657	JL
Toluene-d8	97.2	85-120		%REC	1/25/13 18:33	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-05

Client Sample ID: B222F
Report Date: 1/31/2013
Collection Date: 1/24/2013 9:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 17:04	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 17:04	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 17:04	79657	JL
2-Butanone	< 20.	20.		µg/L	1/25/13 17:04	79657	JL
2-Hexanone	< 20.	20.		µg/L	1/25/13 17:04	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 17:04	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 17:04	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 17:04	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 17:04	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 17:04	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 17:04	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 17:04	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 17:04	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 17:04	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 17:04	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 17:04	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Styrene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-05

Client Sample ID: B222F
Report Date: 1/31/2013
Collection Date: 1/24/2013 9:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.	10.		µg/L	1/25/13 17:04	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 17:04	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 17:04	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 17:04	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	115	70-120		%REC	1/25/13 17:04	79657	JL
4-Bromofluorobenzene	101	75-120		%REC	1/25/13 17:04	79657	JL
d4-1,2-Dichlorobenzene	103	80-120		%REC	1/25/13 17:04	79657	JL
ibromofluoromethane	112	85-115		%REC	1/25/13 17:04	79657	JL
,-luorobenzene	102	80-120		%REC	1/25/13 17:04	79657	JL
Toluene-d8	98.3	85-120		%REC	1/25/13 17:04	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-06

Client Sample ID: B222G
Report Date: 1/31/2013
Collection Date: 1/24/2013 10:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 18:04	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 18:04	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 18:04	79657	JL
ˆ-Butanone	< 20.	20.		µg/L	1/25/13 18:04	79657	JL
Hexanone	< 20.	20.		µg/L	1/25/13 18:04	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 18:04	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 18:04	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 18:04	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 18:04	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 18:04	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 18:04	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 18:04	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 18:04	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 18:04	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 18:04	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 18:04	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Styrene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-06

Client Sample ID: B222G
Report Date: 1/31/2013
Collection Date: 1/24/2013 10:00:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.	10.		µg/L	1/25/13 18:04	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 18:04	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 18:04	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 18:04	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	118	70-120		%REC	1/25/13 18:04	79657	JL
4-Bromofluorobenzene	100	75-120		%REC	1/25/13 18:04	79657	JL
d4-1,2-Dichlorobenzene	106	80-120		%REC	1/25/13 18:04	79657	JL
ibromofluoromethane	115	85-115	S	%REC	1/25/13 18:04	79657	JL
luorobenzene	102	80-120		%REC	1/25/13 18:04	79657	JL
Toluene-d8	95.0	85-120		%REC	1/25/13 18:04	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-07

Client Sample ID: B222H
Report Date: 1/31/2013
Collection Date: 1/24/2013 10:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,1,2,2-Tetrachloroethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,1,2-Trichloroethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,1-Dichloroethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,1-Dichloroethene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,2-Dibromo-3-chloropropane	< 0.636	0.636		µg/L	1/25/13 19:33	79657	JL
1,2-Dibromoethane	< 0.278	0.278		µg/L	1/25/13 19:33	79657	JL
1,2-Dichloroethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,2-Dichloropropane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1-Butanol	< 100.	100.	C	µg/L	1/25/13 19:33	79657	JL
?-Butanone	< 20.	20.		µg/L	1/25/13 19:33	79657	JL
Hexanone	< 20.	20.		µg/L	1/25/13 19:33	79657	JL
4-Methyl-2-pentanone	< 20.	20.		µg/L	1/25/13 19:33	79657	JL
Acetone	< 40.	40.		µg/L	1/25/13 19:33	79657	JL
Acrylonitrile	< 20.	20.		µg/L	1/25/13 19:33	79657	JL
Benzene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Bromodichloromethane	< 0.501	0.501		µg/L	1/25/13 19:33	79657	JL
Bromoform	< 0.588	0.588		µg/L	1/25/13 19:33	79657	JL
Bromomethane	< 6.21	6.21		µg/L	1/25/13 19:33	79657	JL
Carbon disulfide	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Carbon tetrachloride	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Chlorobenzene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Chloroethane	< 20.	20.		µg/L	1/25/13 19:33	79657	JL
Chloroform	< 0.511	0.511		µg/L	1/25/13 19:33	79657	JL
Chloromethane	< 3.27	3.27		µg/L	1/25/13 19:33	79657	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	1/25/13 19:33	79657	JL
Dibromochloromethane	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Ethylbenzene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
m,p-Xylene	< 4.	4.		µg/L	1/25/13 19:33	79657	JL
Methyl tert-butyl ether	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Methylene chloride	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
o-Xylene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Styrene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
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C - Laboratory not accredited for this parameter
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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010570
Project: Bloom Great Lakes GW
Lab ID: 13010570-07

Client Sample ID: B222H
Report Date: 1/31/2013
Collection Date: 1/24/2013 10:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.	10.		µg/L	1/25/13 19:33	79657	JL
Toluene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
trans-1,2-Dichloroethene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Trichloroethene	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Vinyl acetate	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
Vinyl chloride	< 2.	2.		µg/L	1/25/13 19:33	79657	JL
1,3-Dichloropropene, Total	< 1.	1.	C	µg/L	1/25/13 19:33	79657	JL
Xylenes, Total	< 6.	6.		µg/L	1/25/13 19:33	79657	JL
Surrogates:							
1,2-Dichloroethane-d4	119	70-120		%REC	1/25/13 19:33	79657	JL
4-Bromofluorobenzene	96.6	75-120		%REC	1/25/13 19:33	79657	JL
d4-1,2-Dichlorobenzene	105	80-120		%REC	1/25/13 19:33	79657	JL
'ibromofluoromethane	117	85-115	S	%REC	1/25/13 19:33	79657	JL
.-luorobenzene	100	80-120		%REC	1/25/13 19:33	79657	JL
Toluene-d8	98.4	85-120		%REC	1/25/13 19:33	79657	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222A
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 1:00:00 PM
Lab ID:	13010624-01	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 20:50	79648	AG
Barium	0.0687	0.0125	mg/L	1/29/13 20:50	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 20:50	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 20:50	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 20:50	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 20:50	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 20:50	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222B
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 1:30:00 PM
Lab ID:	13010624-02	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 22:17	79648	AG
Barium	0.0325	0.0125	mg/L	1/29/13 22:17	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 22:17	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 22:17	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 22:17	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 22:17	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 22:17	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222C
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 1:50:00 PM
Lab ID:	13010624-03	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 22:23	79648	AG
Barium	0.0533	0.0125	mg/L	1/29/13 22:23	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 22:23	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 22:23	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 22:23	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 22:23	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 22:23	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222F
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 2:30:00 PM
Lab ID:	13010624-04	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 22:28	79648	AG
Barium	0.0365	0.0125	mg/L	1/29/13 22:28	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 22:28	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 22:28	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 22:28	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 22:28	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 22:28	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222G
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 3:00:00 PM
Lab ID:	13010624-05	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 22:34	79648	AG
Barium	0.0544	0.0125	mg/L	1/29/13 22:34	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 22:34	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 22:34	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 22:34	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 22:34	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 22:34	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT:	Bloom Companies, LLC	**Client Sample ID:**	B222H
Lab Order:	13010624	**Report Date:**	1/31/2013
Project:	Bloom Great Lakes GW	**Collection Date:**	1/24/2013 3:30:00 PM
Lab ID:	13010624-06	**Matrix:**	Groundwater

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Mercury, Total		**Method:**	**SW7470A / HG PREP**			
Mercury	< 0.0005	0.0005	mg/L	1/30/13 11:50	79718	IG
Metals, Total.		**Method:**	**SW6020A / SW3015**			
Arsenic	< 0.0125	0.0125	mg/L	1/29/13 22:39	79648	AG
Barium	0.111	0.0125	mg/L	1/29/13 22:39	79648	AG
Cadmium	< 0.0025	0.0025	mg/L	1/29/13 22:39	79648	AG
Chromium	< 0.0175	0.0175	mg/L	1/29/13 22:39	79648	AG
Lead	< 0.005	0.005	mg/L	1/29/13 22:39	79648	AG
Selenium	< 0.0025	0.0025	mg/L	1/29/13 22:39	79648	AG
Silver	< 0.005	0.005	mg/L	1/29/13 22:39	79648	AG

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010624
Project: Bloom Great Lakes GW
Lab ID: 13010624-07

Client Sample ID: B222E
Report Date: 1/31/2013
Collection Date: 1/25/2013 1:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000105	0.000105		mg/L	1/29/13	79634	NCH
Aroclor 1221	< 0.000191	0.000191		mg/L	1/29/13	79634	NCH
Aroclor 1232	< 0.000096	0.000096		mg/L	1/29/13	79634	NCH
Aroclor 1242	< 0.000096	0.000096		mg/L	1/29/13	79634	NCH
Aroclor 1248	< 0.000096	0.000096		mg/L	1/29/13	79634	NCH
Aroclor 1254	< 0.000096	0.000096		mg/L	1/29/13	79634	NCH
Aroclor 1260	< 0.000096	0.000096		mg/L	1/29/13	79634	NCH
PCB, Total	< 0.000774	0.000774	C	mg/L	1/29/13	79634	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	58.2	5-116		%REC	1/29/13	79634	NCH
Decachlorobiphenyl	86.4	40-135		%REC	1/29/13	79634	NCH

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010624
Project: Bloom Great Lakes GW
Lab ID: 13010624-08

Client Sample ID: B222F
Report Date: 1/31/2013
Collection Date: 1/25/2013 12:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000037	0.000037		mg/L	1/29/13	79634	NCH
Aroclor 1221	< 0.000067	0.000067		mg/L	1/29/13	79634	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
PCB, Total	< 0.00027	0.00027	C	mg/L	1/29/13	79634	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	35.8	5-116		%REC	1/29/13	79634	NCH
`ecachlorobiphenyl	79.3	40-135		%REC	1/29/13	79634	NCH

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010624
Project: Bloom Great Lakes GW
Lab ID: 13010624-09

Client Sample ID: B222G
Report Date: 1/31/2013
Collection Date: 1/25/2013 11:30:00 AM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000036	0.000036		mg/L	1/29/13	79634	NCH
Aroclor 1221	< 0.000066	0.000066		mg/L	1/29/13	79634	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
PCB, Total	< 0.000265	0.000265	C	mg/L	1/29/13	79634	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	36.7	5-116		%REC	1/29/13	79634	NCH
`ecachlorobiphenyl	73.1	40-135		%REC	1/29/13	79634	NCH

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13010624
Project: Bloom Great Lakes GW
Lab ID: 13010624-10

Client Sample ID: B222H
Report Date: 1/31/2013
Collection Date: 1/25/2013 12:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Polychlorinated biphenyls, PCBs		**Method:**	**SW8082 / SW3510C**				
Aroclor 1016	< 0.000037	0.000037		mg/L	1/29/13	79634	NCH
Aroclor 1221	< 0.000067	0.000067		mg/L	1/29/13	79634	NCH
Aroclor 1232	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1242	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1248	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1254	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
Aroclor 1260	< 0.000033	0.000033		mg/L	1/29/13	79634	NCH
PCB, Total	< 0.000269	0.000269	C	mg/L	1/29/13	79634	NCH
Surrogates:							
2,4,5,6-Tetrachloro-m-xylene	92.7	5-116		%REC	1/29/13	79634	NCH
Decachlorobiphenyl	141	40-135	S	%REC	1/29/13	79634	NCH

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☒ ROUTINE

Due Date: ___-___-___ COC #: 119586

Company: Bloom Companies LLC
Address: 10501 W Research Dr
STE 100
Milwaukee, WI 53226
Phone #: (414) 292 4545 Fax #: (___) ___-___
P.O. #: ___ Proj. #: BMF 1114
Client Contact: Judy Fassbender
Project ID / Location: NAVFAC B222

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ___

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ___

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ___

Analyses

EMT USE ONLY
EMT WORKORDER # 130057

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	VOCs	PCBs											
B222 A	G	40ml	G	3	JLF	1/24	1200			5		X												1A
B222 B	↓	↓	↓	↓	↓	↓	1100			5		X												2A
B222 C	↓	↓	↓	↓	↓	↓	1130			5		X												3A
B222 E	↓	↓	↓	↓	↓	0900 →				5		X												4A
B222 F	↓	↓	↓	↓	↓	0930 →				5		X												5A
B222 G	↓	↓	↓	↓	↓	1000 →				5		X												6A
B222 H	↓	↓	↓	↓	↓	1030 →				5		X												7A
B222 A	↓	L	G	2	↓	1/24	1200			1			X											1B
B222 B	↓	↓	↓	2	↓	↓	1100			1			X											2B
B222 C	↓	↓	↓	2	↓	↓	1130			1			X											3B

Relinquished By:	Date: / Time:	Received By:	Date: / Time:	EMT USE ONLY	
Judy Fassbender	1-24-2013 13:00	[signature]	1-24-13 13:00	Client Code: Bloom	☐ SAMPLE RECEIVED ON ICE
[signature]	1-24-13 1400		- -	EMT Project I.D. Bloom Great Lakes GW	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
					1C
Relinquished By:	Date: - - Time: :	Received For Lab By: Warnnatt	Date: 1-24-13 Time: 1400	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☐ ROUTINE

Due Date: ___-___-___ COC #: 119585

Company: Bloom Companies LLC
Address: 10505 W Research Dr, Ste 100
Milwaukee, WI 53226

Phone #: (414) 292-4545 Fax #: (___) ___-___
P.O. #: ___ Proj. #: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: BMF-1114

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ___

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ___

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ___

Analyses

EMT USE ONLY

EMT WORKORDER # 1590020

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	Sampling By	Sampling Date	Time	pH	Temp.	Preservation Field	Preservation Lab	RCRA METALS	PCBs	EMT USE ONLY
B222 A	G	500 ml	P	1	JLF	1/24	1300			3		X		AA
B222 B	↓	↓	↓	1	↓	↓	1330			3		X		BA
B222 C	↓	↓	↓	1	↓	↓	1350			3		X		CA
B222 F	↓	↓	↓	1	↓	↓	1430			3		X		FA
B222 G	↓	↓	↓	1	↓	↓	1500			3		X		GA
B222 H	↓	↓	↓	1	↓	↓	1530			3		X		HA
B222 E	↓	l	G	1 Partial	↓	1/25	1300			1			X	EA
B222 F	↓	l	G	1+1/4	↓	↓	1230			1			X	FA
B222 G	↓	l	G	2	↓	↓	1130			1			X	GA
B222 H	↓	l	G	2	↓	↓	1200			1			X	HA

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Judy Fassbender	1-25-13 Time: 1400	[signature]	1-25-13 Time: 1400	Client Code: Bloom
Relinquished By: [signature]	Date: 1-25-13 Time: 1515	Received By:	Date: - - Time: :	EMT Project I.D. Bloom Great Lakes GW
Relinquished By:	Date: - - Time: :	Received For Lab By: Martinatl	Date: 125/13 Time: 1515	Jar Lot No.

☑ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
21

EMT SAMPLE RETURN POLICY ON BACK

SPECIAL INSTRUCTIONS:

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Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

July 16, 2013

RE: Bloom Great Lakes Soil

Lab Orders:
13070161 13070186

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

than Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 33 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

-ELAP, PJLA Accredited lab No. 75537

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CLIENT: Bloom Companies, LLC

Date: *7/16/2013*

Project: Bloom Great Lakes Soil

CASE NARRATIVE

Lab Orders: 13070161 13070186

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the ›its column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively ›merals indicate a preparation batch.

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CLIENT: Bloom Companies, LLC

Date: *7/16/2013*

Project: Bloom Great Lakes Soil

Lab Orders: 13070161 13070186

CASE NARRATIVE

WO: 13070161
Analytical Comments for METHOD 8270_sson, lcsd-83091: LCS/LCSD RPD is outside of the laboratory control limit. Analytical Comments for METHOD 8270_sson, 13070161-02A: Surrogate recoveries were below the laboratory limits. Analytical Comments for METHOD 8270_sson, 13070161-03A: The reporting limits have been increased due to the matrix and difficulty in concentrating the sample down.

Analytical Comments for METHOD 8260_s, 13070161-03c: The recovery of internal standard was below the limit, possible due to the matrix. Sample was ran twice with the same outcome.

WO: 13070186
alytical Comments for METHOD 8270_sson, mb-83132: Surrogate recoveries for two base neutral mpounds were slightly below QC limits.

Analytical Comments for METHOD 8270_sson, 13070186-02a: The reporting limits have been increased due to the matrix and difficulty in concentrating the sample down.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-01

Client Sample ID: B222EZ 14-16'
Report Date: 7/16/2013
Collection Date: 7/8/2013 8:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	8.05		pH Units	7/10/13 10:20	R188272	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	6.07	0.0300	% (Percent)	7/9/13 11:25	R188247	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	< 5.00	5.00	mg/Kg-dry	7/12/13 19:01	83101	AG
Barium	< 12.5	12.5	mg/Kg-dry	7/12/13 19:01	83101	AG
Cadmium	< 0.250	0.250	mg/Kg-dry	7/12/13 19:01	83101	AG
Chromium	< 6.25	6.25	mg/Kg-dry	7/12/13 19:01	83101	AG
Lead	16.4	12.5	mg/Kg-dry	7/12/13 19:01	83101	AG
Selenium	< 1.17	1.17	mg/Kg-dry	7/12/13 19:01	83101	AG
Silver	< 1.25	1.25	mg/Kg-dry	7/12/13 19:01	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	< 0.0314	0.0314	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	0.00708	0.00500	mg/L	7/11/13 10:42	83075	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
1,2-Dichlorobenzene	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
1,3-Dichlorobenzene	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
1,4-Dichlorobenzene	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4,5-Trichlorophenol	< 764.	764.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4-Dichlorophenol	< 764.	764.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4-Dimethylphenol	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/10/13 19:19	83091	RYL
2-Chloronaphthalene	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
2-Chlorophenol	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-01

Client Sample ID: B222EZ 14-16'
Report Date: 7/16/2013
Collection Date: 7/8/2013 8:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
3,3'-Dichlorobenzidine	< 191.	191.	µg/Kg-dry	7/10/13 19:19	83091	RYL
4,6-Dinitro-2-methylphenol	< 289.	289.	µg/Kg-dry	7/10/13 19:19	83091	RYL
4-Bromophenyl phenyl ether	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
4-Chloro-3-methylphenol	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
4-Chloroaniline	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
4-Chlorophenyl phenyl ether	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
4-Nitrophenol	< 764.	764.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Acenaphthene	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
Acenaphthylene	< 95.5	95.5	µg/Kg-dry	7/10/13 19:19	83091	RYL
Anthracene	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Benz(a)anthracene	81.6	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
enzidine	< 228.	228.	µg/Kg-dry	7/10/13 19:19	83091	RYL
,enzo(a)pyrene	< 90.	90.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Benzo(b)fluoranthene	< 95.5	95.5	µg/Kg-dry	7/10/13 19:19	83091	RYL
Benzo(g,h,i)perylene	51.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Benzo(k)fluoranthene	31.8	19.1	µg/Kg-dry	7/10/13 19:19	83091	RYL
Benzoic acid	< 764.	764.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Bis(2-chloroethyl)ether	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
Bis(2-chloroisopropyl)ether	< 7.64	7.64	µg/Kg-dry	7/10/13 19:19	83091	RYL
Bis(2-ethylhexyl)phthalate	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Butyl benzyl phthalate	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Carbazole	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Chrysene	70.7	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Di-n-butyl phthalate	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Di-n-octyl phthalate	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Diethyl phthalate	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Dimethyl phthalate	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Fluoranthene	153.	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Fluorene	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Hexachlorobenzene	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Hexachlorobutadiene	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL
Hexachlorocyclopentadiene	< 382.	382.	µg/Kg-dry	7/10/13 19:19	83091	RYL
Hexachloroethane	< 38.2	38.2	µg/Kg-dry	7/10/13 19:19	83091	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-01

Client Sample ID: B222EZ 14-16'
Report Date: 7/16/2013
Collection Date: 7/8/2013 8:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	< 95.5	95.5		µg/Kg-dry	7/10/13 19:19	83091	RYL
Isophorone	< 95.5	95.5		µg/Kg-dry	7/10/13 19:19	83091	RYL
m,p-Cresol	< 38.2	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/Kg-dry	7/10/13 19:19	83091	RYL
N-Nitrosodiphenylamine	< 382.	382.		µg/Kg-dry	7/10/13 19:19	83091	RYL
Naphthalene	< 38.2	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
Nitrobenzene	< 95.5	95.5		µg/Kg-dry	7/10/13 19:19	83091	RYL
o-Cresol	< 38.2	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/10/13 19:19	83091	RYL
Phenanthrene	79.4	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
Phenol	< 38.2	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
Pyrene	143.	38.2		µg/Kg-dry	7/10/13 19:19	83091	RYL
rrogates:							
2,4,6-Tribromophenol	62.1	35-125		%REC	7/10/13 19:19	83091	RYL
2-Fluorobiphenyl	57.8	45-105		%REC	7/10/13 19:19	83091	RYL
2-Fluorophenol	52.2	35-105		%REC	7/10/13 19:19	83091	RYL
4-Terphenyl-d14	76.0	30-125		%REC	7/10/13 19:19	83091	RYL
Nitrobenzene-d5	51.3	35-100		%REC	7/10/13 19:19	83091	RYL
Phenol-d5	54.5	40-100		%REC	7/10/13 19:19	83091	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,1,2,2-Tetrachloroethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,1,2-Trichloroethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,1-Dichloroethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,1-Dichloroethene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,2-Dibromo-3-chloropropane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	7/10/13 16:12	83167	JL
1,2-Dichloroethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,2-Dichloropropane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1-Butanol	< 192.	192.	C	µg/Kg-dry	7/10/13 16:12	83167	JL
2-Butanone	< 92.	92.		µg/Kg-dry	7/10/13 16:12	83167	JL
2-Hexanone	< 96.2	96.2		µg/Kg-dry	7/10/13 16:12	83167	JL
4-Methyl-2-pentanone	< 53.1	53.1		µg/Kg-dry	7/10/13 16:12	83167	JL
Acetone	< 56.6	56.6		µg/Kg-dry	7/10/13 16:12	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-01

Client Sample ID: B222EZ 14-16'
Report Date: 7/16/2013
Collection Date: 7/8/2013 8:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 9.82	9.82		µg/Kg-dry	7/10/13 16:12	83167	JL
Benzene	4.56	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Bromodichloromethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Bromoform	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Bromomethane	< 6.55	6.55		µg/Kg-dry	7/10/13 16:12	83167	JL
Carbon disulfide	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Carbon tetrachloride	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Chlorobenzene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Chloroethane	< 10.	10.		µg/Kg-dry	7/10/13 16:12	83167	JL
Chloroform	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Chloromethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
cis-1,2-Dichloroethene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
ibromochloromethane	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
hylbenzene	2.23	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
m,p-Xylene	2.9	2.25		µg/Kg-dry	7/10/13 16:12	83167	JL
Methyl tert-butyl ether	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Methylene chloride	< 2.57	2.57		µg/Kg-dry	7/10/13 16:12	83167	JL
o-Xylene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Styrene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Tetrachloroethene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Toluene	8.54	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
trans-1,2-Dichloroethene	< 2.11	2.11		µg/Kg-dry	7/10/13 16:12	83167	JL
Trichloroethene	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
Vinyl acetate	< 26.9	26.9		µg/Kg-dry	7/10/13 16:12	83167	JL
Vinyl chloride	< 1.94	1.94		µg/Kg-dry	7/10/13 16:12	83167	JL
1,3-Dichloropropene, Total	< 3.87	3.87	C	µg/Kg-dry	7/10/13 16:12	83167	JL
Xylenes, Total	4.5	4.19		µg/Kg-dry	7/10/13 16:12	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	117	80-120		%REC	7/10/13 16:12	83167	JL
4-Bromofluorobenzene	117	80-120		%REC	7/10/13 16:12	83167	JL
d4-1,2-Dichlorobenzene	114	80-120		%REC	7/10/13 16:12	83167	JL
Dibromofluoromethane	113	80-120		%REC	7/10/13 16:12	83167	JL
Fluorobenzene	100	80-120		%REC	7/10/13 16:12	83167	JL
Toluene-d8	99.5	80-120		%REC	7/10/13 16:12	83167	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-02

Client Sample ID: B222I 10-12'
Report Date: 7/16/2013
Collection Date: 7/8/2013 9:30:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	7.69		pH Units	7/10/13 10:20	R188272	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	10.8	0.0300	% (Percent)	7/9/13 11:25	R188247	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	11.1	5.48	mg/Kg-dry	7/12/13 19:07	83101	AG
Barium	20.5	13.7	mg/Kg-dry	7/12/13 19:07	83101	AG
Cadmium	< 0.274	0.274	mg/Kg-dry	7/12/13 19:07	83101	AG
Chromium	9.65	6.85	mg/Kg-dry	7/12/13 19:07	83101	AG
Lead	< 13.7	13.7	mg/Kg-dry	7/12/13 19:07	83101	AG
Selenium	< 1.29	1.29	mg/Kg-dry	7/12/13 19:07	83101	AG
Silver	2.53	1.37	mg/Kg-dry	7/12/13 19:07	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	< 0.0332	0.0332	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	< 0.00500	0.00500	mg/L	7/11/13 10:42	83075	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
1,2-Dichlorobenzene	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
1,3-Dichlorobenzene	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
1,4-Dichlorobenzene	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4,5-Trichlorophenol	< 810.	810.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4-Dichlorophenol	< 810.	810.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4-Dimethylphenol	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/10/13 20:02	83091	RYL
2-Chloronaphthalene	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
2-Chlorophenol	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-02

Client Sample ID: B222I 10-12'
Report Date: 7/16/2013
Collection Date: 7/8/2013 9:30:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
3,3'-Dichlorobenzidine	< 203.	203.	µg/Kg-dry	7/10/13 20:02	83091	RYL
4,6-Dinitro-2-methylphenol	< 306.	306.	µg/Kg-dry	7/10/13 20:02	83091	RYL
4-Bromophenyl phenyl ether	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
4-Chloro-3-methylphenol	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
4-Chloroaniline	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
4-Chlorophenyl phenyl ether	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
4-Nitrophenol	< 810.	810.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Acenaphthene	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
Acenaphthylene	< 101.	101.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Anthracene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Benz(a)anthracene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
enzidine	< 241.	241.	µg/Kg-dry	7/10/13 20:02	83091	RYL
enzo(a)pyrene	< 90.	90.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Benzo(b)fluoranthene	< 101.	101.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Benzo(g,h,i)perylene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Benzo(k)fluoranthene	< 20.3	20.3	µg/Kg-dry	7/10/13 20:02	83091	RYL
Benzoic acid	< 810.	810.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Bis(2-chloroethyl)ether	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
Bis(2-chloroisopropyl)ether	< 8.1	8.1	µg/Kg-dry	7/10/13 20:02	83091	RYL
Bis(2-ethylhexyl)phthalate	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Butyl benzyl phthalate	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Carbazole	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Chrysene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Di-n-butyl phthalate	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Di-n-octyl phthalate	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Diethyl phthalate	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Dimethyl phthalate	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Fluoranthene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Fluorene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Hexachlorobenzene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Hexachlorobutadiene	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL
Hexachlorocyclopentadiene	< 405.	405.	µg/Kg-dry	7/10/13 20:02	83091	RYL
Hexachloroethane	< 40.5	40.5	µg/Kg-dry	7/10/13 20:02	83091	RYL

Qualifiers:

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E - Estimated
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C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-02

Client Sample ID: B222I 10-12'
Report Date: 7/16/2013
Collection Date: 7/8/2013 9:30:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	< 101.	101.		µg/Kg-dry	7/10/13 20:02	83091	RYL
Isophorone	< 101.	101.		µg/Kg-dry	7/10/13 20:02	83091	RYL
m,p-Cresol	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/Kg-dry	7/10/13 20:02	83091	RYL
N-Nitrosodiphenylamine	< 405.	405.		µg/Kg-dry	7/10/13 20:02	83091	RYL
Naphthalene	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
Nitrobenzene	< 100.	100.		µg/Kg-dry	7/10/13 20:02	83091	RYL
o-Cresol	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/10/13 20:02	83091	RYL
Phenanthrene	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
Phenol	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
Pyrene	< 40.5	40.5		µg/Kg-dry	7/10/13 20:02	83091	RYL
rrogates:							
.,4,6-Tribromophenol	53.0	35-125		%REC	7/10/13 20:02	83091	RYL
2-Fluorobiphenyl	36.2	45-105	S	%REC	7/10/13 20:02	83091	RYL
2-Fluorophenol	27.1	35-105	S	%REC	7/10/13 20:02	83091	RYL
4-Terphenyl-d14	70.4	30-125		%REC	7/10/13 20:02	83091	RYL
Nitrobenzene-d5	27.9	35-100	S	%REC	7/10/13 20:02	83091	RYL
Phenol-d5	30.9	40-100	S	%REC	7/10/13 20:02	83091	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,1,2,2-Tetrachloroethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,1,2-Trichloroethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,1-Dichloroethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,1-Dichloroethene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,2-Dibromo-3-chloropropane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	7/10/13 16:42	83167	JL
1,2-Dichloroethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,2-Dichloropropane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1-Butanol	< 174.	174.	C	µg/Kg-dry	7/10/13 16:42	83167	JL
2-Butanone	< 83.2	83.2		µg/Kg-dry	7/10/13 16:42	83167	JL
2-Hexanone	< 87.1	87.1		µg/Kg-dry	7/10/13 16:42	83167	JL
4-Methyl-2-pentanone	< 48.	48.		µg/Kg-dry	7/10/13 16:42	83167	JL
Acetone	< 51.2	51.2		µg/Kg-dry	7/10/13 16:42	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-02

Client Sample ID: B222I 10-12'
Report Date: 7/16/2013
Collection Date: 7/8/2013 9:30:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 8.88	8.88		µg/Kg-dry	7/10/13 16:42	83167	JL
Benzene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Bromodichloromethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Bromoform	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Bromomethane	< 5.93	5.93		µg/Kg-dry	7/10/13 16:42	83167	JL
Carbon disulfide	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Carbon tetrachloride	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Chlorobenzene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Chloroethane	< 9.09	9.09		µg/Kg-dry	7/10/13 16:42	83167	JL
Chloroform	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Chloromethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
cis-1,2-Dichloroethene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
bromochloromethane	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
hylbenzene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
m,p-Xylene	< 2.04	2.04		µg/Kg-dry	7/10/13 16:42	83167	JL
Methyl tert-butyl ether	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Methylene chloride	< 2.32	2.32		µg/Kg-dry	7/10/13 16:42	83167	JL
o-Xylene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Styrene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Tetrachloroethene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Toluene	1.8	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
trans-1,2-Dichloroethene	< 1.91	1.91		µg/Kg-dry	7/10/13 16:42	83167	JL
Trichloroethene	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
Vinyl acetate	< 24.4	24.4		µg/Kg-dry	7/10/13 16:42	83167	JL
Vinyl chloride	< 1.75	1.75		µg/Kg-dry	7/10/13 16:42	83167	JL
1,3-Dichloropropene, Total	< 3.5	3.5	C	µg/Kg-dry	7/10/13 16:42	83167	JL
Xylenes, Total	< 3.79	3.79		µg/Kg-dry	7/10/13 16:42	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	121	80-120	S	%REC	7/10/13 16:42	83167	JL
4-Bromofluorobenzene	112	80-120		%REC	7/10/13 16:42	83167	JL
d4-1,2-Dichlorobenzene	114	80-120		%REC	7/10/13 16:42	83167	JL
Dibromofluoromethane	115	80-120		%REC	7/10/13 16:42	83167	JL
Fluorobenzene	100	80-120		%REC	7/10/13 16:42	83167	JL
Toluene-d8	99.0	80-120		%REC	7/10/13 16:42	83167	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-03

Client Sample ID: B222J 6-8'
Report Date: 7/16/2013
Collection Date: 7/8/2013 11:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	7.74		pH Units	7/10/13 10:20	R188272	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	13.1	0.0300	% (Percent)	7/9/13 11:25	R188247	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	< 5.64	5.64	mg/Kg-dry	7/12/13 19:12	83101	AG
Barium	342	14.1	mg/Kg-dry	7/12/13 19:12	83101	AG
Cadmium	0.657	0.282	mg/Kg-dry	7/12/13 19:12	83101	AG
Chromium	19.2	7.05	mg/Kg-dry	7/12/13 19:12	83101	AG
Lead	1,390	14.1	mg/Kg-dry	7/12/13 19:12	83101	AG
Selenium	< 1.32	1.32	mg/Kg-dry	7/12/13 19:12	83101	AG
Silver	2.82	1.41	mg/Kg-dry	7/12/13 19:12	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	0.325	0.0341	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	0.0180	0.00500	mg/L	7/11/13 10:42	83075	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
1,2-Dichlorobenzene	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
1,3-Dichlorobenzene	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
1,4-Dichlorobenzene	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4,5-Trichlorophenol	< 1650.	1650.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4-Dichlorophenol	< 1000.	1000.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4-Dimethylphenol	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4-Dinitrophenol	< 341.	341.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/10/13 20:46	83091	RYL
2-Chloronaphthalene	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
2-Chlorophenol	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-03

Client Sample ID: B222J 6-8'
Report Date: 7/16/2013
Collection Date: 7/8/2013 11:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
3,3'-Dichlorobenzidine	< 413.	413.	µg/Kg-dry	7/10/13 20:46	83091	RYL
4,6-Dinitro-2-methylphenol	< 625.	625.	µg/Kg-dry	7/10/13 20:46	83091	RYL
4-Bromophenyl phenyl ether	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
4-Chloro-3-methylphenol	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
4-Chloroaniline	< 700.	700.	µg/Kg-dry	7/10/13 20:46	83091	RYL
4-Chlorophenyl phenyl ether	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
4-Nitrophenol	< 1650.	1650.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Acenaphthene	93.4	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
Acenaphthylene	< 207.	207.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Anthracene	341.	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Benz(a)anthracene	634.	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
enzidine	< 492.	492.	µg/Kg-dry	7/10/13 20:46	83091	RYL
enzo(a)pyrene	498.	90.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Benzo(b)fluoranthene	614.	207.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Benzo(g,h,i)perylene	306.	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Benzo(k)fluoranthene	208.	41.3	µg/Kg-dry	7/10/13 20:46	83091	RYL
Benzoic acid	< 1650.	1650.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Bis(2-chloroethyl)ether	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
Bis(2-chloroisopropyl)ether	< 16.5	16.5	µg/Kg-dry	7/10/13 20:46	83091	RYL
Bis(2-ethylhexyl)phthalate	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Butyl benzyl phthalate	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Carbazole	94.5	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Chrysene	520.	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Di-n-butyl phthalate	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Di-n-octyl phthalate	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Diethyl phthalate	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Dimethyl phthalate	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Fluoranthene	1720.	331.	µg/Kg-dry	7/11/13 16:01	83091	RYL
Fluorene	99.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Hexachlorobenzene	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Hexachlorobutadiene	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL
Hexachlorocyclopentadiene	< 826.	826.	µg/Kg-dry	7/10/13 20:46	83091	RYL
Hexachloroethane	< 82.6	82.6	µg/Kg-dry	7/10/13 20:46	83091	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-03

Client Sample ID: B222J 6-8'
Report Date: 7/16/2013
Collection Date: 7/8/2013 11:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	307.	207.		µg/Kg-dry	7/10/13 20:46	83091	RYL
Isophorone	< 207.	207.		µg/Kg-dry	7/10/13 20:46	83091	RYL
m,p-Cresol	< 82.6	82.6		µg/Kg-dry	7/10/13 20:46	83091	RYL
N-Nitrosodi-n-propylamine	< 3.24	3.24		µg/Kg-dry	7/10/13 20:46	83091	RYL
N-Nitrosodiphenylamine	< 826.	826.		µg/Kg-dry	7/10/13 20:46	83091	RYL
Naphthalene	< 82.6	82.6		µg/Kg-dry	7/10/13 20:46	83091	RYL
Nitrobenzene	< 100.	100.		µg/Kg-dry	7/10/13 20:46	83091	RYL
o-Cresol	< 82.6	82.6		µg/Kg-dry	7/10/13 20:46	83091	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/10/13 20:46	83091	RYL
Phenanthrene	1550.	82.6		µg/Kg-dry	7/10/13 20:46	83091	RYL
Phenol	< 82.6	82.6		µg/Kg-dry	7/10/13 20:46	83091	RYL
Pyrene	1420.	331.		µg/Kg-dry	7/11/13 16:01	83091	RYL
rogates:							
_,4,6-Tribromophenol	66.7	35-125		%REC	7/10/13 20:46	83091	RYL
2-Fluorobiphenyl	48.2	45-105		%REC	7/10/13 20:46	83091	RYL
2-Fluorophenol	35.9	35-105		%REC	7/10/13 20:46	83091	RYL
4-Terphenyl-d14	87.3	30-125		%REC	7/10/13 20:46	83091	RYL
Nitrobenzene-d5	39.7	35-100		%REC	7/10/13 20:46	83091	RYL
Phenol-d5	38.0	40-100	S	%REC	7/10/13 20:46	83091	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**				
1,1,1-Trichloroethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,1,2,2-Tetrachloroethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,1,2-Trichloroethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,1-Dichloroethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,1-Dichloroethene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,2-Dibromo-3-chloropropane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,2-Dibromoethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,2-Dichloroethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,2-Dichloropropane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1-Butanol	< 173.	173.	C	µg/Kg-dry	7/10/13 17:12	83167	JL
2-Butanone	< 82.8	82.8		µg/Kg-dry	7/10/13 17:12	83167	JL
2-Hexanone	< 86.7	86.7		µg/Kg-dry	7/10/13 17:12	83167	JL
4-Methyl-2-pentanone	< 47.8	47.8		µg/Kg-dry	7/10/13 17:12	83167	JL
Acetone	< 50.9	50.9		µg/Kg-dry	7/10/13 17:12	83167	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-03

Client Sample ID: B222J 6-8'
Report Date: 7/16/2013
Collection Date: 7/8/2013 11:00:00 AM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 8.84	8.84		µg/Kg-dry	7/10/13 17:12	83167	JL
Benzene	7.7	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Bromodichloromethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Bromoform	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Bromomethane	< 5.9	5.9		µg/Kg-dry	7/10/13 17:12	83167	JL
Carbon disulfide	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Carbon tetrachloride	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Chlorobenzene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Chloroethane	< 9.04	9.04		µg/Kg-dry	7/10/13 17:12	83167	JL
Chloroform	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Chloromethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
cis-1,2-Dichloroethene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
'bromochloromethane	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
,ylbenzene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
m,p-Xylene	< 2.03	2.03		µg/Kg-dry	7/10/13 17:12	83167	JL
Methyl tert-butyl ether	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Methylene chloride	< 2.31	2.31		µg/Kg-dry	7/10/13 17:12	83167	JL
o-Xylene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Styrene	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Tetrachloroethene	31.1	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Toluene	4.66	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
trans-1,2-Dichloroethene	< 1.9	1.9		µg/Kg-dry	7/10/13 17:12	83167	JL
Trichloroethene	4.76	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
Vinyl acetate	< 24.2	24.2		µg/Kg-dry	7/10/13 17:12	83167	JL
Vinyl chloride	< 1.74	1.74		µg/Kg-dry	7/10/13 17:12	83167	JL
1,3-Dichloropropene, Total	< 3.49	3.49	C	µg/Kg-dry	7/10/13 17:12	83167	JL
Xylenes, Total	< 3.77	3.77		µg/Kg-dry	7/10/13 17:12	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	123	80-120	S	%REC	7/10/13 17:12	83167	JL
4-Bromofluorobenzene	116	80-120		%REC	7/10/13 17:12	83167	JL
d4-1,2-Dichlorobenzene	118	80-120		%REC	7/10/13 17:12	83167	JL
Dibromofluoromethane	117	80-120		%REC	7/10/13 17:12	83167	JL
Fluorobenzene	99.0	80-120		%REC	7/10/13 17:12	83167	JL
Toluene-d8	105	80-120		%REC	7/10/13 17:12	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-04

Client Sample ID: B222 K 12-14'
Report Date: 7/16/2013
Collection Date: 7/8/2013 12:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	7.85		pH Units	7/10/13 10:20	R188272	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	21.6	0.0300	% (Percent)	7/9/13 11:25	R188247	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	7.72	6.17	mg/Kg-dry	7/12/13 19:17	83101	AG
Barium	69.3	15.4	mg/Kg-dry	7/12/13 19:17	83101	AG
Cadmium	0.425	0.308	mg/Kg-dry	7/12/13 19:17	83101	AG
Chromium	16.0	7.71	mg/Kg-dry	7/12/13 19:17	83101	AG
Lead	68.2	15.4	mg/Kg-dry	7/12/13 19:17	83101	AG
·lenium	< 1.45	1.45	mg/Kg-dry	7/12/13 19:17	83101	AG
.ıver	< 1.54	1.54	mg/Kg-dry	7/12/13 19:17	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	< 0.0381	0.0381	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	0.00505	0.00500	mg/L	7/11/13 10:42	83075	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
1,2-Dichlorobenzene	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
1,3-Dichlorobenzene	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
1,4-Dichlorobenzene	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4,5-Trichlorophenol	< 923.	923.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4-Dichlorophenol	< 923.	923.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4-Dimethylphenol	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/10/13 22:14	83091	RYL
2-Chloronaphthalene	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
2-Chlorophenol	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-04

Client Sample ID: B222 K 12-14'
Report Date: 7/16/2013
Collection Date: 7/8/2013 12:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
3,3'-Dichlorobenzidine	< 231.	231.	µg/Kg-dry	7/10/13 22:14	83091	RYL
4,6-Dinitro-2-methylphenol	< 349.	349.	µg/Kg-dry	7/10/13 22:14	83091	RYL
4-Bromophenyl phenyl ether	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
4-Chloro-3-methylphenol	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
4-Chloroaniline	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
4-Chlorophenyl phenyl ether	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
4-Nitrophenol	< 923.	923.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Acenaphthene	46.4	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
Acenaphthylene	< 115.	115.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Anthracene	320.	231.	µg/Kg-dry	7/11/13 16:29	83091	RYL
Benz(a)anthracene	784.	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
enzidine	< 275.	275.	µg/Kg-dry	7/10/13 22:14	83091	RYL
enzo(a)pyrene	629.	90.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Benzo(b)fluoranthene	1110.	577.	µg/Kg-dry	7/11/13 16:29	83091	RYL
Benzo(g,h,i)perylene	366.	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Benzo(k)fluoranthene	361.	115.	µg/Kg-dry	7/11/13 16:29	83091	RYL
Benzoic acid	< 923.	923.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Bis(2-chloroethyl)ether	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
Bis(2-chloroisopropyl)ether	< 9.23	9.23	µg/Kg-dry	7/10/13 22:14	83091	RYL
Bis(2-ethylhexyl)phthalate	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Butyl benzyl phthalate	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Carbazole	112.	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Chrysene	754.	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Di-n-butyl phthalate	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Di-n-octyl phthalate	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Dibenz(a,h)anthracene	120.	90.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Diethyl phthalate	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Dimethyl phthalate	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Fluoranthene	2360.	231.	µg/Kg-dry	7/11/13 16:29	83091	RYL
Fluorene	82.9	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Hexachlorobenzene	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Hexachlorobutadiene	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL
Hexachlorocyclopentadiene	< 462.	462.	µg/Kg-dry	7/10/13 22:14	83091	RYL
Hexachloroethane	< 46.2	46.2	µg/Kg-dry	7/10/13 22:14	83091	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-04

Client Sample ID: B222 K 12-14'
Report Date: 7/16/2013
Collection Date: 7/8/2013 12:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	446.	115.		µg/Kg-dry	7/10/13 22:14	83091	RYL
Isophorone	< 115.	115.		µg/Kg-dry	7/10/13 22:14	83091	RYL
m,p-Cresol	< 46.2	46.2		µg/Kg-dry	7/10/13 22:14	83091	RYL
N-Nitrosodi-n-propylamine	< 1.81	1.81		µg/Kg-dry	7/10/13 22:14	83091	RYL
N-Nitrosodiphenylamine	< 462.	462.		µg/Kg-dry	7/10/13 22:14	83091	RYL
Naphthalene	< 46.2	46.2		µg/Kg-dry	7/10/13 22:14	83091	RYL
Nitrobenzene	< 100.	100.		µg/Kg-dry	7/10/13 22:14	83091	RYL
o-Cresol	< 46.2	46.2		µg/Kg-dry	7/10/13 22:14	83091	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/10/13 22:14	83091	RYL
Phenanthrene	1140.	231.		µg/Kg-dry	7/11/13 16:29	83091	RYL
Phenol	< 46.2	46.2		µg/Kg-dry	7/10/13 22:14	83091	RYL
Pyrene	1700.	231.		µg/Kg-dry	7/11/13 16:29	83091	RYL
rogates:							
.,4,6-Tribromophenol	67.6	35-125		%REC	7/10/13 22:14	83091	RYL
2-Fluorobiphenyl	54.2	45-105		%REC	7/10/13 22:14	83091	RYL
2-Fluorophenol	48.4	35-105		%REC	7/10/13 22:14	83091	RYL
4-Terphenyl-d14	77.7	30-125		%REC	7/10/13 22:14	83091	RYL
Nitrobenzene-d5	48.2	35-100		%REC	7/10/13 22:14	83091	RYL
Phenol-d5	50.5	40-100		%REC	7/10/13 22:14	83091	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,1,2,2-Tetrachloroethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,1,2-Trichloroethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,1-Dichloroethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,1-Dichloroethene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,2-Dibromo-3-chloropropane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	7/10/13 19:12	83167	JL
1,2-Dichloroethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,2-Dichloropropane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1-Butanol	< 199.	199.	C	µg/Kg-dry	7/10/13 19:12	83167	JL
2-Butanone	< 95.6	95.6		µg/Kg-dry	7/10/13 19:12	83167	JL
2-Hexanone	< 100.	100.		µg/Kg-dry	7/10/13 19:12	83167	JL
4-Methyl-2-pentanone	< 55.1	55.1		µg/Kg-dry	7/10/13 19:12	83167	JL
Acetone	< 58.8	58.8		µg/Kg-dry	7/10/13 19:12	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-04

Client Sample ID: B222 K 12-14'
Report Date: 7/16/2013
Collection Date: 7/8/2013 12:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 10.2	10.2		µg/Kg-dry	7/10/13 19:12	83167	JL
Benzene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Bromodichloromethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Bromoform	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Bromomethane	< 6.81	6.81		µg/Kg-dry	7/10/13 19:12	83167	JL
Carbon disulfide	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Carbon tetrachloride	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Chlorobenzene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Chloroethane	< 10.4	10.4		µg/Kg-dry	7/10/13 19:12	83167	JL
Chloroform	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Chloromethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
cis-1,2-Dichloroethene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
ibromochloromethane	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
.hylbenzene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
m,p-Xylene	< 2.34	2.34		µg/Kg-dry	7/10/13 19:12	83167	JL
Methyl tert-butyl ether	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Methylene chloride	< 2.67	2.67		µg/Kg-dry	7/10/13 19:12	83167	JL
o-Xylene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Styrene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Tetrachloroethene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Toluene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
trans-1,2-Dichloroethene	< 2.2	2.2		µg/Kg-dry	7/10/13 19:12	83167	JL
Trichloroethene	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
Vinyl acetate	< 28.	28.		µg/Kg-dry	7/10/13 19:12	83167	JL
Vinyl chloride	< 2.01	2.01		µg/Kg-dry	7/10/13 19:12	83167	JL
1,3-Dichloropropene, Total	< 4.	4.	C	µg/Kg-dry	7/10/13 19:12	83167	JL
Xylenes, Total	< 4.35	4.35		µg/Kg-dry	7/10/13 19:12	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	119	80-120		%REC	7/10/13 19:12	83167	JL
4-Bromofluorobenzene	104	80-120		%REC	7/10/13 19:12	83167	JL
d4-1,2-Dichlorobenzene	112	80-120		%REC	7/10/13 19:12	83167	JL
Dibromofluoromethane	111	80-120		%REC	7/10/13 19:12	83167	JL
Fluorobenzene	99.2	80-120		%REC	7/10/13 19:12	83167	JL
Toluene-d8	96.9	80-120		%REC	7/10/13 19:12	83167	JL

Qualifiers:

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E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-05

Client Sample ID: B222 L 4-6'
Report Date: 7/16/2013
Collection Date: 7/8/2013 2:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	8.18		pH Units	7/10/13 10:20	R188272	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	14.5	0.0300	% (Percent)	7/9/13 11:25	R188247	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	< 7.11	7.11	mg/Kg-dry	7/12/13 09:58	83101	AG
Barium	22.8	14.2	mg/Kg-dry	7/12/13 09:58	83101	AG
Cadmium	< 0.284	0.284	mg/Kg-dry	7/12/13 09:58	83101	AG
Chromium	8.72	7.11	mg/Kg-dry	7/12/13 09:58	83101	AG
Lead	< 14.2	14.2	mg/Kg-dry	7/12/13 09:58	83101	AG
Selenium	< 1.34	1.34	mg/Kg-dry	7/12/13 09:58	83101	AG
Silver	< 1.42	1.42	mg/Kg-dry	7/12/13 09:58	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	< 0.0346	0.0346	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	< 0.00500	0.00500	mg/L	7/11/13 10:42	83075	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
1,2-Dichlorobenzene	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
1,3-Dichlorobenzene	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
1,4-Dichlorobenzene	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4,5-Trichlorophenol	< 847.	847.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4-Dichlorophenol	< 847.	847.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4-Dimethylphenol	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/10/13 22:57	83091	RYL
2-Chloronaphthalene	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
2-Chlorophenol	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-05

Client Sample ID: B222 L 4-6'
Report Date: 7/16/2013
Collection Date: 7/8/2013 2:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
3,3'-Dichlorobenzidine	< 212.	212.	µg/Kg-dry	7/10/13 22:57	83091	RYL
4,6-Dinitro-2-methylphenol	< 320.	320.	µg/Kg-dry	7/10/13 22:57	83091	RYL
4-Bromophenyl phenyl ether	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
4-Chloro-3-methylphenol	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
4-Chloroaniline	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
4-Chlorophenyl phenyl ether	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
4-Nitrophenol	< 847.	847.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Acenaphthene	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
Acenaphthylene	< 106.	106.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Anthracene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Benz(a)anthracene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
`enzidine	< 252.	252.	µg/Kg-dry	7/10/13 22:57	83091	RYL
enzo(a)pyrene	< 90.	90.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Benzo(b)fluoranthene	< 106.	106.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Benzo(g,h,i)perylene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Benzo(k)fluoranthene	< 21.2	21.2	µg/Kg-dry	7/10/13 22:57	83091	RYL
Benzoic acid	< 847.	847.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Bis(2-chloroethyl)ether	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
Bis(2-chloroisopropyl)ether	< 8.47	8.47	µg/Kg-dry	7/10/13 22:57	83091	RYL
Bis(2-ethylhexyl)phthalate	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Butyl benzyl phthalate	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Carbazole	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Chrysene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Di-n-butyl phthalate	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Di-n-octyl phthalate	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Diethyl phthalate	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Dimethyl phthalate	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Fluoranthene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Fluorene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Hexachlorobenzene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Hexachlorobutadiene	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL
Hexachlorocyclopentadiene	< 423.	423.	µg/Kg-dry	7/10/13 22:57	83091	RYL
Hexachloroethane	< 42.3	42.3	µg/Kg-dry	7/10/13 22:57	83091	RYL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-05

Client Sample ID: B222 L 4-6'
Report Date: 7/16/2013
Collection Date: 7/8/2013 2:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	< 106.	106.		µg/Kg-dry	7/10/13 22:57	83091	RYL
Isophorone	< 106.	106.		µg/Kg-dry	7/10/13 22:57	83091	RYL
m,p-Cresol	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/Kg-dry	7/10/13 22:57	83091	RYL
N-Nitrosodiphenylamine	< 423.	423.		µg/Kg-dry	7/10/13 22:57	83091	RYL
Naphthalene	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
Nitrobenzene	< 100.	100.		µg/Kg-dry	7/10/13 22:57	83091	RYL
o-Cresol	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/10/13 22:57	83091	RYL
Phenanthrene	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
Phenol	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
Pyrene	< 42.3	42.3		µg/Kg-dry	7/10/13 22:57	83091	RYL
rogates:							
,4,6-Tribromophenol	62.9	35-125		%REC	7/10/13 22:57	83091	RYL
2-Fluorobiphenyl	48.2	45-105		%REC	7/10/13 22:57	83091	RYL
2-Fluorophenol	40.5	35-105		%REC	7/10/13 22:57	83091	RYL
4-Terphenyl-d14	83.0	30-125		%REC	7/10/13 22:57	83091	RYL
Nitrobenzene-d5	41.4	35-100		%REC	7/10/13 22:57	83091	RYL
Phenol-d5	44.0	40-100		%REC	7/10/13 22:57	83091	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,1,2,2-Tetrachloroethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,1,2-Trichloroethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,1-Dichloroethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,1-Dichloroethene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,2-Dibromo-3-chloropropane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,2-Dibromoethane	< 0.4	0.4		µg/Kg-dry	7/10/13 17:42	83167	JL
1,2-Dichloroethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,2-Dichloropropane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1-Butanol	< 168.	168.	C	µg/Kg-dry	7/10/13 17:42	83167	JL
2-Butanone	< 80.7	80.7		µg/Kg-dry	7/10/13 17:42	83167	JL
2-Hexanone	< 84.4	84.4		µg/Kg-dry	7/10/13 17:42	83167	JL
4-Methyl-2-pentanone	< 46.5	46.5		µg/Kg-dry	7/10/13 17:42	83167	JL
Acetone	< 49.6	49.6		µg/Kg-dry	7/10/13 17:42	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070161
Project: Bloom Great Lakes Soil
Lab ID: 13070161-05

Client Sample ID: B222 L 4-6'
Report Date: 7/16/2013
Collection Date: 7/8/2013 2:30:00 PM
Matrix: Soil

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 8.61	8.61		µg/Kg-dry	7/10/13 17:42	83167	JL
Benzene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Bromodichloromethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Bromoform	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Bromomethane	< 5.74	5.74		µg/Kg-dry	7/10/13 17:42	83167	JL
Carbon disulfide	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Carbon tetrachloride	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Chlorobenzene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Chloroethane	< 8.81	8.81		µg/Kg-dry	7/10/13 17:42	83167	JL
Chloroform	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Chloromethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
cis-1,2-Dichloroethene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
ibromochloromethane	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
thylbenzene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
m,p-Xylene	< 1.98	1.98		µg/Kg-dry	7/10/13 17:42	83167	JL
Methyl tert-butyl ether	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Methylene chloride	< 2.25	2.25		µg/Kg-dry	7/10/13 17:42	83167	JL
o-Xylene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Styrene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Tetrachloroethene	2.27	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Toluene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
trans-1,2-Dichloroethene	< 1.85	1.85		µg/Kg-dry	7/10/13 17:42	83167	JL
Trichloroethene	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
Vinyl acetate	< 23.6	23.6		µg/Kg-dry	7/10/13 17:42	83167	JL
Vinyl chloride	< 1.7	1.7		µg/Kg-dry	7/10/13 17:42	83167	JL
1,3-Dichloropropene, Total	< 3.4	3.4	C	µg/Kg-dry	7/10/13 17:42	83167	JL
Xylenes, Total	< 3.67	3.67		µg/Kg-dry	7/10/13 17:42	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	119	80-120		%REC	7/10/13 17:42	83167	JL
4-Bromofluorobenzene	101	80-120		%REC	7/10/13 17:42	83167	JL
d4-1,2-Dichlorobenzene	112	80-120		%REC	7/10/13 17:42	83167	JL
Dibromofluoromethane	113	80-120		%REC	7/10/13 17:42	83167	JL
Fluorobenzene	98.4	80-120		%REC	7/10/13 17:42	83167	JL
Toluene-d8	95.5	80-120		%REC	7/10/13 17:42	83167	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-01

Client Sample ID: B222M 6-8'
Report Date: 7/16/2013
Collection Date: 7/9/2013 8:00:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	7.67		pH Units	7/12/13 11:30	R188411	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	19.3	0.0300	% (Percent)	7/10/13 13:20	R188314	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	< 7.66	7.66	mg/Kg-dry	7/12/13 09:58	83101	AG
Barium	34.4	15.3	mg/Kg-dry	7/12/13 09:58	83101	AG
Cadmium	0.514	0.306	mg/Kg-dry	7/12/13 09:58	83101	AG
Chromium	13.1	7.66	mg/Kg-dry	7/12/13 09:58	83101	AG
Lead	22.3	15.3	mg/Kg-dry	7/12/13 09:58	83101	AG
Selenium	< 1.44	1.44	mg/Kg-dry	7/12/13 09:58	83101	AG
Silver	< 1.53	1.53	mg/Kg-dry	7/12/13 09:58	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	< 0.0367	0.0367	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	< 0.00500	0.00500	mg/L	7/15/13 12:59	83137	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
1,2-Dichlorobenzene	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
1,3-Dichlorobenzene	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
1,4-Dichlorobenzene	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4,5-Trichlorophenol	< 891.	891.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4,6-Trichlorophenol	< 200.	200.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4-Dichlorophenol	< 891.	891.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4-Dimethylphenol	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4-Dinitrophenol	< 200.	200.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,4-Dinitrotoluene	< 250.	250.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2,6-Dinitrotoluene	< 260.	260.	µg/Kg-dry	7/15/13 20:31	83132	RYL
2-Chloronaphthalene	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
2-Chlorophenol	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-01

Client Sample ID: B222M 6-8'
Report Date: 7/16/2013
Collection Date: 7/9/2013 8:00:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
3,3'-Dichlorobenzidine	< 223.	223.	µg/Kg-dry	7/15/13 20:31	83132	RYL
4,6-Dinitro-2-methylphenol	< 337.	337.	µg/Kg-dry	7/15/13 20:31	83132	RYL
4-Bromophenyl phenyl ether	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
4-Chloro-3-methylphenol	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
4-Chloroaniline	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
4-Chlorophenyl phenyl ether	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
4-Nitrophenol	< 891.	891.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Acenaphthene	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
Acenaphthylene	< 111.	111.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Anthracene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Benz(a)anthracene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
ɜnzidine	< 265.	265.	µg/Kg-dry	7/15/13 20:31	83132	RYL
.enzo(a)pyrene	< 90.	90.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Benzo(b)fluoranthene	< 111.	111.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Benzo(g,h,i)perylene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Benzo(k)fluoranthene	< 22.3	22.3	µg/Kg-dry	7/15/13 20:31	83132	RYL
Benzoic acid	< 891.	891.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Bis(2-chloroethyl)ether	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
Bis(2-chloroisopropyl)ether	< 8.91	8.91	µg/Kg-dry	7/15/13 20:31	83132	RYL
Bis(2-ethylhexyl)phthalate	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Butyl benzyl phthalate	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Carbazole	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Chrysene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Di-n-butyl phthalate	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Di-n-octyl phthalate	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Diethyl phthalate	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Dimethyl phthalate	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Fluoranthene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Fluorene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Hexachlorobenzene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Hexachlorobutadiene	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL
Hexachlorocyclopentadiene	< 446.	446.	µg/Kg-dry	7/15/13 20:31	83132	RYL
Hexachloroethane	< 44.6	44.6	µg/Kg-dry	7/15/13 20:31	83132	RYL

Qualifiers:

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E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-01

Client Sample ID: B222M 6-8'
Report Date: 7/16/2013
Collection Date: 7/9/2013 8:00:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	< 111.	111.		µg/Kg-dry	7/15/13 20:31	83132	RYL
Isophorone	< 111.	111.		µg/Kg-dry	7/15/13 20:31	83132	RYL
m,p-Cresol	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
N-Nitrosodi-n-propylamine	< 1.8	1.8		µg/Kg-dry	7/15/13 20:31	83132	RYL
N-Nitrosodiphenylamine	< 446.	446.		µg/Kg-dry	7/15/13 20:31	83132	RYL
Naphthalene	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
Nitrobenzene	< 100.	100.		µg/Kg-dry	7/15/13 20:31	83132	RYL
o-Cresol	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
Pentachlorophenol	< 30.	30.		µg/Kg-dry	7/15/13 20:31	83132	RYL
Phenanthrene	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
Phenol	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
Pyrene	< 44.6	44.6		µg/Kg-dry	7/15/13 20:31	83132	RYL
rogates:							
,4,6-Tribromophenol	64.4	35-125		%REC	7/15/13 20:31	83132	RYL
2-Fluorobiphenyl	46.8	45-105		%REC	7/15/13 20:31	83132	RYL
2-Fluorophenol	40.6	35-105		%REC	7/15/13 20:31	83132	RYL
4-Terphenyl-d14	70.4	30-125		%REC	7/15/13 20:31	83132	RYL
Nitrobenzene-d5	41.0	35-100		%REC	7/15/13 20:31	83132	RYL
Phenol-d5	45.2	40-100		%REC	7/15/13 20:31	83132	RYL
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5035**				
1,1,1-Trichloroethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,1,2,2-Tetrachloroethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,1,2-Trichloroethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,1-Dichloroethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,1-Dichloroethene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,2-Dibromo-3-chloropropane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,2-Dibromoethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,2-Dichloroethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,2-Dichloropropane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1-Butanol	< 190.	190.	C	µg/Kg-dry	7/10/13 15:12	83167	JL
2-Butanone	< 91.	91.		µg/Kg-dry	7/10/13 15:12	83167	JL
2-Hexanone	< 95.2	95.2		µg/Kg-dry	7/10/13 15:12	83167	JL
4-Methyl-2-pentanone	< 52.5	52.5		µg/Kg-dry	7/10/13 15:12	83167	JL
Acetone	< 56.	56.		µg/Kg-dry	7/10/13 15:12	83167	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-01

Client Sample ID: B222M 6-8'
Report Date: 7/16/2013
Collection Date: 7/9/2013 8:00:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 9.71	9.71		µg/Kg-dry	7/10/13 15:12	83167	JL
Benzene	2.	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Bromodichloromethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Bromoform	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Bromomethane	< 6.48	6.48		µg/Kg-dry	7/10/13 15:12	83167	JL
Carbon disulfide	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Carbon tetrachloride	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Chlorobenzene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Chloroethane	< 9.93	9.93		µg/Kg-dry	7/10/13 15:12	83167	JL
Chloroform	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Chloromethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
cis-1,2-Dichloroethene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
'bromochloromethane	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
.hylbenzene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
m,p-Xylene	< 2.23	2.23		µg/Kg-dry	7/10/13 15:12	83167	JL
Methyl tert-butyl ether	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Methylene chloride	< 2.54	2.54		µg/Kg-dry	7/10/13 15:12	83167	JL
o-Xylene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Styrene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Tetrachloroethene	3.29	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Toluene	2.38	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
trans-1,2-Dichloroethene	< 2.09	2.09		µg/Kg-dry	7/10/13 15:12	83167	JL
Trichloroethene	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
Vinyl acetate	< 26.6	26.6		µg/Kg-dry	7/10/13 15:12	83167	JL
Vinyl chloride	< 1.92	1.92		µg/Kg-dry	7/10/13 15:12	83167	JL
1,3-Dichloropropene, Total	< 3.83	3.83	C	µg/Kg-dry	7/10/13 15:12	83167	JL
Xylenes, Total	< 4.14	4.14		µg/Kg-dry	7/10/13 15:12	83167	JL
Surrogates:							
1,2-Dichloroethane-d4	117	80-120		%REC	7/10/13 15:12	83167	JL
4-Bromofluorobenzene	108	80-120		%REC	7/10/13 15:12	83167	JL
d4-1,2-Dichlorobenzene	110	80-120		%REC	7/10/13 15:12	83167	JL
Dibromofluoromethane	110	80-120		%REC	7/10/13 15:12	83167	JL
Fluorobenzene	99.8	80-120		%REC	7/10/13 15:12	83167	JL
Toluene-d8	97.8	80-120		%REC	7/10/13 15:12	83167	JL

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-02

Client Sample ID: B222 N 4-6'
Report Date: 7/16/2013
Collection Date: 7/9/2013 9:30:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
Corrosivity by pH		**Method:**	**SW9045C**			
pH	6.78		pH Units	7/12/13 11:30	R188411	SG
Percent Moisture		**Method:**	**SM2540G**			
Percent Moisture	18.3	0.0300	% (Percent)	7/10/13 13:20	R188314	TB2
ICP-MS Metals, Total.		**Method:**	**SW6020A / SW3050B**			
Arsenic	< 14.1	14.1	mg/Kg-dry	7/12/13 09:58	83101	AG
Barium	792	28.1	mg/Kg-dry	7/12/13 09:58	83101	AG
Cadmium	0.928	0.563	mg/Kg-dry	7/12/13 09:58	83101	AG
Chromium	26.9	14.1	mg/Kg-dry	7/12/13 09:58	83101	AG
Lead	2,490	281	mg/Kg-dry	7/15/13 12:59	83101	AG
·lenium	3.40	2.64	mg/Kg-dry	7/12/13 09:58	83101	AG
.ıver	2.84	2.81	mg/Kg-dry	7/12/13 09:58	83101	AG
Mercury, Total		**Method:**	**SW7471B**			
Mercury	0.0459	0.0361	mg/Kg-dry	7/15/13 09:48	83181	ML3
Metals, SPLP Extracted		**Method:**	**SW6020A / SW3015**			
Lead	< 0.00500	0.00500	mg/L	7/15/13 12:59	83137	AG
Semivolatile Organic Compounds by GC/MS		**Method:**	**SW8270D / SW3550B**			
1,2,4-Trichlorobenzene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
1,2-Dichlorobenzene	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
1,3-Dichlorobenzene	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
1,4-Dichlorobenzene	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4,5-Trichlorophenol	< 8880.	8880.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4,6-Trichlorophenol	< 277.	277.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4-Dichlorophenol	< 1000.	1000.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4-Dimethylphenol	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4-Dinitrophenol	< 1830.	1830.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,4-Dinitrotoluene	< 277.	277.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2,6-Dinitrotoluene	< 277.	277.	µg/Kg-dry	7/16/13 14:47	83132	RYL
2-Chloronaphthalene	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
2-Chlorophenol	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-02

Client Sample ID: B222 N 4-6'
Report Date: 7/16/2013
Collection Date: 7/9/2013 9:30:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit	Units	Date Analyzed	Batch	Analyst
2-Nitrophenol	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
3,3'-Dichlorobenzidine	< 1300.	1300.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4,6-Dinitro-2-methylphenol	< 3360.	3360.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4-Bromophenyl phenyl ether	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4-Chloro-3-methylphenol	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4-Chloroaniline	< 700.	700.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4-Chlorophenyl phenyl ether	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
4-Nitrophenol	< 8880.	8880.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Acenaphthene	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
Acenaphthylene	< 1110.	1110.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Anthracene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Benz(a)anthracene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
ɜnzidine	< 2640.	2640.	µg/Kg-dry	7/16/13 14:47	83132	RYL
.enzo(a)pyrene	< 90.	90.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Benzo(b)fluoranthene	< 1110.	1110.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Benzo(g,h,i)perylene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Benzo(k)fluoranthene	< 222.	222.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Benzoic acid	< 8880.	8880.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Bis(2-chloroethyl)ether	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
Bis(2-chloroisopropyl)ether	< 88.8	88.8	µg/Kg-dry	7/16/13 14:47	83132	RYL
Bis(2-ethylhexyl)phthalate	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Butyl benzyl phthalate	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Carbazole	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Chrysene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Di-n-butyl phthalate	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Di-n-octyl phthalate	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Dibenz(a,h)anthracene	< 90.	90.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Diethyl phthalate	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Dimethyl phthalate	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Fluoranthene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Fluorene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Hexachlorobenzene	< 400.	400.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Hexachlorobutadiene	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Hexachlorocyclopentadiene	< 4440.	4440.	µg/Kg-dry	7/16/13 14:47	83132	RYL
Hexachloroethane	< 444.	444.	µg/Kg-dry	7/16/13 14:47	83132	RYL

Qualifiers:

B - Analyte detected in the associated Method Blank
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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-02

Client Sample ID: B222 N 4-6'
Report Date: 7/16/2013
Collection Date: 7/9/2013 9:30:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Indeno(1,2,3-cd)pyrene	< 900.	900.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Isophorone	< 1110.	1110.		µg/Kg-dry	7/16/13 14:47	83132	RYL
m,p-Cresol	< 200.	200.		µg/Kg-dry	7/16/13 14:47	83132	RYL
N-Nitrosodi-n-propylamine	< 17.4	17.4		µg/Kg-dry	7/16/13 14:47	83132	RYL
N-Nitrosodiphenylamine	< 1000.	1000.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Naphthalene	< 444.	444.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Nitrobenzene	< 133.	133.		µg/Kg-dry	7/16/13 14:47	83132	RYL
o-Cresol	< 444.	444.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Pentachlorophenol	< 111.	111.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Phenanthrene	< 444.	444.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Phenol	< 444.	444.		µg/Kg-dry	7/16/13 14:47	83132	RYL
Pyrene	< 444.	444.		µg/Kg-dry	7/16/13 14:47	83132	RYL
rogates:							
,4,6-Tribromophenol	68.3	35-125		%REC	7/16/13 14:47	83132	RYL
2-Fluorobiphenyl	78.9	45-105		%REC	7/16/13 14:47	83132	RYL
2-Fluorophenol	42.9	35-105		%REC	7/16/13 14:47	83132	RYL
4-Terphenyl-d14	96.4	30-125		%REC	7/16/13 14:47	83132	RYL
Nitrobenzene-d5	57.2	35-100		%REC	7/16/13 14:47	83132	RYL
Phenol-d5	43.8	40-100		%REC	7/16/13 14:47	83132	RYL
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5035**			
1,1,1-Trichloroethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,1,2,2-Tetrachloroethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,1,2-Trichloroethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,1-Dichloroethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,1-Dichloroethene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,2-Dibromo-3-chloropropane	< 2.	2.		µg/Kg-dry	7/15/13 14:13	83186	JL
1,2-Dibromoethane	< 0.453	0.453		µg/Kg-dry	7/15/13 14:13	83186	JL
1,2-Dichloroethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,2-Dichloropropane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1-Butanol	< 313.	313.	C	µg/Kg-dry	7/15/13 14:13	83186	JL
2-Butanone	< 150.	150.		µg/Kg-dry	7/15/13 14:13	83186	JL
2-Hexanone	< 157.	157.		µg/Kg-dry	7/15/13 14:13	83186	JL
4-Methyl-2-pentanone	< 86.5	86.5		µg/Kg-dry	7/15/13 14:13	83186	JL
Acetone	< 92.2	92.2		µg/Kg-dry	7/15/13 14:13	83186	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070186
Project: Bloom Great Lakes Soil
Lab ID: 13070186-02

Client Sample ID: B222 N 4-6'
Report Date: 7/16/2013
Collection Date: 7/9/2013 9:30:00 AM
Matrix: Solid

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Acrylonitrile	< 16.	16.		µg/Kg-dry	7/15/13 14:13	83186	JL
Benzene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Bromodichloromethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Bromoform	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Bromomethane	< 10.7	10.7		µg/Kg-dry	7/15/13 14:13	83186	JL
Carbon disulfide	21.1	2.27		µg/Kg-dry	7/10/13 15:42	83167	JL
Carbon tetrachloride	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Chlorobenzene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Chloroethane	< 16.4	16.4		µg/Kg-dry	7/15/13 14:13	83186	JL
Chloroform	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Chloromethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
cis-1,2-Dichloroethene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
'bromochloromethane	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
.hylbenzene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
m,p-Xylene	< 3.67	3.67		µg/Kg-dry	7/15/13 14:13	83186	JL
Methyl tert-butyl ether	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Methylene chloride	< 4.18	4.18		µg/Kg-dry	7/15/13 14:13	83186	JL
o-Xylene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Styrene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Tetrachloroethene	7.25	2.27		µg/Kg-dry	7/10/13 15:42	83167	JL
Toluene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
trans-1,2-Dichloroethene	< 3.44	3.44		µg/Kg-dry	7/15/13 14:13	83186	JL
Trichloroethene	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
Vinyl acetate	< 31.5	31.5		µg/Kg-dry	7/10/13 15:42	83167	JL
Vinyl chloride	< 3.15	3.15		µg/Kg-dry	7/15/13 14:13	83186	JL
1,3-Dichloropropene, Total	< 4.	4.	C	µg/Kg-dry	7/15/13 14:13	83186	JL
Xylenes, Total	< 6.83	6.83		µg/Kg-dry	7/15/13 14:13	83186	JL
Surrogates:							
1,2-Dichloroethane-d4	116	80-120		%REC	7/15/13 14:13	83186	JL
4-Bromofluorobenzene	120	80-120		%REC	7/15/13 14:13	83186	JL
d4-1,2-Dichlorobenzene	122	80-120	S	%REC	7/15/13 14:13	83186	JL
Dibromofluoromethane	110	80-120		%REC	7/15/13 14:13	83186	JL
Fluorobenzene	95.2	80-120		%REC	7/15/13 14:13	83186	JL
Toluene-d8	110	80-120		%REC	7/15/13 14:13	83186	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
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J - Analyte detected below quanititation limits

N1-

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH ____ day turnaround
☑ ROUTINE

Due Date: ___-___-___ COC #: 121977

Company: Bloom Companies
Address: 10501 W Research Dr Ste 100
Milwaukee WI 53226
Phone #: (414) 892-4545 Fax #: (___) ___-___
P.O. #: BMF-1114 Proj.#: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: GL NAVY, IL

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater ____

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag ____

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH ____

Analyses

EMT USE ONLY
EMT WORKORDER #1307016l

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Sampling Date	Sampling Time	pH	Temp.	Preservation Field	Preservation Lab	VOCs	SVOCs	SPLP LEAD	TCLP METALS	pH	rcra metals per client						
B222 E 14-16'	3	12oz	G	1	JLF	7/8	0800	NA	NA	1			X	X	X	X							01A
B222 I 10-12'	3	12oz	G	1			0930			1			X	X	X	X							02A
B222 J 6-8'	3	12oz	G	1			1100			1			X	X	X	X							03A
B222 K 12-14'	3	12oz	G	1			1230			1			X	X	X	X							04A
B222 L 4-6'	3	12oz	G	1			1430			1			X	X	X	X							05A
B222 E 14-16'	3	Encore	O	3			0800			1		X											01B,C
B222 I 10-12'	3			3			0930			1		X											02B,C
B222 J 6-8'	3			3			1100			1		X											03B,C
B222 K 12-14'	3			3			1230			1		X											04B,C
B222 L 4-6'	3			3			1430			1		X											05B,C

Relinquished By:	Date:	Received By:	Date:	EMT USE ONLY
Judy Fassbender	7-8-13 Time: 16:00	[illegible]	7-8-13 Time: 16:00	Client Code: Bloom
Relinquished By: [illegible]	Date: 7-8-13 Time: 1700	Received By:	Date: - - Time: :	EMT Project I.D. Bloom Great Lakes SOIL
Relinquished By:	Date: - - Time: :	Received For Lab By: Sarah Hinde	Date: 7-8-13 Time: 17:00	Jar Lot No.

☑ SAMPLE RECEIVED ON ICE
☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt)
11

EMT SAMPLE RETURN POLICY ON BACK

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Chain of Custody Record

TURNAROUND TIME:
☐ RUSH
____ day turnaround
☒ ROUTINE

Due Date: ___-___-___ COC #: 121978

Company: Bloom Companies LLC
Address: 10501 W Research Dr, Ste 100
Milwaukee, WI 53226
Phone #: (414) 292-4545 Fax #: (___) ___-___
P.O. #: Proj. #: BMF-1114
Client Contact: Judy Fassbender
Project ID / Location: Great Lakes Navy

Sample Type:
1. Waste Water 4. Sludge 7. Groundwater (filtered)
2. Drinking Water 5. Oil 8. Other
3. Soil 6. Groundwater

Container Type:
P - Plastic V - VOC Vial O - Other
G - Glass B - Tedlar Bag

Preservative:
1. None 4. NaOH 7. Zn Ace
2. H_2SO_4 5. HCl 8. Other
3. HNO_3 6. MeOH

Analyses

EMT USE ONLY
EMT WORKORDER #13070186

Sample I.D.	Sample Type	Container Size	Container Type	Container No.	2013 Sampling By	Date	Time	pH	Temp.	Preservation Field	Preservation Lab	VOCs	SVOCs	PH	SPLP Lead	RCRA Metals						EMT USE ONLY
B222 M 6-8'	3	12oz	G	1	JLF	7/09	0800	NA	NA				X	X	X	X						01A
B222 M 6-8'	3	Encore		3	JLF	↓	0800	↓	↓	↓		X										01B
B222 N 4-6'	3	12oz	G	1	JLF	↓	0930	↓	↓	↓			X	X	X	X						02A
B222 N 4-6'	3	Encore		3	JLF	↓	0930	↓	↓	↓		X										02B

Relinquished By:	Date: 07-09-13 Time: 13:05	Received By:	Date: 7-9-13 Time: 1305	EMT USE ONLY Client Code: Bloom	☒ SAMPLE RECEIVED ON ICE
Relinquished By:	Date: 7-9-13 Time: 1415	Received By:	Date: - - Time: :	EMT Project I.D. Great Lakes Navy	☐ TEMPERATURE (Must be recorded if sampling was greater than 6 hrs. prior to sample receipt) 8
Relinquished By:	Date: - - Time: :	Received For Lab By: Sarah Linde	Date: 7-9-13 Time: 14:15	Jar Lot No.	EMT SAMPLE RETURN POLICY ON BACK

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Judy Fassbender
Bloom Companies, LLC
10501 W. Research Drive
Suite 100
Milwaukee, WI 53226

August 02, 2013

RE: AOC 222 - Navy

Lab Orders:
13070879 13070918

Dear Ms. Judy Fassbender:

Enclosed are the analytical reports for the EMT Lab Orders listed. Also included with this analytical report is a copy of the chain of custody associated with these samples. If you have any questions, please contact me at 847-967-6666.

Sincerely,

for

ıthan Fey
Project Manager

Approved by,

Marilyn Krueding
Laboratory Director

This Report Contains 40 pages

The Contents of this report apply to the sample(s) analyzed. No duplication is allowed except in its entirety.

-ELAP, PJLA Accredited lab No. 75537

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CLIENT: Bloom Companies, LLC **Date:** *8/2/2013*

Project: AOC 222 - Navy **CASE NARRATIVE**

Lab Orders: 13070879 13070918

Unless otherwise noted, samples were analyzed using the methods outlined in the following references:
Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, 3rd Edition

Unless otherwise noted, all method blanks, laboratory spikes, and/or matrix spikes met quality assurance objectives.

Sample results relate only to the analytes of interest tested and to the sample received at the laboratory.

All results are reported on a wet weight basis, unless otherwise noted. Dry weight adjusted results, reporting limits, method detection limits and dilution factors are indicated by the notation "dry" in the Units column. If present, a dilution factor will adjust the method detection limits and reporting limits.

The test results contained in this report meet all of the requirements of NELAC. Accreditation by the State of Illinois or Wisconsin is not an endorsement or a guarantee of the validity of data generated. For specific information regarding EMT's scope of accreditation , please contact your EMT project manager.

The Reporting Limit listed on the Report of Laboratory Analysis is EMT's reporting limit for the analyte reported. For most test methods this reporting limit is primarily based upon the lowest point in the calibration curve.

Analyst's initials of "OUT" indicate that the analyte was analyzed by a subcontracted laboratory.

Method References:
SW=USEPA, Test Methods for Evaluating Solid Waste, SW-846.
E=USEPA Methods for the Determination of Inorganic Substances in Environmental Samples; Methods for Chemical Analysis of Water and Wastes; Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, 40 CFR Part 136, App A; methods for the Determination of Metals in Environmental Samples; Methods for the Determination of Organic Compounds in Drinking Water.
SM= APHA, Standard Methods for the Examination of Water and Wastewater.
D=ASTM, Annual Book of Standards

Batch numbers starting with a letter indicate an analytical batch while those that are exculsively numerals indicate a preparation batch.

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CLIENT: Bloom Companies, LLC **Date:** *8/2/2013*

Project: AOC 222 - Navy

Lab Orders: 13070879 13070918

CASE NARRATIVE

WO 13070879:
Analytical Comments for METHOD 8270_WNEW, 13070879-13c, 09a, 14c: Surrogate recoveries were below the laboratory limits.

Analytical Comments for METHOD 8270_wnew, 13070879-08a: Surrogate recoveries were slightly below the laboratory limits.

Visual inspection of the metal containers for AOC 222 N and AOC 222 M revealed sediment material in the bottles labeled dissolve where the bottles labeled total. The bottles must have been switched or mis-labeled before entering the lab. The analytical resuts were switched to make the dissolved bottle the total and the total the dissolved for these samples.

O 13070918:
Analytical Comments for METHOD 8270_wnew, 13070918-01A: Surrogate recoveries were below the laboratory limits.

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-01

Client Sample ID: AOC222 EZ
Report Date: 8/2/2013
Collection Date: 7/22/2013 12:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 20:57	83470	JL
`Butanone	< 20.0	20.0		µg/L	7/24/13 20:57	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 20:57	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 20:57	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 20:57	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 20:57	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 20:57	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 20:57	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 20:57	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 20:57	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 20:57	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-01

Client Sample ID: AOC222 EZ
Report Date: 8/2/2013
Collection Date: 7/22/2013 12:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 20:57	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 20:57	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 20:57	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 20:57	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	135	70-120	S	%REC	7/24/13 20:57	83470	JL
4-Bromofluorobenzene	83.2	75-120		%REC	7/24/13 20:57	83470	JL
d4-1,2-Dichlorobenzene	112	80-120		%REC	7/24/13 20:57	83470	JL
bromofluoromethane	125	85-115	S	%REC	7/24/13 20:57	83470	JL
fluorobenzene	101	80-120		%REC	7/24/13 20:57	83470	JL
Toluene-d8	102	85-120		%REC	7/24/13 20:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-02

Client Sample ID: A0C 222 I
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:15:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**	**SW8260B / SW5030A**				
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 21:27	83470	JL
`Butanone	< 20.0	20.0		µg/L	7/24/13 21:27	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 21:27	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 21:27	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 21:27	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 21:27	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 21:27	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 21:27	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 21:27	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 21:27	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 21:27	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-02

Client Sample ID: A0C 222 I
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:15:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 21:27	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 21:27	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 21:27	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 21:27	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	136	70-120	S	%REC	7/24/13 21:27	83470	JL
4-Bromofluorobenzene	86.8	75-120		%REC	7/24/13 21:27	83470	JL
d4-1,2-Dichlorobenzene	114	80-120		%REC	7/24/13 21:27	83470	JL
ibromofluoromethane	126	85-115	S	%REC	7/24/13 21:27	83470	JL
Fluorobenzene	101	80-120		%REC	7/24/13 21:27	83470	JL
Toluene-d8	99.0	85-120		%REC	7/24/13 21:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-03

Client Sample ID: A0C 222 J
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 21:57	83470	JL
`-Butanone	< 20.0	20.0		µg/L	7/24/13 21:57	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 21:57	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 21:57	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 21:57	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 21:57	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 21:57	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 21:57	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 21:57	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 21:57	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 21:57	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-03

Client Sample ID: A0C 222 J
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:30:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 21:57	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 21:57	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 21:57	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 21:57	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	139	70-120	S	%REC	7/24/13 21:57	83470	JL
4-Bromofluorobenzene	90.4	75-120		%REC	7/24/13 21:57	83470	JL
d4-1,2-Dichlorobenzene	118	80-120		%REC	7/24/13 21:57	83470	JL
ibromofluoromethane	126	85-115	S	%REC	7/24/13 21:57	83470	JL
r-luorobenzene	102	80-120		%REC	7/24/13 21:57	83470	JL
Toluene-d8	100	85-120		%REC	7/24/13 21:57	83470	JL

Qualifiers:

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-04

Client Sample ID: A0C 222 K
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:45:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 22:27	83470	JL
`-Butanone	< 20.0	20.0		µg/L	7/24/13 22:27	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 22:27	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 22:27	83470	JL
Acetone	44.8	40.0		µg/L	7/24/13 22:27	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 22:27	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 22:27	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 22:27	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 22:27	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 22:27	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 22:27	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
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J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-04

Client Sample ID: A0C 222 K
Report Date: 8/2/2013
Collection Date: 7/22/2013 1:45:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 22:27	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 22:27	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 22:27	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 22:27	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	138	70-120	S	%REC	7/24/13 22:27	83470	JL
4-Bromofluorobenzene	91.6	75-120		%REC	7/24/13 22:27	83470	JL
d4-1,2-Dichlorobenzene	117	80-120		%REC	7/24/13 22:27	83470	JL
ibromofluoromethane	131	85-115	S	%REC	7/24/13 22:27	83470	JL
r-luorobenzene	98.3	80-120		%REC	7/24/13 22:27	83470	JL
Toluene-d8	99.4	85-120		%REC	7/24/13 22:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-05

Client Sample ID: A0C 222 L
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 22:57	83470	JL
Butanone	< 20.0	20.0		µg/L	7/24/13 22:57	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 22:57	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 22:57	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 22:57	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 22:57	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 22:57	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 22:57	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 22:57	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 22:57	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 22:57	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL

Qualifiers:
B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-05

Client Sample ID: A0C 222 L
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:00:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 22:57	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 22:57	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 22:57	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 22:57	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	143	70-120	S	%REC	7/24/13 22:57	83470	JL
4-Bromofluorobenzene	90.6	75-120		%REC	7/24/13 22:57	83470	JL
d4-1,2-Dichlorobenzene	113	80-120		%REC	7/24/13 22:57	83470	JL
ibromofluoromethane	132	85-115	S	%REC	7/24/13 22:57	83470	JL
Fluorobenzene	98.8	80-120		%REC	7/24/13 22:57	83470	JL
Toluene-d8	100	85-120		%REC	7/24/13 22:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-06

Client Sample ID: A0C 222 M
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:15:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 23:27	83470	JL
2-Butanone	< 20.0	20.0		µg/L	7/24/13 23:27	83470	JL
Hexanone	< 20.0	20.0		µg/L	7/24/13 23:27	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 23:27	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 23:27	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 23:27	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 23:27	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 23:27	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 23:27	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 23:27	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 23:27	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-06

Client Sample ID: A0C 222 M
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:15:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 23:27	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 23:27	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 23:27	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 23:27	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	141	70-120	S	%REC	7/24/13 23:27	83470	JL
4-Bromofluorobenzene	94.9	75-120		%REC	7/24/13 23:27	83470	JL
d4-1,2-Dichlorobenzene	122	80-120	S	%REC	7/24/13 23:27	83470	JL
ibromofluoromethane	132	85-115	S	%REC	7/24/13 23:27	83470	JL
-luorobenzene	101	80-120		%REC	7/24/13 23:27	83470	JL
Toluene-d8	101	85-120		%REC	7/24/13 23:27	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-07

Client Sample ID: A0C 222 N
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:45:00 PM
Matrix: Groundwater

Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Volatile Organic Compounds by GC/MS		**Method:**		**SW8260B / SW5030A**			
1,1,1-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,1,2,2-Tetrachloroethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,1,2-Trichloroethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,1-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,1-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,2-Dibromo-3-chloropropane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,2-Dibromoethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,2-Dichloroethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,2-Dichloropropane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1-Butanol	< 100	100	C	µg/L	7/24/13 23:57	83470	JL
2-Butanone	< 20.0	20.0		µg/L	7/24/13 23:57	83470	JL
2-Hexanone	< 20.0	20.0		µg/L	7/24/13 23:57	83470	JL
4-Methyl-2-pentanone	< 20.0	20.0		µg/L	7/24/13 23:57	83470	JL
Acetone	< 40.0	40.0		µg/L	7/24/13 23:57	83470	JL
Acrylonitrile	< 20.0	20.0		µg/L	7/24/13 23:57	83470	JL
Benzene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Bromodichloromethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Bromoform	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Bromomethane	< 6.21	6.21		µg/L	7/24/13 23:57	83470	JL
Carbon disulfide	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Carbon tetrachloride	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Chlorobenzene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Chloroethane	< 20.0	20.0		µg/L	7/24/13 23:57	83470	JL
Chloroform	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Chloromethane	< 3.27	3.27		µg/L	7/24/13 23:57	83470	JL
cis-1,2-Dichloroethene	< 3.72	3.72		µg/L	7/24/13 23:57	83470	JL
Dibromochloromethane	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Ethylbenzene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
m,p-Xylene	< 4.00	4.00		µg/L	7/24/13 23:57	83470	JL
Methyl tert-butyl ether	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Methylene chloride	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
o-Xylene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Styrene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
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C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
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Report of Laboratory Analysis

CLIENT: Bloom Companies, LLC
Lab Order: 13070879
Project: AOC 222 - Navy
Lab ID: 13070879-07

Client Sample ID: A0C 222 N
Report Date: 8/2/2013
Collection Date: 7/22/2013 2:45:00 PM
Matrix: Groundwater

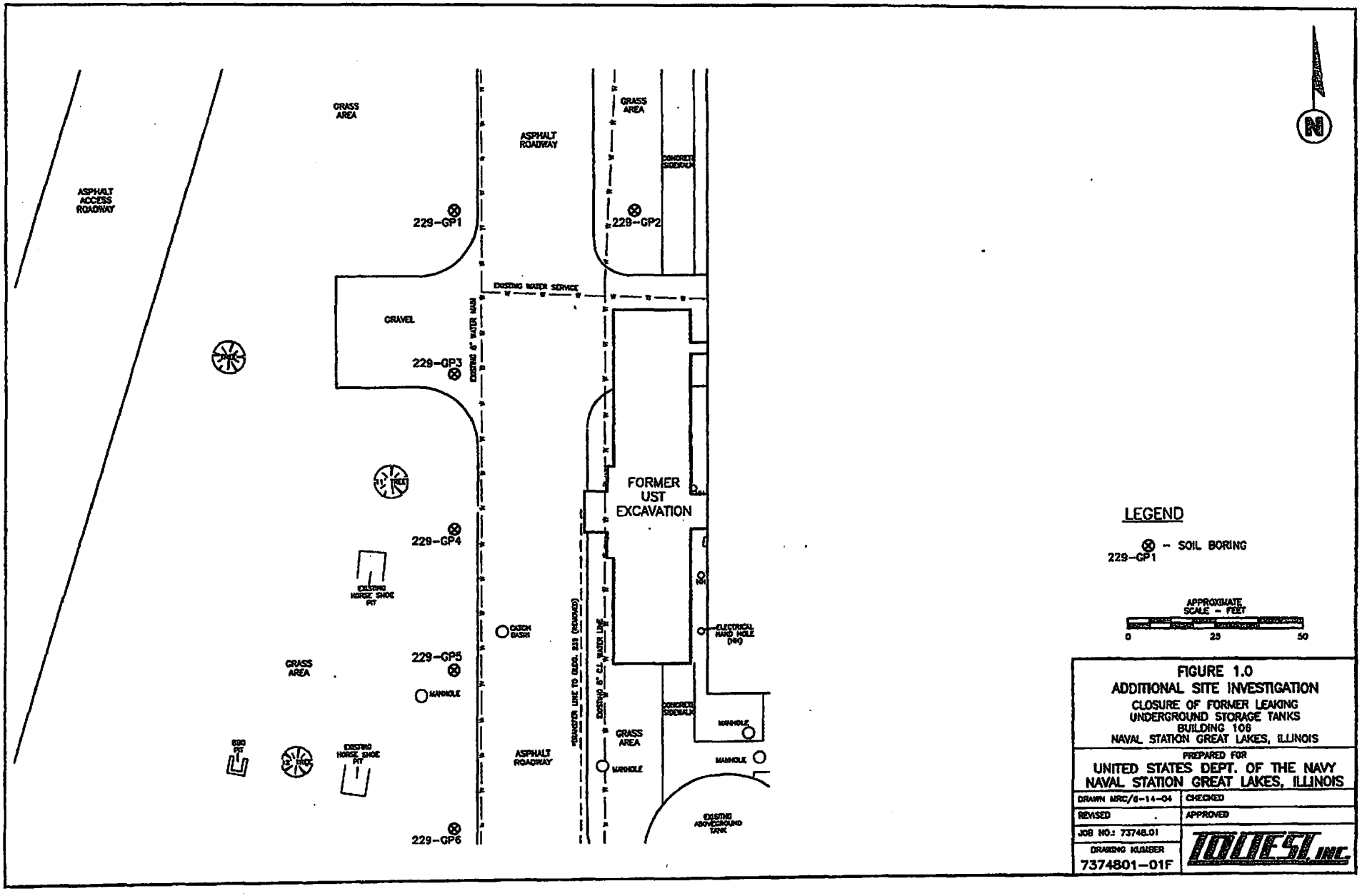
Analyses	Result	EMT Reporting Limit		Units	Date Analyzed	Batch	Analyst
Tetrachloroethene	< 10.0	10.0		µg/L	7/24/13 23:57	83470	JL
Toluene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
trans-1,2-Dichloroethene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Trichloroethene	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Vinyl acetate	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
Vinyl chloride	< 2.00	2.00		µg/L	7/24/13 23:57	83470	JL
1,3-Dichloropropene, Total	< 4.00	4.00	C	µg/L	7/24/13 23:57	83470	JL
Xylenes, Total	< 6.00	6.00		µg/L	7/24/13 23:57	83470	JL
Surrogates:							
1,2-Dichloroethane-d4	142	70-120	S	%REC	7/24/13 23:57	83470	JL
4-Bromofluorobenzene	87.3	75-120		%REC	7/24/13 23:57	83470	JL
d4-1,2-Dichlorobenzene	115	80-120		%REC	7/24/13 23:57	83470	JL
ibromofluoromethane	130	85-115	S	%REC	7/24/13 23:57	83470	JL
-luorobenzene	98.5	80-120		%REC	7/24/13 23:57	83470	JL
Toluene-d8	98.4	85-120		%REC	7/24/13 23:57	83470	JL

Qualifiers:

B - Analyte detected in the associated Method Blank
E - Estimated
H - Holding Time Exceeded
C - Laboratory not accredited for this parameter
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
J - Analyte detected below quanititation limits

APPENDIX E

PREVIOUS SUBMITTED REPORTS


ASPHALT ACCESS ROADWAY
GRASS AREA
ASPHALT ROADWAY
GRASS AREA
229-GP1
229-GP2
EXISTING WATER SERVICE
GRAVEL
EXISTING 6" WATER MAIN
229-GP3
FORMER UST EXCAVATION
229-GP4
EXISTING HORSE SHOE PIT
CATCH BASIN
ELECTRICAL HAND HOLE
229-GP5
GRASS AREA
MANHOLE
CONCRETE SIDEWALK
EXISTING 6" C.I. WATER LINE
EXTENSION LINE TO BLDG. 213 (REMOVED)
GRASS AREA
MANHOLE
MANHOLE
MANHOLE
ASPHALT ROADWAY
EXISTING HORSE SHOE PIT
EXISTING ABOVEGROUND TANK
229-GP6
N
LEGEND
229-GP1 - SOIL BORING
APPROXIMATE SCALE - FEET
0
25
50
FIGURE 1.0
ADDITIONAL SITE INVESTIGATION
CLOSURE OF FORMER LEAKING UNDERGROUND STORAGE TANKS
BUILDING 106
NAVAL STATION GREAT LAKES, ILLINOIS
PREPARED FOR
UNITED STATES DEPT. OF THE NAVY
NAVAL STATION GREAT LAKES, ILLINOIS
DRAWN MRC/6-14-04
CHECKED
REVISED
APPROVED
JOB NO.: 73748.01
DRAWING NUMBER
7374801-01F
TOLTEST, INC.

T

Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Additional Site Investigation
Soil Analytical Results
May 2004

Target Analyte	229-GP1-11'	229-GP2-15'	229-GP3-10'	229-GP4-15'	229-GP5-12'	229-GP6-8'	Tier I Residential		Tier I Soil Component of the Groundwater Ingestion Exposure Route Class I/II
							Ingestion	Inhalation	
VOCs/SVOCs									
Acetone	13	12	8.6	9.9	24	27	7,800	100,000	1616
Tetrachloroethane	ND	ND	ND	ND	ND	7.5	12	11	0.06/0.3
Naphthalene	ND	ND	ND	ND	ND	690	1,600	170	12/18
2-Methylnapthalene	ND	ND	ND	ND	ND	220	310	NV	7.7/39
2,4-Dinitrotoluene	ND	ND	ND	ND	ND	1,100	0.9	NV	0.0008/0.0008
SVOCs									
Acenaphthene	ND	ND	ND	ND	10	710	4,700	NV	570/2,900
Dibenzofuran	ND	ND	ND	ND	5.4	ND	310	NV	15/76
Acenaphthylene	ND	ND	ND	ND	ND	27	2,300	NV	24/120
Fluorene	ND	ND	ND	ND	16	1,300	3,100	NV	560/2,800
Phenantherene	ND	7.4	19	9.1	150	13,000	NV	NV	NV
Anthracene	ND	ND	4.6	ND	41	3,900	23,000	NV	12,000/59,000
Carbazole	ND	ND	ND	ND	ND	1,700	32	NV	0.6/2.8
Fluoranthene	6.4	5.1	23	5.7	200	14,000	3,100	NV	4,300/21,000
Pyrene	6.8	7.6	19	7.6	180	12,000	2,300	NV	4,200/21,000
Butyl benzyl phthalate	9.1	ND	ND	ND	ND	ND	16,000	930	930/930
Benzo(a)anthracene	9.0	6.6	11	4.4	80	4,400	0.9	NV	2/8
Chrysene	9.9	19	15	14	82	5,900	100	0.3	0.6/2.9
Bis(2-ethylhexyl)phthalate	14	23	13	ND	ND	14	46	31,000	3,600/31,000
Benzo(b)fluoranthene	14	14	13	5.0	56	3,700	0.9	NV	2/8
Benzo(k)fluoranthene	19	13	12	5.6	78	3,900	0.9	NV	5/25
Benzo(a)pyrene	18	16	13	5.3	72	3,500	0.09	NV	8/82
Indeno(1,2,3-cd)pyrene	21	25	16	8.4	40	1,700	0.9	NV	14/69
Dibenzo(a,h)anthracene	20	24	13	8.1	24	670	0.09	NV	2/7
Benzo(ghi)perylene	22	32	19	13	45	1,800	2,300	NV	32,000/160,000

Notes:
1. Concentrations in micrograms per kilograms (µg/kg).
2. Values in bold print exceed their respective method detection limits (MDLs).
3. ND indicates non-detect at MDLs.
4. NV indicates no toxicity criteria available for this route of exposure for this analyte.
5. NL indicates not listed in TACO Tier I tables as a contaminant of concern.
6. Only Chemicals that exceeded its respective MDL are listed here. A complete list of all chemicals analyzed can be fund in Appendix E

Table 1.0
Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Additional Site Investigation
Soil Analytical Results
May 2004

Target Analyte	229-GP1-11'	229-GP2-15'	229-GP3-10'	229-GP4-15'	229-GP5-12'	229-GP6-8'	Tier I Residential		Tier I Soil Component of the Groundwater Ingestion Exposure Route Class I/II
							Ingestion	Inhalation	
Total RCRA Metals									
Arsenic	**7.6**	**3.2**	**5.9**	**7.2**	**10**	**5.9**	NV	750	0.006/0.024
Barium	**48**	**29**	**39**	**27**	**87**	**100**	5,500	690,000	2/2
Cadmium	**0.20**	ND	**0.20**	**0.11**	ND	**0.44**	78	1,800	0.005/0.05
Chromium	**17**	**18**	**18**	**9.7**	**22**	**16**	230	270	0.1/1.0
Lead	**13**	**9.5**	**9.7**	**7.4**	**14**	**310**	400	NV	0.0075/0.1
Selenium	ND	ND	ND	ND	ND	ND	390	NV	0.05/0.05
Silver	ND	ND	ND	ND	ND	**1.1**	390	NV	0.05/NV
Mercury	**0.038**	**0.021**	**0.010**	**0.0067**	**0.028**	**0.100**	23	10	0.002/0.01
SPLP RCRA Metals									
Arsenic	**0.017**	ND	**0.022**	ND	ND	**0.026**	N/A	N/A	0.006/0.024
Barium	**0.48**	**0.19**	**0.43**	**0.27**	**0.38**	**0.62**	N/A	N/A	2/2
Cadmium	ND	ND	ND	ND	ND	ND	N/A	N/A	0.005/0.05
Chromium	**0.037**	**0.016**	**0.062**	ND	**0.033**	**0.073**	N/A	N/A	0.1/1.0
Lead	**0.019**	**0.0074**	**0.033**	ND	**0.018**	**0.30**	N/A	N/A	0.0075/0.1
Selenium	ND	ND	ND	ND	ND	ND	N/A	N/A	0.05/0.05
Silver	ND	ND	ND	ND	ND	ND	N/A	N/A	0.05/NV
Mercury	ND	ND	ND	ND	ND	ND	N/A	N/A	0.002/0.01

Notes:
1. Total concentrations in milligrams per liter (mg/kg) and SPLP concentrations in milligrams per liter (mg/L).
2. Values in bold print exceed their respective method detection limits (MDLs).
3. ND indicates non-detect at MDLs.
4. N/A indicates not applicable.
5. Shaded values exceed one or more remediation objective.

Table 2.0
Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Additional Site Investigation
Groundwater Analytical Results
May 2004

Target Analyte	229-GP1-GW	229-GP2-GW	229-GP3-GW	229-GP4-GW	229-GP5-GW	Tier I Groundwater Remediation Objectives Class I/II
VOCs						
Trichlorofluoromethane	ND	3.2	ND	ND	ND	NL
Methylene chloride	**1.0**	**1.2**	**1.3**	**1.3**	**1.5**	0.005/0.05
Bis(2-ethylhexyl)phthalate	ND	ND	ND	**7.9**	ND	0.006/0.06
Toluene	**1.4**	**3.5**	**4.7**	**4.9**	**4.1**	1.0/2.5

Notes:
1. Concentrations in micrograms per liter (µg/L).
2. Values in bold print exceed their respective method detection limits (MDLs).
3. ND indicates non-detect at MDLs.
4. NA indicates no toxicity criteria available for this route of exposure for this analyte.
5. NL indicates not listed in TACO tables as a contaminant of concern.

Table 2.0
Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Additional Site Investigation
Groundwater Analytical Results
May 2004

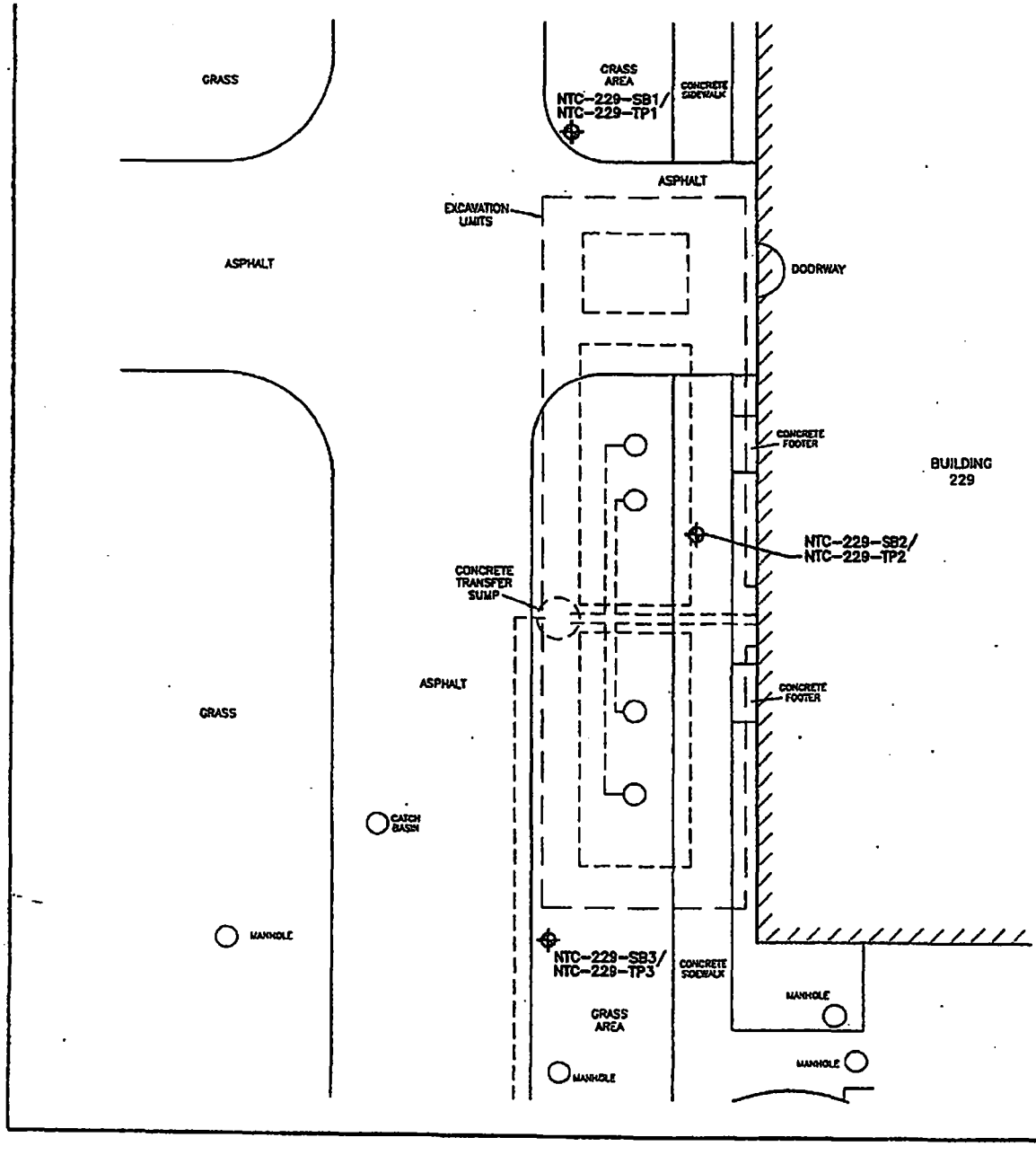
Target Analyte	229-GP1-GW	229-GP2-GW	229-GP3-GW	229-GP5-GW	Tier I Groundwater Remediation Objectives Class I/II
Total RCRA Metals					
Arsenic	**0.0094**	**0.036**	**0.23**	**0.011**	0.05/0.2
Barium	**0.30**	**0.27**	**0.81**	**0.21**	0.004/2.0
Cadmium	ND	ND	**0.0011**	ND	0.005/0.05
Chromium	**0.020**	**0.060**	**0.19**	**0.0020**	0.01/1.0
Lead	**0.038**	**0.074**	**0.22**	**0.012**	0.0075/0.1
Selenium	ND	**0.0065**	ND	ND	0.05/0.05
Silver	ND	ND	ND	ND	0.05/0.05
Mercury	**0.000079**	**0.00020**	**0.00048**	ND	0.002/0.01

Notes:
1. Concentrations in milligrams per liter (mg/L).
2. Values in bold print exceed their respective method detection limits (MDLs).
3. Shaded values exceed remediation objective.
4. ND indicates non-detect at MDLs.

Table 1.0
Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Additional Site Investigation
May 2004

Target Analyte	NTC-229-SB1 (6' - 8')	NTC-29-SB2 (14' – 16')	NTC-229-SB3 (10' – 12')	Tier I Residential		Concentrations of Inorganic Chemicals in Background Soils
				Ingestion	Inhalation	
Arsenic	6.22	6.39	**27.1**	NV	750	13.0
Barium	50.6	**114**	**1,020**	5,500	690,000	110
Cadmium	**1.55**	**2.35**	**10.6**	78	1,800	0.6
Chromium	13.4	14.3	**86.1**	230	270	16.2
Lead	12.2	**196**	**3,410**	400	NV	36.0
Mercury	BDL	**0.158**	**1.7**	23	10	0.06
Silver	BD:	BDL	**9.61**	390	NV	0.55

Notes:
1. Metals analyzed via U.S. EPA Methods 6010/7000 series.
2. Concentrations in milligrams per kilogram (mg/kg).
3. Values in bold print exceed their respective method detection limits (MDLs).
4. ND indicates non-detect at MDLs.
5. NV indicates no toxicity criteria available for this route of exposure for this analyte.



LEGEND

GEOPROBE BORING LOCATION
NTC-229-SB1
NTC-229-TP1 - INDICATES GROUNDWATER SAMPLE COLLECTED

APPROXIMATE SCALE - FEET
0 20 40

FIGURE 2.0H
SAMPLE LOCATION PLAN
BUILDING 229
GREAT LAKES NAVAL TRAINING CENTER, ILLINOIS

PREPARED FOR
UNITED STATES NAVY
GREAT LAKES NAVAL TRAINING CENTER

DRAWN MRC\11-9-02	CHECKED
REVISED	APPROVED
JOB NO.: 41792.01	TOLTEST, INC.
DRAWING NUMBER 41792-55F	

Table 1.0 H
Soil Sample Analytical Results
Relative Risk Ranking
Great Lakes Naval Training Center Building 229
TolTest Project Number 41792.01
April 2002

Analyte	NTC-229-SB1 (6' – 8')	NTC-229-SB2 (14' – 16')	NTC-229-SB3 (10'– 12')	Tier I Residential Soil Ingestion Pathway	Tier I Residential Soil Inhalation Pathway	Tier I Soil Component Of Groundwater Ingestion Pathway Class I/ II
VOCs						
1,2,3-Trichloropropane	BDL	**0.0116**	BDL	NL	NL	NL
1,2,4 –Trimethylbenzene	BDL	**0.00335**	BDL	NL	NL	NL
Benzene	**0.00131**	BDL	**0.00163**	12	0.8	0.03/0.17
Methylene Chloride	BDL	BDL	**0.00396**	85	13	0.02/0.2
Tetrachloroethene	**0.00198**	BDL	**0.0042**	12	11	0.06/0.3
Toluene	**0.00269**	BDL	BDL	16,000	650	12/29
SVOCs						
2-Methylnaphthalene	BDL	**7.40**	BDL	NL	NL	NL
Bis(2-ethylhexyl)phthalate	BDL	BDL	BDL	46	31,000	3,600/31,000

Notes:
1. Concentrations are in mg/kg, which are approximately equivalent to ppm, except soil component of groundwater, which is reported in mg/L for Class I & II.
2. BDL indicates concentrations below laboratory MDLs.
3. NV indicates no value for this exposure pathway.
4. NL indicates not listed as an IEPA TACO Tier I analyte of concern.
5. Bold print indicates value above laboratory MDL.
6. Shaded value exceeds one or more remediation objective.
7. Only those compounds detected are reported in the table.
8. VOCs analyzed by U.S. EPA Method 5035/8260; SVOCs analyzed by U.S.. EPA 8270

Table ... 'ontinued)
Soil Sample A... .cal Results
Relative Risk Ranking
Great Lakes Naval Training Center Building 229
TolTest Project Number 41792.01
April 2002

Analyte	NTC-229-SB1 (6' – 8')	NTC-229-SB2 (14' – 16')	NTC-229-SB3 (10'– 12')	Tier I Residential Soil Ingestion Pathway	Tier I Residential Soil Inhalation Pathway	Tier I Soil Component Of Groundwater Ingestion Pathway Class I/Class II
PNAs						
Acenaphthene	BDL	**0.705**	BDL	4,700	NV	570/2,900
Anthracene	BDL	**0.695**	**0.0468**	23,000	NV	12,000/59,000
Benzo(a)anthracene	BDL	**1.29**	**0.406**	0.9	NV	2/8
Benzo(a)pyrene	BDL	**1.19**	**0.509**	0.09	NV	8/82
Benzo(b)fluoranthene	BDL	**0.998**	**0.384**	0.9	NV	5/25
Benzo(g,h,I)perylene	BDL	**1.24**	**0.567**	NL	NL	NL
Benzo(k)fluoranthene	BDL	**0.563**	**0.21**	9	NV	49/250
Chrysene	BDL	**0.874**	**0.357**	88	NV	160/800
Dibenz(a,h)anthracene	BDL	**0.159**	**0.061**	0.09	NV	2/7.6
Fluoranthene	BDL	**4.29**	**0.702**	3,100	NV	4.300/21,000
Fluorene	BDL	**2.93**	BDL	3,100	NV	560/2,800
Indeno(1,2,3-cd)pyrene	BDL	**0.688**	**0.231**	0.9	NV	14/69
Naphthalene	BDL	**2.57**	**0.0397**	1,600	170	12/18
Phenanthrene	BDL	**4.46**	**0.143**	NL	NL	NL
Pyrene	BDL	**3.28**	**0.64**	2,300	NV	4,200/21,000
METALS						
Arsenic	**6.22**	**6.39**	**27.1**	NV	750	0.05/0.2
Barium	**50.6**	**114**	**1,020**	5,500	690,000	2/2
Cadmium	**1.55**	**2.35**	**10.6**	78	1,800	0.005/0.05
Chromium	**13.4**	**14.3**	**86.1**	230	270	0.1/1.0
Lead	**12.2**	**196**	**3,410**	400	NV	0.0075/0.1
Mercury	BDL	**0.158**	**1.7**	23	10	0.002/0.01
Silver	BDL	BDL	**9.61**	390	NV	0.05/NV

Notes:
1. Concentrations are in mg/kg, which are approximately equivalent to ppm, except soil component of groundwater, which is reported in mg/L for Class I & II.
2. BDL indicates concentrations below laboratory MDLs.
3. NV indicates no value for this exposure pathway.
4. NL indicates not listed as an IEPA TACO Tier I analyte of concern.
5. Bold print indicates value above laboratory MDL.
6. Shaded value exceeds one or more remediation objective.
7. Only those compounds detected are reported in the table.
8. PNAs analyzed by U.S. EPA Method 8100; RCRCA Metals analyzed by U.S. EPA Method 6000 and 7000 series.

Table 1.0
Corrective Action Completion Report
Naval Station Great Lakes, Building 229
Relative Risk Sampling
Soil Samples
April 2002

Target Analyte	NTC-229-SB1 (6' - 8')	NTC-29-SB2 (14' – 16')	NTC-229-SB3 (10' – 12')	Tier I Residential		Concentrations of Inorganic Chemicals in Background Soils
				Ingestion	Inhalation	
Arsenic	6.22	6.39	**27.1**	NV	750	13.0
Barium	50.6	**114**	**1,020**	5,500	690,000	110
Cadmium	**1.55**	**2.35**	**10.6**	78	1,800	0.6
Chromium	13.4	14.3	**86.1**	230	270	16.2
Lead	12.2	**196**	**3,410**	400	NV	36.0
Mercury	BDL	**0.158**	**1.7**	23	10	0.06
Silver	BD:	BDL	**9.61**	390	NV	0.55

Notes:
1. Metals analyzed via U.S. EPA Methods 6010/7000 series.
2. Concentrations in milligrams per kilogram (mg/kg).
3. Values in bold print exceed their respective method detection limits (MDLs).
4. BDL indicates Below Detection Limit.
5. NV indicates no toxicity criteria available for this route of exposure for this analyte.

Table 2.0 H
Groundwater Sample Analytical Results
Relative Risk Ranking
Great Lakes Naval Training Center Building 229
TolTest Project Number 41792.01
April 2002

Analyte	NTC-229-TP1	NTC-229-TP2	NTC-229-TP3	Groundwater Remediation Objectives	
				Class I	Class II
VOCs					
cis-1,2-Dichloroethene	**0.0017**	NA	NA	0.07	0.2
Trichlorofluoromethane	**0.0056**	NA	NA	NL	NL
SVOCs	BDL	NA	NA	NA	NA
PNAs					
Phenol	BDL	**0.00511**	BDL	0.1	0.1
RCRA METALS					
Barium	**0.137**	NA	NA	2.0	2.0
Lead	**0.124**	NA	NA	0.0075	0.1

Notes:
1. Concentrations are in mg/L, which are approximately equivalent to ppm.
2. BDL indicates concentrations below laboratory MDLs.
3. NL indicates not listed as an IEPA TACO Tier I analyte of concern.
4. Bold print indicates value above laboratory MDL.
5. Shaded value exceeds one or more remediation objective.
6. Only those compounds detected are reported in the table.
7. NA indicates not applicable.
8. VOCs analyzed by U.S. EPA 5035/8260, SVOCs analyzed by U.S. EPA 8270, PNAs analyzed by U.S. EPA 8100; RCRA Metals analyzed by U.S. EPA 6000 and 7000 series.

Appendix F

PREVIOUSLY SUBMITTED LUC

DEPARTMENT OF THE NAVY
NAVAL STATION
2601 E PAUL JONES ST
GREAT LAKES, ILLINOIS 60088-2845

NAVSTAGLAKESINST 11130.1
ENV
29 Sep 03

NAVAL STATION GREAT LAKES INSTRUCTION 11130.1

From: Commanding Officer, Naval Station Great Lakes

Subj: Ground Water Use Restrictions

1. Purpose. To ensure compliance with environmental regulations for activities and personnel located on Naval Station Great Lakes.

2. Scope. This instruction applies to all geographic areas of the Naval Station.

3. Discussion.

a. The use of ground water and surface water runoff for any purpose is strictly prohibited unless prior, written approval is obtained from the Commanding Officer, Naval Station Great Lakes. This includes, but is not limited to the installation of wells for any purpose, use of storm water run off from streams or retention ponds, etc.

b. The only exception to this prohibition is the installation of ground water monitoring wells for the exclusive purpose of sampling ground water and monitoring of ground water/surface water. Approval for this activity must be secured in writing in advance from the Naval Station Great Lakes Environmental Department in coordination with the appropriate regulatory agencies.

4. Action. To initiate the process for installing a ground water well aboard the Naval Station, contact Naval Station Great Lakes Environmental Department, at (847) 688-5999 Or DSN 792-5999.

H P Romo
for K. M. Hobbs

Distribution:
NAVASTAGLAKES 5216.5
LISTS I AND II