ASSESSMENT SUMMARY

FOR

FORMER DTE MARYSVILLE POWER PLANT
301 GRATIOT BOULEVARD
MARYSVILLE, MICHIGAN

Presented To:
ST. CLAIR BROWNFIELD REDEVELOPMENT AUTHORITY

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ACRONYM LIST

AOI—Area of Interest

BGL—Below Ground Level

CDC—CDC Marysville, LLC

COC—Contaminant of Concern

CSM—Conceptual Site Model

DQO—Data Quality Objective

DTE—Detroit Edison

ESA—Environmental Site Assessment

FAV—Final Acute Value

FCV—Final Chronic Value

GSI—Groundwater Surface Water Interface

GSIP—Groundwater Surface Water Interface Protection

MDEQ—Michigan Department of Environmental Quality

MVPP—Marysville Power Plant

NAPL—Non-Aqueous Phase Liquid

NFA—No Further Action

NRDC—Non-Residential Direct Contact

NRVI—Non-Residential Vapor Intrusion

PNA—Polynuclear Aromatic Hydrocarbon

UST—Underground Storage Tank

SCCBRA—St. Clair County Brownfield Redevelopment Authority

VOC—Volatile Organic Compound

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1.0 EXECUTIVE SUMMARY AND CONCEPTUAL SITE MODEL

The investigation summarized herein was supported by the St. Clair County Brownfield Redevelopment Authority (SCCBRA) under U.S. EPA Brownfield Assessment Grant BF-00E00406 to support the redevelopment of the former DTE Energy Marysville Power Plant (MVPP) by its new owner, CDC Marysville LLC. Eligibility was approved by the USEPA and MDEQ on March 4, 2014. This summary has been prepared to fulfil CDC Marysville, LLC's obligations under the grant. This summary presents results of the site assessment and provides recommendations for cleanup of impacted areas at the MVPP (Appendix A, Figure 1).

The following conceptual site model (CSM) summarizes the historical background, potentially complete pathways, and storage of remnant coal at the Marysville Power Plant (Appendix A, Figure 2). Field and analytical data was collected during a divestiture Phase II ESA by DTE Energy and additional site assessment funded by the U.S. EPA Brownfield Assessment Grant through the SCCBRA. Several areas of interest (AOIs), originally identified during the Phase II, were further investigated during additional site assessment at the MVPP (see Table A). Based upon results from the Phase II, no additional investigation was deemed necessary for AOI-C and AOI-K.

As will be further discussed in Section 1.4, four data quality objectives (DQOs) were established to provide a guide for assessment work. As part of Phase II and additional assessment activities, numerous soil samples (161) and groundwater samples (46) were collected across the subject site (Appendix A, Figure 3). Samples were analyzed for various chemicals of concern (COCs), including Michigan 10 metals, VOCs, and PNAs. Analytical results indicate that COCs exceed generic cleanup criteria in soil and groundwater from only a few of the AOIs. Criteria comparison tables and static water level information is presented in Appendix B. Boring logs can be found in Appendix C. Analytical data reports are presented in Appendix D. Select historical photos of the MVPP during construction can be found in Appendix E. Analytical QA/QC reports are presented in Appendix F.

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Table A: Areas of Interest

Area A—Fill Area (Club House)	Area F—Lowland Coal Storage Area
Area B—Pipeline from St. Clair River to Tank Area	Area G—Upland Coal Storage Area
Area C—Transformer Mat	Area H—Oily Waste Basin
Area D—Wastewater Treatment Plant	Area I—Upgradient Property Boundary
Area E (1)—Northwestern Main Plant Area	Area K—Park Area
Area E (2)—Western Main Plant Area (UST Release)	

1.1 Historical Background

Starting with construction around 1914, the subject site served as a coal-fired power plant between 1922 and 2001. Based upon historical photos, the southern portion of the property (AOI-D, AOI-F, and AOI-G) has functioned as a coal storage area over this period of time, while the northern portion of the property (AOI-B) was never used for industrial purposes. Between the 1920s and early 1930s, a significant amount of fill material, from onsite and offsite sources, was used to build out and stabilize the shoreline (AOI-A and AOI-F) along the St. Clair River. Around 1922, a large subgrade cement culvert was constructed to serve as an overflow channel for Bunce Creek. The culvert runs through or adjacent to AOI-E (1), AOI-E (2), and AOI-I before continuing underneath the power plant building and empting into the St. Clair River.

In May, 2014, CDC Marysville, LLC purchased the MVPP. During the property transaction, restrictions limiting the site to non-residential use and eliminating drinking water use were placed on the property deed.

1.2 Potential Pathways and Prominent Features

Within the context of this report, an incomplete pathway indicates that a pathway is viable but there is no risk of exposure due to a lack of contaminant conveyance or restrictions. A potentially complete pathway signifies that there is a potential exposure risk associated with a pathway.

1.2.1 Groundwater Surface Water Interface (GSI) – St. Clair River

Groundwater analytical data from AOI-A and AOI-F indicates that arsenic (A-MW16, A-MW17S/D, and A-MW20) and copper (F-MW7) exceed generic GSI criteria. While a comparison of static water levels between groundwater in the lowland area and the St. Clair River signify the potential for mixing between the two water bodies, additional evaluation is necessary to determine if the

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GSI pathway is complete along the river. A potential approach to address arsenic exceedances, and copper if necessary, is to calculate the average plume concentration by utilizing methods described in Section 1.3.2.

1.2.2 Groundwater Surface Water Interface (GSI) – Bunce Creek Overflow Culvert

The Bunce Creek overflow culvert, which ultimately empties into the St. Clair River, runs through or adjacent to AOI-E (1) and AOI-E (2). Soil and groundwater analytical data from AOI-E (1) and AOI-E (2) indicates that eight metals (the majority from a soil sample collected at E-11) exceed generic groundwater surface water protection (GSIP) and GSI criteria. Soil data for metals was evaluated using appropriate background values provided in the MDEQ Michigan Background Soil Survey document (2015). Soil and groundwater data from AOI-E (2) also indicates that nine VOCs, associated with a gasoline release from a former underground storage tank (UST), exceed generic GSIP and GSI criteria.

Based upon soil boring information from the Phase II, up to 6.5 feet of saturation is present in fill sand along the power plant building, due to excavation for the building footings and Bunce Creek culvert. The fill sand may serve as a conduit along the building foundation and culvert for contaminant migration, leading to a potentially complete GSI pathway. While COCs in soil have been adequately defined, additional groundwater characterization is necessary to determine if metals are leaching into groundwater in AOI-E (1) and to evaluate the horizontal extent of COCs migrating through the fill sand in AOI-E (2). Excavation is a viable remedial option to address COCs in soil which are associated with the UST release.

1.2.3 Direct Contact

Soil analytical data from AOI-E (1) and AOI-G indicates that arsenic (E-11, G-MW9, and G-14) and lead (E-11) exceed Non-Residential Direct Contact (NRDC) criteria. The elevated concentration of arsenic in G-MW9 and G-14 are from soil samples collected at 3.5 feet below ground level (bgl). Excavation is planned for this zone of material, along with the removal of surficial coal in AOI-G. The elevated concentration of arsenic and lead in E-11 is from a soil sample collected from six to seven feet bgl. Soil analytical data does not exceed NRDC criteria in three soil samples collected from 3.5 feet to five feet bgl in nearby soil borings E-26, E-27, and E-28. Options to address direct contact exceedances in AOI-E (1) include a Restrictive Covenant or excavation.

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1.2.4 Vapor Intrusion

Soil and groundwater analytical data from AOI-E (2) indicates that 11 VOCs, associated with a gasoline UST release, exceed Non-Residential Vapor Intrusion Screening Levels (E-9 and E-9A). The concentration of benzene in a soil sample from A-1 and the concentration of naphthalene in a groundwater sample from E-7 also marginally exceed Non-Residential Vapor Intrusion Screening Levels. Excavation is an option to address soil vapor intrusion exceedances associated with the UST. Action taken to address groundwater vapor intrusion exceedances, associated with the UST, may be dependent on the GSI evaluation (Section 1.2.2).

1.2.5 Remnant Coal

Surficial and subgrade coal, 0.5 feet to 4.5 feet thick, is present south of the power plant building (AOI-G, AOI-D, and AOI-F). There is approximately 9,500 cubic yards of coal, exposed at the surface, in AOI-G. Plans have already been approved for excavation of the coal and a portion of underlying fill material. Approximately 3,500 cubic yards of coal in AOI-D and AOI-F is buried by 2.5 feet to five feet of high plasticity clay. Soil and groundwater data indicate that no COCs have been detected above applicable criteria.

1.3 Applicable Contaminant Criteria

1.3.1 Non-Residential Land Use

The current and future intended land use for the MVPP property will remain non-residential, per a restriction placed on the property deed. This deed restriction effectively eliminates all onsite residential exposure pathways and, therefore, invalidates all generic residential cleanup criteria. The prevailing criteria for achieving NFAs at all AOIs remains non-residential, where contaminants remain on site and/or are expected to always remain on site.

1.3.2 Groundwater Surface Water Interface (Groundwater and Soil)

Contaminants in groundwater along the St. Clair River and Bunce Creek culvert exceed generic GSI criteria. To address the GSI pathway, the average concentration of a COC in a plume will be calculated using methods described in Ricker (2008). The average concentration will then be compared to Final Chronic Value (FCV) surface water criteria, provided in Rule 57 Part 4—Surface Water Quality Standards (2014). The averaging method will only be applied to locations where there are no Final Acute Value (FAV) surface water criteria exceedances.

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Throughout the MVPP, the concentration of numerous metals in soil exceed generic GSIP criteria; however, many of these exceedances have been attributed to natural background concentrations. Soil data was compared to the MDEQ *Michigan Background Soil Survey* document (2015), which provides a detailed interpretation of background metal concentrations in soil from the Huron-Erie glacial lobe in southeast Michigan. An expected range of values for metals in soil throughout the state is listed in Table 1 of the document. In the same report, Tables 2, 3, and 4 provide the two standard deviations of the mean for metals in the appropriate material (topsoil, sand, and clay) from the Huron-Erie glacial lobe (MDEQ, 2015). To evaluate soil data from the MVPP for a particular metal, a target background value was selected from either the uppermost value from Table 1 or two standard deviations of the mean for the appropriate soil type from the Huron-Erie lobe (Tables 2, 3, or 4), whichever of the two values was less (Table B). When evaluating copper and mercury in sand, the default background value was used.

Table B: Background Values for Metals

Metal	Default Background	Uppermost Value (Table 1)[1]	Sand - 2 S.D. (Table 3)[1, 2]	Clay - 2 S.D. (Table 4)[1, 2]
Arsenic	5,800	**22,800**	26,300	31,400
Barium	75,000	**172,000**	199,000	227,000
Cadmium	1,200	**2,000**	2,000	3,100
Chromium	18,000	**55,600**	**30,400**	77,000
Copper	**32,000**	50,600	23,500	**46,900**
Lead	21,000	38,900	**24,100**	**26,200**
Mercury	**130**	**500**	120	580
Selenium	410	**1,300**	3,900	**1,200**
Silver	1,000	**1,400**	**1,200**	6,000
Zinc	47,000	118,000	**85,800**	**102,000**

(1) Background values (ug/kg) from Table 1, 3, and 4 originate from the MDEQ Michigan Soil Background Survey document (2015); (2) Values from the Huron-Erie glacial lobe; (**n**)—used as background value for appropriate soil material.

1.3.3 Vapor Intrusion

In localized areas, primarily associated with a UST release, select VOCs and PNAs exceed Non-Residential Vapor Intrusion (NRVI) screening values. In areas where shallow groundwater is present

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at the MVPP (less than nine feet bgl), the Johnson and Ettinger model cannot be applied, thus eliminating Soil and Groundwater Volatilization to Indoor criteria.

1.3.4 Non-Applicable Pathways

The MVPP is supplied with a municipal source of potable water. A Restrictive Covenant, already filed with the property deed, restricts the use of groundwater, thus making the drinking water pathway incomplete. Unless contaminants are determined to be migrating off site, the drinking water pathway will not be used to evaluate risks at the MVPP. Offsite migration does not include discharge of contaminated groundwater to surface water.

No COCs exceed Flammability and Explosivity criteria or Ambient Air criteria at the MVPP. No additional remedial investigation or remedial action is proposed for the MVPP with respect to these pathways.

1.4 Data Quality Objectives

The following DQOs were presented in the Sampling and Analysis Plan (April 3, 2014) and have been used as a guide for assessment work. Where applicable, the individual AOI sections (Sections 2.0—9.0) will address the DQOs in greater detail.

DQO #1—*Are concentrations of metals in soil representative of background or are they indicative of a release?*

Metals from the majority of sample locations are indicative of background values, based upon the MDEQ Michigan Background Soil Survey document (2015). Metals in a portion of AOI-E (1), and AOI-G are suggestive of leaching from fill and will be further discussed in Sections 5.0 and 8.0.

DQO #2—*Are contaminants found in soil and groundwater along the St. Clair River discharging to the river in excess of the Groundwater Surface Water Interface (GSI) Criteria (generic or mixing-zone-based)?*

Contaminants exceed generic GSIP (soil) and GSI (groundwater) criteria in areas where groundwater discharges into the St. Clair River. In the lowland area where the GSI pathway is applicable, most GSIP exceedances in soil are attributed to natural background values. As further discussed in Section 2.0, arsenic and copper in groundwater from the lowland area exceeds

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generic GSI criteria but not FAV surface water criteria. An averaging method will be implemented, as described in Section 1.3.2. No other COCs exceed generic GSI criteria in groundwater samples from the lowland area. As groundwater in the upland area does not appear to be in contact with the St. Clair River, see Section 1.5, the GSI pathway is not applicable in these AOIs (AOI-B and AOI-G).

DQO #3—*Has soil and groundwater been impacted by the historic storage of coal/ash and what is the remaining quantity of coal/soil mixture?*

Except for portions of AOIs-A, -E (1), -F, and -G, there has been no observable leaching of contaminants from the remaining coal or fill at the MVPP. Groundwater samples from several wells that are set in industrial fill or coal, do not exceed any generic criteria for metals. Discussion pertaining to areas of leaching can be found in Sections 2.0, 4.0, 5.0 and 8.0.

Based upon boring logs from the southern portion of the MVPP, the estimated volume of coal remaining in AOI-F and AOI-G is 11,300 in-place cubic yards. Coal in AOI-G is exposed at the surface while the majority of coal in AOI-F is buried under one foot to five feet of fill clay. A limited amount of coal ash was observed in AOI-D, during Phase II activities, but there is no apparent impact.

DQO #4—*To what extent has the release from the former leaking underground storage tank impacted soil, groundwater and soil vapor and what if any contaminant exposure pathways exist?*

Due to active demolition activities near the former UST, the only data available for the UST release originates from the Phase II. When logistically feasible, plans will be made to fully delineate the extent of impact from the storage tank that has been removed.

1.5 Site Geology/Hydrogeology

The subject site is relatively flat (upland area) but the surface slopes abruptly downward towards the St. Clair River (lowland area) on the eastern one-third of the site. The slope towards the river is less abrupt on the south side of the site. Surficial and subgrade coal, 0.5 feet to 4.5 feet thick, is present south of the main MVPP building. Underlying the surficial material, a gray, low to high plasticity clay was encountered throughout the entire site. Nearby residential well logs indicate that the basal clay unit is 83 to 117 feet thick.

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The upland area is characterized by granular fill, native sand and fill clay, up to 15 feet thick. The fill and native sand was observed from the surface to a depth as great as 15 feet bgl, although it is generally less than 15 feet bgl. Clay is ubiquitous beneath the site and immediately underlies the fill and native sand. Cross-sections across the site, with a location map, are provided in Figures 4-7 (Appendix A).

The lowland area along the St. Clair River is characterized by surficial fill sand and underlying fill consisting of clay, coarse coal fragments, slag, concrete, brick, and gravel. The fill material was observed from the surface to a depth of 24 feet bgl. The thickness of fill material increases near the St. Clair River. Historical photos from the 1920's and early 1930s suggest that the current riverbank along the St. Clair River was constructed with fill originating from both offsite sources and the MVPP (Appendix E).

Groundwater saturation is highly inconsistent over the subject site due to the undulating surface of the basal clay unit. Depth to groundwater in the lowland area, near the St. Clair River, is three feet to 10 feet bgl and corresponds to the surface elevation of the river. The saturated thickness in the lowland area varies from three feet to 20 feet. Groundwater flow in the lowland area is generally to the east, towards the St. Clair River (Appendix A, Figure 8). The occurrence of groundwater in the upland area is sporadic. Where encountered, groundwater is perched and not in contact with the lowland area due to a ridge in the basal clay unit. The saturated thickness ranges from 0.5 feet to five feet. Depth to the perched groundwater is three feet to 10 feet bgl but saturation was not encountered in several borings.

To evaluate the flow regime between groundwater in the lowland area and the St. Clair River, four river monitoring points were established to compare the elevation of the water table and surface of the river. The initial round of data indicates that the difference in elevation between groundwater and the surface of the St. Clair River is ≤0.03 feet, which may actually be less when accounting for wave action in the river (Appendix B, Table 7). The similarity in elevation between the adjoining water bodies suggest that there is hydraulic communication between groundwater in the lowland area and the St. Clair River.

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2.0 AREA A – FILL AREA (CLUB HOUSE)

2.1 Description of Area

This area is a long, narrow strip of land, separated from the St. Clair River by sheet pilings (Appendix A, Figure 3). In the northern half of AOI-A, the ground surface quickly slopes upwards while transitioning away from the river. An eight-foot to 21-foot layer of gravel and fill was encountered approximately two feet bgl. There was no saturation in A-21, but trending south, the saturated thickness increases to 20 feet in A-MW12D.

A total of 21 soil borings, seven of which were converted to permanent groundwater monitoring wells (including two nested sets), were advanced for delineation purposes and to help define physical groundwater characteristics across the entire site. Five groundwater samples were collected from temporary wells during the Phase II.

2.2 Affected Environmental Media

Impacts to soil and groundwater above Michigan Part 201 generic criteria were identified during both investigations (Table C). The COCs include certain metals, VOCs, and PNAs. There were no VOCs detected in groundwater during both investigations.

Table C: Area A - Summary of Criteria Exceedances

Soil (µg/kg)				Groundwater (µg/L)	
Max COC detected	**NB**	**GSIP**	**NRVI**	**Max COC detected**	**GSI**
Mercury (942)	**130**	**50**	NA	Arsenic (180)	**10**
Selenium (770)	**720**	**400**	NA	*Selenium ([77])*	**5**
Zinc (299,000)	**85,800**	**170,000**	NA	*Fluoranthene (2)*	**1.6**
Benzene (110)	NA	4,000	**85**	No VOCs Detected in Groundwater	
Naphthalene (760)	NA	**730**	8,940		
Xylenes (1,470)	NA	**820**	4,890		
Phenanthrene (2,700)	NA	**2,100**	86,300		

Note: NB – appropriate natural background value from the Michigan Background Soil Survey Document; NA—no criteria available; [n]—concentration of dissolved metal; **value** signifies criteria exceedance; *value* signifies groundwater sample collected from temporary well

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2.3 Exposure Pathway Analysis & Applicable Criteria

2.3.1 Direct Contact (Soil)

No COCs exceed NRDC criteria. No additional remedial investigation or remedial action is proposed for this AOI with respect to the direct contact pathway. This pathway is considered incomplete.

2.3.2 Vapor Intrusion

The concentration of benzene in a soil sample from three feet to four feet bgl in A-1, collected during the Phase II, exceeds the NRVI screening value. Regarding the vapor intrusion pathway, no additional remedial investigation or remedial action is proposed for AOI-A because there are no buildings near this boring. Benzene was not detected in soil or groundwater from nearby borings (A-MW12S/D, A-MW13, A-14) during the most recent investigation. This pathway is considered incomplete.

2.3.3 Groundwater Venting to Surface Water (GSI)

The concentration of nine COCs (see Table C) in soil and groundwater samples collected during the Phase II exceeds generic GSIP or GSI criteria. With exception of arsenic, the other eight COCs were not detected in excess of generic GSI criteria during two groundwater sampling events in the nine permanent monitoring wells in AOI-A.

Due to the proximity of the St. Clair River, it is possible that arsenic could be discharging into the river at concentrations above the generic GSI criterion. See Section 2.4 for recommendations.

2.4 Remedial Approach

To address arsenic in exceedance of the generic GSI criterion in AOI-A, various options exist.

1. Implement the averaging method (Section 1.3.2) to calculate the average concentration of arsenic in groundwater for AOI-A, expected to fall below the FCV surface water criterion. No individual arsenic concentrations in groundwater currently exceed the corresponding FCV.
2. Apply for a mixing zone determination to evaluate the flux of arsenic mixing into the St. Clair River.

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3.0 AREA B – FUEL OIL #2 OIL LINE

3.1 Description of Area

This AOI is a relatively flat area in the northern upland portion of the subject site and is bisected by the #2 Fuel Oil Line leading from the deepwater port to the Greenwood Oil Terminal (Appendix A, Figure 3). The primary fill material overlying the native clay is composed of sand, with occasional coal fragments. Trending east towards the St. Clair River, the saturated thickness of the perched aquifer decreases from nine feet in B-MW11 to dry in B-11. Perched groundwater in AOI-B does not flow into the St. Clair River, due to a ridge in the basal clay. The ridge was confirmed by a series of borings with no saturation (B-10 and B-12 through B-16) between AOI-B and AOI-A (Appendix A, Figure 8).

A total of 14 soil borings, three of which were converted to permanent groundwater monitoring wells, were advanced. The primary investigation objective for AOI-B was to assist with characterizing physical aquifer conditions across the entire site.

3.2 Affected Environmental Media

Impacts to groundwater above Michigan Part 201 generic criteria were identified (Table D). The COCs include two metals.

Table D: Area B—Summary of Criteria Exceedances

Groundwater (µg/L)	
Max COC detected	**GSI**
Chromium (11 [<RL])	**11**
Silver (<RL [0.23])	**0.2**

Note: <RL—less than Reporting Limit; [n]—concentration of dissolved metal; **value** signifies criteria exceedance

3.3 Exposure Pathway Analysis & Applicable Criteria

3.3.1 Direct Contact (Soil)

No COCs exceed NRDC criteria. No additional remedial investigation or remedial action is proposed for this AOI with respect to the direct contact pathway. This pathway is considered incomplete.

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3.3.2 Vapor Intrusion

No COCs exceed NRVI screening values. No additional remedial investigation or remedial action is proposed for this AOI with respect to the vapor intrusion pathway. This pathway is considered incomplete.

3.3.3 Groundwater Venting to Surface Water (GSI)

Chromium and silver exceeded generic GSI criteria in groundwater from two separate wells. Due to the discontinuous nature of the perched aquifer in AOI-B and lack of constituents in downgradient wells, the GSI pathway is considered incomplete. No additional remedial investigation or remedial action is proposed for this AOI with respect to the GSI pathway.

3.4 Remedial Approach

AOI-B warrants no further delineation or remedial action.

4.0 AREA D & F—WASTEWATER TREATMENT PLANT AND LOWLAND COAL STORAGE AREA

4.1 Description of Area

The wastewater treatment plant and lowland coal storage area are located in the southern portion of the MVPP (Appendix A, Figure 3). Trending west to east, the ground elevation quickly declines and then flattens near the St. Clair River. Subgrade coal and fill was encountered approximately three feet bgl in large portions of AOI-D and AOI-F. Along the St. Clair River, approximately 10 feet of fill was present. Soil saturation was not observed in the western portion of AOI-F (in the vicinity of F-11 to F-16) but increases up to 18 feet thick near the St. Clair River.

A total of 23 soil borings, three of which were converted to permanent groundwater monitoring wells (including one nested set), were advanced for the delineation of COCs and subgrade coal. One groundwater sample was collected from a temporary well during the Phase II. Monitoring wells were installed along the St. Clair River to assess potential contaminant flux with the river and to define the physical characteristics of groundwater across the entire site.

4.2 Affected Environmental Media

Impacts to soil and groundwater above Michigan Part 201 generic criteria were identified during both investigations (Table E). The COCs include certain metals, VOCs, and PNAs.

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Table E: Area D & F—Summary of Criteria Exceedances

Soil (µg/kg)			Groundwater (µg/L)	
Max COC detected	**NB**	**GSIP**	**Max COC detected**	**GSI**
Arsenic (28,000)	**22,800**	**4,600**	Copper (17)	**13**
Copper (110,000)	**32,000**	**75,000**	Naphthalene and Phenanthrene Not Detected in Groundwater	
Selenium (7,200)	**1,300**	**400**		
Zinc (190,000)	**85,800**	**170,000**		
Naphthalene (860)	NA	**730**		
Phenanthrene (4,200)	NA	**2,100**		

Note: NB—appropriate natural background value from the Michigan Background Soil Survey Document; NA—no criteria available; **value** signifies criteria exceedance

4.3 Exposure Pathway Analysis & Applicable Criteria

4.3.1 Direct Contact (Soil)

No COCs exceed NRDC criteria. No additional remedial investigation or remedial action is proposed for this AOI with respect to the direct contact pathway. This pathway is considered incomplete.

4.3.2 Vapor Intrusion

No COCs exceed NRVI screening values. No additional remedial investigation or remedial action is proposed for this AOI with respect to the vapor intrusion pathway. This pathway is considered incomplete.

4.3.3 Groundwater Venting to Surface Water (GSI)

The concentration of six COCs, see Table E, exceed generic GSIP or GSI criteria. All soil samples where COCs exceed generic GSIP criteria in AOI-D/AOI-F were either collected in the saturated zone, immediately upgradient of three permanent monitoring wells, or in an area where no groundwater saturation was present. With exception of copper in F-MW7, none of the other five COCs were detected in excess of generic GSI criteria during two groundwater sampling events in the four permanent monitoring wells in AOI-D/AOI-F. The GSI pathway is not relevant where no groundwater is present.

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Regarding the exceedance of copper in groundwater at F-MW7, the GSI criterion is dependent on the pH/hardness of the receiving water body. A direct measurement of pH and hardness for the St. Clair River indicates that copper exceeds the generic and site-specific GSI criterion (Appendix B, Table 8). The generic value is based upon a hardness value (150 mg/L as $CaCO_3$) used for the entire southern portion of the Lower Peninsula. Calculations for pH-hardness dependent GSI criteria can be found in Footnote G of the MDEQ-RRD *Footnotes for Generic Cleanup Criteria Tables (*2013).

See Section 4.4 for recommendations.

4.4 Remedial Approach/Additional Action

To address copper in exceedance of the generic GSI criterion in AOI-F, various options exist.

1. Resample F-MW7 for copper in groundwater.
2. Implement the averaging method (Section 1.3.2) to calculate the average concentration of copper in AOI-F/D, expected to fall below the FCV surface water criterion.

Soil data above and below subgrade coal, along with groundwater data, indicates that the subgrade coal is not acting as a continuous source of COCs in areas where the GSI pathway is relevant (groundwater present). Pending the evaluation of copper in F-MW7, there are no complete exposure pathways in AOI-D and AOI-F thus warranting no further delineation or remedial action at this time.

5.0 AREA E (1) – NORTHWEST MAIN PLANT BUILDING

5.1 Area Description

The investigation in AOI-E (1) focused on elevated metals in soil, based upon data from the Phase II (Appendix A, Figure 3). Surface elevation change in the area is minor. Fill material overlying the native basal clay consists of sand with intermittent pieces of coal, brick, and other miscellaneous fill material. The thickness of fill material overlying the basal clay varies from four feet to 14 feet. The basal clay slopes sharply down (due to excavation for the building footings) towards the foundation of the main power plant building.

With exception of the most northern boring (E-22), no saturation was encountered during the most recent investigation. Borings from the Phase II indicate the presence of perched

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groundwater against the main plant building where the basal clay was dug out during construction of the facility. Depth to saturation in E-11, from the Phase II, was 14 feet bgl. A 13-foot by 16-foot cement box culvert, which serves as an overflow channel for Bunce Creek, bisects AOI-E (1) and empties into the St. Clair River. Depth to the top of the culvert is approximately 12 feet bgl.

Eight soil borings were advanced for delineation purposes.

5.2 Affected Environmental Media

Impacts to soil above Michigan Part 201 generic criteria were identified during both investigations (Table F). The COCs include certain metals.

Table F: Area E (1)—Summary of Criteria Exceedances

Soil (µg/kg)			
Max COC detected	**NB**	**GSIP**	**NRDC**
Arsenic (37,300)	**22,800**	**4,600**	**37,000**
Cadmium (12,700)	**2,000**	**3,000**	2,100,000
Copper (361,000)	**32,000**	**75,000**	7.3E+07
Lead (954,000)	**24,100**	2,500,000	**900,000**
Mercury (5,594)	**130**	**50**	580,000
Selenium (9,570)	**1,300**	**400**	9,600,000
Zinc (3,580,000)	**85,800**	**170,000**	6.3E+08

Note: All maximum detections in AOI-E (1) from a single soil sample (E-11@6'-7'); NB—appropriate natural background value from the Michigan Background Soil Survey Document; **value** signifies criteria exceedance

5.3 Exposure Pathway Analysis & Applicable Criteria

5.3.1 Direct Contact (Soil)

Data from the Phase II suggests that arsenic and lead exceed NRDC criteria, creating a potentially complete pathway for utility and construction workers who might be exposed to contaminants at depth. No direct contact exposure exists at the ground surface. See Section 5.4 for recommendations.

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5.3.2 Vapor Intrusion

No COCs exceed NRVI screening values. With respect to the vapor intrusion pathway, no additional remedial investigation or remedial action is proposed for this AOI due to no exceedances. This pathway is considered incomplete.

5.3.3 Groundwater Venting to Surface Water (GSI)

Six COCs, see Table F, exceed generic GSIP criteria. The horizontal extent of groundwater saturation in AOI-E (1) is limited, however, the GSI pathway is potentially complete due to the proximity of the Bunce Creek overflow channel. Impacted groundwater could potentially migrate along the corridor of the culvert. See Section 5.4 for recommendations.

5.4 Remedial Approach/Additional Action

Additional site characterization is necessary to evaluate whether metals are leaching into groundwater and discharging into the St. Clair River in excess of GSI criteria.

Dependent on additional characterization, various options exist to address the GSI pathway.

1. Excavate and dispose of soil that exceeds GSIP criteria. This option would also address the Direct Contact pathway.
2. Implement the averaging method (Section 1.3.2) for any COCs that exceed generic GSI criteria in groundwater. This method may be affected by the number of monitoring wells that can be installed because of limited groundwater saturation.

To address the direct contact pathway, various options exist.

1. Excavate and dispose of soil that exceeds NRDC criteria.
2. Place a Restrictive Covenant on locations where arsenic and lead concentrations in soil exceed NRDC criteria.

6.0 AREA E (2) – WESTERN MAIN PLANT AREA (UST RELEASE)

The investigation of AOI-E (2) will focus on a release from a former gasoline UST (removed). Due to active demolition in proximity to AOI-E (2), additional assessment work has not started. The geology for AOI-E (2) is expected to be similar to AOI-E (1) (Section 5.1). The COCs are metals, VOCs, and PNAs in soil and groundwater. Excavation is proposed to address COCs in soil;

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however, additional characterization is needed to evaluate COCs in groundwater and assess the GSI pathway.

Table G: Area E (2)—Summary of Criteria Exceedances

Soil (µg/kg)			Groundwater (µg/L)		
Max COC detected	**GSIP**	**NRVI**	**Max COC detected**	**GSI**	**NRVI**
n-butylbenzene (9,900)	NA	**7,560**	*Arsenic ([48])*	**10**	NA
sec-butylbenzene (1,600)	NA	**738**	*Selenium ([9])*	**5**	NA
Ethylbenzene (19,600)	**360**	**3,990**	*Benzene (2,700)*	**200**	**5**
Naphthalene (2,400)	**730**	8,940	*Ethylbenzene (1,600)*	**18**	**700**
n-propylbenzene (14,000)	NA	**2,370**	*2-methylnaphthalene (75)*	**19**	**5**
1,2,4-TMB (87,000)	**570**	**36,900**	*Naphthalene (11)*	**11**	**5**
1,3,5-TMB (32,000)	**1,100**	**27,900**	*n-propylbenzene (200)*	NA	**1**
Xylenes (79,300)	**820**	**4,890**	*Toluene (5,600)*	**270**	169,000
			1,2,3-TMB (700)	NA	**10**
			1,2,4-TMB (1,900)	**17**	**7.3**
			1,3,5-TMB (700)	**45**	**5.1**
			Xylenes (8,500)	**41**	10,000

Note: NA—no criteria available; [n]—concentration of dissolved metal; **value** signifies criteria exceedance; *value* signifies groundwater sample collected from temporary well

7.0 AREA G – UPLAND COAL STORAGE AREA

7.1 Area Description

The upland coal storage area is located between the main plant building and the southern property boundary (Appendix A, Figure 3). The AOI is relatively flat. Between one foot and four feet of exposed, subgrade coal is underlain by a veneer of gravelly fill material and a native basal clay. The saturated thickness varies from one foot in the southern portion of AOI-G, to no saturation in the northern half (Appendix A, Figure 8).

A total of 15 soil borings, one of which was converted to a permanent monitoring well, were advanced for delineation purposes and to help define the physical characteristics of groundwater

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across the entire site. Two groundwater samples were collected from temporary wells during the Phase II.

7.2 Affected Environmental Media

Impacts to soil and groundwater above Michigan Part 201 generic criteria were identified during both investigations (Table H). The COCs include certain metals. There were no COCs detected in the permanent monitoring well.

Table H: Area G—Summary of Criteria Exceedances

Soil (µg/kg)				Groundwater (µg/L)	
Max COC detected	**NB**	**GSIP**	**NRDC**	**Max COC detected**	**GSI**
Arsenic (360,000)	**22,800**	**4,600**	**37,000**	*Arsenic ([11])*	**10**
Copper (170,000)	**32,000**	**75,000**	7.3E+07		
Mercury (180)	**130**	**50**	580,000		
Selenium (28,000)	**1,300**	**400**	9.6E+06		

Note: NB—appropriate natural background value from the Michigan Background Soil Survey Document; [n]—concentration of dissolved metal; **value** signifies criteria exceedance; *value* signifies groundwater sample collected from temporary well

7.3 Exposure Pathway Analysis & Applicable Criteria

7.3.1 Direct Contact (Soil)

Arsenic exceeds NRDC criteria in soil at two boring locations (G-MW9 and G-14). Plans have already been established for excavation of the impacted material, thus making this pathway no longer complete.

7.3.2 Vapor Intrusion

No COCs exceed NRVI screening values. With respect to the vapor intrusion pathway, no additional remedial investigation or remedial action is proposed for this AOI due to no exceedances. This pathway is considered incomplete.

7.3.3 Groundwater Venting to Surface Water (GSI)

Four COCs, see Table G, exceed generic GSIP and GSI criteria. None of the COCs were detected in excess of generic GSI criteria in the permanent monitoring well in AOI-G. The horizontal extent of groundwater saturation in AOI-G is limited (Appendix A, Figure 8). This pathway is considered

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incomplete, as perched groundwater in AOI-G is not hydraulically connected to the St. Clair River (see Section 1.5). No additional remedial investigation or remedial action is proposed for this AOI with respect to the GSI pathway.

7.4 Remedial Approach

To eliminate any direct contact risks in AOI-G, fill material underlying the surficial coal will be removed during excavation of the coal. The coal is to be excavated in accordance with the Response Activity Plan. The estimated excavation volume for coal and underlying fill material is 9,500 cubic yards and 1,100 cubic yards, respectively.

Following excavation activities, no further delineation or remedial action is expected for AOI-G.

8.0 AREA H – OILY WASTE BASIN

Soil data from the Phase II indicates that the concentration of zinc exceeds the GSIP criterion; however, no groundwater saturation was observed in this location (H-1), making the GSI pathway incomplete. Zinc was not detected in groundwater samples from any downgradient wells.

Approximately 2,700 cubic yards of material will be excavated to remove the accumulated sediment and a portion of the underlying clay. Clay removal is necessary to address any potential leaching that occurred. The final number of soil samples will be based upon VSR guidance provided in the MDEQ *Sampling Strategies and Statistics Training Materials* document (2005). Due to the eclectic source of sediment that has accumulated at the bottom of the oily waste basin, COCs include Michigan 10 metals, VOCs, PCBs, and PNAs (Appendix A, Figure 3).

9.0 AREA I – UPGRADIENT PROPERTY BOUNDARY

9.1 Area Description

This AOI is a flat strip of land located along the western property boundary (Appendix A, Figure 3). Approximately three feet of surficial fill material, mixed with coal fragments, overlies native clay. The saturated thickness is approximately one foot.

A total of six soil borings, one of which was converted to a permanent groundwater monitoring well, were advanced. The primary investigation objective for AOI-I was to assist with characterizing physical aquifer conditions across the entire site.

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9.2 Affected Environmental Media

No COCs were identified in excess of soil or groundwater criteria.

9.3 Remedial Approach

There is no risk of exposure in AOI-I and warrants no further delineation or remedial action.

10.0 SUMMARY

As was the goal of the investigation proposed in the Sampling and Analysis Plan, all four DQOs have or will be adequately answered. With exception of a few localized areas, there has been minimal impact from the historical storage of coal at the MVPP (Appendix A, Figure 9).

In the upland area, groundwater saturation in the sand and fill that overlies the native clay is either nonexistent or vertically limited. In the lowland area adjacent to the St. Clair River, up to 20 feet of saturation was observed in fill and gravelly sand. In the lowland area, arsenic and copper exceed generic GSI criteria in groundwater that is hydraulically connected to the St. Clair River. In the upland area, AOI-B, two metals exceed generic GSI criteria; however, this groundwater is not in connection with the St. Clair River due to a ridge in the basal clay. Arsenic and lead exceed NRDC criteria at depth in limited portions of the upland area. Additional assessment is needed to characterize a release from a former UST along the west side of the power plant building (AOI-J [2]) and assess the GSI pathway in AOI-J (1).

Areas that show no impact have been thoroughly characterized and require no further action (AOI-I). Direct contact exceedances in soil from AOI-E (1) and AOI-G can be addressed through excavation or a Restrictive Covenant. No additional delineation is necessary for AOI-A or AOI-D/F; however, an averaging method will be used to evaluate the GSI pathway. Impacted sediment with be excavated from AOI-H.

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REFERENCES

Sampling Strategies and Statistics Training Materials for Part 201 Cleanup Criteria; MDEQ, Remediation and Redevelopment Division, 2002

Michigan Background Soil Survey 2005, revised in 2015. MDEQ Waste and Hazardous Materials Division.

"A Practical Method to Evaluate Ground Water Contaminant Plume Stability," *Ground Water Monitoring and Review* 28, No. 4; 85-94. Ricker, J.A. 2008.

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APPENDIX A

FIGURES

Figure 1: Site Location Map
Figure 2: Conceptual Site Model
Figure 3: Site Map with Boring Locations
Figure 4: Geologic Cross-Section Location Map
Figure 5: Geologic Cross-Sections A-A', B-B', and C-C'
Figure 6: Geologic Cross-Section D-D'
Figure 7: Geologic Cross-Section E-E'
Figure 8: Potentiometric Surface and Groundwater Flow Direction

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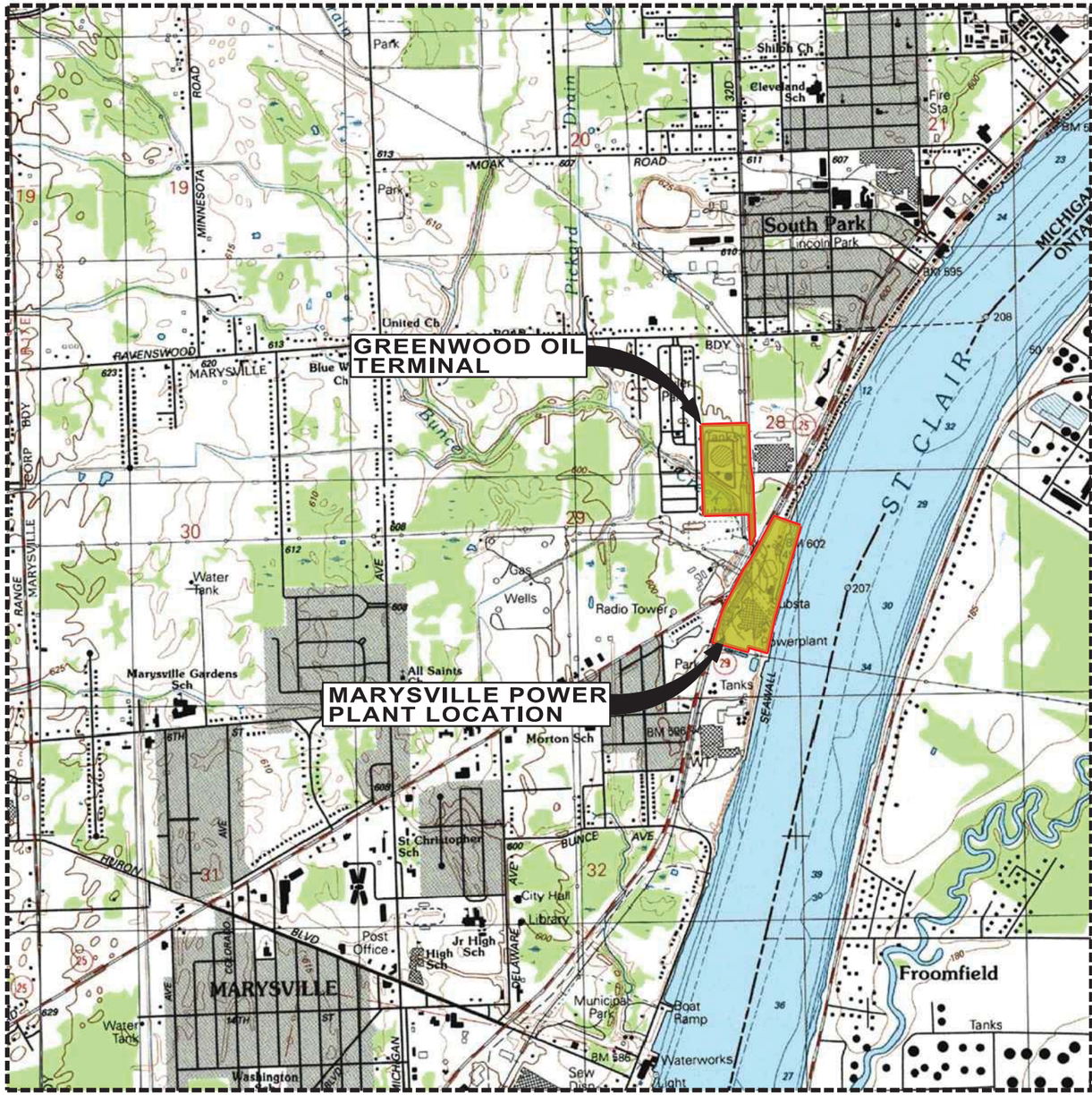

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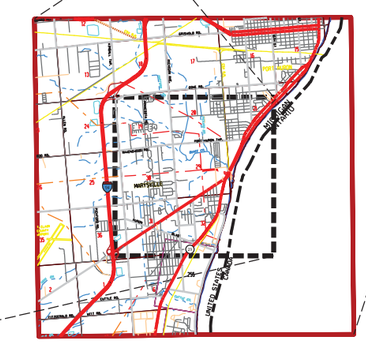

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0 500 1000 2000 4000
SCALE 1" = 2000'

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MARYSVILLE POWER PLANT

301 GRATIOT BLVD &
3223 RAVENSWOOD RD
MARYSVILLE, MI

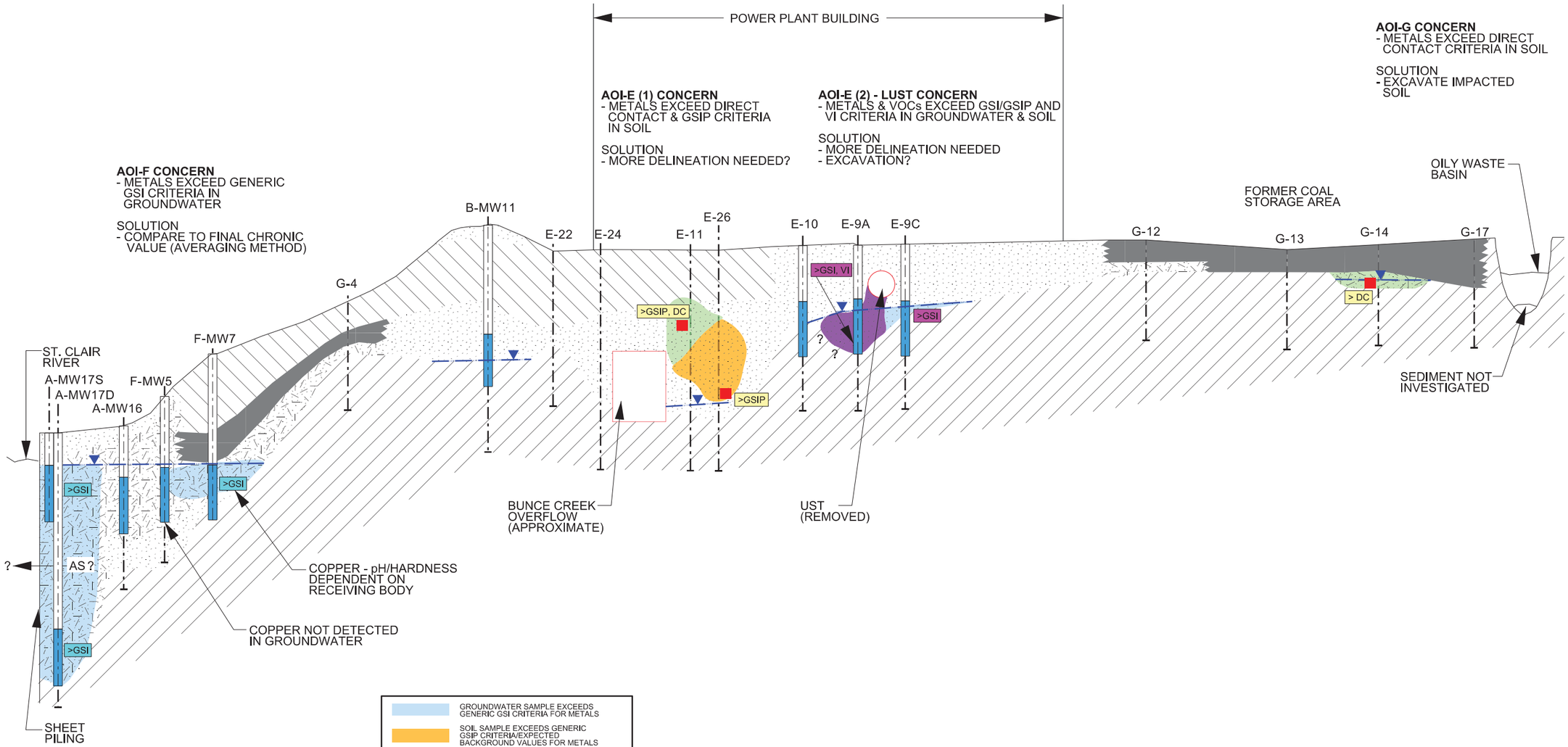
LOCATION MAP

PROJECT NO.
140189

FIGURE No.
1

000000 AAAAAAA File: AA.dgn Model: Location Map

NOT TO SCALE



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CONCEPTUAL SITE MODEL

PROJECT NO. 140189

FIGURE No. 2

000000 AAAAAA File: Model:

A DOWN GRADIENT FILL AREA
B FUEL #2 OIL LINE
C TRANSFORMER MAT
D WASTE WATER TREATMENT PLANT
E MAIN PLANT BUILDING
F COAL STORAGE SEEPAGE AREA
G COAL STORAGE AREA
H OILY WASTE BASIN
I UP-GRADIENT PROPERTY BOUNDARY
K PARK AREA
J FUEL OIL #2 AST AREA

LEGEND

PHASE II ESA

- SOIL BORING LOCATION (PHASE II)
- SOIL BORING/TEMPORARY MONITORING WELL LOCATION (PHASE II)
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- RIVER MONITORING POINT

NOTE:
THIS IS NOT A PROPERTY BOUNDARY SURVEY, PROPERTY BOUNDARIES SHOWN ON THIS MAP ARE BASED ON AVAILABLE FURNISHED INFORMATION AND ARE APPROXIMATE ONLY AND SHOULD NOT BE USED TO ESTABLISH PROPERTY BOUNDARY LOCATION IN THE FIELD.

N

SCALE 1" = 150'
0 50 100 150 300

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MARYSVILLE, MI

SITE PLAN AND EXISTING SOIL BORING AND MONITORING WELL LOCATIONS

PROJECT NO.
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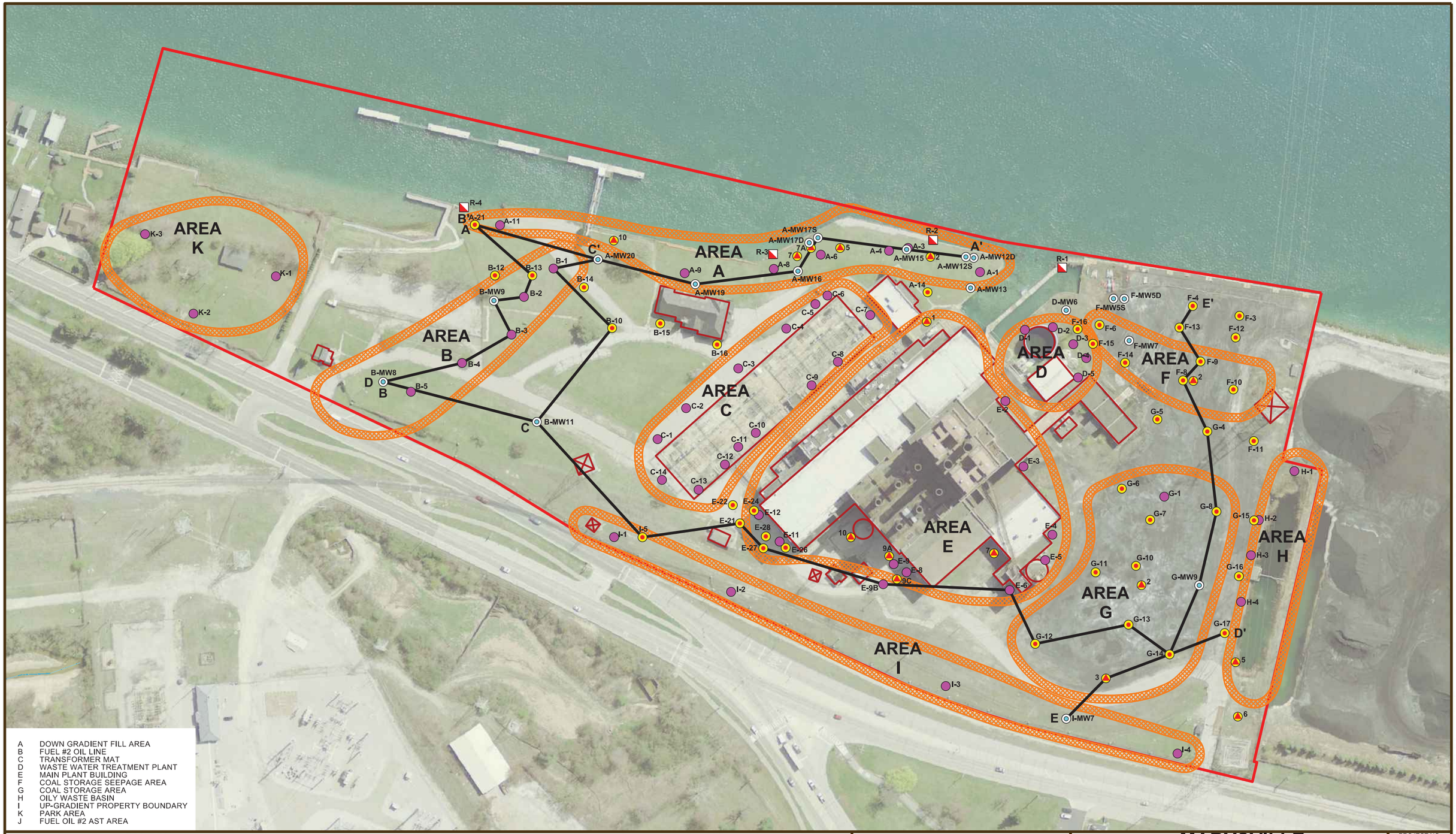
FIGURE No.
3

140189_Site_Plan-Site Plan Q-000.pdf



LEGEND

PHASE II ESA

- SOIL BORING LOCATION (PHASE II)
- SOIL BORING/TEMPORARY MONITORING WELL LOCATION (PHASE II)
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- RIVER MONITORING POINT

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CROSS-SECTION LOCATION MAP

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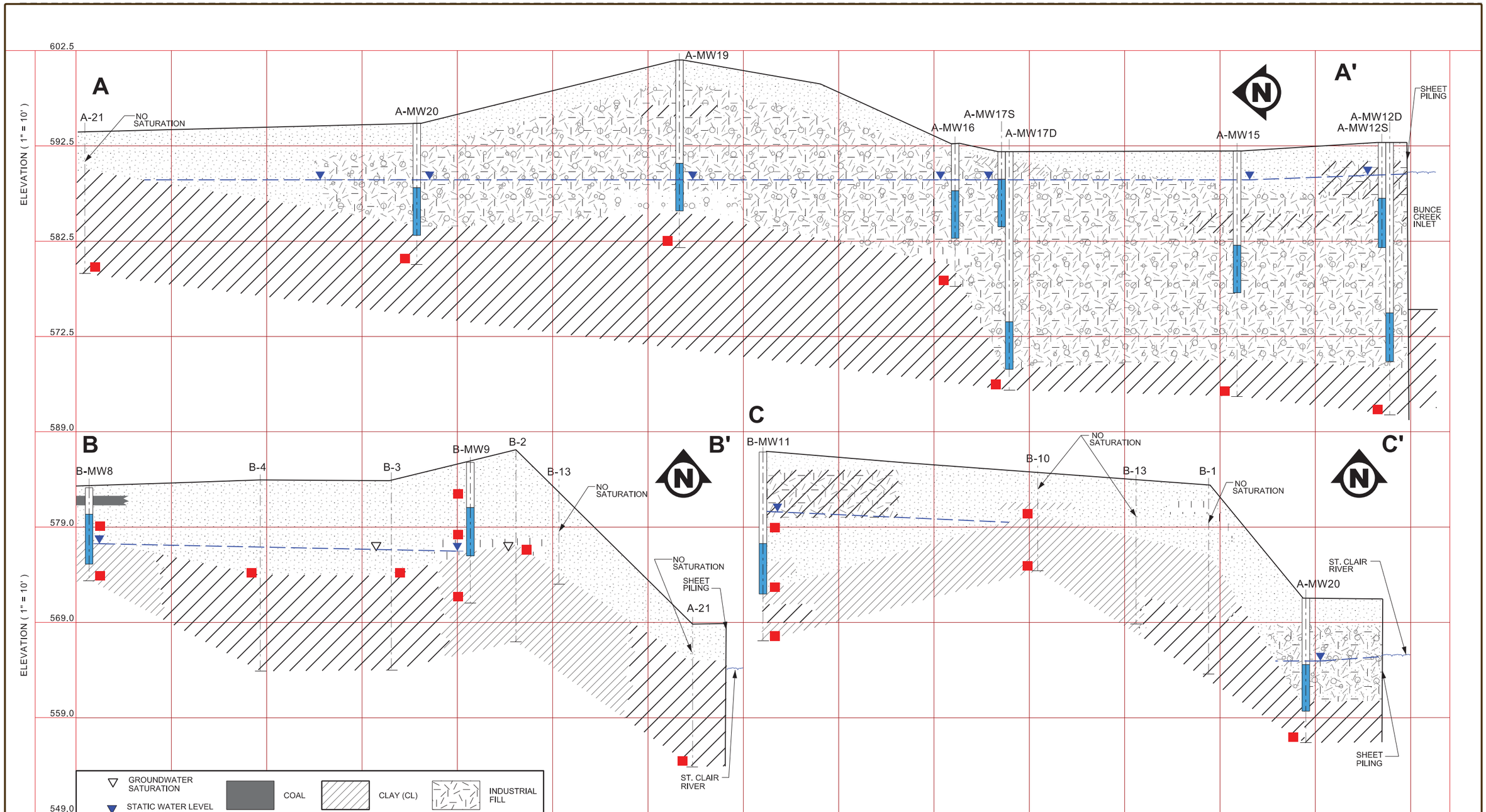
FIGURE No.
4

140189 Site Plan-Site Plan X-000.pdf



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GEOLOGIC CROSS-SECTION A-A', B-B', AND C-C'

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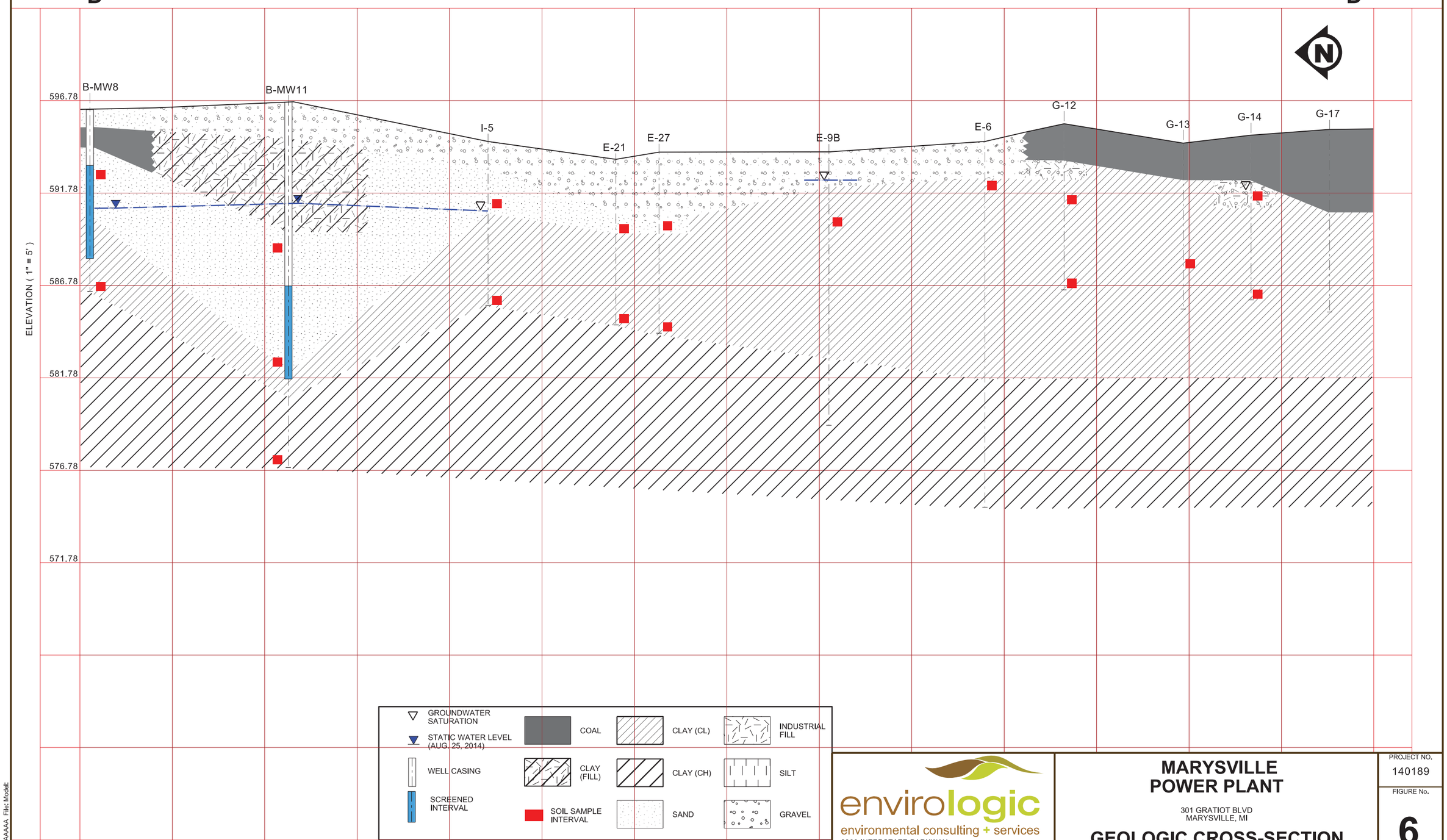
FIGURE No.
5

000000 AAAAAA File: Model:

HORIZONTAL DISTANCE IN FEET (1" = 120')



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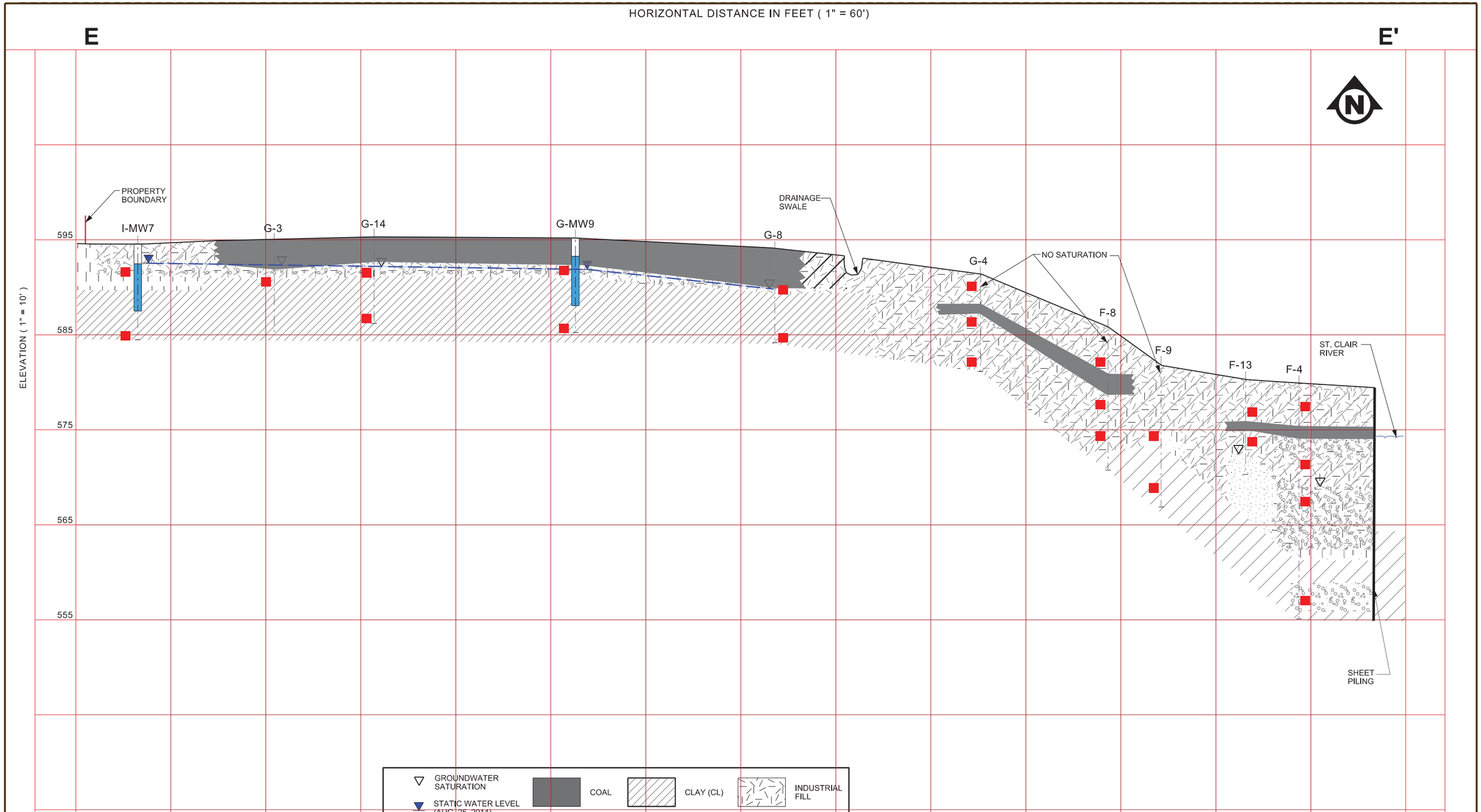
GEOLOGIC CROSS-SECTION D-D'

PROJECT NO.
140189

FIGURE No.
6

000000 AAAAAA File: Model:

HORIZONTAL DISTANCE IN FEET (1" = 60')



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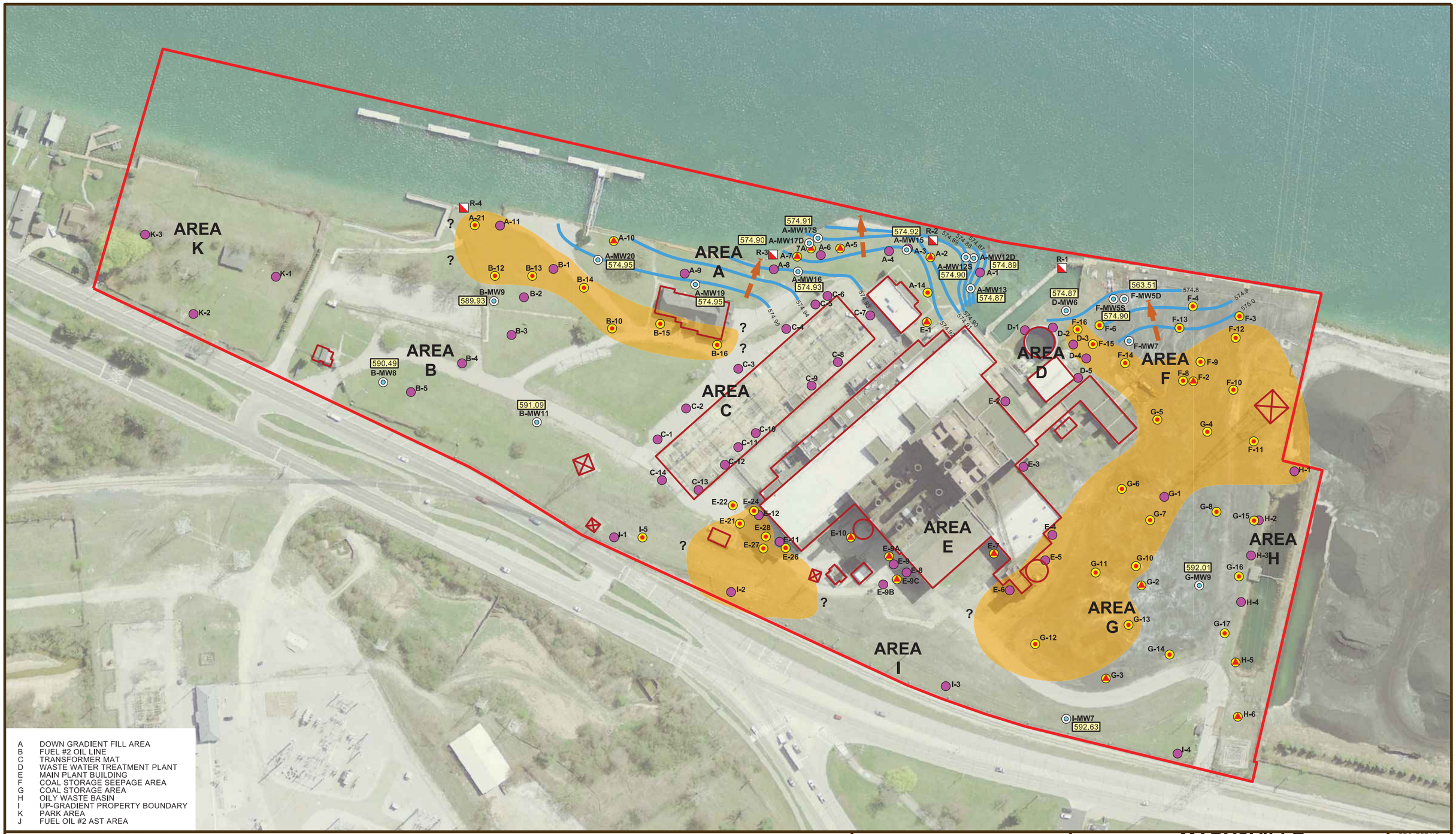
GEOLOGIC CROSS-SECTION E-E'

PROJECT NO.
140189

FIGURE No.
7

000000 AAAAAA File: Model:



A DOWN GRADIENT FILL AREA
B FUEL #2 OIL LINE
C TRANSFORMER MAT
D WASTE WATER TREATMENT PLANT
E MAIN PLANT BUILDING
F COAL STORAGE SEEPAGE AREA
G COAL STORAGE AREA
H OILY WASTE BASIN
I UP-GRADIENT PROPERTY BOUNDARY
K PARK AREA
J FUEL OIL #2 AST AREA

LEGEND

PHASE II ESA

- SOIL BORING LOCATION (PHASE II)
- SOIL BORING/TEMPORARY MONITORING WELL LOCATION (PHASE II)
- SOIL BORING LOCATION
- MONITORING WELL LOCATION
- RIVER MONITORING POINT
- NO SATURATION

100.00 STATIC WATER LEVEL (8-25-14)

100.0 GROUNDWATER CONTOUR LINE CONTOUR INTERVAL: AS SHOWN

DIRECTION OF GROUNDWATER MOVEMENT

NOTE:
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N

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GROUNDWATER FLOW DIRECTION & POTENTIOMETRIC SURFACE MAP

PROJECT NO. 140189

FIGURE No. 8

140189 Site Plan-Site Plan V-000.pdf

APPENDIX B

DATA TABLES

Table 1: Metals (Soil)
Table 2: PNAs (Soil)
Table 3: VOCs (Soil)
Table 4: Metals (Groundwater)
Table 5: PNAs (Groundwater)
Table 6: VOCs (Groundwater)
Table 7: Static Water Levels
Table 8: St. Clair River pH/Hardness Values

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Table 1
Marysville Power Plant
Summary of Metals Analytical Results (Soil)

Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
Location & Sample Depth	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Tier 1 (Non-Residential) RBSLs										
Chemical Abstract Service Number	*7440382*	*7440393*	*7440439*	*18540299*	*7440508*	*7439921*	*Varies*	*7782492*	*7440224*	*7440666*
Statewide Default Background Levels	*5,800*	*75,000*	*1,200*	*18,000*	***32,000***	*21,000*	***130***	*410*	*1,000*	*47,000*
Typical Range of Data - Upper Values [8]	***22,800***	*1.72E+05*	*2,000*	*55,600*	*50,600*	*38,900*	*500*	***1,300***	*1,400*	***1.18E+05***
Material Specific Background Levels - Sand [9]	26,300	*1.99E+05*	2,000	30,400	23,500	24,100	120	3,900	1,200	**85,800**
Material Specific Background Levels - Clay [10]	*36,646*	*2.77E+05*	*2,900*	*62,820*	***48,159***	*30,341*	*630*	***720***	*3,100*	*1.10E+07*
Groundwater Surface Water Interface Protection	***4,600***	*4.4E+05(G)*	*3,000(G,X)*	*3,300*	***75,000(G)***	*2.5E+06(G,X)*	***50 (M); 1.2***	***400***	*100 (M); 27*	***1.7E+05(G)***
Soil Volatilization to Indoor Air Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*89,000*	*NLV*	*NLV*	*NLV*
Infinite Source Volatile Soil Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*62,000*	*NLV*	*NLV*	*NLV*
Particulate Soil Inhalation	*9.10E+05*	*1.50E+08*	*2.20E+06*	*2.40E+05*	*5.90E+07*	*4.40E+07*	*8.80E+06*	*5.90E+07*	*2.90E+06*	*ID*
Direct Contact	***37,000***	*1.30E+08*	*2.10E+06*	*9.20E+06*	*7.30E+07*	*9.0E+5 (DD)*	*5.80E+05*	*9.60E+06*	*9.00E+06*	*6.30E+08*
July-October, 2014										
A-MW12@28'	**9,100**	**75,000**	**610**	**20,000**	**21,000**	**10,000**	<RL	**760**	**120**	**71,000**
A-MW13@25'	**8,400**	**75,000**	**580**	**21,000**	**21,000**	**10,000**	<RL	**630**	**120**	**72,000**
A-14@15'	**8,900**	**77,000**	**680**	**20,000**	**20,000**	**9,600**	<RL	**640**	<RL	**72,000**
A-MW15@26'	**8,600**	**74,000**	**600**	**21,000**	**21,000**	**10,000**	<RL	**600**	**110**	**69,000**
A-MW16@15'	**8,500**	**70,000**	**530**	**20,000**	**21,000**	**10,000**	<RL	**660**	<RL	**69,000**
A-MW17@25'	**8,800**	**65,000**	**870**	**17,000**	**21,000**	**9,200**	<RL	**670**	<RL	**180,000**
A-MW19@20'	**8,200**	**83,000**	**580**	**20,000**	**21,000**	**9,500**	<RL	**770**	<RL	**83,000**
A-MW20@15'	**8,600**	**75,000**	**580**	**20,000**	**21,000**	**9,700**	<RL	**610**	<RL	**72,000**
A-21@15'	**8,500**	**74,000**	**710**	**18,000**	**21,000**	**9,300**	<RL	**630**	<RL	**79,000**
B-MW8@4'	**870**	**16,000**	<RL	**4,200**	**3,000**	**2,100**	<RL	<RL	<RL	**11,000**
B-MW8@10'	**4,400**	**72,000**	**190**	**18,000**	**17,000**	**7,000**	<RL	**340**	<RL	**44,000**
B-MW9@4'	**810**	**6,100**	<RL	**2,300**	**1,200**	**1,000**	<RL	<RL	<RL	**9,300**
B-MW9@8'	**3,000**	**21,000**	**130**	**6,800**	**7,700**	**3,500**	<RL	**290**	<RL	**20,000**
B-MW9@14.5'	**3,700**	**110,000**	**110**	**25,000**	**20,000**	**8,000**	<RL	**250**	<RL	**49,000**
B-10@4'	**2,900**	**32,000**	**110**	**7,400**	**8,200**	**5,600**	<RL	<RL	<RL	**22,000**
B-10@10'	**7,400**	**80,000**	**250**	**17,000**	**19,000**	**9,900**	<RL	**390**	<RL	**54,000**
B-MW11@8'	**5,700**	**56,000**	**190**	**12,000**	**14,000**	**11,000**	<RL	**370**	<RL	**38,000**
B-MW11@14' (▼)	**2,500**	**14,000**	**140**	**3,500**	**5,100**	**4,200**	<RL	<RL	<RL	**26,000**
B-MW11@20'	**7,400**	**72,000**	**420**	**16,000**	**19,000**	**9,300**	<RL	**490**	<RL	**63,000**
D-MW6@15' (▼)	**3,800**	**17,000**	**250**	**8,000**	**6,600**	**13,000**	<RL	**1,300**	<RL	**44,000**
D-MW6@22.5'	**8,800**	**80,000**	**660**	**20,000**	**21,000**	**9,900**	<RL	**660**	<RL	**80,000**
E-21@3.5'	**3,100**	**28,000**	**280**	**4,700**	**9,600**	**36,000**	<RL	**360**	<RL	**30,000**
E-21@9'	**14,000**	**86,000**	**240**	**16,000**	**19,000**	**9,800**	<RL	**290**	<RL	**55,000**
E-22@3'	**6,300**	**70,000**	**310**	**17,000**	**18,000**	**9,400**	<RL	**280**	<RL	**47,000**
E-22@8.5' (▼)	**1,800**	**11,000**	**320**	**3,900**	**3,500**	**2,300**	<RL	**310**	<RL	**41,000**
E-22@14'	**13,000**	**61,000**	**1,300**	**12,000**	**31,000**	**10,000**	<RL	**1,400**	<RL	**91,000**
E-24@9'	**12,000**	**42,000**	**260**	**7,100**	**20,000**	**32,000**	**73**	**700**	<RL	**100,000**
E-24@19'	**20,000**	**58,000**	**810**	**12,000**	**32,000**	**12,000**	<RL	**1,100**	<RL	**99,000**

Table 1
Marysville Power Plant
Summary of Metals Analytical Results (Soil)

Sample Date **Location & Sample Depth**	Arsenic µg/kg	Barium µg/kg	Cadmium µg/kg	Chromium µg/kg	Copper µg/kg	Lead µg/kg	Mercury µg/kg	Selenium µg/kg	Silver µg/kg	Zinc µg/kg
Tier 1 (Non-Residential) RBSLs										
Chemical Abstract Service Number	*7440382*	*7440393*	*7440439*	*18540299*	*7440508*	*7439921*	*Varies*	*7782492*	*7440224*	*7440666*
Statewide Default Background Levels	*5,800*	*75,000*	*1,200*	*18,000*	***32,000***	*21,000*	***130***	*410*	*1,000*	*47,000*
Typical Range of Data - Upper Values [8]	***22,800***	*1.72E+05*	*2,000*	*55,600*	*50,600*	*38,900*	*500*	***1,300***	*1,400*	***1.18E+05***
Material Specific Background Levels - Sand [9]	26,300	*1.99E+05*	2,000	30,400	23,500	24,100	120	3,900	1,200	**85,800**
Material Specific Background Levels - Clay [10]	*36,646*	*2.77E+05*	*2,900*	*62,820*	***48,159***	*30,341*	*630*	***720***	*3,100*	*1.10E+07*
Groundwater Surface Water Interface Protection	***4,600***	*4.4E+05(G)*	*3,000(G,X)*	*3,300*	***75,000(G)***	*2.5E+06(G,X)*	***50 (M); 1.2***	***400***	*100 (M); 27*	***1.7E+05(G)***
Soil Volatilization to Indoor Air Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*89,000*	*NLV*	*NLV*	*NLV*
Infinite Source Volatile Soil Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*62,000*	*NLV*	*NLV*	*NLV*
Particulate Soil Inhalation	*9.10E+05*	*1.50E+08*	*2.20E+06*	*2.40E+05*	*5.90E+07*	*4.40E+07*	*8.80E+06*	*5.90E+07*	*2.90E+06*	*ID*
Direct Contact	***37,000***	*1.30E+08*	*2.10E+06*	*9.20E+06*	*7.30E+07*	*9.0E+5 (DD)*	*5.80E+05*	*9.60E+06*	*9.00E+06*	*6.30E+08*
E-26@5'	**3,600**	**25,000**	**230**	**8,600**	**11,000**	**6,300**	<RL	**210**	<RL	**37,000**
E-26@12.5'	**2,300**	**19,000**	**180**	**5,800**	**11,000**	**7,000**	<RL	**2,400**	<RL	**28,000**
E-26@20'	**2,900**	**68,000**	**490**	**16,000**	**17,000**	**10,000**	<RL	**500**	<RL	**62,000**
E-27@4'	**1,000**	**8,100**	<RL	**3,000**	**1,500**	**1,900**	<RL	<RL	<RL	**7,400**
E-27@9.5'	**5,800**	**85,000**	**540**	**19,000**	**20,000**	**13,000**	<RL	**560**	<RL	**66,000**
E-28@3.5'	**7,900**	**74,000**	**170**	**5,600**	**19,000**	**16,000**	<RL	**500**	<RL	**130,000**
E-28@9'	**5,200**	**72,000**	**640**	**12,000**	**23,000**	**48,000**	**53**	**360**	<RL	**140,000**
F-3@3'	**8,700**	**86,000**	**690**	**16,000**	**25,000**	**10,000**	<RL	**750**	<RL	**71,000**
F-3@9' (▼)	**6,200**	**120,000**	**130**	**25,000**	**19,000**	**8,700**	<RL	**290**	<RL	**45,000**
F-3@13' (▼)	**7,000**	**92,000**	**570**	**19,000**	**21,000**	**12,000**	<RL	**670**	<RL	**68,000**
F-3@20'	**7,600**	**92,000**	**490**	**21,000**	**20,000**	**10,000**	<RL	**660**	<RL	**66,000**
F-4@3'	**8,800**	**74,000**	**660**	**15,000**	**24,000**	**10,000**	<RL	**790**	<RL	**71,000**
F-4@9'	**8,100**	**72,000**	**660**	**20,000**	**22,000**	**11,000**	<RL	**750**	<RL	**72,000**
F-4@12.5' (▼)	**4,700**	**36,000**	<RL	**6,700**	**19,000**	**5,500**	<RL	**560**	<RL	**10,000**
F-4@24'	**7,700**	**73,000**	**490**	**21,000**	**20,000**	**10,000**	<RL	**620**	<RL	**67,000**
F-MW5@8' (▼)	**8,400**	**58,000**	**660**	**17,000**	**24,000**	**11,000**	<RL	**670**	<RL	**71,000**
F-MW5@18' (▼)	**22,000**	**97,000**	<RL	**5,800**	**13,000**	**10,000**	<RL	**2,900**	<RL	**10,000**
F-MW5@30'	**8,200**	**88,000**	**650**	**21,000**	**21,000**	**10,000**	<RL	**670**	<RL	**75,000**
F-6@12' (▼)	**2,800**	**24,000**	**200**	**3,600**	**6,300**	**9,700**	**88**	**320**	<RL	**22,000**
F-6@18'	**7,200**	**54,000**	**620**	**20,000**	**21,000**	**10,000**	<RL	**750**	<RL	**73,000**
F-7@4'	**1,000**	**11,000**	**70**	**2,700**	**2,000**	**1,900**	<RL	<RL	<RL	**9,200**
F-7@9' (▼)	**28,000**	**33,000**	**270**	**13,000**	**75,000**	**27,000**	**89**	**7,200**	<RL	**90,000**
F-7@15'	**8,400**	**60,000**	**560**	**22,000**	**21,000**	**11,000**	<RL	**730**	<RL	**73,000**
F-8@4'	**8,500**	**79,000**	**290**	**18,000**	**25,000**	**11,000**	<RL	**350**	<RL	**61,000**
F-8@9'	**5,800**	**19,000**	**410**	**14,000**	**20,000**	**10,000**	<RL	**600**	<RL	**57,000**
F-8@12'	**5,700**	**32,000**	**440**	**16,000**	**20,000**	**9,800**	<RL	**650**	<RL	**62,000**

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Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
Location & Sample Depth	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Tier 1 (Non-Residential) RBSLs										
Chemical Abstract Service Number	*7440382*	*7440393*	*7440439*	*18540299*	*7440508*	*7439921*	*Varies*	*7782492*	*7440224*	*7440666*
Statewide Default Background Levels	*5,800*	*75,000*	*1,200*	*18,000*	***32,000***	*21,000*	***130***	*410*	*1,000*	*47,000*
Typical Range of Data - Upper Values [8]	***22,800***	*1.72E+05*	*2,000*	*55,600*	*50,600*	*38,900*	*500*	***1,300***	*1,400*	***1.18E+05***
Material Specific Background Levels - Sand [9]	26,300	*1.99E+05*	2,000	30,400	23,500	24,100	120	3,900	1,200	**85,800**
Material Specific Background Levels - Clay [10]	*36,646*	*2.77E+05*	*2,900*	*62,820*	***48,159***	*30,341*	*630*	***720***	*3,100*	*1.10E+07*
Groundwater Surface Water Interface Protection	***4,600***	*4.4E+05(G)*	*3,000(G,X)*	*3,300*	***75,000(G)***	*2.5E+06(G,X)*	***50 (M); 1.2***	***400***	*100 (M); 27*	***1.7E+05(G)***
Soil Volatilization to Indoor Air Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*89,000*	*NLV*	*NLV*	*NLV*
Infinite Source Volatile Soil Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*62,000*	*NLV*	*NLV*	*NLV*
Particulate Soil Inhalation	*9.10E+05*	*1.50E+08*	*2.20E+06*	*2.40E+05*	*5.90E+07*	*4.40E+07*	*8.80E+06*	*5.90E+07*	*2.90E+06*	*ID*
Direct Contact	***37,000***	*1.30E+08*	*2.10E+06*	*9.20E+06*	*7.30E+07*	*9.0E+5 (DD)*	*5.80E+05*	*9.60E+06*	*9.00E+06*	*6.30E+08*
F-9@7.5'	**1,500**	**26,000**	**170**	**6,000**	**6,800**	**4,300**	<RL	<RL	<RL	**37,000**
F-9@12.5'	**4,400**	**48,000**	**430**	**16,000**	**17,000**	**9,600**	**52**	**390**	<RL	**53,000**
F-10@4'	**15,000**	**130,000**	**430**	**20,000**	**22,000**	**10,000**	<RL	**770**	<RL	**82,000**
F-10@13.5'	**8,400**	**26,000**	**700**	**13,000**	**25,000**	**11,000**	<RL	**760**	<RL	**72,000**
F-11@2'	**18,000**	**89,000**	**<RL**	**3,600**	**39,000**	**27,000**	<RL	**1,500**	<RL	**10,000**
F-11@4'	**3,400**	**71,000**	**430**	**17,000**	**11,000**	**23,000**	<RL	**380**	<RL	80,000
F-12@4'	**6,900**	**90,000**	**310**	**19,000**	**19,000**	**8,500**	<RL	**430**	<RL	58,000
F-12@8'	**5,500**	**64,000**	**480**	**19,000**	**21,000**	**9,600**	<RL	**630**	<RL	66,000
F-13@3.5'	**5,200**	**90,000**	**350**	**20,000**	**19,000**	**9,000**	<RL	**450**	<RL	60,000
F-13@7'	**3,200**	**36,000**	**300**	**10,000**	**13,000**	**16,000**	<RL	**290**	<RL	38,000
F-14@2.5'	**10,000**	**72,000**	**300**	**14,000**	**22,000**	**20,000**	<RL	**1,200**	<RL	64,000
F-14@9'	**5,100**	**22,000**	**830**	**18,000**	**21,000**	**11,000**	<RL	**740**	<RL	61,000
F-15@2'	**9,300**	**73,000**	**330**	**16,000**	**23,000**	**26,000**	<RL	**580**	<RL	58,000
F-15@6'	**1,300**	**9,200**	**54**	**3,500**	**15,000**	**1,400**	**73**	<RL	<RL	8,500
F-16@1'	**3,800**	**21,000**	**220**	**5,900**	**8,900**	**42,000**	<RL	**650**	<RL	28,000
F-16@7.5'	**7,000**	**67,000**	**1,200**	**18,000**	**21,000**	**9,300**	<RL	**640**	<RL	110,000
G-4@1.5'	**6,700**	**110,000**	**260**	**22,000**	**21,000**	**11,000**	<RL	**480**	<RL	57,000
G-4@3.5'	**9,700**	**50,000**	**1,200**	**10,000**	**110,000**	**22,000**	**52**	**2,200**	<RL	**190,000**
G-4@9.5'	**5,600**	**100,000**	**480**	**20,000**	**23,000**	**11,000**	<RL	**480**	<RL	**63,000**
G-5@3.5'	**19,000**	**68,000**	<RL	**13,000**	**44,000**	**29,000**	**69**	**2,400**	<RL	**73,000**
G-5@8.5'	**7,500**	**210,000**	**590**	**20,000**	**21,000**	**9,200**	<RL	**530**	<RL	**74,000**
G-6@7'	**5,700**	**120,000**	**250**	**22,000**	**19,000**	**8,800**	<RL	**310**	<RL	**49,000**
G-7@9'	**5,400**	**61,000**	**220**	**21,000**	**21,000**	**8,600**	<RL	**330**	<RL	**47,000**
G-8@4.5' (▼)	**28,000**	**120,000**	<RL	**22,000**	**72,000**	**57,000**	<RL	**2,500**	<RL	**55,000**
G-8@9'	**12,000**	**67,000**	**290**	**17,000**	**20,000**	**10,000**	<RL	**340**	<RL	**56,000**
G-MW9@3.5' (▼)	**93,000**	**110,000**	**240**	**8,400**	**34,000**	**13,000**	**180**	**7,600**	<RL	**25,000**
G-MW9@3.5' (Re-analyzed) (▼)	**42,000**	--	--	--	**170,000**	--	<RL	**3,900**	--	--
G-MW9@9.5'	**9,600**	**93,000**	**290**	**17,000**	**19,000**	**9,600**	<RL	**380**	<RL	**56,000**

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Sample Date	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Mercury	Selenium	Silver	Zinc
Location & Sample Depth	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg	µg/kg
Tier 1 (Non-Residential) RBSLs										
Chemical Abstract Service Number	*7440382*	*7440393*	*7440439*	*18540299*	*7440508*	*7439921*	*Varies*	*7782492*	*7440224*	*7440666*
Statewide Default Background Levels	*5,800*	*75,000*	*1,200*	*18,000*	***32,000***	*21,000*	***130***	*410*	*1,000*	*47,000*
Typical Range of Data - Upper Values [8]	***22,800***	*1.72E+05*	*2,000*	*55,600*	*50,600*	*38,900*	*500*	***1,300***	*1,400*	***1.18E+05***
Material Specific Background Levels - Sand [9]	26,300	*1.99E+05*	2,000	30,400	23,500	24,100	120	3,900	1,200	**85,800**
Material Specific Background Levels - Clay [10]	*36,646*	*2.77E+05*	*2,900*	*62,820*	***48,159***	*30,341*	*630*	***720***	*3,100*	*1.10E+07*
Groundwater Surface Water Interface Protection	***4,600***	*4.4E+05(G)*	*3,000(G,X)*	*3,300*	***75,000(G)***	*2.5E+06(G,X)*	***50 (M); 1.2***	***400***	*100 (M); 27*	***1.7E+05(G)***
Soil Volatilization to Indoor Air Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*89,000*	*NLV*	*NLV*	*NLV*
Infinite Source Volatile Soil Inhalation	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*NLV*	*62,000*	*NLV*	*NLV*	*NLV*
Particulate Soil Inhalation	*9.10E+05*	*1.50E+08*	*2.20E+06*	*2.40E+05*	*5.90E+07*	*4.40E+07*	*8.80E+06*	*5.90E+07*	*2.90E+06*	*ID*
Direct Contact	***37,000***	*1.30E+08*	*2.10E+06*	*9.20E+06*	*7.30E+07*	*9.0E+5 (DD)*	*5.80E+05*	*9.60E+06*	*9.00E+06*	*6.30E+08*
G-10@6.5'	**2,400**	**86,000**	**310**	**20,000**	**15,000**	**6,700**	<RL	**330**	<RL	**42,000**
G-11@6'	**4,200**	**72,000**	**210**	**21,000**	**16,000**	**7,600**	<RL	**290**	<RL	**42,000**
G-12@4'	**14,000**	**13,000**	<RL	**1,700**	**1,400**	**3,300**	<RL	**1,100**	<RL	**11,000**
G-12@9'	**8,400**	**90,000**	**170**	**17,000**	**19,000**	**11,000**	<RL	**360**	<RL	**53,000**
G-13@7'	**15,000**	**82,000**	**150**	**20,000**	**22,000**	**11,000**	<RL	**390**	<RL	**43,000**
G-14@3.5' (▼)	**360,000**	**190,000**	**360**	**15,000**	**99,000**	**100,000**	<RL	**28,000**	<RL	**97,000**
G-14@3.5' (Re-analyzed) (▼)	**280,000**	--	--	--	**40,000**	--	<RL	**17,000**	--	--
G-14@9'	**6,200**	**79,000**	**350**	**20,000**	**22,000**	**12,000**	<RL	**360**	<RL	**61,000**
I-5@3'	**900**	**11,000**	**57**	**4,000**	**2,400**	**1,600**	<RL	<RL	<RL	**19,000**
I-5@9'	**5,000**	**62,000**	**230**	**18,000**	**17,000**	**6,700**	<RL	**350**	<RL	**46,000**
I-MW7@4' (▼)	**750**	**29,000**	**140**	**9,600**	**12,000**	**5,300**	<RL	**370**	<RL	**26,000**
I-MW7@10'	**4,200**	**68,000**	**190**	**17,000**	**17,000**	**6,500**	<RL	**300**	<RL	**46,000**
M-1s (F-8@12') Power Plant (PP)	**5,300**	**48,000**	**530**	**17,000**	**20,000**	**11,000**	<RL	**620**	<RL	**70,000**
M-1s (A-MW13@25') PP	**8,900**	**79,000**	**580**	**22,000**	**22,000**	**10,000**	<RL	**660**	**110**	**69,000**
M-1s (F-15@6') PP	**970**	**11,000**	**65**	**3,800**	**11,000**	**2,300**	**71**	<RL	<RL	**14,000**
M-2s (G-MW9@9.5') PP	**9,600**	**62,000**	**170**	**18,000**	**22,000**	**11,000**	<RL	**320**	<RL	**58,000**
M-3s (G-10@6.5') PP	**5,500**	**81,000**	**290**	**20,000**	**18,000**	**7,000**	<RL	**260**	<RL	**47,000**

Notes:

1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit; (--) - Indicates parameter not analyzed*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (NLL) - Indicates no lower limit (ID) - Indicates that there is insufficient data to develop the criteria*
7. *Criteria from Table 1 of the MDEQ-WHMD Michigan Background Soil Survey, 2015*
8. *Criteria from Table 3 of the MDEQ-WHMD Michigan Background Soil Survey, 2015*
9. *Criteria from Table 4 of the MDEQ-WHMD Michigan Background Soil Survey, 2015*
10. *(G) - Value depends upon pH or hardness of receiving stream; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit; (X) - Criteria is not protective of surface water used as a drinking water source*

Table 2
Marysville Power Plant
Summary of Polynuclear Aromatics Analytical Results (Soil)

Sample Date Location & Sample Depth	acenaphthene µg/kg	acenaphthylene µg/kg	anthracene µg/kg	benzo(a) anthracene µg/kg	benzo(a) pyrene µg/kg	benzo(b) fluoranthene µg/kg	benzo(ghi) perylene µg/kg	benzo(k) fluoranthene µg/kg	chrysene µg/kg	dibenzo(ah) anchracene µg/kg	fluoranthene µg/kg	fluorene µg/kg	indeno (123-cd) pyrene µg/kg	phenan-threne µg/kg	pyrene µg/kg
Tier 1 (Non-Residential) RBSLs															
Chemical Abstract Service Number	*83329*	*208968*	*120127*	*56553*	*50328*	*205992*	*191242*	*207089*	*218019*	*53703*	*206440*	*86737*	*193395*	*85018*	*129000*
Groundwater Surface Water Interface Protection	*8,700*	*ID*	*ID*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*5,500*	*5,300*	*NLL*	***2,100***	*ID*
Soil Volatilization to Indoor Air Inhalation	*3.50E+08*	*3.0E+06*	*1.0E+9 (D)*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*1.0E+9 (D)*	*1.0E+9 (D)*	*NLV*	*5.10E+06*	*1.0E+9 (D)*
Infinite Source Volatile Soil Inhalation	*9.70E+07*	*2.7E+06*	*1.60E+09*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*8.90E+08*	*1.50E+08*	*NLV*	*1.90E+05*	*7.80E+08*
Particulate Soil Inhalation	*6.20E+09*	*1.00E+09*	*2.90E+10*	*ID*	*1.90E+06*	*ID*	*3.50E+08*	*ID*	*ID*	*ID*	*4.10E+09*	*4.10E+09*	*ID*	*2.90E+06*	*2.90E+09*
Direct Contact	*1.30E+08*	*5.2E+06*	*7.3E+08*	*80,000*	*8,000*	*80,000*	*7.00E+06*	*8.00E+05*	*8.00E+06*	*8,000*	*1.30E+08*	*8.70E+07*	*80,000*	*5.20E+06*	*8.40E+07*
Soil Saturation Concentration	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Non-Residential Vapor Intrusion Screening Levels	*7.26E+06*	*2.82E+06*	*5.98E+08*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*1.19E+07*	*NA*	*86,300*	*1.09E+09*
July-October, 2014															
A-MW12@28'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW13@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-14@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW15@26'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW16@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW17@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW19@20'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW20@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-21@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@14.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@14' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@15' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@22.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@8.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@14'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@19'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 2
Marysville Power Plant
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Sample Date Location & Sample Depth	acenaphthene µg/kg	acenaphthylene µg/kg	anthracene µg/kg	benzo(a) anthracene µg/kg	benzo(a) pyrene µg/kg	benzo(b) fluoranthene µg/kg	benzo(ghi) perylene µg/kg	benzo(k) fluoranthene µg/kg	chrysene µg/kg	dibenzo(ah) anchracene µg/kg	fluoranthene µg/kg	fluorene µg/kg	indeno (123-cd) pyrene µg/kg	phenan-threne µg/kg	pyrene µg/kg
Tier 1 (Non-Residential) RBSLs															
Chemical Abstract Service Number	*83329*	*208968*	*120127*	*56553*	*50328*	*205992*	*191242*	*207089*	*218019*	*53703*	*206440*	*86737*	*193395*	*85018*	*129000*
Groundwater Surface Water Interface Protection	*8,700*	*ID*	*ID*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*5,500*	*5,300*	*NLL*	***2,100***	*ID*
Soil Volatilization to Indoor Air Inhalation	*3.50E+08*	*3.0E+06*	*1.0E+9 (D)*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*1.0E+9 (D)*	*1.0E+9 (D)*	*NLV*	*5.10E+06*	*1.0E+9 (D)*
Infinite Source Volatile Soil Inhalation	*9.70E+07*	*2.7E+06*	*1.60E+09*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*8.90E+08*	*1.50E+08*	*NLV*	*1.90E+05*	*7.80E+08*
Particulate Soil Inhalation	*6.20E+09*	*1.00E+09*	*2.90E+10*	*ID*	*1.90E+06*	*ID*	*3.50E+08*	*ID*	*ID*	*ID*	*4.10E+09*	*4.10E+09*	*ID*	*2.90E+06*	*2.90E+09*
Direct Contact	*1.30E+08*	*5.2E+06*	*7.3E+08*	*80,000*	*8,000*	*80,000*	*7.00E+06*	*8.00E+05*	*8.00E+06*	*8,000*	*1.30E+08*	*8.70E+07*	*80,000*	*5.20E+06*	*8.40E+07*
Soil Saturation Concentration	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Non-Residential Vapor Intrusion Screening Levels	*7.26E+06*	*2.82E+06*	*5.98E+08*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*1.19E+07*	*NA*	*86,300*	*1.09E+09*
F-3@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@13' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-3@20'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-4@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@12.5' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-4@24'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-MW5@8' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	**340**
F-MW5@18' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	**350**	<RL
F-MW5@30'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-6@12' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	**340**	<RL	<RL	<RL	**350**
F-6@18'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-7@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@9' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-7@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@12'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-9@7.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-9@12.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-10@4'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-10@13.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-11@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@2.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@1.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-4@3.5'	<RL	<RL	**840**	**1,900**	**1,500**	**1,900**	**910**	**670**	**1,700**	<RL	**5,000**	<RL	**970**	**4,200**	**4,100**
G-4@9.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

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Sample Date Location & Sample Depth	acenaphthene µg/kg	acenaphthylene µg/kg	anthracene µg/kg	benzo(a) anthracene µg/kg	benzo(a) pyrene µg/kg	benzo(b) fluoranthene µg/kg	benzo(ghi) perylene µg/kg	benzo(k) fluoranthene µg/kg	chrysene µg/kg	dibenzo(ah) anchracene µg/kg	fluoranthene µg/kg	fluorene µg/kg	indeno (123-cd) pyrene µg/kg	phenan-threne µg/kg	pyrene µg/kg
Tier 1 (Non-Residential) RBSLs															
Chemical Abstract Service Number	*83329*	*208968*	*120127*	*56553*	*50328*	*205992*	*191242*	*207089*	*218019*	*53703*	*206440*	*86737*	*193395*	*85018*	*129000*
Groundwater Surface Water Interface Protection	*8,700*	*ID*	*ID*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*NLL*	*5,500*	*5,300*	*NLL*	***2,100***	*ID*
Soil Volatilization to Indoor Air Inhalation	*3.50E+08*	*3.0E+06*	*1.0E+9 (D)*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*1.0E+9 (D)*	*1.0E+9 (D)*	*NLV*	*5.10E+06*	*1.0E+9 (D)*
Infinite Source Volatile Soil Inhalation	*9.70E+07*	*2.7E+06*	*1.60E+09*	*NLV*	*NLV*	*ID*	*NLV*	*NLV*	*ID*	*NLV*	*8.90E+08*	*1.50E+08*	*NLV*	*1.90E+05*	*7.80E+08*
Particulate Soil Inhalation	*6.20E+09*	*1.00E+09*	*2.90E+10*	*ID*	*1.90E+06*	*ID*	*3.50E+08*	*ID*	*ID*	*ID*	*4.10E+09*	*4.10E+09*	*ID*	*2.90E+06*	*2.90E+09*
Direct Contact	*1.30E+08*	*5.2E+06*	*7.3E+08*	*80,000*	*8,000*	*80,000*	*7.00E+06*	*8.00E+05*	*8.00E+06*	*8,000*	*1.30E+08*	*8.70E+07*	*80,000*	*5.20E+06*	*8.40E+07*
Soil Saturation Concentration	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*
Non-Residential Vapor Intrusion Screening Levels	*7.26E+06*	*2.82E+06*	*5.98E+08*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*NA*	*1.19E+07*	*NA*	*86,300*	*1.09E+09*
G-5@3.5'	<RL	<RL	<RL	**440**	**330**	**540**	<RL	<RL	**550**	<RL	**730**	<RL	<RL	**910**	**1,000**
G-5@8.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-6@7'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-7@9'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-8@4.5' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-8@9'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-MW9@3.5' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-MW9@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@9.5'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-10@6.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-11@6'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-12@4'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-12@9'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-13@7'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-14@3.5' (▼)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
G-14@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@9'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
I-5@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@4' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (F-8@12') Power Plant (PP)	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-1s (A-MW13@25') PP	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-1S (F-15@6') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-2s (G-MW9@9.5') PP	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-3s (G-10@6.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (NLV) indicates parameter not likely to volatilize; (NLL) - Indicates no lower limit (ID) - Indicates that there is insufficient data to develop the criteria*
7. *(--) - Indicates parameter not analyzed*
8. *D) - criterion exceeds 100 percent, therefore it is reduced to 100 percent or 1.0E+9 parts per billion*

Table 3A
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	acetone µg/kg	acrylonitrile µg/kg	benzene µg/kg	bromo-benzene µg/kg	bromodichloro-methane µg/kg	bromoform µg/kg	bromo-methane µg/kg	2-butanone µg/kg	n-butylbenzene µg/kg	sec-butylbenzene µg/kg	tert-butylbenzene µg/kg	carbon disulfide µg/kg	carbon tetrachloride µg/kg	chloro-benzene µg/kg	chloro-ethane µg/kg	chloroform µg/kg	chloro-methane µg/kg	dibromochloro-methane µg/kg	dibromo-methane µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*67641*	*107131*	*71432*	*108861*	*75274*	*75252*	*74839*	*78933*	*104518*	*135988*	*98066*	*75150*	*56235*	*108907*	*75003*	*67663*	*74873*	*124481*	*74953*
Groundwater Surface Water Interface Protection	*34,000*	*100 (M); 40*	*4,000 (X)*	*NA*	*ID*	*ID*	*700*	*44,000*	*ID*	*ID*	*ID*	*ID*	*900 (X)*	*500*	*22,000 (X)*	*7,000*	*ID*	*ID*	*NA*
Soil Volatilization to Indoor Air Inhalation	*5.4E+8 (C)*	*35,000*	*8,400*	*5.80E+05*	*6,400*	*7.70E+05*	*1,600*	*9.9E+7 (C)*	*ID*	*ID*	*ID*	*1.40E+05*	*990*	*2.20E+05*	*5.3E+6 (C)*	*38,000*	*10,000*	*21,000*	*ID*
Infinite Source Volatile Soil Inhalation	*1.60E+08*	*17,000*	*45,000*	*5.40E+05*	*31,000*	*3.10E+06*	*13,000*	*3.50E+07*	*ID*	*ID*	*ID*	*1.60E+06*	*12,000*	*9.20E+05*	*3.60E+07*	*1.50E+05*	*1.20E+05*	*80,000*	*ID*
Particulate Soil Inhalation	*1.70E+11*	*5.80E+07*	*4.7E+08*	*2.40E+08*	*1.10E+08*	*3.60E+09*	*1.50E+08*	*2.90E+10*	*8.80E+08*	*1.80E+08*	*2.90E+08*	*2.10E+10*	*1.70E+08*	*2.10E+09*	*2.90E+11*	*1.60E+09*	*2.60E+09*	*1.60E+08*	*ID*
Direct Contact	*7.30E+07*	*74,000*	*8.4E+5 (C)*	*1.7E+6 (C)*	*4.90E+05*	*3.8E+6 (C)*	*1.00E+06*	*7.0E+8 (C,DD)*	*8.00E+06*	*8.00E+06*	*8.00E+06*	*4.3E+7 (C,DD)*	*4.4E+5 (C)*	*1.4E+7 (C)*	*1.2E+7 (C)*	*5.5E+6 (C)*	*7.4E+6 (C)*	*5.00E+05*	*8.0E+6 (C)*
Soil Saturation Concentration	*1.10E+08*	*8.30E+06*	*400,000*	*7.60E+05*	*1.50E+06*	*8.70E+05*	*2.20E+06*	*2.70E+07*	*1.00E+07*	*1.00E+07*	*1.00E+07*	*2.80E+05*	*3.90E+05*	*2.60E+05*	*9.50E+05*	*1.50E+06*	*1.10E+06*	*6.10E+05*	*2.00E+06*
Non-Residential Vapor Intrusion Screening Levels	*5.23E+06*	*137*	*85*	*12,900*	*104*	*11,400*	*200*	*3.04E+06*	*7,560*	*738*	*1,290*	*3,800*	*50*	*5,850*	*67,200*	*340*	*323*	*266*	*NA*
July-October, 2014																			
A-MW12@28'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW13@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-14@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW15@26'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW16@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW17@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW19@20'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW20@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-21@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@14.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@14' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@15' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@22.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@8.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@14'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@19'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@13' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@12.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	acetone µg/kg	acrylonitrile µg/kg	benzene µg/kg	bromo-benzene µg/kg	bromodichloro-methane µg/kg	bromoform µg/kg	bromo-methane µg/kg	2-butanone µg/kg	n-butylbenzene µg/kg	sec-butylbenzene µg/kg	tert-butylbenzene µg/kg	carbon disulfide µg/kg	carbon tetrachloride µg/kg	chloro-benzene µg/kg	chloro-ethane µg/kg	chloroform µg/kg	chloro-methane µg/kg	dibromochloro-methane µg/kg	dibromo-methane µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*67641*	*107131*	*71432*	*108861*	*75274*	*75252*	*74839*	*78933*	*104518*	*135988*	*98066*	*75150*	*56235*	*108907*	*75003*	*67663*	*74873*	*124481*	*74953*
Groundwater Surface Water Interface Protection	*34,000*	*100 (M); 40*	*4,000 (X)*	*NA*	*ID*	*ID*	*700*	*44,000*	*ID*	*ID*	*ID*	*ID*	*900 (X)*	*500*	*22,000 (X)*	*7,000*	*ID*	*ID*	*NA*
Soil Volatilization to Indoor Air Inhalation	*5.4E+8 (C)*	*35,000*	*8,400*	*5.80E+05*	*6,400*	*7.70E+05*	*1,600*	*9.9E+7 (C)*	*ID*	*ID*	*ID*	*1.40E+05*	*990*	*2.20E+05*	*5.3E+6 (C)*	*38,000*	*10,000*	*21,000*	*ID*
Infinite Source Volatile Soil Inhalation	*1.60E+08*	*17,000*	*45,000*	*5.40E+05*	*31,000*	*3.10E+06*	*13,000*	*3.50E+07*	*ID*	*ID*	*ID*	*1.60E+06*	*12,000*	*9.20E+05*	*3.60E+07*	*1.50E+05*	*1.20E+05*	*80,000*	*ID*
Particulate Soil Inhalation	*1.70E+11*	*5.80E+07*	*4.7E+08*	*2.40E+08*	*1.10E+08*	*3.60E+09*	*1.50E+08*	*2.90E+10*	*8.80E+08*	*1.80E+08*	*2.90E+08*	*2.10E+10*	*1.70E+08*	*2.10E+09*	*2.90E+11*	*1.60E+09*	*2.60E+09*	*1.60E+08*	*ID*
Direct Contact	*7.30E+07*	*74,000*	*8.4E+5 (C)*	*1.7E+6 (C)*	*4.90E+05*	*3.8E+6 (C)*	*1.00E+06*	*7.0E+8 (C,DD)*	*8.00E+06*	*8.00E+06*	*8.00E+06*	*4.3E+7 (C,DD)*	*4.4E+5 (C)*	*1.4E+7 (C)*	*1.2E+7 (C)*	*5.5E+6 (C)*	*7.4E+6 (C)*	*5.00E+05*	*8.0E+6 (C)*
Soil Saturation Concentration	*1.10E+08*	*8.30E+06*	*400,000*	*7.60E+05*	*1.50E+06*	*8.70E+05*	*2.20E+06*	*2.70E+07*	*1.00E+07*	*1.00E+07*	*1.00E+07*	*2.80E+05*	*3.90E+05*	*2.60E+05*	*9.50E+05*	*1.50E+06*	*1.10E+06*	*6.10E+05*	*2.00E+06*
Non-Residential Vapor Intrusion Screening Levels	*5.23E+06*	*137*	*85*	*12,900*	*104*	*11,400*	*200*	*3.04E+06*	*7,560*	*738*	*1,290*	*3,800*	*50*	*5,850*	*67,200*	*340*	*323*	*266*	*NA*
F-4@24'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@8' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@18' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@30'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-6@12' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-6@18'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@15'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@12'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-9@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-9@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-10@13.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@2.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@1.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-5@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-5@8.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-6@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-7@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-8@4.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@3.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-10@6.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-11@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

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Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	acetone µg/kg	acrylonitrile µg/kg	benzene µg/kg	bromo-benzene µg/kg	bromodichloro-methane µg/kg	bromoform µg/kg	bromo-methane µg/kg	2-butanone µg/kg	n-butylbenzene µg/kg	sec-butylbenzene µg/kg	tert-butylbenzene µg/kg	carbon disulfide µg/kg	carbon tetrachloride µg/kg	chloro-benzene µg/kg	chloro-ethane µg/kg	chloroform µg/kg	chloro-methane µg/kg	dibromochloro-methane µg/kg	dibromo-methane µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*67641*	*107131*	*71432*	*108861*	*75274*	*75252*	*74839*	*78933*	*104518*	*135988*	*98066*	*75150*	*56235*	*108907*	*75003*	*67663*	*74873*	*124481*	*74953*
Groundwater Surface Water Interface Protection	*34,000*	*100 (M); 40*	*4,000 (X)*	*NA*	*ID*	*ID*	*700*	*44,000*	*ID*	*ID*	*ID*	*ID*	*900 (X)*	*500*	*22,000 (X)*	*7,000*	*ID*	*ID*	*NA*
Soil Volatilization to Indoor Air Inhalation	*5.4E+8 (C)*	*35,000*	*8,400*	*5.80E+05*	*6,400*	*7.70E+05*	*1,600*	*9.9E+7 (C)*	*ID*	*ID*	*ID*	*1.40E+05*	*990*	*2.20E+05*	*5.3E+6 (C)*	*38,000*	*10,000*	*21,000*	*ID*
Infinite Source Volatile Soil Inhalation	*1.60E+08*	*17,000*	*45,000*	*5.40E+05*	*31,000*	*3.10E+06*	*13,000*	*3.50E+07*	*ID*	*ID*	*ID*	*1.60E+06*	*12,000*	*9.20E+05*	*3.60E+07*	*1.50E+05*	*1.20E+05*	*80,000*	*ID*
Particulate Soil Inhalation	*1.70E+11*	*5.80E+07*	*4.7E+08*	*2.40E+08*	*1.10E+08*	*3.60E+09*	*1.50E+08*	*2.90E+10*	*8.80E+08*	*1.80E+08*	*2.90E+08*	*2.10E+10*	*1.70E+08*	*2.10E+09*	*2.90E+11*	*1.60E+09*	*2.60E+09*	*1.60E+08*	*ID*
Direct Contact	*7.30E+07*	*74,000*	*8.4E+5 (C)*	*1.7E+6 (C)*	*4.90E+05*	*3.8E+6 (C)*	*1.00E+06*	*7.0E+8 (C,DD)*	*8.00E+06*	*8.00E+06*	*8.00E+06*	*4.3E+7 (C,DD)*	*4.4E+5 (C)*	*1.4E+7 (C)*	*1.2E+7 (C)*	*5.5E+6 (C)*	*7.4E+6 (C)*	*5.00E+05*	*8.0E+6 (C)*
Soil Saturation Concentration	*1.10E+08*	*8.30E+06*	*400,000*	*7.60E+05*	*1.50E+06*	*8.70E+05*	*2.20E+06*	*2.70E+07*	*1.00E+07*	*1.00E+07*	*1.00E+07*	*2.80E+05*	*3.90E+05*	*2.60E+05*	*9.50E+05*	*1.50E+06*	*1.10E+06*	*6.10E+05*	*2.00E+06*
Non-Residential Vapor Intrusion Screening Levels	*5.23E+06*	*137*	*85*	*12,900*	*104*	*11,400*	*200*	*3.04E+06*	*7,560*	*738*	*1,290*	*3,800*	*50*	*5,850*	*67,200*	*340*	*323*	*266*	*NA*
G-12@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@3.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@4' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (F-8@12') Power Plant (PP)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (A-MW13@25') PP	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-1S (F-15@6') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-2s (G-MW9@9.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-3s (G-10@6.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria*
7. *(--) - Indicates parameter not analyzed*
8. *(C) - Criterion exceeds Csat screening levels; (D) - criterion exceeds 100 percent, therefore it is reduced to 100 percent or 1.0E+9 parts per billion;*
   (DD) - Substance causes developmental effects; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit;
   (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water protection standard of 1,600 ug/kg;
   (X) - Criteria is not protective of surface water used as a drinking water source

Table 3B
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	1,2-dichloro-benzene µg/kg	1,3-dichloro benzene µg/kg	1,4-dichloro benzene µg/kg	dichlorodi-fluoromethane µg/kg	1,1-dichloro-ethane µg/kg	1,2-dichloro-ethane µg/kg	1,1-dichloro-ethene µg/kg	cis-1,2-di-chloroethene µg/kg	trans-1,2-di-chloroethene µg/kg	1,2-dichloro-propane µg/kg	1,3-dichloro-propane µg/kg	ethyl-benzene µg/kg	ethylene dibromide µg/kg	2-hexanone µg/kg	isopropyl-benzene µg/kg	methylene chloride µg/kg	2-methyl naphthalene µg/kg	4-methyl-2-pentanone µg/kg	MTBE µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*95501*	*541731*	*106467*	*75718*	*75343*	*107062*	*75354*	*156592*	*156605*	*78875*	*542756*	*100414*	*106934*	*591786*	*98828*	*75092*	*91576*	*108101*	*1634044*
Groundwater Surface Water Interface Protection	*280*	*680*	*360*	*ID*	*15,000*	*7,200 (X)*	*2,600*	*12,000*	*30,000 (X)*	*4,600 (X)*	*180 (X)*	*360*	*110 (X)*	*ID*	*3,200*	*30,000 (X)*	*4,200*	*ID*	*1.4E+5 (X)*
Soil Volatilization to Indoor Air Inhalation	*2.0E+7 (C)*	*48,000*	*1.00E+05*	*1.70E+06*	*4.30E+05*	*11,000*	*330*	*41,000*	*43,000*	*7,400*	*5,400*	*4.6E+5 (C)*	*3,600*	*1.80E+06*	*7.3E+5 (C)*	*2.40E+05*	*4.9E+06*	*6.9E+7 (C)*	*1.8E+7 (C)*
Infinite Source Volatile Soil Inhalation	*4.60E+07*	*94,000*	*2.60E+05*	*6.30E+07*	*2.50E+06*	*21,000*	*3,700*	*2.10E+05*	*3.30E+05*	*30,000*	*60,000*	*2.40E+06*	*5,800*	*1.30E+06*	*2.00E+06*	*7.00E+05*	*1.8E+06*	*5.30E+07*	*3.0E+07*
Particulate Soil Inhalation	*4.40E+10*	*8.80E+07*	*5.70E+08*	*1.50E+12*	*1.50E+10*	*1.50E+08*	*7.80E+07*	*1.00E+09*	*2.10E+09*	*1.20E+08*	*5.90E+08*	*1.30E+10*	*1.80E+07*	*1.20E+09*	*2.60E+09*	*8.30E+09*	*2.9E+08*	*6.00E+10*	*8.80E+10*
Direct Contact	*6.3E+7 (C)*	*6.6E+5 (C)*	*1.90E+06*	*1.7E+8 (C)*	*8.7E+7 (C)*	*4.20E+05*	*6.6E+5 (C)*	*8.0E+6 (C)*	*1.2E+7 (C)*	*6.6E+5 (C)*	*2.40E+05*	*7.1E+7 (C)*	*430*	*1.0E+8 (C)*	*8.0E+7 (C)*	*5.8E+6 (C)*	*2.6E+07*	*1.8E+8 (C)*	*7.1E+6 (C)*
Soil Saturation Concentration	*2.10E+05*	*1.70E+05*	*NA*	*1.00E+06*	*8.90E+05*	*1.20E+06*	*5.70E+05*	*6.40E+05*	*1.40E+06*	*5.50E+05*	*6.20E+05*	*140,000*	*8.90E+05*	*2.50E+06*	*3.90E+05*	*2.30E+06*	*NA*	*2.70E+06*	*5.9E+06*
Non-Residential Vapor Intrusion Screening Levels	*96,900*	*740*	*1,420*	*68,200*	*7,330*	*83.7*	*1,230*	*165*	*760*	*151*	*305*	*3,990*	*20*	*16,900*	*304*	*1,540*	*126,000*	*1.04E+06*	*238,000*
July-October, 2014																			
A-MW12@28'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW13@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-14@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW15@26'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW16@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW17@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW19@20'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW20@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-21@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@14.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@14' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@15' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@22.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@8.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@14'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@19'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@13' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-3@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-4@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@12.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-4@24'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--

Table 3B
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	1,2-dichloro-benzene µg/kg	1,3-dichloro benzene µg/kg	1,4-dichloro benzene µg/kg	dichlorodi-fluoromethane µg/kg	1,1-dichloro-ethane µg/kg	1,2-dichloro-ethane µg/kg	1,1-dichloro-ethene µg/kg	cis-1,2-di-chloroethene µg/kg	trans-1,2-di-chloroethene µg/kg	1,2-dichloro-propane µg/kg	1,3-dichloro-propane µg/kg	ethyl-benzene µg/kg	ethylene dibromide µg/kg	2-hexanone µg/kg	isopropyl-benzene µg/kg	methylene chloride µg/kg	2-methyl naphthalene µg/kg	4-methyl-2-pentanone µg/kg	MTBE µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*95501*	*541731*	*106467*	*75718*	*75343*	*107062*	*75354*	*156592*	*156605*	*78875*	*542756*	*100414*	*106934*	*591786*	*98828*	*75092*	*91576*	*108101*	*1634044*
Groundwater Surface Water Interface Protection	*280*	*680*	*360*	*ID*	*15,000*	*7,200 (X)*	*2,600*	*12,000*	*30,000 (X)*	*4,600 (X)*	*180 (X)*	*360*	*110 (X)*	*ID*	*3,200*	*30,000 (X)*	*4,200*	*ID*	*1.4E+5 (X)*
Soil Volatilization to Indoor Air Inhalation	*2.0E+7 (C)*	*48,000*	*1.00E+05*	*1.70E+06*	*4.30E+05*	*11,000*	*330*	*41,000*	*43,000*	*7,400*	*5,400*	*4.6E+5 (C)*	*3,600*	*1.80E+06*	*7.3E+5 (C)*	*2.40E+05*	*4.9E+06*	*6.9E+7 (C)*	*1.8E+7 (C)*
Infinite Source Volatile Soil Inhalation	*4.60E+07*	*94,000*	*2.60E+05*	*6.30E+07*	*2.50E+06*	*21,000*	*3,700*	*2.10E+05*	*3.30E+05*	*30,000*	*60,000*	*2.40E+06*	*5,800*	*1.30E+06*	*2.00E+06*	*7.00E+05*	*1.8E+06*	*5.30E+07*	*3.0E+07*
Particulate Soil Inhalation	*4.40E+10*	*8.80E+07*	*5.70E+08*	*1.50E+12*	*1.50E+10*	*1.50E+08*	*7.80E+07*	*1.00E+09*	*2.10E+09*	*1.20E+08*	*5.90E+08*	*1.30E+10*	*1.80E+07*	*1.20E+09*	*2.60E+09*	*8.30E+09*	*2.9E+08*	*6.00E+10*	*8.80E+10*
Direct Contact	*6.3E+7 (C)*	*6.6E+5 (C)*	*1.90E+06*	*1.7E+8 (C)*	*8.7E+7 (C)*	*4.20E+05*	*6.6E+5 (C)*	*8.0E+6 (C)*	*1.2E+7 (C)*	*6.6E+5 (C)*	*2.40E+05*	*7.1E+7 (C)*	*430*	*1.0E+8 (C)*	*8.0E+7 (C)*	*5.8E+6 (C)*	*2.6E+07*	*1.8E+8 (C)*	*7.1E+6 (C)*
Soil Saturation Concentration	*2.10E+05*	*1.70E+05*	*NA*	*1.00E+06*	*8.90E+05*	*1.20E+06*	*5.70E+05*	*6.40E+05*	*1.40E+06*	*5.50E+05*	*6.20E+05*	*140,000*	*8.90E+05*	*2.50E+06*	*3.90E+05*	*2.30E+06*	*NA*	*2.70E+06*	*5.9E+06*
Non-Residential Vapor Intrusion Screening Levels	*96,900*	*740*	*1,420*	*68,200*	*7,330*	*83.7*	*1,230*	*165*	*760*	*151*	*305*	*3,990*	*20*	*16,900*	*304*	*1,540*	*126,000*	*1.04E+06*	*238,000*
F-MW5@8' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-MW5@18' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**710**	--	--
F-MW5@30'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-6@12' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-6@18'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-7@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-7@15'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@12'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-9@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-9@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-10@13.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
F-11@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@2.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@1.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-4@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1,100**	--	--
G-4@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-5@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**1,300**	--	--
G-5@8.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-6@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-7@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-8@4.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**510**	--	--
G-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-MW9@3.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	**400**	--	--
G-MW9@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-10@6.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-11@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-12@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--

Table 3B
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Soil)

Sample Date Location & Sample Depth	1,2-dichloro-benzene µg/kg	1,3-dichloro benzene µg/kg	1,4-dichloro benzene µg/kg	dichlorodi-fluoromethane µg/kg	1,1-dichloro-ethane µg/kg	1,2-dichloro-ethane µg/kg	1,1-dichloro-ethene µg/kg	cis-1,2-di-chloroethene µg/kg	trans-1,2-di-chloroethene µg/kg	1,2-dichloro-propane µg/kg	1,3-dichloro-propane µg/kg	ethyl-benzene µg/kg	ethylene dibromide µg/kg	2-hexanone µg/kg	isopropyl-benzene µg/kg	methylene chloride µg/kg	2-methyl naphthalene µg/kg	4-methyl-2-pentanone µg/kg	MTBE µg/kg
Tier 1 (Non-Residential) RBSLs																			
Chemical Abstract Service Number	*95501*	*541731*	*106467*	*75718*	*75343*	*107062*	*75354*	*156592*	*156605*	*78875*	*542756*	*100414*	*106934*	*591786*	*98828*	*75092*	*91576*	*108101*	*1634044*
Groundwater Surface Water Interface Protection	*280*	*680*	*360*	*ID*	*15,000*	*7,200 (X)*	*2,600*	*12,000*	*30,000 (X)*	*4,600 (X)*	*180 (X)*	*360*	*110 (X)*	*ID*	*3,200*	*30,000 (X)*	*4,200*	*ID*	*1.4E+5 (X)*
Soil Volatilization to Indoor Air Inhalation	*2.0E+7 (C)*	*48,000*	*1.00E+05*	*1.70E+06*	*4.30E+05*	*11,000*	*330*	*41,000*	*43,000*	*7,400*	*5,400*	*4.6E+5 (C)*	*3,600*	*1.80E+06*	*7.3E+5 (C)*	*2.40E+05*	*4.9E+06*	*6.9E+7 (C)*	*1.8E+7 (C)*
Infinite Source Volatile Soil Inhalation	*4.60E+07*	*94,000*	*2.60E+05*	*6.30E+07*	*2.50E+06*	*21,000*	*3,700*	*2.10E+05*	*3.30E+05*	*30,000*	*60,000*	*2.40E+06*	*5,800*	*1.30E+06*	*2.00E+06*	*7.00E+05*	*1.8E+06*	*5.30E+07*	*3.0E+07*
Particulate Soil Inhalation	*4.40E+10*	*8.80E+07*	*5.70E+08*	*1.50E+12*	*1.50E+10*	*1.50E+08*	*7.80E+07*	*1.00E+09*	*2.10E+09*	*1.20E+08*	*5.90E+08*	*1.30E+10*	*1.80E+07*	*1.20E+09*	*2.60E+09*	*8.30E+09*	*2.9E+08*	*6.00E+10*	*8.80E+10*
Direct Contact	*6.3E+7 (C)*	*6.6E+5 (C)*	*1.90E+06*	*1.7E+8 (C)*	*8.7E+7 (C)*	*4.20E+05*	*6.6E+5 (C)*	*8.0E+6 (C)*	*1.2E+7 (C)*	*6.6E+5 (C)*	*2.40E+05*	*7.1E+7 (C)*	*430*	*1.0E+8 (C)*	*8.0E+7 (C)*	*5.8E+6 (C)*	*2.6E+07*	*1.8E+8 (C)*	*7.1E+6 (C)*
Soil Saturation Concentration	*2.10E+05*	*1.70E+05*	*NA*	*1.00E+06*	*8.90E+05*	*1.20E+06*	*5.70E+05*	*6.40E+05*	*1.40E+06*	*5.50E+05*	*6.20E+05*	*140,000*	*8.90E+05*	*2.50E+06*	*3.90E+05*	*2.30E+06*	*NA*	*2.70E+06*	*5.9E+06*
Non-Residential Vapor Intrusion Screening Levels	*96,900*	*740*	*1,420*	*68,200*	*7,330*	*83.7*	*1,230*	*165*	*760*	*151*	*305*	*3,990*	*20*	*16,900*	*304*	*1,540*	*126,000*	*1.04E+06*	*238,000*
G-14@3.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
G-14@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
I-5@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@4' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (F-8@12') Power Plant (PP)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
M-1s (A-MW13@25') PP	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-1S (F-15@6') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-2s (G-MW9@9.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
M-3s (G-10@6.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria*
7. *(--) - Indicates parameter not analyzed*
8. *(C) - Criterion exceeds Csat screening levels; (D) - criterion exceeds 100 percent, therefore it is reduced to 100 percent or 1.0E+9 parts per billion;*
   (DD) - Substance causes developmental effects; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit;
   (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water protection standard of 1,600 ug/kg;
   (X) - Criteria is not protective of surface water used as a drinking water source

Table 3C
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results

Sample Date Location & Sample Depth	naph-thalene µg/kg	n-propyl-benzene µg/kg	styrene µg/kg	1,1,1,1-tetra-chloroethane µg/kg	1,1,2,2-tetra-chloroethane µg/kg	tetra-chloroethene µg/kg	toluene µg/kg	1,2,4-trichloro-benzene µg/kg	1,1,1-trichloro-ethane µg/kg	1,1,2-trichloro-ethane µg/kg	trichloroethene µg/kg	trichloro-fluoromethane µg/kg	1,2,3-trichloro-propane µg/kg	1,2,4-TMB µg/kg	1,3,5-TMB µg/kg	vinyl chloride µg/kg	xylenes µg/kg
Tier 1 (Non-Residential) RBSLs																	
Chemical Abstract Service Number	*91203*	*103651*	*100425*	*630206*	*79345*	*127184*	*108883*	*120821*	*71556*	*79005*	*79016*	*75694*	*96184*	*95636*	*108678*	*75014*	*1330207*
Groundwater Surface Water Interface Protection	***730***	*ID*	*2,100 (X)*	*ID*	*1,600 (X)*	*1,200 (X)*	*5,400*	*5,900 (X)*	*1,800*	*6,600 (X)*	*4,000 (580,X)*	*NA*	*NA*	*570*	*1,100*	*260 (X)*	*820*
Soil Volatilization to Indoor Air Inhalation	*4.70E+05*	*ID*	*1.3E+6 (C)*	*33,000*	*23,000*	*21,000*	*6.1E+5 (C)*	*1.8E+7 (C)*	*4.60E+05*	*24,000*	*1,900*	*5.1E+6(C)*	*7,500*	*8.0E+6 (C)*	*4.8E+6 (C)*	*2,800*	*1.2E+7 (C)*
Infinite Source Volatile Soil Inhalation	*3.50E+05*	*ID*	*3.30E+06*	*1.20E+05*	*34,000*	*2.10E+05*	*3.3E+06*	*3.40E+07*	*4.50E+06*	*57,000*	*14,000*	*1.10E+08*	*11,000*	*2.5E+07*	*1.9E+07*	*29,000*	*5.4E+07*
Particulate Soil Inhalation	*8.8E+07*	*5.90E+08*	*6.90E+09*	*5.30E+08*	*6.80E+07*	*1.20E+09*	*1.2E+10*	*1.10E+10*	*2.90E+10*	*2.50E+08*	*5.90E+07*	*1.70E+12*	*8.80E+06*	*3.60E+10*	*3.6E+10*	*8.90E+08*	*1.3E+11*
Direct Contact	*5.2E+07*	*8.00E+06*	*1.9E+6 (C)*	*2.2E+6 (C)*	*2.40E+05*	*9.3E+5 (C)*	*1.6E+8 (C)*	*5.8E+6 (C,DD)*	*1.0E+9 (C,D)*	*8.40E+05*	*6.6E+5 (C,DD)*	*2.6E+8 (C)*	*4.2E+6 (C)*	*1.0E+8 (C)*	*1.0E+8 (C)*	*34,000*	*1.0E+9 (C,D)*
Soil Saturation Concentration	*NA*	*1.00E+07*	*5.20E+05*	*4.40E+05*	*8.70E+05*	*88,000*	*2.50E+05*	*1.10E+06*	*4.60E+05*	*9.20E+05*	*5.00E+05*	*5.60E+05*	*8.30E+05*	*1.10E+05*	*94,000*	*4.90E+05*	*1.50E+05*
Non-Residential Vapor Intrusion Screening Levels	*8,940*	*2,370*	*30,200*	*292*	*230*	*1,030*	*169,000*	*5.86E+03*	*66,600*	*365*	*50*	*118,000*	*NA*	*36,900*	*27,900*	*40*	*4,890*
July-October, 2014																	
A-MW12@28'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW13@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-14@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW15@26'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW16@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW17@25'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW19@20'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW20@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-21@15'	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9@14.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-10@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@14' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@15' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6@22.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-21@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@8.5' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-22@14'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-24@19'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@12.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-26@20'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-27@9.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E-28@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@9' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@13' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-3@20'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3C
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results

Sample Date Location & Sample Depth	naph-thalene µg/kg	n-propyl-benzene µg/kg	styrene µg/kg	1,1,1,1-tetra-chloroethane µg/kg	1,1,2,2-tetra-chloroethane µg/kg	tetra-chloroethene µg/kg	toluene µg/kg	1,2,4-trichloro-benzene µg/kg	1,1,1-trichloro-ethane µg/kg	1,1,2-trichloro-ethane µg/kg	trichloroethene µg/kg	trichloro-fluoromethane µg/kg	1,2,3-trichloro-propane µg/kg	1,2,4-TMB µg/kg	1,3,5-TMB µg/kg	vinyl chloride µg/kg	xylenes µg/kg
Tier 1 (Non-Residential) RBSLs																	
Chemical Abstract Service Number	*91203*	*103651*	*100425*	*630206*	*79345*	*127184*	*108883*	*120821*	*71556*	*79005*	*79016*	*75694*	*96184*	*95636*	*108678*	*75014*	*1330207*
Groundwater Surface Water Interface Protection	***730***	*ID*	*2,100 (X)*	*ID*	*1,600 (X)*	*1,200 (X)*	*5,400*	*5,900 (X)*	*1,800*	*6,600 (X)*	*4,000 (580,X)*	*NA*	*NA*	*570*	*1,100*	*260 (X)*	*820*
Soil Volatilization to Indoor Air Inhalation	*4.70E+05*	*ID*	*1.3E+6 (C)*	*33,000*	*23,000*	*21,000*	*6.1E+5 (C)*	*1.8E+7 (C)*	*4.60E+05*	*24,000*	*1,900*	*5.1E+6(C)*	*7,500*	*8.0E+6 (C)*	*4.8E+6 (C)*	*2,800*	*1.2E+7 (C)*
Infinite Source Volatile Soil Inhalation	*3.50E+05*	*ID*	*3.30E+06*	*1.20E+05*	*34,000*	*2.10E+05*	*3.3E+06*	*3.40E+07*	*4.50E+06*	*57,000*	*14,000*	*1.10E+08*	*11,000*	*2.5E+07*	*1.9E+07*	*29,000*	*5.4E+07*
Particulate Soil Inhalation	*8.8E+07*	*5.90E+08*	*6.90E+09*	*5.30E+08*	*6.80E+07*	*1.20E+09*	*1.2E+10*	*1.10E+10*	*2.90E+10*	*2.50E+08*	*5.90E+07*	*1.70E+12*	*8.80E+06*	*3.60E+10*	*3.6E+10*	*8.90E+08*	*1.3E+11*
Direct Contact	*5.2E+07*	*8.00E+06*	*1.9E+6 (C)*	*2.2E+6 (C)*	*2.40E+05*	*9.3E+5 (C)*	*1.6E+8 (C)*	*5.8E+6 (C,DD)*	*1.0E+9 (C,D)*	*8.40E+05*	*6.6E+5 (C,DD)*	*2.6E+8 (C)*	*4.2E+6 (C)*	*1.0E+8 (C)*	*1.0E+8 (C)*	*34,000*	*1.0E+9 (C,D)*
Soil Saturation Concentration	*NA*	*1.00E+07*	*5.20E+05*	*4.40E+05*	*8.70E+05*	*88,000*	*2.50E+05*	*1.10E+06*	*4.60E+05*	*9.20E+05*	*5.00E+05*	*5.60E+05*	*8.30E+05*	*1.10E+05*	*94,000*	*4.90E+05*	*1.50E+05*
Non-Residential Vapor Intrusion Screening Levels	*8,940*	*2,370*	*30,200*	*292*	*230*	*1,030*	*169,000*	*5.86E+03*	*66,600*	*365*	*50*	*118,000*	*NA*	*36,900*	*27,900*	*40*	*4,890*
F-4@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@12.5' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-4@24'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@8' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@18' (▼)	**580**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5@30'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-6@12' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-6@18'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@9' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-7@15'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-8@12'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-9@7.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-9@12.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-10@4'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-10@13.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-11@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@4'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-12@8'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@3.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-13@7'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@2.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-14@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@2'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-15@6'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@1'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-16@7.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@1.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@3.5'	**720**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-4@9.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-5@3.5'	**860**	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-5@8.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-6@7'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-7@9'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-8@4.5' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-8@9'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Table 3C
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results

Sample Date **Location & Sample Depth**	naph-thalene µg/kg	n-propyl-benzene µg/kg	styrene µg/kg	1,1,1,1-tetra-chloroethane µg/kg	1,1,2,2-tetra-chloroethane µg/kg	tetra-chloroethene µg/kg	toluene µg/kg	1,2,4-trichloro-benzene µg/kg	1,1,1-trichloro-ethane µg/kg	1,1,2-trichloro-ethane µg/kg	trichloroethene µg/kg	trichloro-fluoromethane µg/kg	1,2,3-trichloro-propane µg/kg	1,2,4-TMB µg/kg	1,3,5-TMB µg/kg	vinyl chloride µg/kg	xylenes µg/kg
Tier 1 (Non-Residential) RBSLs																	
Chemical Abstract Service Number	*91203*	*103651*	*100425*	*630206*	*79345*	*127184*	*108883*	*120821*	*71556*	*79005*	*79016*	*75694*	*96184*	*95636*	*108678*	*75014*	*1330207*
Groundwater Surface Water Interface Protection	***730***	*ID*	*2,100 (X)*	*ID*	*1,600 (X)*	*1,200 (X)*	*5,400*	*5,900 (X)*	*1,800*	*6,600 (X)*	*4,000 (580,X)*	*NA*	*NA*	*570*	*1,100*	*260 (X)*	*820*
Soil Volatilization to Indoor Air Inhalation	*4.70E+05*	*ID*	*1.3E+6 (C)*	*33,000*	*23,000*	*21,000*	*6.1E+5 (C)*	*1.8E+7 (C)*	*4.60E+05*	*24,000*	*1,900*	*5.1E+6(C)*	*7,500*	*8.0E+6 (C)*	*4.8E+6 (C)*	*2,800*	*1.2E+7 (C)*
Infinite Source Volatile Soil Inhalation	*3.50E+05*	*ID*	*3.30E+06*	*1.20E+05*	*34,000*	*2.10E+05*	*3.3E+06*	*3.40E+07*	*4.50E+06*	*57,000*	*14,000*	*1.10E+08*	*11,000*	*2.5E+07*	*1.9E+07*	*29,000*	*5.4E+07*
Particulate Soil Inhalation	*8.8E+07*	*5.90E+08*	*6.90E+09*	*5.30E+08*	*6.80E+07*	*1.20E+09*	*1.2E+10*	*1.10E+10*	*2.90E+10*	*2.50E+08*	*5.90E+07*	*1.70E+12*	*8.80E+06*	*3.60E+10*	*3.6E+10*	*8.90E+08*	*1.3E+11*
Direct Contact	*5.2E+07*	*8.00E+06*	*1.9E+6 (C)*	*2.2E+6 (C)*	*2.40E+05*	*9.3E+5 (C)*	*1.6E+8 (C)*	*5.8E+6 (C,DD)*	*1.0E+9 (C,D)*	*8.40E+05*	*6.6E+5 (C,DD)*	*2.6E+8 (C)*	*4.2E+6 (C)*	*1.0E+8 (C)*	*1.0E+8 (C)*	*34,000*	*1.0E+9 (C,D)*
Soil Saturation Concentration	*NA*	*1.00E+07*	*5.20E+05*	*4.40E+05*	*8.70E+05*	*88,000*	*2.50E+05*	*1.10E+06*	*4.60E+05*	*9.20E+05*	*5.00E+05*	*5.60E+05*	*8.30E+05*	*1.10E+05*	*94,000*	*4.90E+05*	*1.50E+05*
Non-Residential Vapor Intrusion Screening Levels	*8,940*	*2,370*	*30,200*	*292*	*230*	*1,030*	*169,000*	*5.86E+03*	*66,600*	*365*	*50*	*118,000*	*NA*	*36,900*	*27,900*	*40*	*4,890*
G-MW9@3.5' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9@9.5'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-10@6.5'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-11@6'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-12@4'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-12@9'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-13@7'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@3.5' (▼)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@3.5' (Re-analyzed) (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-14@9'	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@3'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-5@9'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@4' (▼)	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7@10'	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (F-8@12') Power Plant (PP)	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1s (A-MW13@25') PP	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-1S (F-15@6') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-2s (G-MW9@9.5') PP	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-3s (G-10@6.5') PP	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria*
7. *(--) - Indicates parameter not analyzed*
8. *(C) - Criterion exceeds Csat screening levels; (D) - criterion exceeds 100 percent, therefore it is reduced to 100 percent or 1.0E+9 parts per billion;*
   (DD) - Substance causes developmental effects; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit;
   (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water protection standard of 1,600 ug/kg;
   (X) - Criteria is not protective of surface water used as a drinking water source

Table 4
Marysville Power Plant
Summary of Metals Analytical Results (Groundwater)

		Arsenic µg/L	Barium µg/L	Cadmium µg/L	Total Chromium µg/L	Copper µg/L	Lead µg/L	Total Mercury µg/L	Selenium µg/L	Silver µg/L	Zinc µg/L
Tier 1 (Non-Residential) RBSLs											
Chemical Abstract Service Number		*7440382*	*7440393*	*7440439*	*18540299*	*7440508*	*7439921*	*Varies*	*7782492*	*7440224*	*7440666*
Residential Drinking Water		**10 (A)**	2,000 (A)	5.0 (A)	100 (A)	1,000 (E)	**4.0 (L)**	2.0 (A)	50 (A)	34	2,400
Non -R esidential Drinking Water		**10 (A)**	2,000 (A)	5.0 (A)	100 (A)	1,000 (E)	**4.0 (L)**	2.0 (A)	50 (A)	98	5,000 (E)
Groundwater Surface Water Interface		**10**	670 (G)	2.5 (G,X)	**11**	**13 (G)**	14 (G,X)	0.0013	5	**0.2 (M); 0.06**	170 (G)
Residential GVIIC		NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV
Non-Residential GVIIC		NLV	NLV	NLV	NLV	NLV	NLV	56 (S)	NLV	NLV	NLV
Water Solubility		NA	NA	NA	NA	NA	NA	56	NA	NA	NA
Flamability and Explositivity		ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Final Acute Value [9]		680	3,844	13	1,588	39	550	2.8	120	1.1	330
Final Chronic Value [9]		150	670	3	100	**13**	29	0.77	5	**0.06**	170
Non-Residential Vapor Intrusion Screening Levels		NLV	NLV	NLV	NLV	NLV	NLV	NC	NLV	NLV	NLV
Sample ID (Depth, ft. bgl)	**Sample Date**										
A-MW12S (6.0'-11.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW12D (18.0'-23.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW13 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	<RL	<RL	<RL	<RL	<RL	**4.3**	<RL	<RL	<RL	<RL
A-MW15 (10.0'-15.0')	8-27-14	**5.2 (5.3)**	**140**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW16 (5.0'-10.0')	8-26-14	**8.7 (8.8)**	<RL	<RL	<RL	**4.4 (<RL)**	<RL	<RL	<RL	<RL	<RL
	2-10-15	**12**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW17S (3.0'-8.0')	8-26-14	**180**	**220 (210)**	<RL	<RL	<RL	**5.6 (<RL)**	<RL	<RL	<RL	<RL
	2-10-15	**5.6**	<RL	<RL	<RL	**4.6**	<RL	<RL	<RL	<RL	<RL
A-MW17D (18.0'-23.0')	8-26-14	**8.6 (6.9)**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	**17**	**130**	<RL	<RL	<RL	**5.2**	<RL	<RL	<RL	<RL
A-MW19 (11.0'-16.0')	8-26-14	**6.9 (6.6)**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
A-MW20 (7.0'-12.0')	8-26-14	**38 (36)**	**120**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	**31**	**110**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW8 (3.0'-8.0')	8-26-14	<RL	**140**	<RL	<RL	<RL	<RL	<RL	<RL	**<RL (0.23)**	<RL
B-MW9 (5.0'-10.0')	8-25-14	<RL	**250 (240)**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
B-MW11 (10.0'-15.0')	8-26-14	<RL	**110**	<RL	**11 (<RL)**	**7.1 (<RL)**	<RL	<RL	<RL	<RL	<RL
D-MW6 (10.0'-15.0')	8-25-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-9-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-MW5S (8.0'-13.0')	8-25-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-9-15	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-MW5D (18.0'-23.0')	8-25-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-9-15	**6.5**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
F-MW7 (10.0'-15.0')	2-9-15	<RL	<RL	<RL	<RL	**17**	**11**	<RL	<RL	<RL	<RL
G-MW9 (2.0'-7.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
I-MW7 (2.0'-7.0')	8-26-14	<RL	<RL	<RL	<RL	**4.8 (4.1)**	<RL	<RL	<RL	<RL	<RL
M-1GW (A-MW16) Power Plant (PP)	8-26-14	**8.5 (8.7)**	<RL	<RL	<RL	**4.8 (<RL)**	<RL	<RL	<RL	<RL	<RL
M-2GW (A-MW20) (PP)	2-10-15	**29**	**110**	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL

Notes:

1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results **Bolded** where detected, **Underlined** where above Tier 1 Non-Residential RBSLs*
6. *(NA) - Indicates Criterion not applicable; (NLV) indicates parameter not likely to volatilize; (ID) - Indicates that there is insufficient data to develop the criteria*
7. *(--) - Indicates parameter not analyzed*
8. *Metal results in brackets are dissolved. Included if a disparity occurred between the two data sets, likely due to tubidity above 20 NTU*
9. *Final Acute Values and Final Chronic Values from MDEQ Rule 323.1057 Part 4 - Water Quality Values (Rule 57), February 27, 2014*
10. *(A) - Michigan Drinking Water Standard; (E) - Value represents Aesthetic Drinking Water Value;*
    (G) - Value depends upon pH or hardness of receiving stream;
    (L) - Criteria are calculated using a biologically based model; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit;
    (S) - Criterion defaults to the hazardous substance-specific water solubility limit; (X) - Criteria is not protective of surface water used as a drinking water source

Table 5
Marysville Power Plant
Summary of Polynuclear Aromatics Analytical Results (Groundwater)

		acenaphthene µg/L	acenaphthylene µg/L	anthracene µg/L	benzo(a) anthracene µg/L	benzo(a) pyrene µg/L	benzo(b) fluoranthene µg/L	benzo(ghi) perylene µg/L	benzo(k) fluoranthene µg/L	chrysene µg/L	dibenzo(ah) anchracene µg/L	fluoranthene µg/L	fluorene µg/L	indeno (123-cd) pyrene µg/L	phenanthrene µg/L	pyrene µg/L
Tier 1 (Non-Residential) RBSLs																
Chemical Abstract Service Number		*83329*	*208968*	*120127*	*56553*	*50328*	*205992*	*191242*	*207089*	*218019*	*53703*	*206440*	*86737*	*193395*	*85018*	*129000*
Groundwater Surface Water Interface		38	ID	ID	ID	ID	ID	ID	NA	ID	ID	1.6	12	ID	2.0 (M); 1.4	ID
Non-Residential GVIIC		4,200 (S)	3,900 (S)	43 (S)	NLV	NLV	ID	NLV	NLV	ID	NLV	210 (S)	2,000 (S)	NLV	1,000 (S)	140 (S)
Water Solubility		4,240	3,930	43.4	9.4	1.62	1.5	0.26	0.8	1.6	2.49	206	1,980	0.022	1,000	135
Flamability and Explositivity		ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID	ID
Non-Residential Vapor Intrusion Screening Levels		230	62	3,700	NC	NC	NC	NC	NC	NC	NC	NC	300	NC	2.0	1,700
Sample ID (Depth, ft. bgl)	**Sample Date**															
A-MW12S (6.0'-11.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW12D (18.0'-23.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW13 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW15 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW16 (5.0'-10.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17S (3.0'-8.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17D (18.0'-23.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW19 (11.0'-16.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW20 (7.0'-12.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8 (3.0'-8.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9 (5.0'-10.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11 (10.0'-15.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6 (10.0'-15.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5S (8.0'-13.0')	8-25-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5D (18.0'-23.0')	8-25-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW7 (10.0'-15.0')	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9 (2.0'-7.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
I-MW7 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1GW (A-MW16) Power Plant (PP)	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-2GW (A-MW20) (PP)	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. *All laboratory extractions and analyses were performed within the required period; Results **Bolded** where detected, **Underlined** where above Tier 1 Non-Residential RBSLs; (--) - Indicates parameter not analyzed*
2. *(<RL) - Indicates parameter not detected above the reporting limit; (NA) - Indicates Criterion not applicable; (NLV) indicates parameter not likely to volatilize; (ID) - Indicates that there is insufficient data to develop the criteria*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *(A) - Michigan Drinking Water Standard; (AA) - When groundwater enters a building, use 10,000 ug/L, otherwise use 28,000 ug/L;*
   (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit; (S) - Criterion defaults to the hazardous substance-specific water solubility limit;

Table 6A
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Groundwater)

		acetone µg/L	acrylonitrile µg/L	benzene µg/L	bromo-benzene µg/L	bromodichloro-methane µg/L	bromoform µg/L	bromo-methane µg/L	2-butanone µg/L	n-butylbenzene µg/L	sec-butylbenzene µg/L	tert-butylbenzene µg/L	carbon disulfide µg/L	carbon tetrachloride µg/L	chloro-benzene µg/L	chloro-ethane µg/L	chloroform µg/L	chloro-methane µg/L	dibromochloro-methane µg/L	dibromo-methane µg/L
Tier 1 (Non-Residential) RBSLs																				
Chemical Abstract Service Number		*67641*	*107131*	*71432*	*108861*	*75274*	*75252*	*74839*	*78933*	*104518*	*135988*	*98066*	*75150*	*56235*	*108907*	*75003*	*67663*	*74873*	*124481*	*74953*
Groundwater Surface Water Interface		1,700	2.0 (M); 1.2	200 (X)	NA	ID	ID	35	2,200	ID	ID	ID	ID	45 (X)	25	1,100 (X)	350	ID	ID	NA
Non-Residential GVIIC		1.0E+9 (D,S)	1.90E+05	35,000	3.90E+05	37,000	3.1E+6 (S)	9,000	2.4E+8 (S)	ID	ID	ID	5.50E+05	2,400	4.7E+5 (S)	5.7E+6 (S)	1.80E+05	45,000	1.10E+05	ID
Water Solubility		1.00E+09	7.50E+07	1.75E+06	4.13E+05	6.74E+06	3.10E+06	1.45E+07	2.40E+08	NA	NA	NA	1.19E+06	7.93E+05	4.72E+05	5.74E+06	7.92E+06	6.34E+06	2.60E+06	1.10E+07
Flamability and Explositivity		1.50E+07	6.40E+06	68,000	ID	ID	ID	ID	ID	ID	ID	ID	13,000	ID	1.60E+05	1.10E+05	ID	36,000	ID	ID
Non-Residential Vapor Intrusion Screening Levels		34,000	2.0	5.0	4.9	80	80	5.0	18,000	1.0	1.0	1.0	9.9	5.0	100	180	80	5.0	80	NA
Sample ID (Depth, ft. bgl)	**Sample Date**																			
A-MW12S (6.0'-11.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW12D (18.0'-23.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW13 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW15 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW16 (5.0'-10.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17S (3.0'-8.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17D (18.0'-23.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW19 (11.0'-16.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW20 (7.0'-12.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8 (3.0'-8.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9 (5.0'-10.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11 (10.0'-15.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6 (10.0'-15.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5S (8.0'-13.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5D (18.0'-23.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW7 (10.0'-15.0')	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1GW (A-MW16) Power Plant (PP)	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-2GW (A-MW20) (PP)	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit; (NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria; (--) - Indicates parameter not analyzed*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results **Bolded** where detected, **Underlined** where above Tier 1 Non-Residential RBSLs*
8. *(A) - Michigan Drinking Water Standard; (D) - Calculated criteria exceeds 100%, thus criteron has been reduced to 100%; (E) - Value represents Aesthetic Drinking Water Value; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit; (S) - Criterion defaults to the hazardous substance-specific water solubility limit; (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water standard of 80 ug/L; (X) - Criteria is not protective of surface water used as a drinking water source*

Table 6B
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Groundwater)

		1,2-dichloro-benzene µg/L	1,3-dichloro benzene µg/L	1,4-dichloro benzene µg/L	dichlorodi-fluoromethane µg/L	1,1-dichloro-ethane µg/L	1,2-dichloro-ethane µg/L	1,1-dichloro-ethene µg/L	cis-1,2-di-chloroethene µg/L	trans-1,2-di-chloroethene µg/L	1,2-dichloro-propane µg/L	1,3-dichloro-propane µg/L	ethyl-benzene µg/L	ethylene dibromide µg/L	2-hexanone µg/L	isopropyl-benzene µg/L	methylene chloride µg/L	2-methyl naphthalene µg/L	4-methyl-2-pentanone µg/L	MTBE µg/L
Tier 1 (Non-Residential) RBSLs																				
Chemical Abstract Service Number		*95501*	*541731*	*106467*	*75718*	*75343*	*107062*	*75354*	*156592*	*156605*	*78875*	*542756*	*100414*	*106934*	*591786*	*98828*	*75092*	*91576*	*108101*	*1634044*
Groundwater Surface Water Interface		13	28	17	ID	740	360 (X)	130	620	1,500 (X)	230 (X)	9.0 (X)	18	5.7 (X)	ID	28	1,500 (X)	19	ID	7,100 (X)
Non-Residential GVIIC		1.6E+5 (S)	41,000	74,000 (S)	3.0E+5 (S)	2.30E+06	59,000	1,300	2.10E+05	2.00E+05	36,000	26,000	1.7E+5 (S)	15,000	8.70E+06	56,000 (S)	1.40E+06	25,000 (S)	2.0E+7 (S)	4.7E+7 (S)
Water Solubility		1.56E+05	1.11E+05	73,800	3.00E+05	5.06E+06	8.52E+06	2.25E+06	3.50E+06	6.30E+06	2.80E+06	2.80E+06	1.69E+05	4.20E+06	1.60E+07	56,000	1.70E+07	24,600	2.00E+07	4.68E+07
Flamability and Explositivity		NA	ID	NA	ID	3.80E+05	2.50E+06	97,000	5.30E+05	2.30E+05	5.50E+05	1.30E+05	43,000	ID	NA	29,000	ID	ID	ID	ID
Non-Residential Vapor Intrusion Screening Levels		600	1.0	75	29	18	5.0	7.0	70	100	5.0	1.0	700	500	67	5.0	5.0	5.0	4,400	1,000
Sample ID (Depth, ft. bgl)	**Sample Date**																			
A-MW12S (6.0'-11.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW12D (18.0'-23.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW13 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW15 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW16 (5.0'-10.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17S (3.0'-8.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17D (18.0'-23.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW19 (11.0'-16.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW20 (7.0'-12.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8 (3.0'-8.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9 (5.0'-10.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11 (10.0'-15.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6 (10.0'-15.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5S (8.0'-13.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5D (18.0'-23.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<RL	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW7 (10.0'-15.0')	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1GW (A-MW16) Power Plant (PP)	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-2GW (A-MW20) (PP)	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:

1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit; (NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria; (--) - Indicates parameter not analyzed*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
8. *(A) - Michigan Drinking Water Standard; (D) - Calculated criteria exceeds 100%, thus criteron has been reduced to 100%; (E) - Value represents Aesthetic Drinking Water Value; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit;*
   (S) - Criterion defaults to the hazardous substance-specific water solubility limit; (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water standard of 80 ug/L;
   (X) - Criteria is not protective of surface water used as a drinking water source

Table 6C
Marysville Power Plant
Summary of Volatile Organic Compounds Analytical Results (Groundwater)

		naph-thalene µg/L	n-propyl-benzene µg/L	styrene µg/L	1,1,1,1-tetra-chloroethane µg/L	1,1,2,2-tetra-chloroethane µg/L	tetra-chloroethene µg/L	toluene µg/L	1,2,4-trichloro-benzene µg/L	1,1,1-trichloro-ethane µg/L	1,1,2-trichloro-ethane µg/L	trichloroethene µg/L	trichloro-fluoromethane µg/L	1,2,3-trichloro-propane µg/L	1,2,4-TMB µg/L	1,3,5-TMB µg/L	vinyl chloride µg/L	xylenes µg/L
Tier 1 (Non-Residential) RBSLs																		
Chemical Abstract Service Number		*91203*	*103651*	*100425*	*630206*	*79345*	*127184*	*108883*	*120821*	*71556*	*79005*	*79016*	*75694*	*96184*	*95636*	*108678*	*75014*	*1330207*
Groundwater Surface Water Interface		11	ID	80 (X)	ID	78 (X)	60 (X)	270	99 (X)	89	330 (X)	200 (X)	NA	NA	17	45	13 (X)	41
Non-Residential GVIIC		31,000 (S)	ID	3.1E+5 (S)	96,000	77,000	1.70E+05	5.3E+5 (S)	3.0E+5 (S)	1.3E+6 (S)	1.10E+05	4,900	1.1E+6 (S)	18,000	56,000 (S)	61,000 (S)	13,000	1.9E+5 (S)
Water Solubility		31,000	NA	3.10E+05	1.10E+06	2.97E+06	2.00E+05	5.26E+05	3.00E+05	1.33E+06	4.42E+06	1.10E+06	1.10E+06	1.90E+06	55,890	61,150	2.76E+06	186,000
Flamability and Explositivity		NA	ID	1.40E+05	ID	ID	ID	61,000	NA	ID	NA	ID	ID	NA	56,000 (S)	ID	33,000	70,000
Non-Residential Vapor Intrusion Screening Levels		5.0	1.0	100	1.0	1.0	5.0	1,000	70	200	5.0	5.0	120	NA	7.3	5.1	2.0	10,000
Sample ID (Depth, ft. bgl)	**Sample Date**																	
A-MW12S (6.0'-11.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW12D (18.0'-23.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW13 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW15 (10.0'-15.0')	8-27-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW16 (5.0'-10.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17S (3.0'-8.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW17D (18.0'-23.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW19 (11.0'-16.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
A-MW20 (7.0'-12.0')	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW8 (3.0'-8.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW9 (5.0'-10.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
B-MW11 (10.0'-15.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
D-MW6 (10.0'-15.0')	8-25-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5S (8.0'-13.0')	8-25-14	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW5D (18.0'-23.0')	8-25-14	<RL	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
F-MW7 (10.0'-15.0')	2-9-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
G-MW9 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
I-MW7 (2.0'-7.0')	8-26-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
M-1GW (A-MW16) Power Plant (PP)	8-26-14	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
M-2GW (A-MW20) (PP)	2-10-15	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. *All laboratory extractions and analyses were performed within the required period*
2. *(<RL) - Indicates parameter not detected above the reporting limit; (NA) - Indicates Criterion not applicable; (ID) - Indicates that there is insufficient data to develop the criteria; (--) - Indicates parameter not analyzed*
3. *Tier 1 RBSLs from MDEQ-RRD Operational Memorandum #1, December 31, 2013*
4. *Vapor Intrusion Screening Levels from MDEQ-RRD Guidance Document for the Vapor Intrusion Pathway, May, 2013*
5. *Results Bolded where detected, Underlined where above Tier 1 Non-Residential RBSLs*
8. *(A) - Michigan Drinking Water Standard; (D) - Calculated criteria exceeds 100%, thus criteron has been reduced to 100%; (E) - Value represents Aesthetic Drinking Water Value; (M) - Calculated criterion is below analytical detection limit, thus defaulting to detection limit; (S) - Criterion defaults to the hazardous substance-specific water solubility limit; (W) - Trihalomethane concentrations shall be added together to determine compliance with the drinking water standard of 80 ug/L; (X) - Criteria is not protective of surface water used as a drinking water source*

Table 7
Marysville Power Plant
Static Water Levels

Well	Date	Ground Elevation	TOC Elevation	Well Depth (w/ pro-cover)	Depth to Water	Saturated Thickness	Water Table Elevation
A-MW12S	8/25/2014	578.67	581.88	13.9	6.98	6.92	574.9
	10/30/2014	--	--	--	6.86	7.04	575.02
	11/11/2014	--	--	--	7.18	6.72	574.7
	2/9/2015	--	--	--	6.16	7.74	575.72
A-MW12D	8/25/2014	578.61	581.51	25.9	6.62	19.28	574.89
	10/30/2014	--	--	--	6.49	19.41	575.02
	11/11/2014	--	--	--	6.81	19.09	574.7
	2/9/2015	--	--	--	5.79	20.11	575.72
A-MW13	8/25/2014	579.78	582.78	18.2	7.91	10.29	574.87
	10/30/2014	--	--	--	7.77	10.43	575.01
	11/11/2014	--	--	--	8.1	10.1	574.68
	2/9/2015	--	--	--	7.04	11.16	575.74
A-MW15	8/25/2014	577.90	581.33	17.65	6.41	11.24	574.92
	10/30/2014	--	--	--	6.33	11.32	575.00
	11/11/2014	--	--	--	6.67	10.98	574.66
	2/9/2015	--	--	--	5.62	12.03	575.71
A-MW16	8/25/2014	578.85	581.51	12.7	6.58	6.12	574.93
	10/30/2014	--	--	--	6.49	6.21	575.02
	11/11/2014	--	--	--	6.8	5.9	574.71
	2/9/2015	--	--	--	5.78	6.92	575.73
A-MW17S	8/25/2014	578.04	580.98	10.65	6.07	4.58	574.91
	10/30/2014	--	--	--	5.95	4.7	575.03
	11/11/2014	--	--	--	6.28	4.37	574.70
	2/9/2015	--	--	--	5.28	5.37	575.70
A-MW17D	8/25/2014	578.11	581.48	25.95	6.58	19.37	574.90
	10/30/2014	--	--	--	6.45	19.5	575.03
	11/11/2014	--	--	--	6.77	19.18	574.71
	2/9/2015	--	--	--	5.74	20.21	575.74
A-MW19	8/25/2014	588.00	591.53	18.8	16.58	2.22	574.95
	10/30/2014	--	--	--	16.45	2.35	575.08
	11/11/2014	--	--	--	16.73	2.07	574.80
	2/9/2015	--	--	--	15.76	3.04	575.77
A-MW20	8/25/2014	581.11	584.64	15.05	9.69	5.36	574.95
	10/30/2014	--	--	--	9.44	5.61	575.20
	11/11/2014	--	--	--	9.72	5.33	574.92
	2/9/2015	--	--	--	8.9	6.15	575.74
R-1	10/30/2014	578.01	--	--	2.99	--	575.02
	11/11/2014	--	--	--	3.35	--	574.66
R-2	10/30/2014	577.35	580.93	--	5.9	--	575.03
	11/11/2014	--	--	--	6	--	574.93
R-3	10/30/2014	578.26	581.75	--	6.69	--	575.06
	11/11/2014	--	--	--	7.05	--	574.70

Table 7
Marysville Power Plant
Static Water Levels

Well	Date	Ground Elevation	TOC Elevation	Well Depth (w/ pro-cover)	Depth to Water	Saturated Thickness	Water Table Elevation
R-4	10/30/2014	578.59	--	--	3.5	--	575.09
	11/11/2014	--	--	--	3.9	--	574.69
B-MW8	8/25/2014	596.16	599.20	11.2	8.71	2.49	590.49
B-MW9	8/25/2014	599.40	602.22	12.7	12.29	0.41	589.93
	11/11/2014	--	--	--	12.06	0.64	590.16
B-MW11	8/25/2014	596.78	599.57	17.7	8.48	9.22	591.09
D-MW6	8/25/2014	584.82	587.93	18.1	13.06	5.04	574.87
	10/30/2014	--	--	--	12.9	5.2	575.03
	11/11/2014	--	--	--	13.27	4.83	574.66
	2/9/2015	--	--	--	12.2	5.9	575.73
F-MW5S	8/25/2014	581.36	584.41	15.95	9.51	6.44	574.90
	10/30/2014	--	--	--	9.32	6.63	575.09
	11/11/2014	--	--	--	9.72	6.23	574.69
	2/9/2015	--	--	--	8.72	7.23	575.69
F-MW5D	8/25/2014	581.30	584.37	29.15	--	--	--
	10/30/2014	--	--	--	9.75	19.4	574.62
	11/11/2014	--	--	--	9.31	19.84	575.06
	2/9/2015	--	--	--	8.82	20.33	575.55
F-MW7	10/30/2014	--	--	18.1	13.42	4.68	--
	11/11/2014	--	--	--	13.32	4.78	--
G-MW9	8/25/2014	595.29	598.61	10.5	6.6	3.9	592.01
I-MW7	8/25/2014	594.80	597.50	10.95	4.87	6.08	592.63

Table 8 Marysville Power Plant St. Clair River pH/Hardness Values	
Date	9/8/2015
pH	7.23
Hardness (mg-CaCO3/L)	99
Copper: Site-Specific GSI Criterion (ug/L)	8.9
Copper: Generic GSI Criterion (ug/L)	13

Notes:

GSI criterion dependant upon pH or hardness of receiving stream

APPENDIX C

BORING LOGS

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LOG OF A-MW-12S

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/07/2014
GEOLOGIST:	DAL	COMPLETION DATE:	08/07/2014

PID READING	SAMPLING RESISTANCE	Feet	DESCRIPTION
		0	TOPSOIL
0	3-3-5-5		FILL - silty sand, brown, fine grained, well sorted, with silt, trace fine to medium gravel and brick fragments, dry.
0	4-4-3-4		FILL - clay, brown with gray mottling, soft, medium platicity, with little fine to medium gravel, coal fragments, and slag fragments, dry,
0	2-1-1-0	5	FILL - clay, gray, soft, high plasticity, with trace fine gravel, wet.
0	2-1-1-2		FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, concrete pieces, and slag framents, wet.
0	1-2-1-1		FILL - clay, gray, soft, high plasticity, with trace fine gravel, wet.
0	2-2-1-2	10	FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, and concrete pieces, wet.
			TOTAL DEPTH = 12 FEET
		15	
		20	
		25	

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 4

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LOG OF A-MW-12D

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/07/2014
GEOLOGIST:	DAL	COMPLETION DATE:	08/07/2014

PID READING	SAMPLING RESISTANCE	Feet	DESCRIPTION
		0	TOPSOIL
0	3-3-5-5		FILL - silty sand, brown, fine grained, well sorted, with silt, trace fine to medium gravel and brick fragments, dry.
0	4-4-3-4		FILL - clay, brown with gray mottling, soft, medium platicity, with little fine to medium gravel, coal fragments, and slag fragments, dry,
0	2-1-1-0	5	FILL - clay, gray, soft, high plasticity, with trace fine gravel, wet.
0	2-1-1-2		FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, concrete pieces, and slag framents, wet.
0	1-2-1-1		FILL - clay, gray, soft, high plasticity, with trace fine gravel, wet.
		10	FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, and concrete pieces, wet.
0	2-2-1-2		
0	1-1-1-2	15	
0	1-1-1-4		
0	0-1-1-1	20	
0	0-2-2-3		
			SILTY SAND - gray, fine to medium grained, poorly sorted, with silt, some clay binder, trace fine to medium gravel, wet.
0	0-0-0-0	25	CLAY - gray, soft, high plasticity, with little fine gravel, slightly damp.
0	0-0-2-3		
			TOTAL DEPTH = 28.5 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 4

Soil sample collected at 28 feet.

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LOG OF A-MW-13

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/07/2014
GEOLOGIST:	DAL	COMPLETION DATE:	08/07/2014

PID READING	SAMPLING RESISTANCE	Feet	DESCRIPTION
		0	**TOPSOIL**
0	3-4-4-3		**FILL - sand, light brown, medium grained, well sorted, with some fine to medium gravel, dry.**
0	3-2-1-1		**FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, cinder fragments, and concrete pieces, wet.**
0	2-1-2-1	5	
0	1-1-1-1		
0	1-1-1-2		
		10	
0	1-1-1-1	15	
0	0-0-0-1	20	**CLAY - gray, soft, high plasticity, with little fine to medium gravel, slightly damp.**
0	0-0-0-0		
0	0-0-0-1	25	
			TOTAL DEPTH = 26 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 2

Soil sample collected at 25 feet.

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LOG OF A-14

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/24/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - sand, brownish gray, fine grained, well sorted, with little fine to medium gravel, dry.
					FILL - clay, brown, soft, low plasticity, with some fine sand, dry.
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium gravel, cinders, and coal fragments, dry.
			5		FILL - clay, gray, soft, high plasticity, with little fine gravel, slightly damp.
0					
			10		FILL - gravelly sand, dark brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and cinders, wet.
0					CLAY - gray, soft, high plasticity, with little fine to medium gravel, slightly damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 9.5

Soil sample collected at 15 feet.

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LOG OF A-MW-15

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/07/2014
GEOLOGIST:	DAL	COMPLETION DATE:	08/07/2014

PID READING	SAMPLING RESISTANCE	Feet	DESCRIPTION
		0	TOPSOIL
0	3-4-4-3		FILL - sand, brown, fine to medium grained, poorly sorted, with some fine to medium gravel, dry.
0	3-2-1-1		FILL - silty sand, black, fine grained, poorly sorted, with silt, some clay binder, some fine to medium gravel, cinders, and coal fragments, dry.
0	2-1-2-1	5	FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, slag fragments, concrete pieces, and coal fragments, wet.
0	1-1-1-1		FILL - clay, gray, soft, high plasticity, with trace fine to medium gravel, slightly damp.
0	1-1-1-2		FILL - gravelly sand, black, fine to coarse, poorly sorted, with fine to medium gravel, slag fragments, coal fragments, and concrete pieces, wet.
		10	
0	1-1-1-1	15	
0	0-0-0-1	20	
0	0-0-0-0		CLAY - gray, soft, high plasticity, with little fine gravel, slightly damp.
0	0-0-0-1	25	
			TOTAL DEPTH = 26 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 2

Soil sample collected at 25 feet.

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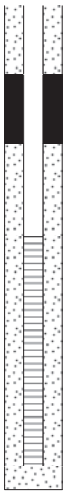
LOG OF A-MW-16

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
					FILL - sand, brownish gray, fine grained, well sorted, with some fine gravel, dry.
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to coarse gravel, cinders, and brick fragments, dry, wet at 4.5 feet.
			5		
0					
			10		
					SILTY SAND - gray, fine to medium grained, well sorted, with silt, wet.
0					
					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		



ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 4.5

Soil sample collected at 15 feet.

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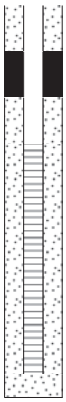
LOG OF A-MW-17S

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/06/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - sand, brownish gray, fine grained, well sorted, with little fine to medium gravel, dry.
					FILL - clay, brown, soft, low plasticity, with little fine to medium gravel, dry.
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to coarse gravel, slag fragments, and brick fragments, dry, wet at 3 feet.
			5		
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel and cinders, wet.
					TOTAL DEPTH = 8.5 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3

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LOG OF A-MW-17D

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	08/06/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - sand, brownish gray, fine grained, well sorted, with little fine to medium gravel, dry.
					FILL - clay, brown, soft, low plasticity, with little fine to medium gravel, dry.
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to coarse gravel, slag fragments, and brick fragments, dry, wet at 3 feet.
			5		
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel and cinders, wet.
			10		
0					
			15		
0					
			20		
0					
					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			25		TOTAL DEPTH = 25 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3

Soil sample collected at 25 feet.

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LOG OF A-MW-19

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
					FILL - sand, gray, fine grained, well sorted, with little fine to medium gravel, dry.
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, cinders, slag fragemnts, and brick fragments, dry, wet at 3 feet.
			5		FILL - clay, soft, high plasticity, with little fine to medium gravel, slightly damp.
0					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel, coal fragments, brick fragments, cinders, and slag fragments, dry.
			10		
0					
			15		FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel, wet.
					SANDY CLAY - gray, soft, low plasticity, with fine sand, wet.
0					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			20		TOTAL DEPTH = 20 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 14

Soil sample collected at 20 feet.

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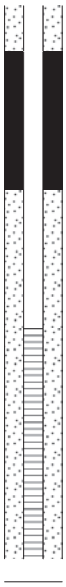
LOG OF A-MW-20

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		**TOPSOIL**
0					**FILL - sand, gray, fine grained, well sorted, with little fine to medium gravel, dry.**
0			5, 10		**FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel, coal fragments, and cinders, dry, wet at 8.5 feet.**
0			15		**CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.**
					TOTAL DEPTH = 15 FEET
			20, 25		



ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8.5

Soil sample collected at 15 feet.

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LOG OF A-21

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/24/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
					FILL - sand, brown, fine to medium grained, poorly sorted, with some fine to medium gravel and slag fragments, dry.
0					FILL - sand, dark brown, fine to medium grained, well sorted, with some organic material, little fine to medium gravel, dry.
					FILL - sand, light brown, fine grained, well sorted, with little silt, dry.
			5		FILL - clay, gray, soft, high plasticity, with little fine to medium gravel, wood fragments, and brick fragments, damp.
0					
			10		
					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
0					
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil sample collected at 15 feet.

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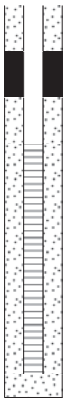
LOG OF B-MW-8

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/04/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
					FILL - sand, gray, fine grained, well sorted, with little fine to medium gravel, dry.
					FILL - coal, black, dry.
0					SAND - light brown, fine grained, well sorted, with silt, dry, wet at 4.5 feet.
			5		
0					CLAY - brownish gray, soft to firm, low plasticity, with little fine to medium gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 4.5

Soil samples collected at 4 feet and 10 feet.

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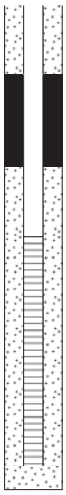
LOG OF B-MW-9

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/06/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
0			5		SAND - light brown, fine grained, well sorted, with little silt, dry.
0					SILT - brown, soft, low plasticity, with little fine sand, little clay binder, wet.
0			10		CLAY - brownish gray, soft to firm, low plasticity, with little fine to medium gravel, dry.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8.5

Soil samples collected at 4 feet, 8 feet, and 14.5 feet.

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LOG OF B-10

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/24/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
0					FILL - sand, gray, fine grained, well sorted, with some fine to medium gravel and coal fragments, dry.
					CLAY - brown, soft, low plasticty, with little fine gravel, dry.
					SAND - brown, fine grained, well sorted, with little silt, dry.
			5		CLAY - brown, soft, low plasticity, with little fine gravel, dry.
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet and 10 feet.

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LOG OF B-MW-11

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/04/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel, dry, damp at 1.5 feet.
					FILL - clay, brown, soft, low plasticity, with little fine to medium gravel, dry.
			5		FILL - clay, gray, soft. low plasticity, with little fine sand, little fine to medium gravel and coal fragments, dry.
0					SANDY CLAY - gray, soft, low plasticity, with fine to medium sand, little fine gravel, damp.
			10		SAND - gray, fine grained, well sorted, with some silt, trace fine gravel, wet.
0					SILTY CLAY - gray, soft, low plasticity, with silt, trace fine gravel, slightly damp.
					SAND - gray, fine to medium grained, well sorted, with little silt, little fine gravel, wet.
			15		CLAY - gray, soft, low plasticity, with little fine gravel, slightly damp.
0					CLAY - gray, soft, high plasticity, with little fine gravel, little fine sand, slightly damp.
			20		TOTAL DEPTH = 20 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 9.5

Soil samples collected at 8 feet, 14 feet and 20 feet.

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LOG OF B-12

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/28/2014
GEOLOGIST:	DAL	COMPLETION DATE:	10/28/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with some slag and coal fragments, dry.
0			5		SAND - light brown, fine grained, well sorted, minor fine to medium gravel, damp.
0					CLAY - gray, hard, medium plasticity, some fine to coarse gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF B-13

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/28/2014
GEOLOGIST:	DAL	COMPLETION DATE:	10/28/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
0					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with some slag and coal fragments, dry.
					SAND - light brown, fine grained, well sorted, minor fine to medium gravel, damp.
			5		
0					
					CLAY - gray, hard, medium plasticity, some fine to coarse gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF B-14

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	10/28/2014
GEOLOGIST:	DAL
COMPLETION DATE:	10/28/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		GRAVEL
0					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with some slag, cement and coal fragments, dry.
0			5		SAND - light brown, fine grained, well sorted, minor fine to medium gravel, damp.
					FILL - clay, gray, soft, high plasticity, some coal fragments, dry.
					FILL - sand, brown, coarse grained, well sorted, little fine gravel, damp.
0			10		FILL - clay, gray, soft, high plasticity, some fine to coarse gravel, little coal fragments, damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF B-15

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	10/28/2014
GEOLOGIST:	DAL
COMPLETION DATE:	10/28/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		TOPSOIL
0			5		FILL - clay, brown, hard, low plasticity, some coarse gravel, dry.
0			10		CLAY - gray, soft, high plasticity, dry.
					TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF B-16

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/28/2014
GEOLOGIST:	DAL	COMPLETION DATE:	10/28/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - gravelly sand, gray, fine to coarse grained, poorly sorted, fine to coarse gravel, some coal fragments, dry.
0					CLAY - brown, hard, high plasticity, some fine to coarse gravel, dry.
			5		
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF D-MW-6

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel, dry.
					FILL - coal, black, with some fine to medium sand, dry.
			5		
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and slag fragments, dry, wet at 9.5 feet.
			10		
0					GRAVELLY SAND - brown, fine to coarse grained, poorly sorted, with fine to coarse gravel, wet.
			15		SILTY SAND - gray, fine grained, well sorted, with silt, little fine gravel, wet.
0					CLAY - gray, soft, high plasticity, with little fine gravel, little fine sand, damp.
			20		
0					
			25		TOTAL DEPTH = 25 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 9.5

Soil samples collected at 15 feet and 22.5 feet.

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LOG OF E-21

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		ASPHALT
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and concrete, dry.
					SILTY SAND - dark brown, fine grained, well sorted, with silt, some organic material, slightly damp.
			5		CLAY - brown, with gray mottling, soft, low plasticity, with little fine gravel, dry.
0					
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 3.5 feet and 9 feet.

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LOG OF E-22

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		ASPHALT
					FILL - coal fragments, black, dry.
0					FILL - clay, brown, soft, low plasticity, with trace fine sand, some fine gravel, dry.
			5		FILL - sand, brown, fine grained, well sorted, dry.
0					FILL - clay, brown, soft, high plasticity, with little fine sand, damp, wet at 7 feet.
					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel, wet.
			10		CLAY - brown, firm, low plasticity, with little fine gravel, dry.
0					CLAY - brown, soft, medium plasticity, with trace fine gravel, slightly damp.
					TOTAL DEPTH = 14 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 7

Soil samples collected at 3 feet, 8.5 feet and 14 feet.

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LOG OF E-24

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/16/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, brown, soft, low plasticity, with some fine sand, some fine gravel, dry.
			5		FILL - clay, brown, soft, low plasticity, with little fine to medium gravel, slightly damp.
0					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to coarse gravel, cinders, and concrete pieces, dry.
			10		FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to coarse gravel and cinders, dry.
0					FILL - brick fragments, red, dry.
			15		CLAY - gray, soft, medium to high plasticity, with little fine gravel, dry.
0					
			20		TOTAL DEPTH = 19.5 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 9 feet and 19 feet.

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LOG OF E-26

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/16/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		ASPHALT
					CONCRETE
					FILL - sand, brown, fine to medium grained, well sorted, dry.
0					FILL - clayey sand, brown, fine to medium grained, well sorted, with clay binder, some silt, dry.
			5		FILL - gravelly sand, black, fine to medium grained, poorly sorted, with fine to medium gravel and cinders, dry.
					VOID SPACE
0					ORGANIC MATERIAL - peat, black, dry.
			10		CLAY - gray, soft, medium to high plasticity, with some fine to medium sand, little fine gravel, damp.
17.4					SILTY SAND - gray, fine grained, well sorted, with silt, some clay binder, some wood fragments, slightly damp, slight odor.
			15		
0					CLAY - gray, soft, high plasticity, with little fine gravel, slightly damp.
			20		TOTAL DEPTH = 20 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 5 feet, 12.5 feet and 20 feet.

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LOG OF E-27

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		ASPHALT
0					FILL - gravelly sand, black, fine to medium grained, poorly sorted, with fine to coarse gravel, concrete pieces, and cinders, dry.
					FILL - sand, brown, fine to medium grained, well sorted, dry.
			5		CLAY - brown, soft, medium plasticity, with little fine gravel, slightly damp.
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet and 9.5 feet.

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LOG OF E-28

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		ASPHALT
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to coarse gravel and concrete pieces, dry.
					FILL - gravelly sand, black, fine to coarse grained, poorly sorted, with fine to medium gravel and cinders, dry.
			5		CLAY - brown, soft, medium plasticity, with some fine gravel, trace fine sand, slightly damp.
0					
			10		TOTAL DEPTH = 9.5 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 3.5 feet and 9 feet.

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LOG OF F-3

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - gravel, gray, fine to coarse, dry.
0					FILL - clay, brown with gray mottling, soft to firm, low plasticity, with trace fine sand, little fine gravel, dry.
			5		FILL - coal fragments, black, dry, damp at 6 feet, wet at 7.5 feet.
19.0					CLAY - gray, soft medium plasticity, with some fine sand, some fine to medium gravel, wet.
			10		GRAVELLY SAND - dark brown, fine to coarse grained, poorly sorted, with fine to medium gravel, wet.
0					
			15		CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
0					
			20		TOTAL DEPTH = 20 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 7.5

Soil samples collected at 3 feet, 9 feet, 13 feet, and 20 feet.

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LOG OF F-4

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/15/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - gravel, gray, medium to coarse, dry.
0					FILL - clay, brown, soft to firm, low plasticity, with trace fine sand, trace fine gravel, dry.
			5		FILL - coal fragments, black, dry.
0					FILL - gravelly sand, dark brown to black, fine to coarse gravel, poorly sorted, with fine to medium gravel, coal fragments, and concrete pieces, dry.
					FILL - clay, gray, soft, high plasticity, with trace fine gravel, slightly damp.
			10		
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium gravel and slag fragments, wet.
			15		
0					
					SILTY SAND - gray, very fine to fine grained, well sorted, with silt, wet.
			20		CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
0					GRAVELLY SAND - brown, fine to medium grained, poorly sorted, with fine to medium gravel, wet.
					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			25		TOTAL DEPTH = 25 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 11

Soil samples collected at 3 feet, 9 feet, 12.5 feet, and 24 feet.

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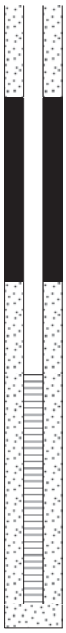
LOG OF F-MW-5S

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - gravel, gray, medium to coarse, dry.
0					FILL - clay, brown, soft, low plasticity, with some very fine sand, some fine gravel, dry.
			5		FILL - gravelly sand, dark brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and coal fragments, dry.
0					
			10		FILL - clayey, gravelly sand, gray, fine to medium grained, poorly sorted, with clay binder, fine to coarse gravel, wet.
0					FILL - gravel, brown, fine to coarse, with some slag, some coarse sand, wet.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		



ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8

Soil samples collected at 8 feet, 18 feet and 30 feet.

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LOG OF F-MW-5D

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - gravel, gray, medium to coarse, dry.
					FILL - clay, brown, soft, low plasticity, with some very fine sand, some fine gravel, dry.
0			5		FILL - gravelly sand, dark brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and coal fragments, dry.
					FILL - clayey, gravelly sand, gray, fine to medium grained, poorly sorted, with clay binder, fine to coarse gravel, wet.
0			10		FILL - gravel, brown, fine to coarse, with some slag, some coarse sand, wet.
0			15		
0			20		
0			25		SILTY SAND - dark brown, fine grained, poorly sorted, with silt, some fine to medium gravel, wet.
					CLAY - gray, soft, medium plasticity, with some fine sand, some fine to medium gravel, wet.
0					CLAY - gray, soft, high plasticity, with trace fine to medium gravel, slightly damp.
			30		TOTAL DEPTH = 30 FEET

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8

Soil samples collected at 8 feet, 18 feet and 30 feet.

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LOG OF F-6

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/15/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, brown, soft, low plasticity, with some fine sand, some fine gravel, dry.
0			5		FILL - gravelly sand, dark brown, fine to medium grained, poorly sorted, with fine to medium gravel, coal fragments, and slag pieces, dry.
			10		FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium garvel and slag pieces, damp, wet at 9.5 feet.
0					SILTY SAND - gray, very fine to fine grained, well sorted, with silt, wet.
0			15		CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			20		TOTAL DEPTH = 20 FEET
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 9.5

Soil samples collected at 12 feet and 18 feet.

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LOG OF F-7

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel and coal fragments, dry.
					FILL - clay, brown, soft to firm, medium plasticity, with trace fine gravel, slightly damp.
			5		FILL - coal fragments, black, dry.
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel, dry, wet at 8 feet.
			10		SANDY CLAY - gray, soft, low plasticity, with fine to medium sand, some fime to medium gravel, wet.
0					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8

Soil samples collected at 9 feet and 15 feet.

For monitoring well construction information, see log of F-MW7.

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LOG OF F-MW7

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - clay, gray, hard, low plasticity, fine to coarse gravel, some slag and coal fragments, dry.
					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, coal. brick and slag fragments, dry.
0			5		FILL - sand, brown, fine grained, well sorted, some clay binder, occassional coal fragment, dry.
					FILL - gravelly sand, gray, fine to coarse grained, poorly sorted, fine to coarse gravel, cement fragments, dry.
0					FILL - clay, brown, soft, high plasticity, some medium gravel, damp.
			10		GRAVELLY SAND - brown, fine to coarse grained, poorly sorted, wet.
0					CLAY - gray, soft, high plasticity, minor fine gravel, damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 10

Soil sample collected at 4 feet.

Due to construction of a new power line, monitoring well was installed ~15 feet east of original F-7 boring.

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LOG OF F-8

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, dark brown to gray, soft to firm, medium plasticity, with some fine to medium gravel and coal fragments, slightly damp.
			5		FILL - coal fragments, black, dry.
0					CLAY - gray, soft, medium, plasticity, with little fine to medium gravel, slightly damp.
			10		
0					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet, 9 feet, and 12 feet.

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LOG OF F-9

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, brown, soft, low plasticity, with little fine to medium sand, little fine to coarse gravel, dry.
			5		FILL - clay, gray, soft, low to medium plasticity, with trace fine sand, little fine to medium gravel, dry.
0					SILTY SAND - gray, very fine to fine grained, well sorted, with silt, slightly damp.
					CLAY - brownish gray, soft, medium plasticity, with little fine sand, little fine to medium gravel, slightly damp.
			10		CLAY - brown, soft, high plasticity, with little fine to medium gravel, slightly damp.
0					
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 7.5 feet and 12.5 feet.

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LOG OF F-10

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - clay, brown, soft, low plasticity, with trace fine sand, little fine to medium gravel and coal fragments, dry.
0					CLAY - brown with gray mottling, soft, low plasticity, with little fine to medium gravel, trace fine sand, dry.
			5		
0					
					CLAY - gray, soft, medium plasticity, with trace fine sand, little fine gravel, slightly damp.
			10		
0					CLAY - gray, soft, high plasticity, with trace fine gravel, slightly damp.
			15		TOTAL DEPTH = 15 FEET
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet and 13.5 feet.

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LOG OF F-11

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		
0					FILL - coal, black, some fine to coarse sand, some slag, dry.
					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, some slag, dry.
0					CLAY - gray, soft, high plasticity, some fine gravel, dry.
			5		TOTAL DEPTH = 5 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 2 feet and 4 feet.

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LOG OF F-12

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, dark brown, soft, medium plasticity, some coal and slag fragments, dry.
			5		
0					FILL - clay, gray, soft, high plasticity, some fine sand, little coal fragments, damp.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet and 8 feet.

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LOG OF F-13

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	10/27/14
GEOLOGIST:	DAL
COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, gray, hard, high plasticity, some fine to coarse gravel, dry.
			5		COAL - black, dry.
					CLAY - gray, soft, high plasticity, some fine gravel, damp.
0					SAND - gray, well sorted, fine grained, some fine to medium gravel, wet.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8

Soil samples collected at 3.5 feet and 7 feet.

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LOG OF F-14

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - clay, brown, hard, low plasticity, fine to coarse sand, some coal fragments, dry.
0			5		COAL - black, some fine to coarse sand, some fine to coarse gravel, some brick and cement fragments, dry.
0					CLAY - gray, soft, high plasticity, trace fine gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 2.5 feet and 9 feet.

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LOG OF F-15

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - clay, gray, hard, low plasticity, fine to coarse sand, trace fine gravel, some coal fragments, dry.
0					COAL - black, dry.
					SAND - light brown, well sorted, fine grained, damp.
					COAL - black, dry.
0			5		SAND - brown, well sorted, medium grained, damp.
0					CLAY - gray, soft, high plasticity, some fine gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 2 feet and 6 feet.

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LOG OF F-16

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	10/27/14
GEOLOGIST:	DAL	COMPLETION DATE:	10/27/14

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - clay, gray, hard, low plasticity, fine to coarse gravel, dry.
					COAL - black, dry.
0					FILL - clay, gray, hard, low plasticity, some cement fragments, dry.
					COAL - black, dry.
			5		
0					CLAY - gray, soft, high plasticity, some fine to coarse gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 1 foot and 7.5 feet.

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LOG OF G-4

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - clay, brown, soft to firm, low plasticity, with trace fine gravel, dry.
0					FILL - coal fragments, black, dry.
					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel and slag fragments, dry.
			5		CLAY - brown with gray mottling, soft, low to medium plasticity, with trace fine gravel, slightly damp.
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 1.5 feet, 3.5 feet, and 9 feet.

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LOG OF G-5

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, dry.
0					FILL - silty sand, reddish brown, fine to medium grained, poorly sorted, with little silt, some fine to medium gravel and a few brick fragments, dry.
0			5		CLAY - brown with gray mottling, soft, low plasticity, with trace fine to medium gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 3.5 feet and 8.5 feet.

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LOG OF G-6

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/15/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, dry.
0					CLAY - brown with gray mottling, soft, low plasticity, with trace fine gravel, dry.
					CLAY - gray, soft, low plasticity, with trace fine gravel, dry.
			5		CLAY - brown with gray mottling, soft, low plasticity, with trace fine gravel, dry.
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil sample collected at 7 feet.

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LOG OF G-7

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, with some concrete fragments, dry.
0			5		FILL - gravelly sand, brown, fine grained, poorly sorted, with fine to medium gravel and slag fragments, damp, wet at 3.5 feet. CLAY - gray, soft, low to medium plasticity, with little fine sand, trace fine gravel, slightly damp.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3.5

Soil sample collected at 9 feet.

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LOG OF G-8

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/15/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, with little fine to medium sand, little fine to medium gravel, dry, wet at 3.5 feet.
			5		FILL - gravelly sand, brown, medium to coarse grained, poorly sorted, with fine to coarse gravel and cinders, wet.
0					CLAY - brown with gray mottling, soft, low plasticity, with little fine to medium gravel, dry.
					CLAY - brown, soft to firm, low plasticity, with trace fine gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3.5

Soil samples collected at 4.5 and 9.5 feet.

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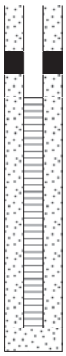
LOG OF G-MW-9

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, dry.
					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium gravel and slag fragments, wet.
			5		CLAY - brown with gray mottling, soft, medium plasticity, with trace fine gravel, slightly damp.
0					CLAY - brown with gray mottling, soft, low plasticity, with trace fine gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3

Soil samples collected at 3.5 and 9.5 feet.

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LOG OF G-10

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/24/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal, black, dry.
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel, dry.
					CLAY - brown with gray mottling, soft, medium plasticity, with little fine gravel, slightly damp.
			5		
0					
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil sample collected at 6.5 feet.

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LOG OF G-11

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, with some fine to medium gravel, dry.
0					SILTY CLAY - brown, soft, low plasticity, with silt, little fine to medium sand, little fine gravel, dry.
					ORGANIC MATERIAL - peat, black, low plasticity, with some clay binder, dry.
					CLAY - brown, soft, low plasticity, with little fine gravel, dry.
			5		CLAY - brown with gray mottling, soft, low plasticity, with little fine gravel, dry.
0					
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil sample collected at 6 feet.

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LOG OF G-12

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, dry.
0					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to coarse gravel and slag fragments, dry.
					FILL - clay, brown, soft, medium plasticity, with trace fine to medium gravel, slightly damp.
			5		FILL - sand, brown, fine grained, well sorted, dry.
					CLAY - dark brown, soft, medium platicity, with some organic material, slightly damp.
0					CLAY - brown with gray mottling, soft, medium to high plasticity, with trace fine gravel, slightly damp.
					CLAY - brown with gray mottling, soft, low plasticity, with little fine gravel, dry.
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil samples collected at 4 feet and 9 feet.

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LOG OF G-13

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/16/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, dry.
0					CLAY - brown, soft, low plasticity, with trace fine sand, little fine to medium gravel, dry.
					CLAY - brown with gray mottling, soft, low plasticity, with little fine gravel, dry.
			5		
0					
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

Soil sample collected at 7 feet.

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LOG OF G-14

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/16/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/16/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal fragments, black, dry.
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to coarse gravel and slag fragments, damp, wet at 3 feet.
			5		CLAY - grayish brown, soft, medium plasticity, with little fine sand, trace fine to medium gravel, slightly damp.
0					CLAY - brown with gray mottling, soft, low plasticity, with some silt, trace fine gravel, dry.
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3

Soil samples collected at 3.5 feet and 9 feet.

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LOG OF G-15

CLIENT:	SCCBRA/140189
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI
DRILLING CO:	WMD
START DATE:	07/15/2014
GEOLOGIST:	RLW
COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, with some fine to medium gravel, dry.
0			5		FILL - clay, black, low plasticity, with some coal dust and fragments, dry, wet at 8 feet.
			10		CLAY - brown with gray mottling, soft, low plasticity, with some silt, trace fine sand, little fine gravel, dry.
					TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 8

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LOG OF G-16

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, with some fine to medium gravel, dry.
					FILL - gravelly sand, brown, fine to medium grained, poorly sorted, with fine to medium gravel and coal fragments, dry.
			5		CLAY - brown, soft, medium plasticity, with little fine gravel, slightly damp.
0					CLAY - brown with gray mottling, soft, low to medium plasticity, with trace silt, trace fine gravel, slightly damp.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF G-17

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/15/2014
GEOLOGIST:	RLW	COMPLETION DATE:	07/15/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
0			0		FILL - coal fragments, black, with some fine to medium gravel, little fine to medium sand, dry.
			5		CLAY - brown, soft, medium plasticity, with some fine to medium sand, slightly damp.
0					CLAY - brown with gray mottling, soft, low plasticity, with trace fine gravel, dry.
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: NA

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LOG OF I-5

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - gravelly sand, dark brown, fine to medium grained, poorly sorted, with fine to medium gravel and coal fragments, dry.
0					SAND - light brown, fine grained, well sorted, with trace silt, dry, wet at 3.5 feet.
			5		CLAY - brown, soft to firm, low plasticity, with little fine to medium gravel, damp, dry ay 5 feet.
0					
					TOTAL DEPTH = 9 FEET
			10		
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 3.5

Soil samples collected at 3 feet and 9 feet.

Set monitoring well at 2 - 7 feet. Well did not produce water, and was abandoned.

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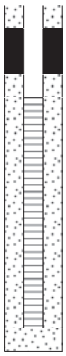
LOG OF I-MW-7

CLIENT:	SCCBRA/140189		
LOCATION:	Marysville Power Plant, 301 Gratiot Blvd, Marysville, MI		
DRILLING CO:	WMD	START DATE:	07/24/2014
GEOLOGIST:	RLW	COMPLETION DATE:	08/05/2014

PID READING	SAMPLING RESISTANCE	SAMPLES	Feet	SYMBOL	DESCRIPTION
			0		FILL - coal, black, dry.
0					FILL - gravelly sand, brown, fine to coarse grained, poorly sorted, with fine to medium gravel, slag, and coal fragments, dry.
					SILT - gray, soft, low plasticity, with trace fine sand, damp, wet at 4 feet.
			5		CLAY - gray, soft, low plasticity, with little fine to medium gravel, dry.
0					
			10		TOTAL DEPTH = 10 FEET
			15		
			20		
			25		

ELEVATIONS
SURFACE:
TOP OF CASING:
STATIC WATER LEVEL:
WATER LEVEL AT TIME OF DRILLING: 4

Soil samples collected at 4 feet and 10 feet.

APPENDIX D

ANALYTICAL REPORTS

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Fibertec environmental services

Tuesday, July 29, 2014

Fibertec Project Number:	63283
Project Identification:	SCCBRA (140189) /140189
Submittal Date:	07/17/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/kc

Enclosures

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-001

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@13'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**92000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**570**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**19000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**12000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**670**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**68000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@13'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-001** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-002

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@20'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7600**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**92000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**490**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**21000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**660**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**66000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@20'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-002** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-9@7.5'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**1500**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**26000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**170**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**6000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**6800**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**4300**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	U		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**37000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.3	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-9@7.5'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-003** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-004

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-9@12.5'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**4400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**48000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**430**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**16000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**17000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**9600**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**390**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**53000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**52**		µg/kg	50	9.2	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-9@12.5'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-004** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@8'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**33**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**58000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**660**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**24000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**670**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**71000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.9	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@8'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-005** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	**340**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@18'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**46**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**22000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**97000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**5800**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**13000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**2900**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@18'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-006** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**710**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	**580**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	**350**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@30'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**88000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**650**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**21000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**670**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**75000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-5@30'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-007** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@9'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**46**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**28000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**33000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**270**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**13000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**75000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**27000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**7200**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**90000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**89**		µg/kg	50	9.0	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@9'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-008** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@15'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**60000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**560**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**22000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**730**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**73000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.2	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@15'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-009** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@12'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**21**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2800**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**24000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**3600**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**6300**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**9700**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**320**	J,V+	µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**88**		µg/kg	50	9.7	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	**340**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@12'**	Chain of Custody:	**113557**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-010** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	**350**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**54000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**620**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**750**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**73000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.4	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-011** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18' MS**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**18000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**110000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**10000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**39000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**40000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**29000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**9400**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	**9100**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**110000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**240**		µg/kg	50	8.8	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**4400**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	**4300**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	**4200**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	**4100**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	**3900**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	**4500**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	**4700**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	**4500**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18' MS**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-012** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	**3600**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	**4300**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	**4400**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18' MSD**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**19000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**150000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**10000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**43000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**40000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**30000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**9100**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	**9100**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**120000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**240**		µg/kg	50	8.5	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**4400**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	**4000**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	**4000**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	**3800**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	**4300**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	**4000**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	**4000**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	**4500**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	**4300**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-6@18' MSD**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-013** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**4100**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	**3600**	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	**4300**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	**4200**		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-8@12'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**32000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**440**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**16000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**9800**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**650**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**62000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-8@12'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-014** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-10@4'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**15000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**130000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**430**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**770**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**82000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	10	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-10@4'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-015** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-10@13.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**26000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**13000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**25000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**760**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**72000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-10@13.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/23/14	S514G23B	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-017

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**FMW-4@12.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**17**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**35**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**4700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**36000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**6700**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**5500**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**560**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.1	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**FMW-4@12.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**17**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-017** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**FMW-4@24'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**18**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**73000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**490**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**21000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**620**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**67000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**FMW-4@24'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**18**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-018** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-019

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@4.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**19**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**13**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**9700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**50000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**1200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**10000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**110000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**2200**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**190000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**52**		µg/kg	50	9.7	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
2. Acenaphthylene (SIM)	U		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
3. Anthracene (SIM)	**840**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
4. Benzo(a)anthracene (SIM)	**1900**	J,L-	µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
5. Benzo(a)pyrene (SIM)	**1500**	J,L-	µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
6. Benzo(b)fluoranthene (SIM)	**1900**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
7. Benzo(ghi)perylene (SIM)	**910**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
8. Benzo(k)fluoranthene (SIM)	**670**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
9. Chrysene (SIM)	**1700**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
11. Fluoranthene (SIM)	**5000**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
12. Fluorene (SIM)	U		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
13. Indeno(1,2,3-cd)pyrene (SIM)	**970**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@4.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**19**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-019** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene (SIM)	**1100**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
15. Naphthalene (SIM)	**720**	J,L-	µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
16. Phenanthrene (SIM)	**4200**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA
17. Pyrene (SIM)	**4100**		µg/kg	330	20	07/23/14	PS14G23B	07/24/14	S614G23B	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@9.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**20**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5600**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**100000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**480**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**23000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**480**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**63000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.1	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@9.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**20**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-8@3.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**28000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**120000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**22000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**72000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**57000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**2500**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**55000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.2	07/21/14	PM14G21A	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-8@3.5'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-021** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**510**		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-8@9'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**12000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**67000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**290**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**340**	J,V+	µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**56000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
4. Benzo(a)anthracene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
5. Benzo(a)pyrene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-8@9'**	Chain of Custody:	**113558**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-022** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
15. Naphthalene	U	J,L-	µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/23/14	PS14G23B	07/24/14	S514G24A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-5@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**19000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**68000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**13000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**44000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**29000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**2400**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**73000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**69**		µg/kg	50	8.8	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
4. Benzo(a)anthracene	**440**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
5. Benzo(a)pyrene	**330**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
6. Benzo(b)fluoranthene	**540**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
9. Chrysene	**550**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
11. Fluoranthene	**730**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-5@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-023** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**1300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
15. Naphthalene	**860**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
16. Phenanthrene	**910**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
17. Pyrene	**1000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-5@8.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**24**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**19**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7500**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**210000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**590**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**9200**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**530**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**74000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.3	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-5@8.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**24**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-024** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-025

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-6@7'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**25**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5700**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**120000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**250**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**22000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**8800**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**310**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**49000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-6@7'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**25**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-7@9'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**26**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**61000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**220**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**21000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**21000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**8600**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**330**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**47000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.2	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-7@9'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**26**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1s**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**27**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-027** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-027** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5300**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**48000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**530**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**620**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**70000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-027** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-027** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1s**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**27**	Collect Date:	**07/15/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-027** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G26A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-2s**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**28**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**9600**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**62000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**170**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**18000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**320**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**58000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.9	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-2s**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**28**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

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Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-029

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**29**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-029** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-029** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**93000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**110000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**240**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**8400**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**34000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**13000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**7600**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**25000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-029** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**180**		µg/kg	50	9.3	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-029** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**29**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-029** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	**400**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-030

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**30**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-030** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-030** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**9600**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**93000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**290**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**9600**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**380**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**56000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-030** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-030** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U	J,*	µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**30**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-030** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-031

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5' MS**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**31**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-031** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-031** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**21000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**140000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**10000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**37000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**39000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**30000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**9300**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	**9200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**110000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-031** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**230**		µg/kg	50	9.1	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-031** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**4400**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	**4300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	**4100**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	**4100**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	**4200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	**4100**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	**4100**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	**4300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	**4000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	**5000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	**4200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	**4300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	**4600**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5' MS**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**31**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-031** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**4200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	**3600**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	**4100**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	**4800**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5' MSD**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**32**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-032** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-032** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**19000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**120000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**10000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**38000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**40000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**29000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**8800**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	**9300**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**100000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-032** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**230**		µg/kg	50	9.0	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-032** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**5300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	**5300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	**5300**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	**5200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	**5200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	**5000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	**5500**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	**5400**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	**4900**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	**6000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	**6200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	**5200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	**5700**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@9.5' MSD**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**32**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-032** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	**5000**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	**4400**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	**5200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	**6200**		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-14@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**33**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-033** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-033** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**360000**		µg/kg	500	100	NA	NA	07/24/14	T214G24A	JLP
2. Barium	**190000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**360**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**15000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**99000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**100000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**28000**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**97000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-033** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-033** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-14@3.5'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**33**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-033** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-034

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-14@9'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**34**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-034** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-034** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**79000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**350**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**12000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**360**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**61000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-034** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-034** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-14@9'**	Chain of Custody:	**113559**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**34**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-034** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/25/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-13@7'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**35**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-035** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-035** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**15000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**82000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**150**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**20000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**22000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**390**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**43000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-035** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-035** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-13@7'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**35**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-035** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-11@6'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**36**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-036** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-036** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**4200**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**72000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**210**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**21000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**16000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**7600**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**290**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**42000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-036** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	10	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-036** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-11@6'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**36**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-036** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/27/14	S514G26A	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-037

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-12@4'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**37**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-037** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-037** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**14000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**13000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**1700**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**1400**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**3300**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**1100**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-037** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.0	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-037** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-12@4'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**37**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-037** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-038

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-12@9'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**38**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-038** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-038** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8400**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**90000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**170**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**360**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**53000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-038** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-038** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
3. Anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
9. Chrysene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
12. Fluorene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-12@9'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**38**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63283-038** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
15. Naphthalene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
16. Phenanthrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA
17. Pyrene	U		µg/kg	330	1.0	07/25/14	PS14G25E	07/26/14	S514G25C	BDA

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-039

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-26@5'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**39**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-039** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**12**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-039** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3600**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**25000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**230**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**8600**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**6300**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**210**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**37000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-039** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-26@12.5'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**40**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-040** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**31**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-040** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2300**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**180**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**5800**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**11000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**7000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**2400**		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**28000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-040** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.1	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-041

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-26@20'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**41**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-041** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-041** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2900**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**68000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**490**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**16000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**17000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**500**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**62000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-041** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-042

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-27@4'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**42**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-042** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**9.2**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-042** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**1000**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**8100**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**3000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**1500**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**1900**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	U		µg/kg	200	20	NA	NA	07/23/14	T414G23C	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**7400**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-042** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-043

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-27@9.5'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**43**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-043** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-043** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5800**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**85000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**540**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**19000**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**13000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**560**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**66000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-043** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	07/21/14	PM14G21B	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-044

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-28@3.5'**	Chain of Custody:	**113560**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**44**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-044** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**10**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-044** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7900**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
2. Barium	**74000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
3. Cadmium	**170**		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
4. Chromium	**5600**		µg/kg	500	20	NA	NA	07/23/14	T414G23C	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
6. Lead	**16000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH
7. Selenium	**500**		µg/kg	200	10	NA	NA	07/24/14	T214G24A	JLP
8. Silver	U		µg/kg	100	20	NA	NA	07/23/14	T414G23C	JLH
9. Zinc	**130000**		µg/kg	1000	20	NA	NA	07/23/14	T414G23C	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-044** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**170**		µg/kg	50	9.4	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-28@9'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**45**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-045** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-045** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5200**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**72000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**640**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**12000**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**23000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**48000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**360**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**140000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-045** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**53**		µg/kg	50	9.3	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-046

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-21@3.5'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**46**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-046** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-046** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3100**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**28000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**280**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**4700**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**9600**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**36000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**360**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**30000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-046** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.5	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-047

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-21@9'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**47**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-047** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**19**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-047** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**14000**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**86000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**240**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**16000**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**19000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**9800**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**290**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**55000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-047** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.7	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-24@9'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**48**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-048** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-048** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**12000**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**42000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**260**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**7100**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**20000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**32000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**700**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**100000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-048** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**73**		µg/kg	50	8.6	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-049

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-24@19'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**49**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-049** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-049** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**20000**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**58000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**810**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**12000**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**32000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**12000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**1100**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**99000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-049** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.9	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-050

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-22@3'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**50**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-050** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-050** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6300**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**70000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**310**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**17000**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**18000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**9400**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**280**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**47000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-050** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63283
Laboratory Sample Number: 63283-051

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-22@8.5'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**51**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-051** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**10**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-051** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**1800**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**11000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**320**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**3900**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**3500**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**2300**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**310**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**41000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-051** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**E-22@14'**	Chain of Custody:	**113568**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**52**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63283-052** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/22/14	MC140722	07/23/14	MC140722	BMG

Michigan 10 Elements by ICP/MS (EPA 6020A) **Aliquot ID: 63283-052** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**13000**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
2. Barium	**61000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
3. Cadmium	**1300**		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
4. Chromium	**12000**		µg/kg	500	20	NA	NA	07/24/14	T414G24B	JLH
5. Copper	**31000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
6. Lead	**10000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH
7. Selenium	**1400**		µg/kg	200	20	NA	NA	07/24/14	T414G24B	JLH
8. Silver	U		µg/kg	100	20	NA	NA	07/24/14	T414G24B	JLH
9. Zinc	**91000**		µg/kg	1000	20	NA	NA	07/24/14	T414G24B	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-052** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.5	07/21/14	PM14G21C	07/22/14	M614G22A	JLP

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

***** : Duplicate analysis not within control limits.
L- : Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.
V+ : Recovery in the associated continuing calibration verification sample (CCV) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
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Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
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Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 113557

Client Name: Envirologic Technologies

Contact Person: Dave Warwick

Project Name/ Number: SCCBRA/140189

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PNA's	MI 10 metals								Remarks:
	7/15/14	8:35A		F-3 @ 13'	S	1	N	+	+								
		9:40A		F-3 @ 20'	S	1	N	+	+								
		9:55A		F-9 @ 7½'	S	1	N	+	+								
		9:00A		F-9 @ 12½'	S	1	N	+	+								
		9:15A		F-5 @ 8'	S	1	N	x	+								
		9:25A		F-5 @ 18'	S	1	N	+	+								
		9:45A		F-5 @ 30'	S	1	N	+	+								
		10:00A		F-7 @ 9'	S	1	N	+	+								
		10:05A		F-7 @ 15'	S	1	N	+	+								
		10:25A		F-6 @ 12'	S	1	N	+	+								

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7/17/14 10:50	[signature]
Relinquished By: [signature]	Date/ Time 7/17/14 18:05	Received By: [signature]
Relinquished By:	Date/ Time	Received By Laboratory:

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- W Water
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

LAB USE ONLY:
Fibertec project number: 63283
Laboratory Tracking:
Temperature at Receipt: 3.7°C

Rec'd on ice [signature]

COC Revision: April, 2006

RCV'D ON ICE

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
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email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 113558

Client Name: Envirologic Technologies

Contact Person: Dave Warwick

Project Name/ Number: SCCBRA/140189

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PNA's	MI 10 metals								
	7/15/14	1030A		F-6 @ 18' MS/MSD	S	3	Y	+	+								
		10:55A		F-8 @ 12'	S	1	Y	+	+								
		11:10A		F-10 @ 4'	S	1	Y	+	+								
		11:15A		F-10 @ 13½'	S	1	Y	+	+								
		11:35A		FMW-4 @ 12½'	S	1	Y	+	+								
		11:50A		FMW-4 @ 24'	S	1	Y	+	+								
		2:05P		G-4 @ 4½'	S	1	Y	+	+								
		2:10P		G-4 @ 9½'	S	1	Y	+	+								
		2:25P		G-8 @ 3½'	S	1	Y	+	+								
		2:30P		G-8 @ 9'	S	1	Y	+	+								

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code: S Soil; W Water; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

Remarks:

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7/17/14 10:50	[signature]
[signature]	7/17/14 13:05	[signature]

Relinquished By: | Date/ Time | Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

Rec'd on Ice

COC Revision April, 2006

TERMS & CONDITIONS ON BACK

Fibertec environmental services

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Geoprobe
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Brighton, MI 48116
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Fax: 810 220 3311

Chain of Custody #
113559
PAGE 3 of 5

Client Name: Envirologic Technologies
Contact Person: Dave Warwick
Project Name/ Number: SCCBRA/ 140189
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS: DNA's	PARAMETERS: MI 10 metals								Remarks:
	7/15/14	2:40P		G-5 @ 3½'	S	1	N	X	X								
	↓	2:45P		G-5 @ 8½'	S	1	N	+	+								
		2:55P		G-6 @ 7'	S	1	N	X	+								
		3:10P		G-7 @ 9'	S	1	N	X	X								
	↓	—		M-1S	S	1	N	X	X								
	7/16/14	—		M-2S	S	1	N	+	+								
	↓	8:20A		G-9 @ 3½'	S	1	N	+	+								
		8:30A		G-9 @ 9½' MS/MSD	S	3	N	+	+								
		9:20A		G-14 @ 3½'	S	1	N	+	+								
	↓	9:25A		G-14 @ 9'	S	1	N	+	+								

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- W Water
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7/17/14 10:50	[signature]
[signature]	7/17/14 13:05	[signature]

Relinquished By: / Date/ Time / Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt: Rec'd on ice

COC Revision: April, 2006

TERMS & CONDITIONS ON BACK

Fibertec environmental services

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email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 113560

Client Name: Envirologic Technologies

Contact Person: Dave Interwick

Project Name/ Number: SCCBRA/140189

Purchase Order#

PARAMETERS

Turnaround: 24 hour RUSH (surcharge applies); 48 hour RUSH (surcharge applies); 72 hour RUSH (surcharge applies); Standard (5-7 bus. days); Other: Specify

Matrix Code: S Soil; W Water; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PNA's	MI 10 metals	Remarks:
	7/16/14	9:35A		G-13e7'	S	1	N	+	+	
		9:55A		G-11e6'	S	1	N	+	+	
		10:05A		G-12e4'	S	1	N	+	+	
		10:10A		G-12e9'	S	1	N	+	+	
		11:00A		E-26e5'	S	1	N		+	
		11:05A		E-26e12½'	S	1	N	+	+	
		11:10A		E-26e20'	S	1	N		+	
		11:25A		E-27e4'	S	1	N		+	
		11:30A		E-27e9½'	S	1	N		+	
		11:40A		E-28e3½'	S	1	N		+	

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7/17/14 10:50	[signature]
[signature]	7/17/14 13:05	[signature]
		Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

Rec'd on ice [signature]

COC Revision: April, 2006

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Analytical Laboratory
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Geoprobe
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Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 113568

PAGE 5 of 5

Client Name: Envirologic Technologies

Contact Person: Dave Warwick

Project Name/ Number: SCCBRA/140189

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PNA's	MI 10 metals									Remarks:
	7/16/14	11:50A		E-28 @ 9'	S	1	N		+									
		12:05P		E-21 @ 3½'	S	1	N		+									
		12:10P		E-21 @ 9'	S	1	N		+									
		4:15P		E-24 @ 9'	S	1	N		+									
		4:25P		E-24 @ 19'	S	1	N		+									
		4:35P		E-22 @ 3'	S	1	N		+									
		4:40P		E-22 @ 8½'	S	1	N		+									
		4:50P		E-22 @ 14'	S	1	N		+									

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- W Water
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7/17/14 10:50	[signature]
[signature]	7/17/14 13:05	[signature]

Relinquished By: Date/ Time: Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt: Rec'd on ice

COC Revision: April, 2006

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Wednesday, September 03, 2014

Fibertec Project Number:	63283 Supplemental
Project Identification:	SCCBRA (140189) /140189
Submittal Date:	07/17/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

This supplemental report includes arsenic, copper, selenium, and mercury for samples 63283.029 and 033 as requested on August 28, 2014.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/arp

Enclosures

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-9@3.5'**	Chain of Custody:	
Client Project Name:	**SCCBRA (140189)**	Sample No:	**29**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63283-029A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**42000**		µg/kg	100	20	08/29/14	PT14H29A	08/29/14	T214H29A	JLP
2. Copper	**170000**		µg/kg	1000	20	08/29/14	PT14H29A	08/29/14	T214H29A	JLP
3. Selenium	**3900**		µg/kg	200	20	08/29/14	PT14H29A	08/29/14	T214H29A	JLP

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-029A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.9	08/29/14	PM14H29A	08/29/14	M614H29B	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-14@3.5'**	Chain of Custody:	
Client Project Name:	**SCCBRA (140189)**	Sample No:	**33**	Collect Date:	**07/16/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63283-033A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**280000**		µg/kg	1000	200	08/29/14	PT14H29A	08/29/14	T214H29A	JLP
2. Copper	**40000**		µg/kg	1000	20	08/29/14	PT14H29A	08/29/14	T214H29A	JLP
3. Selenium	**17000**		µg/kg	200	20	08/29/14	PT14H29A	08/29/14	T214H29A	JLP

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63283-033A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	08/29/14	PM14H29A	08/29/14	M614H29B	JLP

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Friday, August 15, 2014

Fibertec Project Number: 63426
Project Identification: SCCBRA (140189) /140189
Submittal Date: 07/25/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/cdh

Enclosures

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-6@15'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**10:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**4.9**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3800**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**17000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**250**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**8000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**6600**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**13000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**1300**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**44000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.1	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-6@22.5'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8800**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**80000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**660**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**9900**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**660**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**80000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.6	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-003

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-6@22.5' MS**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**18000**		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
2. Barium	**130000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**10000**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**38000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**39000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**28000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**10000**		µg/kg	200	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
8. Silver	**8700**		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**110000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**240**		µg/kg	50	9.3	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-6@22.5' MSD**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**18000**		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
2. Barium	**130000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**10000**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**38000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**38000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**28000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**10000**		µg/kg	200	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
8. Silver	**8700**		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**110000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**220**		µg/kg	50	8.4	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-005

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-MW-10@6.5'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2400**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**86000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**310**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**15000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**6700**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**330**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**42000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**I-MW-7@4'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**750**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**29000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**140**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**9600**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**12000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**5300**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**370**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**26000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.0	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**I-MW-7@10'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**13**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**4200**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**68000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**190**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**17000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**17000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**6500**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**300**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**46000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.6	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**I-MW-5@3'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**11**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**900**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**11000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**57**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**4000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**2400**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**1600**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	U		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**19000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.2	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**I-MW-5@9'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**11:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5000**		µg/kg	100	10	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**62000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**230**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**18000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**17000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**6700**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**350**		µg/kg	200	10	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**46000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-11@8'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**12:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5700**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**56000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**190**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**12000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**14000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**11000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**370**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**38000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.7	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-11@14'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2500**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**14000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**140**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**3500**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**5100**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**4200**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	U		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**26000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-11@20'**	Chain of Custody:	**136947**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7400**		µg/kg	100	10	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**72000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**420**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**16000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**19000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**9300**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**490**		µg/kg	200	10	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**63000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.6	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-8@4'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**870**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**16000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	U		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**4200**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**3000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**2100**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	U		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**11000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	07/30/14	PM14G30A	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-8@10'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**4400**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**72000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**190**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**18000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**17000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**7000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**340**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**44000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.8	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-9@4'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**3.5**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**810**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**6100**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	U		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**2300**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**1200**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**1000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	U		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**9300**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.3	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-9@8'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**14**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3000**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**21000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**130**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**6800**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**7700**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**3500**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**290**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**20000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.6	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-9@14.5'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**17**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3700**		µg/kg	100	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
2. Barium	**110000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
3. Cadmium	**110**		µg/kg	50	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
4. Chromium	**25000**		µg/kg	500	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
5. Copper	**20000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
6. Lead	**8000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
7. Selenium	**250**		µg/kg	200	20	07/31/14	PT14G31E	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH
9. Zinc	**49000**		µg/kg	1000	20	07/31/14	PT14G31E	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.5	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-10@4'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**18**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**2900**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**32000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**110**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**7400**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**8200**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**5600**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	U		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**22000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-10@10'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**19**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7400**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**80000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**250**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**17000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**19000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9900**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**390**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**54000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.7	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Methanol Blank #2**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**20**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30A	07/30/14	VL14G30A	CCD
‡ 2. Acrylonitrile	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
14. Carbon Tetrachloride	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	25	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Methanol Blank #2**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**20**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 40. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. Styrene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 56. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
60. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-021

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-21@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-021A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-021A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8500**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**74000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**710**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**18000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9300**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**630**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**79000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-021A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.1	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30A	07/30/14	VL14G30A	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-21@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	64	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	64	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	32	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	64	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-21@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-021A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-022

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-022A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-022A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8600**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**75000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**580**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9700**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**610**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**72000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-022A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30A	07/30/14	VL14G30A	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	33	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20@15'**	Chain of Custody:	**137284**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-022A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19@20'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-023A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-023A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8200**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**83000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**580**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9500**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**770**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**83000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-023A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.5	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30B	07/31/14	VL14G30B	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19@20'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	32	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19@20'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-023A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-024

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**24**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-024A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**25**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-024A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8500**		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
2. Barium	**70000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**530**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**10000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**660**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**69000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-024A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.9	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30B	07/31/14	VL14G30B	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**24**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	33	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	66	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**24**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-024** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-024A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63426
Laboratory Sample Number: 63426-025

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17@25'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**25**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-025A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-025A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8800**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**65000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**870**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**17000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**21000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9200**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**670**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**180000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-025A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.6	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30B	07/31/14	VL14G30B	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17@25'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**25**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	63	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	63	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	31	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	63	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17@25'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**25**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-025** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-025A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-14@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**26**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-026A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-026A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8900**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**77000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**680**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**20000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**9600**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**640**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**72000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-026A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.2	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	07/30/14	VL14G30B	07/31/14	VL14G30B	CCD
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
3. Benzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
4. Bromobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
5. Bromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
6. Bromodichloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
7. Bromoform	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
8. Bromomethane	U		µg/kg	200	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
9. 2-Butanone	U		µg/kg	750	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
10. n-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
11. sec-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
12. tert-Butylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
13. Carbon Disulfide	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-14@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**26**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
15. Chlorobenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
16. Chloroethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
17. Chloroform	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
18. Chloromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
19. 2-Chlorotoluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
20. Dibromochloromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
22. Dibromomethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
35. Ethylbenzene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
36. Ethylene Dibromide	U		µg/kg	32	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
37. 2-Hexanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
38. Isopropylbenzene	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
39. Methylene Chloride	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
41. MTBE	U		µg/kg	250	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
42. Naphthalene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
43. n-Propylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
44. Styrene	U		µg/kg	65	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
47. Tetrachloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
48. Toluene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-14@15'**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**26**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63426-026** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
53. Trichlorofluoromethane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
58. Vinyl Chloride	U		µg/kg	40	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH
59. Xylenes	U		µg/kg	150	1.0	07/29/14	VJ14G29A	07/29/14	VJ14G29A	CDH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63426-026A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
2. Acenaphthylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
3. Anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
4. Benzo(a)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
5. Benzo(a)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
9. Chrysene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
11. Fluoranthene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
12. Fluorene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
15. Phenanthrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA
16. Pyrene	U		µg/kg	330	1.0	07/30/14	PS14G30F	07/31/14	S514G31A	BDA

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-1S**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**27**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**17:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63426-027** **Matrix: Ground Water**

							Preparation		Analysis		
	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
	1. Acetone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡	2. Acrylonitrile	U		µg/L	2.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	3. Benzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	4. Bromobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	5. Bromochloromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	6. Bromodichloromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	7. Bromoform	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	8. Bromomethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	9. 2-Butanone	U		µg/L	25	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	10. n-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	11. sec-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	12. tert-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	13. Carbon Disulfide	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	14. Carbon Tetrachloride	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	15. Chlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	16. Chloroethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	17. Chloroform	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	18. Chloromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	19. 2-Chlorotoluene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	20. Dibromochloromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡	21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	22. Dibromomethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	35. Ethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	36. Ethylene Dibromide	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	37. 2-Hexanone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	38. Isopropylbenzene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-1S**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**27**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**17:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63426-027** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
42. MTBE	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
43. Naphthalene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
45. Styrene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
49. Toluene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
60. Xylenes	U		µg/L	3.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-3S**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**28**	Collect Date:	**07/24/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63426-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	07/29/14	MC140729	07/30/14	MC140729	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63426-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5500**		µg/kg	100	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
2. Barium	**81000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
3. Cadmium	**290**		µg/kg	50	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
4. Chromium	**20000**		µg/kg	500	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
5. Copper	**18000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
6. Lead	**7000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
7. Selenium	**260**		µg/kg	200	20	07/31/14	PT14G31F	08/04/14	T214H04A	JLH
8. Silver	U		µg/kg	100	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH
9. Zinc	**47000**		µg/kg	1000	20	07/31/14	PT14G31F	08/01/14	T414H01A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63426-028** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	07/30/14	PM14G30B	07/30/14	M614G30A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**29**	Collect Date:	**07/28/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63426-029** **Matrix: Aqueous QC**

							Preparation		Analysis		
	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
	1. Acetone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡	2. Acrylonitrile	U		µg/L	2.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	3. Benzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	4. Bromobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	5. Bromochloromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	6. Bromodichloromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	7. Bromoform	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	8. Bromomethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	9. 2-Butanone	U		µg/L	25	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	10. n-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	11. sec-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	12. tert-Butylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	13. Carbon Disulfide	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	14. Carbon Tetrachloride	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	15. Chlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	16. Chloroethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	17. Chloroform	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	18. Chloromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	19. 2-Chlorotoluene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	20. Dibromochloromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡	21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	22. Dibromomethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	35. Ethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	36. Ethylene Dibromide	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	37. 2-Hexanone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
	38. Isopropylbenzene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**136948**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**29**	Collect Date:	**07/28/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63426-029** **Matrix: Aqueous QC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
42. MTBE	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
43. Naphthalene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
45. Styrene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
49. Toluene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL
60. Xylenes	U		µg/L	3.0	1.0	07/28/14	VB14G28A	07/28/14	VB14G28A	JPL

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

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Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 136947

Client Name: Envirologic Technologies
Contact Person: Dave Warwick
Project Name/ Number: SCCBRA/140189
QUOTE#
Purchase Order#

Turnaround: ☐ 24 hour RUSH (surcharge applies) ☐ 48 hour RUSH (surcharge applies) ☐ 72 hour RUSH (surcharge applies) ☒ Standard (5-7 bus. days) ☐ Other: Specify

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Remarks:

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals	8260	PNA's								
	7/24/14	10:50A		D-MW-6@15'	S	1	N	+										
		11:00A		D-MW-6@22½' MS/MSD	S	3	N	+										
		11:15A		G-MW-10@6½'	S	1	N	+										
		11:30A		I-MW-7@4'	S	1	N	+										
		11:35A		I-MW-7@10'	S	1	N	+										
		11:45A		I-MW-5@3'	S	1	N	+										
		11:50A		I-MW-5@9'	S	1	N	+										
		12:55P		B-MW-11@8'	S	1	N	+										
		1:00P		B-MW-11@14'	S	1	N	+										
		1:05P		B-MW-11@20'	S	1	N	+										

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7-25-14 12:40	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking: 63426
Temperature at Receipt: 4.8°C

COC Revision: February 2013

RCV'D ON ICE

TERMS & CONDITIONS ON BACK

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Geoprobe
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Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 137284

Client Name: Envirologic Technologies
Contact Person: Dave Warwick
Project Name/ Number: SCCBRA/140189
QUOTE#
Purchase Order#

Turnaround: ☐ 24 hour RUSH (surcharge applies) ☐ 48 hour RUSH (surcharge applies) ☐ 72 hour RUSH (surcharge applies) ☒ Standard (5-7 bus. days) ☐ Other: Specify

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Remarks:

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals	8260	PNA's							
	7/24/14	1:25P		B-MW-8e4'	S	1	N	+									
		1:30P		B-MW-8e10'	S	1	N	+									
		1:40P		B-MW-9e4'	S	1	N	+									
		1:45P		B-MW-9e8'	S	1	N	+									
		1:50P		B-MW-9e14½'	S	1	N	+									
		2:00P		B-MW-10e4'	S	1	N	+									
		2:05P		B-MW-10e10'	S	1	N	+									
		—		methanol blank #2	S	1	Y		+								
		2:30P		A-MW-21e15'	S	2	Y	+	+	+							
		2:55P		A-MW-20e15'	S	2	Y	+	+	+							

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7-25-14 1248	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

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Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody #
136948
PAGE 8 of 8

Client Name: Envirologic Technologies
Contact Person: Dave Warwick
Project Name/ Number: SCCBRA/140189
QUOTE#
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals	8260	PNA's							
	7/24/14	3:25P		A-MW-19e20'	S	2	Y	+	+	+							
		4:00P		A-MW-16e15'	S	2	Y	+	+	+							
		4:30P		A-MW-17e25'	S	2	Y	+	+	+							
		4:50P		A-MW-14e15'	S	2	Y	+	+	+							
		5:00P		EB-1S	W	3	Y		+								
	—	—		M-3S	S	1	N	+									

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- [x] Standard (5-7 bus. days)
- Other: Specify

Remarks:

Matrix Code:
- S Soil
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

☐ FES Drilling Services

Deliverables:
- ☐ Level 2
- ☐ Level 3
- ☐ Level 4
- ☐ EDD

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	7-25-14 12:48	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Monday, August 25, 2014

Fibertec Project Number: 63679
Project Identification: SCCBRA (140189) /140189
Submittal Date: 08/12/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/cdh

Enclosures

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-001

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63679-001** **Matrix: Aqueous QC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
3. Benzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
7. Bromoform	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
8. Bromomethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
9. 2-Butanone	U		µg/L	25	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
16. Chloroethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
17. Chloroform	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
18. Chloromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
37. 2-Hexanone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63679-001** **Matrix: Aqueous QC**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
42. MTBE	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
43. Naphthalene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
45. Styrene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
49. Toluene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
60. Xylenes	U		µg/L	3.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-002

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Methanol Blank**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 2. Acrylonitrile	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
3. Benzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
16. Chloroethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
36. Ethylene Dibromide	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Methanol Blank**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 40. 2-Methylnaphthalene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
41. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
42. MTBE	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
43. Naphthalene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
44. n-Propylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
45. Styrene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
46. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
47. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
48. Tetrachloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
49. Toluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
50. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
51. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
52. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
53. Trichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
54. Trichlorofluoromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
55. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 56. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
57. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
58. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
59. Vinyl Chloride	U		µg/kg	40	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
60. Xylenes	U		µg/kg	150	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-003

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW13@25'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**25**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8400**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**75000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**580**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**21000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**21000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**10000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**630**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**120**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**72000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-003A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
3. Benzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
7. Bromoform	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW13@25'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-003A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
15. Chlorobenzene	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
16. Chloroethane	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
20. Dibromochloromethane	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
36. Ethylene Dibromide	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
41. MTBE	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
44. Styrene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
48. Toluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW13@25'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-003A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
2. Acenaphthylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
3. Anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/kg	350	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
9. Chrysene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
11. Fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
12. Fluorene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
15. Phenanthrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
16. Pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-004

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW12@28'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**21**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**9100**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**75000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**610**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**20000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**21000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**10000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**760**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**120**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**71000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.6	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-004A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
3. Benzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
7. Bromoform	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW12@28'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-004A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	64	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
15. Chlorobenzene	U		µg/kg	64	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
16. Chloroethane	U		µg/kg	320	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
20. Dibromochloromethane	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
36. Ethylene Dibromide	U		µg/kg	64	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
41. MTBE	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
44. Styrene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
48. Toluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW12@28'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**13:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-004A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
2. Acenaphthylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
3. Anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/kg	340	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
9. Chrysene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
11. Fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
12. Fluorene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
15. Phenanthrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
16. Pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**22**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8600**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**74000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**600**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**21000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**21000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**10000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**600**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**110**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**69000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.4	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-005A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
‡ 2. Acrylonitrile	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
3. Benzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
7. Bromoform	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-005A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
15. Chlorobenzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
16. Chloroethane	U		µg/kg	320	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
20. Dibromochloromethane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	32	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
36. Ethylene Dibromide	U		µg/kg	32	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
39. Methylene Chloride	U		µg/kg	130	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
41. MTBE	U		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
44. Styrene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
48. Toluene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26'**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-005A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
2. Acenaphthylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
3. Anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/kg	340	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
9. Chrysene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
11. Fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
12. Fluorene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
15. Phenanthrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
16. Pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-006

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MS**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**19000**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**130000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**11000**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**40000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**39000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**29000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**8600**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**9900**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**120000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**300**		µg/kg	50	9.4	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-006A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	**5700**		µg/kg	1000	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
‡ 2. Acrylonitrile	**7100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
3. Benzene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
4. Bromobenzene	**6300**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
5. Bromochloromethane	**6800**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
6. Bromodichloromethane	**6200**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
7. Bromoform	**6600**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
8. Bromomethane	**5500**		µg/kg	200	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
9. 2-Butanone	**7500**		µg/kg	750	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
10. n-Butylbenzene	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
11. sec-Butylbenzene	**6400**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
12. tert-Butylbenzene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
13. Carbon Disulfide	**6500**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MS**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-006A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	**6100**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
15. Chlorobenzene	**6100**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
16. Chloroethane	**5200**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
17. Chloroform	**6000**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
18. Chloromethane	**6300**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
19. 2-Chlorotoluene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
20. Dibromochloromethane	**6200**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	**7200**		µg/kg	33	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
22. Dibromomethane	**6300**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
23. 1,2-Dichlorobenzene	**6300**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
24. 1,3-Dichlorobenzene	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
25. 1,4-Dichlorobenzene	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
26. Dichlorodifluoromethane	**5500**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
27. 1,1-Dichloroethane	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
28. 1,2-Dichloroethane	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
29. 1,1-Dichloroethene	**7000**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
30. cis-1,2-Dichloroethene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
31. trans-1,2-Dichloroethene	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
32. 1,2-Dichloropropane	**6900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
33. cis-1,3-Dichloropropene	**6900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
34. trans-1,3-Dichloropropene	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
35. Ethylbenzene	**6100**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
36. Ethylene Dibromide	**6300**		µg/kg	33	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
37. 2-Hexanone	**8400**		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
38. Isopropylbenzene	**6500**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
39. Methylene Chloride	**6700**		µg/kg	130	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
40. 4-Methyl-2-pentanone	**7500**		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
41. MTBE	**6000**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
42. Naphthalene	**6900**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
43. n-Propylbenzene	**6400**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
44. Styrene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
45. 1,1,1,2-Tetrachloroethane	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
46. 1,1,2,2-Tetrachloroethane	**6700**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
47. Tetrachloroethene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
48. Toluene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
49. 1,2,4-Trichlorobenzene	**6800**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
50. 1,1,1-Trichloroethane	**6000**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
51. 1,1,2-Trichloroethane	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MS**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-006A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	**6600**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
53. Trichlorofluoromethane	**4900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
54. 1,2,3-Trichloropropane	**6500**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 55. 1,2,3-Trimethylbenzene	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
56. 1,2,4-Trimethylbenzene	**6200**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
57. 1,3,5-Trimethylbenzene	**6300**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
58. Vinyl Chloride	**5500**		µg/kg	40	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
59. Xylenes	**18000**		µg/kg	150	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	**4600**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
2. Acenaphthylene (SIM)	**4400**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
3. Anthracene (SIM)	**4600**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
4. Benzo(a)anthracene (SIM)	**4900**		µg/kg	350	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
5. Benzo(a)pyrene (SIM)	**5200**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
6. Benzo(b)fluoranthene (SIM)	**5000**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
7. Benzo(ghi)perylene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
8. Benzo(k)fluoranthene (SIM)	**5200**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
9. Chrysene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
10. Dibenzo(a,h)anthracene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
11. Fluoranthene (SIM)	**5400**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
12. Fluorene (SIM)	**4700**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	**4500**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
14. 2-Methylnaphthalene (SIM)	**4300**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
15. Phenanthrene (SIM)	**5000**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
16. Pyrene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 63679
Laboratory Sample Number: 63679-007

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MSD**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**18000**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**120000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**10000**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**38000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**39000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**33000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**9200**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**9700**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**110000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**300**		µg/kg	50	9.0	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-007A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	**6000**		µg/kg	1000	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
‡ 2. Acrylonitrile	**6900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
3. Benzene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
4. Bromobenzene	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
5. Bromochloromethane	**6500**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
6. Bromodichloromethane	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
7. Bromoform	**6300**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
8. Bromomethane	**5300**		µg/kg	200	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
9. 2-Butanone	**7800**		µg/kg	750	1.0	08/14/14	VH14H14A	08/14/14	VH14H14A	DAR
10. n-Butylbenzene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
11. sec-Butylbenzene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
12. tert-Butylbenzene	**6400**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
13. Carbon Disulfide	**6400**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MSD**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-007A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	**5800**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
15. Chlorobenzene	**5900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
16. Chloroethane	**4900**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
17. Chloroform	**6000**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
18. Chloromethane	**6200**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
19. 2-Chlorotoluene	**6000**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
20. Dibromochloromethane	**5800**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	**6800**		µg/kg	33	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
22. Dibromomethane	**5900**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
23. 1,2-Dichlorobenzene	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
24. 1,3-Dichlorobenzene	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
25. 1,4-Dichlorobenzene	**5700**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
26. Dichlorodifluoromethane	**5300**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
27. 1,1-Dichloroethane	**6400**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
28. 1,2-Dichloroethane	**5900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
29. 1,1-Dichloroethene	**6900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
30. cis-1,2-Dichloroethene	**6300**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
31. trans-1,2-Dichloroethene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
32. 1,2-Dichloropropane	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
33. cis-1,3-Dichloropropene	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
34. trans-1,3-Dichloropropene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
35. Ethylbenzene	**5900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
36. Ethylene Dibromide	**6100**		µg/kg	33	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
37. 2-Hexanone	**8500**		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
38. Isopropylbenzene	**6200**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
39. Methylene Chloride	**6600**		µg/kg	130	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
40. 4-Methyl-2-pentanone	**7500**		µg/kg	2500	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
41. MTBE	**6000**		µg/kg	250	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
42. Naphthalene	**6700**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
43. n-Propylbenzene	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
44. Styrene	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
45. 1,1,1,2-Tetrachloroethane	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
46. 1,1,2,2-Tetrachloroethane	**6500**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
47. Tetrachloroethene	**6400**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
48. Toluene	**6100**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
49. 1,2,4-Trichlorobenzene	**6600**		µg/kg	330	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
50. 1,1,1-Trichloroethane	**5900**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
51. 1,1,2-Trichloroethane	**6200**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW15@26' MSD**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-007A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	**6300**		µg/kg	50	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
53. Trichlorofluoromethane	**4700**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
54. 1,2,3-Trichloropropane	**6300**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
‡ 55. 1,2,3-Trimethylbenzene	**5900**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
56. 1,2,4-Trimethylbenzene	**6000**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
57. 1,3,5-Trimethylbenzene	**6100**		µg/kg	100	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
58. Vinyl Chloride	**5200**		µg/kg	40	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR
59. Xylenes	**17000**		µg/kg	150	1.0	08/14/14	VL14H14A	08/14/14	VL14H14A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
2. Acenaphthylene (SIM)	**5000**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
3. Anthracene (SIM)	**4900**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
4. Benzo(a)anthracene (SIM)	**5200**		µg/kg	350	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
5. Benzo(a)pyrene (SIM)	**5600**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
6. Benzo(b)fluoranthene (SIM)	**5400**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
7. Benzo(ghi)perylene (SIM)	**5400**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
8. Benzo(k)fluoranthene (SIM)	**5500**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
9. Chrysene (SIM)	**5500**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
10. Dibenzo(a,h)anthracene (SIM)	**5300**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
11. Fluoranthene (SIM)	**5700**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
12. Fluorene (SIM)	**5100**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	**4800**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
14. 2-Methylnaphthalene (SIM)	**4900**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
15. Phenanthrene (SIM)	**5300**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN
16. Pyrene (SIM)	**5400**		µg/kg	330	20	08/18/14	PS14H18A	08/18/14	S614H18A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-15**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**17:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63679-008** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
3. Benzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
7. Bromoform	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
8. Bromomethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
9. 2-Butanone	U		µg/L	25	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
16. Chloroethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
17. Chloroform	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
18. Chloromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
37. 2-Hexanone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-15**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**17:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63679-008** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
42. MTBE	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
43. Naphthalene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
45. Styrene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
49. Toluene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL
60. Xylenes	U		µg/L	3.0	1.0	08/13/14	VB14H13B	08/14/14	VB14H13B	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-15**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 63679-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**25**		%	0.1	1.0	08/13/14	MC140813	08/15/14	MC140813	BMG

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 63679-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8900**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
2. Barium	**79000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
3. Cadmium	**580**		µg/kg	50	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
4. Chromium	**22000**		µg/kg	500	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
5. Copper	**22000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
6. Lead	**10000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
7. Selenium	**660**		µg/kg	200	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
8. Silver	**110**		µg/kg	100	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH
9. Zinc	**69000**		µg/kg	1000	20	08/15/14	PT14H15E	08/18/14	T414H18A	JLH

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 63679-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	08/13/14	PM14H13A	08/13/14	M614H13B	JLP

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-009A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/kg	1000	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 2. Acrylonitrile	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
3. Benzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
4. Bromobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
5. Bromochloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
6. Bromodichloromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
7. Bromoform	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
8. Bromomethane	U		µg/kg	200	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
9. 2-Butanone	U		µg/kg	750	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
10. n-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
11. sec-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
12. tert-Butylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
13. Carbon Disulfide	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-15**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-009A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
14. Carbon Tetrachloride	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
15. Chlorobenzene	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
16. Chloroethane	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
17. Chloroform	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
18. Chloromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
19. 2-Chlorotoluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
20. Dibromochloromethane	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
22. Dibromomethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
23. 1,2-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
24. 1,3-Dichlorobenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
25. 1,4-Dichlorobenzene	U		µg/kg	130	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
26. Dichlorodifluoromethane	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
27. 1,1-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
28. 1,2-Dichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
29. 1,1-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
30. cis-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
31. trans-1,2-Dichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
32. 1,2-Dichloropropane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
33. cis-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
34. trans-1,3-Dichloropropene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
35. Ethylbenzene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
36. Ethylene Dibromide	U		µg/kg	66	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
37. 2-Hexanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
38. Isopropylbenzene	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
39. Methylene Chloride	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
40. 4-Methyl-2-pentanone	U		µg/kg	2500	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
41. MTBE	U		µg/kg	250	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
42. Naphthalene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
43. n-Propylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
44. Styrene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
45. 1,1,1,2-Tetrachloroethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
46. 1,1,2,2-Tetrachloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
47. Tetrachloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
48. Toluene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
49. 1,2,4-Trichlorobenzene	U		µg/kg	330	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
50. 1,1,1-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
51. 1,1,2-Trichloroethane	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-15**	Chain of Custody:	**136950**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/07/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Aliquot ID: 63679-009A** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
52. Trichloroethene	U		µg/kg	50	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
53. Trichlorofluoromethane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
54. 1,2,3-Trichloropropane	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
‡ 55. 1,2,3-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
56. 1,2,4-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
57. 1,3,5-Trimethylbenzene	U		µg/kg	100	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
58. Vinyl Chloride	U		µg/kg	40	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR
59. Xylenes	U		µg/kg	150	1.0	08/13/14	VH14H13A	08/13/14	VH14H13A	DAR

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 63679-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
2. Acenaphthylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
3. Anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/kg	350	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
9. Chrysene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
11. Fluoranthene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
12. Fluorene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
15. Phenanthrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN
16. Pyrene (SIM)	U		µg/kg	330	20	08/14/14	PS14H14A	08/14/14	S614H14A	GAN

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
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Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 136950

PAGE 1 of 1

Client Name: Envirologic Technologies, Inc.

Contact Person: Dave Warwick / Derrick Lingle

Project Name/ Number: SCCBRA/140189

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	8260	MI 10 metals	PNA's							
	—	—		trip blank	W	1	Y	X									
	—	—		methanol blank	S	1	Y	X									
	8/7/14	9:50A		A-MW13 @ 25'	S	2	Y	X	X	X							
		1:45P		A-MW12 @ 28'	S	2	Y	X	X	X							
		4:35p		A-MW15 @ 26' (MS/MSD)	S	6	Y	X	X	X							
		5:00p		EB-15	W	3	Y	X									
		—		M-15	S	2	Y	X	X	X							

Turnaround:
- [ ] 24 hour RUSH (surcharge applies)
- [ ] 48 hour RUSH (surcharge applies)
- [ ] 72 hour RUSH (surcharge applies)
- [x] Standard (5-7 bus. days)
- [ ] Other: Specify

Matrix Code: S Soil; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

Deliverables:
- [ ] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] EDD

[ ] FES Drilling Services

Remarks:

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	8/12/14 11:15	[signature]
[signature]	8/12/14 11:15	[signature]
[signature]	8/12/14 15:53	[signature]

LAB USE ONLY:
Fibertec project number: 63679
Laboratory Tracking:
Temperature at Receipt: 5.6°C

RCV'D ON ICE

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Tuesday, September 02, 2014

Fibertec Project Number: 63890
Project Identification: SCCBRA (140189) /140189
Submittal Date: 08/26/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/cdh

Enclosures

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-06**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**12:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-001A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-001** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-001** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	8.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-001A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	8.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5s**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-002A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	8.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-002A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	8.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5s**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63890-002B** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
3. Anthracene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
4. Benzo(a)anthracene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
5. Benzo(a)pyrene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
6. Benzo(b)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
8. Benzo(k)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
9. Chrysene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
11. Fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
12. Fluorene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
15. Naphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
16. Phenanthrene	U	J,L-	µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
17. Pyrene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5d**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-003A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-003** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28B	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-003** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-003A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5d**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63890-003B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
3. Anthracene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
4. Benzo(a)anthracene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
5. Benzo(a)pyrene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
6. Benzo(b)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
8. Benzo(k)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
9. Chrysene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
11. Fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
12. Fluorene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
15. Naphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
16. Phenanthrene	U	J,L-	µg/L	2.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC
17. Pyrene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/28/14	S114H28A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-09**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/25/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-004A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	**240**		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-004** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
2. Barium	**250**		µg/L	100	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-004** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-004A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Analytical Laboratory Report
Laboratory Project Number: 63890
Laboratory Sample Number: 63890-005

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-MW-9**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-005A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-005** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-005** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-005A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-MW-9**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63890-005B** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
3. Anthracene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
4. Benzo(a)anthracene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
5. Benzo(a)pyrene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
6. Benzo(b)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
8. Benzo(k)fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
9. Chrysene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
11. Fluoranthene	U	J,L-	µg/L	1.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
12. Fluorene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
15. Naphthalene	U		µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
16. Phenanthrene	U	J,L-	µg/L	2.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC
17. Pyrene	U	J,L-	µg/L	5.0	1.0	08/28/14	PS14H28B	08/29/14	S114H29B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**I-MW-7**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-006A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	**4.1**	J,V+	µg/L	4.0	10	08/28/14	PT14H28D	08/29/14	T214H29A	JLP
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-006** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
2. Barium	U		µg/L	100	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
5. Copper	**4.8**	J,V+	µg/L	4.0	10	08/28/14	PT14H28C	08/29/14	T214H29A	JLP
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-006** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-006A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-11**	Chain of Custody:	**133292**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63890-007A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
2. Barium	**110**		µg/L	100	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
4. Chromium	U		µg/L	10	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
5. Copper	U		µg/L	4.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28D	08/28/14	T414H28B	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63890-007** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
2. Barium	**110**		µg/L	100	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
3. Cadmium	U		µg/L	1.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
4. Chromium	**11**		µg/L	10	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
5. Copper	**7.1**		µg/L	4.0	10	08/28/14	PT14H28C	08/29/14	T214H29A	JLP
6. Lead	U		µg/L	3.0	10	08/28/14	PT14H28C	08/29/14	T214H29A	JLP
7. Selenium	U		µg/L	5.0	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
8. Silver	U		µg/L	0.20	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH
9. Zinc	U		µg/L	50	10	08/28/14	PT14H28C	08/28/14	T414H28B	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63890-007** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63890-007A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	08/28/14	PM14H28B	08/29/14	M614H29A	JLP

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

L- : Recovery in the associated laboratory sample (LCS) exceeds the lower control limit. Results may be biased low.
V+ : Recovery in the associated continuing calibration verification sample (CCV) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
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Fax: 517 699 0388
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Holt, MI 48842
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Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 133292
PAGE 1 of ___

Client Name: Envirologic Technologies
Contact Person: Dave Warwick / Derrick Lingle
Project Name/ Number: SCCBRA / 140189
QUOTE#
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals (total)	MI 10 metals (dissolved)	8260	PNA's (8270)							Remarks
	8/25/14	12:20P		D-MW-06	W	2	Y	+	+									3 day TAT
		1:10P		F-MW-5s	W	3	Y	+	+		+							
		2:30P		F-MW-5d	W	3	Y	+	+		+							
		3:05P		B-MW-09	W	2	Y	+	+									
	8/26/14	8:25A		G-MW-9	W	3	Y	+	+		+							
		9:40A		I-MW-7	W	2	Y	+	+									
		10:15A		B-MW-11	W	2	Y	+	+									

Turnaround
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- Standard (5-7 bus. days)
- X Other: Specify see below

Matrix Code
S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables
☐ Level 2
☐ Level 3
☐ Level 4
☐ EDD

Comments: dissolved metals have been field filtered.
D-MW-6, F-MW-5s, + F-MW-5d have a 3 day turnaround. The other samples are standard turnaround.

Relinquished By:	Date/ Time	Received By:
[signature]	8/26/14 11:00	[signature]
[signature]	8/26/14 14:19	[signature]
		Received By Laboratory:

RCV'D ON ICE

LAB USE ONLY:
Fibertec project number: 63890
Laboratory Tracking:
Temperature at Receipt: 5.6°C

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Friday, September 05, 2014

Fibertec Project Number: 63963
Project Identification: SCCBRA (140189) /140189
Submittal Date: 08/29/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/cdh

Enclosures

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-001** **Matrix: Aqueous QC**

							Preparation		Analysis		
	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
	1. Acetone	U		µg/L	50	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
‡	2. Acrylonitrile	U		µg/L	2.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	3. Benzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	4. Bromobenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	5. Bromochloromethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	6. Bromodichloromethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	7. Bromoform	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	8. Bromomethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	10. n-Butylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	13. Carbon Disulfide	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	15. Chlorobenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	16. Chloroethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	17. Chloroform	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	18. Chloromethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	20. Dibromochloromethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
‡	21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	22. Dibromomethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	35. Ethylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
	38. Isopropylbenzene	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Trip Blank**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Aqueous QC**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-001** **Matrix: Aqueous QC**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
42. MTBE	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
43. Naphthalene	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
45. Styrene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
49. Toluene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL
60. Xylenes	U		µg/L	3.0	1.0	09/02/14	VB14I02A	09/02/14	VB14I02A	JPL

Analytical Laboratory Report
Laboratory Project Number: 63963
Laboratory Sample Number: 63963-002

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**B-MW-8**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-002A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**140**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	**0.23**		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**140**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-002A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-003C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**36**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**120**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-003B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**38**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**120**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-003B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-003C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-003** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-003** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-003A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-003A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Analytical Laboratory Report
Laboratory Project Number: 63963
Laboratory Sample Number: 63963-004

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MS**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-004C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**130**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**600**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	**97**		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	**190**		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	**200**		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	**190**		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	**100**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	**93**		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	**510**		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-004B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**140**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**620**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	**100**		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	**190**		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	**200**		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	**200**		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	**100**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	**98**		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	**510**		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-004B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.26**		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-004C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.27**	J,V+	µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MS**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-004** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	**54**		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	**100**		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	**96**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	**92**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	**75**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	**89**	J,V+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	**91**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	**99**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	**120**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	**98**	J,V+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	**120**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MS**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-004** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	**110**		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	**130**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	**98**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	**330**		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-004A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**64**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	**68**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	**68**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	**73**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	**73**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	**72**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	**77**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	**67**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	**72**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	**75**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	**74**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	**66**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MS**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-004A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	**82**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	**65**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	**70**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	**76**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MSD**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-005C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**130**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**600**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	**98**		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	**180**		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	**200**		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	**200**		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	**100**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	**95**		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	**510**		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-005B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**140**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**650**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	**100**		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	**200**		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	**210**		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	**210**		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	**100**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	**100**		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	**540**		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-005B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.26**		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-005C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.26**	J,V+	µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MSD**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-005** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	**58**		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	**110**		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	**97**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	**91**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	**78**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	**87**	J,V+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	**120**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	**89**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	**120**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	**120**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	**99**	J,V+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	**120**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MSD**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-005** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	**100**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	**110**		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	**110**		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	**130**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	**100**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	**110**		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	**330**		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-005A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	**64**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	**66**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	**67**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	**70**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	**71**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	**68**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	**74**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	**67**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	**70**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	**71**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	**75**		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	**66**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20 MSD**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-005A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	**71**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	**62**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	**69**		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	**73**		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-006C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6.6**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-006B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6.9**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-006B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-006C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-006** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-006** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-006A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
2. Acenaphthylene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
3. Anthracene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
9. Chrysene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
11. Fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
12. Fluorene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-006A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
15. Phenanthrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
16. Pyrene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-007C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8.8**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-007B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8.7**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	**4.4**		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-007B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-007C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-007** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-007** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-007A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
2. Acenaphthylene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
3. Anthracene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
9. Chrysene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
11. Fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
12. Fluorene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:00**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-007A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
15. Phenanthrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
16. Pyrene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17s**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-008C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**180**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**210**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-008B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**180**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**220**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	**5.6**		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-008B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-008C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17s**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-008** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17s**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-008** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-008A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
2. Acenaphthylene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
3. Anthracene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
4. Benzo(a)anthracene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
5. Benzo(a)pyrene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
6. Benzo(b)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
7. Benzo(ghi)perylene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
8. Benzo(k)fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
9. Chrysene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
10. Dibenzo(a,h)anthracene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
11. Fluoranthene (SIM)	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
12. Fluorene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17s**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:20**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-008A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
14. 2-Methylnaphthalene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
15. Phenanthrene (SIM)	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN
16. Pyrene (SIM)	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S614I02A	GAN

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17d**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-009C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6.9**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-009B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8.6**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-009B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-009C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17d**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-009** **Matrix: Ground Water**

							Preparation		Analysis		
	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
	1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡	2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡	21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
	38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17d**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-009** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-009A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17d**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-009A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-1GW**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-010** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-1GW**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**08/26/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-010** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
60. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Analytical Laboratory Report
Laboratory Project Number: 63963
Laboratory Sample Number: 63963-011

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-15**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-011C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5.3**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	**140**		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-011B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5.2**		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	**140**		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-011B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-011C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-15**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-011** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Analytical Laboratory Report
Laboratory Project Number: 63963
Laboratory Sample Number: 63963-011

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-15**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-011** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-011A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-15**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-011A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-13**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-012C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-012B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-012B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-012C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-13**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-012** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-13**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-012** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-012A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-13**	Chain of Custody:	**133293**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-012A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/02/14	S114I02B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12s**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-013C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-013B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02D	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-013B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-013C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12s**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-013** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Analytical Laboratory Report
Laboratory Project Number: 63963
Laboratory Sample Number: 63963-013

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12s**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-013** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-013A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12s**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-013A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12d**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-014C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-014B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-014B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-014C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12d**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-014** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12d**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-014** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-014A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12d**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-014A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-2GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:55**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-015** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**EB-2GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:55**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-015** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 40. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
55. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 56. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
60. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Dissolved (EPA 3005A/EPA 6020A) **Aliquot ID: 63963-016C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8.7**		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
5. Copper	U		µg/L	4.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02A	09/02/14	T414I02A	JLH

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 63963-016B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8.5**		µg/L	5.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
2. Barium	U		µg/L	100	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
3. Cadmium	U		µg/L	1.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
4. Chromium	U		µg/L	10	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
5. Copper	**4.8**		µg/L	4.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
6. Lead	U		µg/L	3.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
7. Selenium	U		µg/L	5.0	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
8. Silver	U		µg/L	0.20	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH
9. Zinc	U		µg/L	50	10	09/02/14	PT14I02E	09/02/14	T414I02A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 63963-016B** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03B	09/03/14	M614I03A	JLP

Mercury by CVAAS, Dissolved (EPA 7470A) **Aliquot ID: 63963-016C** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	09/03/14	PM14I03A	09/03/14	M614I03A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-016** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acetone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 2. Acrylonitrile	U		µg/L	2.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
3. Benzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
4. Bromobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
5. Bromochloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
6. Bromodichloromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
7. Bromoform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
8. Bromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
9. 2-Butanone	U	J,L+	µg/L	25	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
10. n-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
11. sec-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
12. tert-Butylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
13. Carbon Disulfide	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
14. Carbon Tetrachloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
15. Chlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
16. Chloroethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
17. Chloroform	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
18. Chloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
19. 2-Chlorotoluene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
20. Dibromochloromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 21. 1,2-Dibromo-3-chloropropane (SIM)	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
22. Dibromomethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
23. 1,2-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
24. 1,3-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
25. 1,4-Dichlorobenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
26. Dichlorodifluoromethane	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
27. 1,1-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
28. 1,2-Dichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
29. 1,1-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
30. cis-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
31. trans-1,2-Dichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
32. 1,2-Dichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
33. cis-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
34. trans-1,3-Dichloropropene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
35. Ethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
36. Ethylene Dibromide	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
37. 2-Hexanone	U	J,L+	µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
38. Isopropylbenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Aliquot ID: 63963-016** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
39. Methylene Chloride	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
40. 4-Methyl-2-pentanone	U		µg/L	50	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
41. MTBE	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
42. Naphthalene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
43. n-Propylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
44. Styrene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
45. 1,1,1,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
46. 1,1,2,2-Tetrachloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
47. Tetrachloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
48. Toluene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
49. 1,2,4-Trichlorobenzene	U		µg/L	5.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
50. 1,1,1-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
51. 1,1,2-Trichloroethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
52. Trichloroethene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
53. Trichlorofluoromethane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
54. 1,2,3-Trichloropropane	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
‡ 55. 1,2,3-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
56. 1,2,4-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
57. 1,3,5-Trimethylbenzene	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
58. Vinyl Chloride	U		µg/L	1.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL
59. Xylenes	U		µg/L	3.0	1.0	09/04/14	VB14I04A	09/04/14	VB14I04A	JPL

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-016A** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
2. Acenaphthylene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
3. Anthracene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
4. Benzo(a)anthracene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
5. Benzo(a)pyrene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
6. Benzo(b)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
7. Benzo(ghi)perylene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
8. Benzo(k)fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
9. Chrysene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
10. Dibenzo(a,h)anthracene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
11. Fluoranthene	U		µg/L	1.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
12. Fluorene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1GW**	Chain of Custody:	**133294**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**08/27/14**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Aliquot ID: 63963-016A** **Matrix: Ground Water**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
13. Indeno(1,2,3-cd)pyrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
14. 2-Methylnaphthalene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
15. Phenanthrene	U		µg/L	2.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC
16. Pyrene	U		µg/L	5.0	1.0	09/02/14	PS14I02D	09/03/14	S114I03A	TMC

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

L+ : Recovery in the associated laboratory sample (LCS) exceeds the upper control limit. Results may be biased high.
V+ : Recovery in the associated continuing calibration verification sample (CCV) exceeds the upper control limit. Results may be biased high.

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
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Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 133293

Client Name: Envirologic Technologies

Contact Person: Dave Warwick

Project Name/ Number: SCCBRA / 140189

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals (total)	MI 10 metals (dissolved)	8260	PNA's (8270)							
	—	—		Trip Blank	W	1	Y			+								
	8/26/14	11:10A		B-MW-8	W	2	Y	+	+									
		11:45A		A-MW-20 MS/MSD	W	5	Y	+	+	+	+							
		1:20P		A-MW-19	W	5	Y	+	+	+	+							
		2:00P		A-MW-16	W	5	Y	+	+	+	+							
		3:20P		A-MW-17s	W	5	Y	+	+	+	+							
		4:15P		A-MW-17d	W	5	Y	+	+	+	+							
		4:45P		EB-1GW	W	2	Y			+								
	8/27/14	8:15A		A-MW-15	W	5	Y	+	+	+	+							
		9:25A		A-MW-13	W	5	Y	+	+	+	+							

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2, ☐ Level 3, ☐ Level 4, ☐ EDD

Remarks:

Comments: dissolved metal samples have been field filtered.

Relinquished By:	Date/ Time	Received By:
Robert Webb	8/29/14 9:58	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number: 63963
Laboratory Tracking:
Temperature at Receipt: 5.1°C

RCV'D ON ICE

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
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8660 S. Mackinaw Trail
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email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 133294

Client Name: Envirologic Technologies

Contact Person: Dave Warwick

Project Name/ Number: SCCBRA/140189

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals (total)	MI 10 metals (dissolved)	8260	PNA's (8270)						
	8/27/14	10:05A		A-MW-12s	W	5	Y	+	+	+	+						
	↓	10:40A		A-MW-12d	W	5	Y	+	+	+	+						
	↓	10:55A		EB-2GW	W	2	Y			+							
	—	—		M-1GW	W	5	Y	+	+	+	+						

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Remarks:

Matrix Code:
- S Soil
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

☐ FES Drilling Services

Deliverables:
- ☐ Level 2
- ☐ Level 3
- ☐ Level 4
- ☐ EDD

Comments: dissolved metals samples have been field filtered.

Relinquished By:	Date/ Time	Received By:
[signature]	8/29/14 9:58	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

RCV'D ON ICE

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Friday, November 07, 2014

Fibertec Project Number: 65039
Project Identification: SCCBRA (140189) /140189
Submittal Date: 10/30/2014

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/cdh

Enclosures

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-11@2'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**12**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**18000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**89000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	U		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**3600**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**39000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**27000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**1500**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**10000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-001** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-11@4'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:25**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**21**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3400**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**71000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**430**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**17000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**11000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**23000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**380**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**80000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-002** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	9.0	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@1.5'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6700**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**110000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**260**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**22000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**21000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**11000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**480**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**57000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 65039-003** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Acenaphthene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
2. Acenaphthylene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
3. Anthracene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
4. Benzo(a)anthracene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
5. Benzo(a)pyrene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
6. Benzo(b)fluoranthene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
7. Benzo(ghi)perylene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
8. Benzo(k)fluoranthene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
9. Chrysene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
10. Dibenzo(a,h)anthracene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
11. Fluoranthene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
12. Fluorene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
13. Indeno(1,2,3-cd)pyrene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**G-4@1.5'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Aliquot ID: 65039-003** **Matrix: Soil/Solid**

						Preparation		Analysis		
Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	P. Date	P. Batch	A. Date	A. Batch	Init.
14. 2-Methylnaphthalene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
15. Naphthalene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
16. Phenanthrene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC
17. Pyrene	U		µg/kg	330	1.0	11/05/14	PS14K05H	11/06/14	S314K06B	TMC

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-8@4'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:40**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8500**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**79000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**290**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**18000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**25000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**11000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**350**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**61000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-004** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.6	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-8@9'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**18**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5800**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**19000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**410**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**14000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**20000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**10000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**600**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**57000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-005** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-14@2.5'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**10000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**72000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**300**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**14000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**22000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**20000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**1200**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**64000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-006** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-14@9'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**14:55**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**24**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5100**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**22000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**830**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**18000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**21000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**11000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**740**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**61000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-007** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-15@2'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**9300**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**73000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**330**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**16000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**23000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**26000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**580**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**58000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-008** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-15@6'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**15:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**11**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**1300**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**9200**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**54**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**3500**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**15000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**1400**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	U		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**8500**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-009** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**73**		µg/kg	50	8.9	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@4'**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**4.8**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**1000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**11000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**70**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**2700**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**2000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**1900**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	U		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**9200**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-010** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@4' MS**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**6.7**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**10000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
2. Barium	**59000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
3. Cadmium	**9300**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
4. Chromium	**21000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
5. Copper	**24000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
6. Lead	**26000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
7. Selenium	**8700**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	**9400**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
9. Zinc	**56000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-011** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-7@4' MSD**	Chain of Custody:	**136443**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**16:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**6.4**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**11000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**61000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**9400**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**24000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**24000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**27000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**8700**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	**9600**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**58000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-012** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-16@1'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:00**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**4.8**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3800**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**21000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**220**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**5900**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**8900**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**42000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**650**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**28000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-013** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-16@7.5'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**7000**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**67000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**1200**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**18000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**21000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**9300**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**640**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**110000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-014** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-4@3'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:15**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**17**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8800**		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
2. Barium	**74000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
3. Cadmium	**660**		µg/kg	50	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
4. Chromium	**15000**		µg/kg	500	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
5. Copper	**24000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
6. Lead	**10000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
7. Selenium	**790**		µg/kg	200	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04D	11/06/14	T414K06A	JLH
9. Zinc	**71000**		µg/kg	1000	20	11/04/14	PT14K04D	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-015** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-4@9'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:20**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**23**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8100**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**72000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**660**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**20000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**22000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**11000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**750**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**72000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-016** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@3'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**17**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:30**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**16**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**8700**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**86000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**690**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**16000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**25000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**10000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**750**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**71000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-017** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-3@9'**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**18**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**17:35**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**25**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6200**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**120000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**130**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**25000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**19000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**8700**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**290**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**45000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-018** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.9	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-15**	Chain of Custody:	**136444**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**19**	Collect Date:	**10/27/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**NA**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**7.6**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**970**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**11000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**65**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**3800**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**11000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**2300**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	U		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
9. Zinc	**14000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-019** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**71**		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-13@3.5'**	Chain of Custody:	**126911**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**20**	Collect Date:	**10/28/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:45**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**20**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5200**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**90000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**350**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**20000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**19000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**9000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**450**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**60000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-020** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.5	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-13@7'**	Chain of Custody:	**126911**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**21**	Collect Date:	**10/28/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**08:50**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**15**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**3200**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**36000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**300**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**10000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**13000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**16000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**290**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**38000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-021** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.7	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-12@4'**	Chain of Custody:	**126911**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**22**	Collect Date:	**10/28/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:05**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**21**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6900**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**90000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**310**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**19000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**19000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**8500**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**430**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**58000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-022** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03E	11/05/14	M614K05A	JLH

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-12@8'**	Chain of Custody:	**126911**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**23**	Collect Date:	**10/28/14**
Client Project No:	**140189**	Sample Matrix:	**Soil/Solid**	Collect Time:	**09:10**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Dry Weight Determination (ASTM D 2974-87) **Aliquot ID: 65039-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
‡ 1. Percent Moisture (Water Content)	**21**		%	0.1	1.0	11/03/14	MC141103	11/04/14	MC141103	KRF

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Aliquot ID: 65039-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5500**		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
2. Barium	**64000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
3. Cadmium	**480**		µg/kg	50	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
4. Chromium	**19000**		µg/kg	500	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
5. Copper	**21000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
6. Lead	**9600**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
7. Selenium	**630**		µg/kg	200	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM
8. Silver	U		µg/kg	100	20	11/04/14	PT14K04E	11/06/14	T414K06A	JLH
9. Zinc	**66000**		µg/kg	1000	20	11/04/14	PT14K04E	11/06/14	T414K06A	KRM

Mercury by CVAAS (EPA 7471B) **Aliquot ID: 65039-023** **Matrix: Soil/Solid**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/kg	50	8.8	11/03/14	PM14K03C	11/05/14	M614K05A	JLH

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

E-10395 (KS)

T104704518-13-1 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 136443

Client Name: Envirologic Technologies

Contact Person: Dave Warwick / Derrick Lingle

Project Name/ Number: SCCBRA/140189

QUOTE#

Purchase Order#

Turnaround: ☐ 24 hour RUSH (surcharge applies) ☐ 48 hour RUSH (surcharge applies) ☐ 72 hour RUSH (surcharge applies) ☒ Standard (5-7 bus. days) ☐ Other: Specify

Matrix Code: S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify

☐ FES Drilling Services

Deliverables: ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	Michigan 10 metals	PNA's	Remarks
	10/27/14	2:20		F-11 @ 2'	S	1	N	X		
		2:25		F-11 @ 4'				X		
		2:30		G-4 @ 1.5'				X	X	
		2:40		F-8 @ 4'				X		
		2:45		F-8 @ 9'				X		
		2:50		F-14 @ 2.5'				X		
		2:55		F-14 @ 9'				X		
		3:15		F-15 @ 2'				X		
		3:20		F-15 @ 6'				X		
		4:15		F-7 @ 4' (MS/MSD)				X		

Comments:

Relinquished By:	Date/ Time	Received By:
	10/30/14 1255	
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number: 65039
Laboratory Tracking:
Temperature at Receipt: 5.6°C

COC Revision: February, 2013

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RCV'D ON ICE

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
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Phone: 517 699 0345
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8660 S. Mackinaw Trail
Cadillac, MI 49601
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1914 Holloway Drive
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Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 136444

Client Name: Envirologic Technologies

Contact Person: Dave Warwick/Derrick Lingle

Project Name/ Number: SCCBRA/140189

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	Michigan 10 metals	PNA's								
	10/27/14	5:00		F-16@1'	S	1	N	X									
		5:05		F-16@7.5'				X									
		5:15		F-4@3'				X									
		5:20		F-4@9'				X									
		5:30		F-3@3'				X									
		5:35		F-3@9'				X									
		—		M-15				X									

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- [X] Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

[ ] FES Drilling Services

Deliverables:
- [ ] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] EDD

Remarks:

Comments:

Relinquished By:	Date/ Time	Received By:
	10/30/14 1255	
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

COC Revision: February, 2013

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Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
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Geoprobe
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Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody #
126911
PAGE 3 of 3

Client Name: Envirologic Technologies
Contact Person: Dave Warwick / Derrick Lingle
Project Name/ Number: SCCBRA/140189
QUOTE#
Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS: Michigan Metals
	10/28/14	8:45		F-13@ 3.5'	S	1	N	X
	↓	8:50		F-13@ 7'	↓	↓	↓	X
	↓	9:05		F-12@ 4'	↓	↓	↓	X
	↓	9:10		F-12@ 8'	↓	↓	↓	X

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- [X] Standard (5-7 bus. days)
- Other: Specify

Matrix Code: S Soil; A Air; O Oil; P Wipe; GW Ground Water; SW Surface Water; WW Waste Water; X Other: Specify

[ ] FES Drilling Services

Remarks:

Deliverables: [ ] Level 2; [ ] Level 3; [ ] Level 4; [ ] EDD

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	10/30/14 1255	[signature]

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

COC Revision: February, 2013

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Fibertec environmental services

Wednesday, February 18, 2015

Fibertec Project Number: 66456
Project Identification: SCCBRA (140189) /140189
Submittal Date: 02/11/2015

Mr. Derrick Lingle
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Lingle,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

Daryl P. Strandbergh
Laboratory Director

DPS/arp

Enclosures

Analytical Laboratory Report
Laboratory Project Number: 66456
Laboratory Sample Number: 66456-001

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-07**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**1**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-001** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	**17**		µg/L	4.0	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH
6. Lead	**11**		µg/L	3.0	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-001** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Analytical Laboratory Report
Laboratory Project Number: 66456
Laboratory Sample Number: 66456-002

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**D-MW-06**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**2**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-002** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5s**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**3**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-003** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-003** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5s MS**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**4**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-004** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**100**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	**470**		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	**95**		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	**200**		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	**200**		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	**190**		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	**98**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	**95**		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	**510**		µg/L	50	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-004** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.26**		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5s MSD**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**5**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-005** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**110**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	**510**		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	**99**		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	**210**		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	**210**		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	**200**		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	**110**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	**98**		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	**550**		µg/L	50	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-005** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	**0.26**		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**F-MW-5d**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**6**	Collect Date:	**02/09/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**16:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-006** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**6.5**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-006** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-19**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**7**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**08:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-007** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-007** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-20**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**8**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**09:05**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-008** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**31**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	**110**		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-008** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-13**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**9**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**10:30**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-009** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	**4.3**		µg/L	3.0	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-009** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12s**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**10**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:10**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-010** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-010** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-12d**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**11**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**11:45**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-011** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-011** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-15**	Chain of Custody:	**113587**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**12**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**12:50**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-012** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-012** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-16**	Chain of Custody:	**136492**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**13**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**13:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-013** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**12**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-013** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17d**	Chain of Custody:	**136492**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**14**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**14:40**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-014** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**17**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	**130**		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	**5.2**		µg/L	3.0	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-014** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**A-MW-17s**	Chain of Custody:	**136492**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**15**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**15:25**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-015** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**5.6**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	U		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	**4.6**		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-015** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**M-1**	Chain of Custody:	**136492**
Client Project Name:	**SCCBRA (140189)**	Sample No:	**16**	Collect Date:	**02/10/15**
Client Project No:	**140189**	Sample Matrix:	**Ground Water**	Collect Time:	**NA**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Aliquot ID: 66456-016** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Arsenic	**29**		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
2. Barium	**110**		µg/L	100	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
3. Cadmium	U		µg/L	1.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
4. Chromium	U		µg/L	10	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
5. Copper	U		µg/L	4.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
6. Lead	U		µg/L	3.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
7. Selenium	U		µg/L	5.0	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
8. Silver	U		µg/L	0.20	10	02/16/15	PT15B16E	02/17/15	T415B17A	JLH
9. Zinc	U		µg/L	50	10	02/18/15	PT15B18B	02/18/15	T415B18A	JLH

Mercury by CVAAS, Total (EPA 7470A) **Aliquot ID: 66456-016** **Matrix: Ground Water**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
1. Mercury	U		µg/L	0.20	1.0	02/13/15	PM15B13B	02/13/15	M615B13A	JLP

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

T104704518-15-3 (TX)

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 113587

PAGE 1 of 2

Client Name: Envirologic Technologies

Contact Person: Derrick Lingle / Dave Warwick

Project Name/ Number: SCCBRA/140189

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals (total)
	2/9/15	1:45P		F-MW-~~07~~ 17	W	1	Y	+
	↓	2:40P		D-MW-~~06~~ 16	W	1	Y	+
		3:40P		F-MW-5s MS/MSD	W	3	Y	+
		4:15P		F-MW-5d	W	1	Y	+
	2/10/15	8:15A		A-MW-19	W	1	Y	+
	↓	9:05A		A-MW-20	W	1	Y	+
		10:30A		A-MW-13	W	1	Y	+
		11:10A		A-MW-12s	W	1	Y	+
		11:45A		A-MW-12d	W	1	Y	+
		12:50P		A-MW-15	W	1	Y	+

PARAMETERS

Turnaround
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- X Standard (5-7 bus. days)
- Other: Specify

Matrix Code
- S Soil
- W Water
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

Remarks:

Comments:

Relinquished By:	Date/ Time	Received By:
[signature]	2/11/15 10:00	[signature]
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt: 6.0 °C

COC Revision: April, 2006

RECEIVED ON ICE

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
Cadillac, MI 49601
Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 136492

Client Name: Envirologic Technologies

Contact Person: Derrick Lingle / Dave Warwick

Project Name/ Number: SCCBRA / 140189

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	MI 10 metals (total)									Remarks:
	2/10/15	1:40P		A-MW-16	W	1	Y	+									
	↓	2:40P		A-MW-17d	W	1	Y	+									
	↓	3:25P		A-MW-17s	W	1	Y	+									
	—	—		M-1	W	1	Y	+									

Turnaround:
- 24 hour RUSH (surcharge applies)
- 48 hour RUSH (surcharge applies)
- 72 hour RUSH (surcharge applies)
- [X] Standard (5-7 bus. days)
- Other: Specify

Matrix Code:
- S Soil
- A Air
- O Oil
- P Wipe
- GW Ground Water
- SW Surface Water
- WW Waste Water
- X Other: Specify

☐ FES Drilling Services

Deliverables:
- ☐ Level 2
- ☐ Level 3
- ☐ Level 4
- ☐ EDD

Comments:

Relinquished By:	Date/ Time	Received By:
Robert Welch	2/11/15 10:00	
Relinquished By:	Date/ Time	Received By:
Relinquished By:	Date/ Time	Received By Laboratory:

LAB USE ONLY:
Fibertec project number:
Laboratory Tracking:
Temperature at Receipt:

COC Revision: February, 2013

TERMS & CONDITIONS ON BACK

Fibertec environmental services

Monday, September 14, 2015

Fibertec Project Number:	69627
Project Identification:	Marysville Power Plant (150288) /150288
Submittal Date:	09/08/2015

Mr. David Warwick
Envirologic Technologies, Inc.
2960 Interstate Parkway
Kalamazoo, MI 49048

Dear Mr. Warwick,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 14 days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

By Amanda Petrovsky at 2:26 PM, Sep 14, 2015

For Daryl P. Strandbergh
Laboratory Director

Enclosures

Analytical Laboratory Report
Laboratory Project Number: 69627
Laboratory Sample Number: 69627-001

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**Bunce Creek**	Chain of Custody:	**144537**
Client Project Name:	**Marysville Power Plant (150288)**	Sample No:	**1**	Collect Date:	**09/08/15**
Client Project No:	**150288**	Sample Matrix:	**Surface Water**	Collect Time:	**10:15**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 0200.8-M/EPA 0200.8) **Aliquot ID: 69627-001** **Matrix: Surface Water**
Description: Bunce Creek

	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
	1. Calcium	**79000**		µg/L	1000	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH
‡	2. Hardness, Total (as CaCO3)	**270000**		µg CaCO3/L	10000	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH
	3. Magnesium	**18000**		µg/L	300	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH

Fibertec environmental services

Analytical Laboratory Report
Laboratory Project Number: 69627
Laboratory Sample Number: 69627-002

Client Identification:	**Envirologic Technologies, Inc.**	Sample Description:	**St. Clair River**	Chain of Custody:	**144537**
Client Project Name:	**Marysville Power Plant (150288)**	Sample No:	**2**	Collect Date:	**09/08/15**
Client Project No:	**150288**	Sample Matrix:	**Surface Water**	Collect Time:	**11:55**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Trace Elements by ICP/MS, Total Recoverable (EPA 0200.8-M/EPA 0200.8) **Aliquot ID: 69627-002** **Matrix: Surface Water**
Description: St. Clair River

	Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation P. Date	Preparation P. Batch	Analysis A. Date	Analysis A. Batch	Init.
	1. Calcium	**27000**		µg/L	1000	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH
‡	2. Hardness, Total (as CaCO3)	**99000**		µg CaCO3/L	10000	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH
	3. Magnesium	**7700**		µg/L	300	10	09/10/15	PT15I10E	09/10/15	T415I10A	JLH

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QC limits

Exception Summary:

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

T104704518-15-3 (TX)

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT15I10E **Preparation Date: 09/10/15**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Calcium	U	1000		16,632	15,000	111	85 - 115						MB-1	LCS-1	
2. Magnesium	U	300		5,349	5,000	107	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	T415I10A	09/10/15 13:12
LCS-1	T415I10A	09/10/15 13:14

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Ry

By Amanda Petrovsky at 2:29 PM, Sep 14, 2015

Fibertec environmental services

Analytical Laboratory
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0388
email: lab@fibertec.us

8660 S. Mackinaw Trail
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Phone: 231 775 8368
Fax: 231 775 8584

Industrial Hygiene Services, Inc.
1914 Holloway Drive
Holt, MI 48842
Phone: 517 699 0345
Fax: 517 699 0382
email: asbestos@fibertec.us

Geoprobe
11766 E. Grand River
Brighton, MI 48116
Phone: 810 220 3300
Fax: 810 220 3311

Chain of Custody # 144537

PAGE 1 of 1

Client Name: Envirologic Technologies, Inc.

Contact Person: Dave Warwick & Derrick Lingle

Project Name/ Number: Marysville Power Plant / 150288

QUOTE#

Purchase Order#

Lab Sample #	Date	Time	Client Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PRESERVED (Y/N)	PARAMETERS: Hardness									Remarks:
	9-8-15	1015		Bunce Creek	W	1	Y	X									
	↓	1155		St. Clair River	W	1	Y	X									

Turnaround
- [ ] 24 hour RUSH (surcharge applies)
- [ ] 48 hour RUSH (surcharge applies)
- [ ] 72 hour RUSH (surcharge applies)
- [x] Standard (5-7 bus. days)
- [ ] Other: Specify _____

Matrix Code
S Soil, A Air, O Oil, P Wipe, GW Ground Water, SW Surface Water, WW Waste Water, X Other: Specify _____

- [ ] FES Drilling Services

Deliverables
- [ ] Level 2
- [ ] Level 3
- [ ] Level 4
- [ ] EDD

Comments: Please send the invoice & a copy of results to Adam Peetz (EnviroAnalytics Group)

Relinquished By:	Date/ Time	Received By:
[signature]	9-8-15 11:58	[signature]

Relinquished By: _____ Date/ Time _____ Received By: _____

Relinquished By: _____ Date/ Time _____ Received By Laboratory: _____

LAB USE ONLY:
Fibertec project number: 69627
Laboratory Tracking:
Temperature at Receipt: 5.5°C

RCV'D ON ICE

RCVD BY LAB
SEP 08 2015

COC Revision: February 2013

Initial: [illegible]

TERMS & CONDITIONS ON BACK

APPENDIX E

HISTORICAL PHOTOS

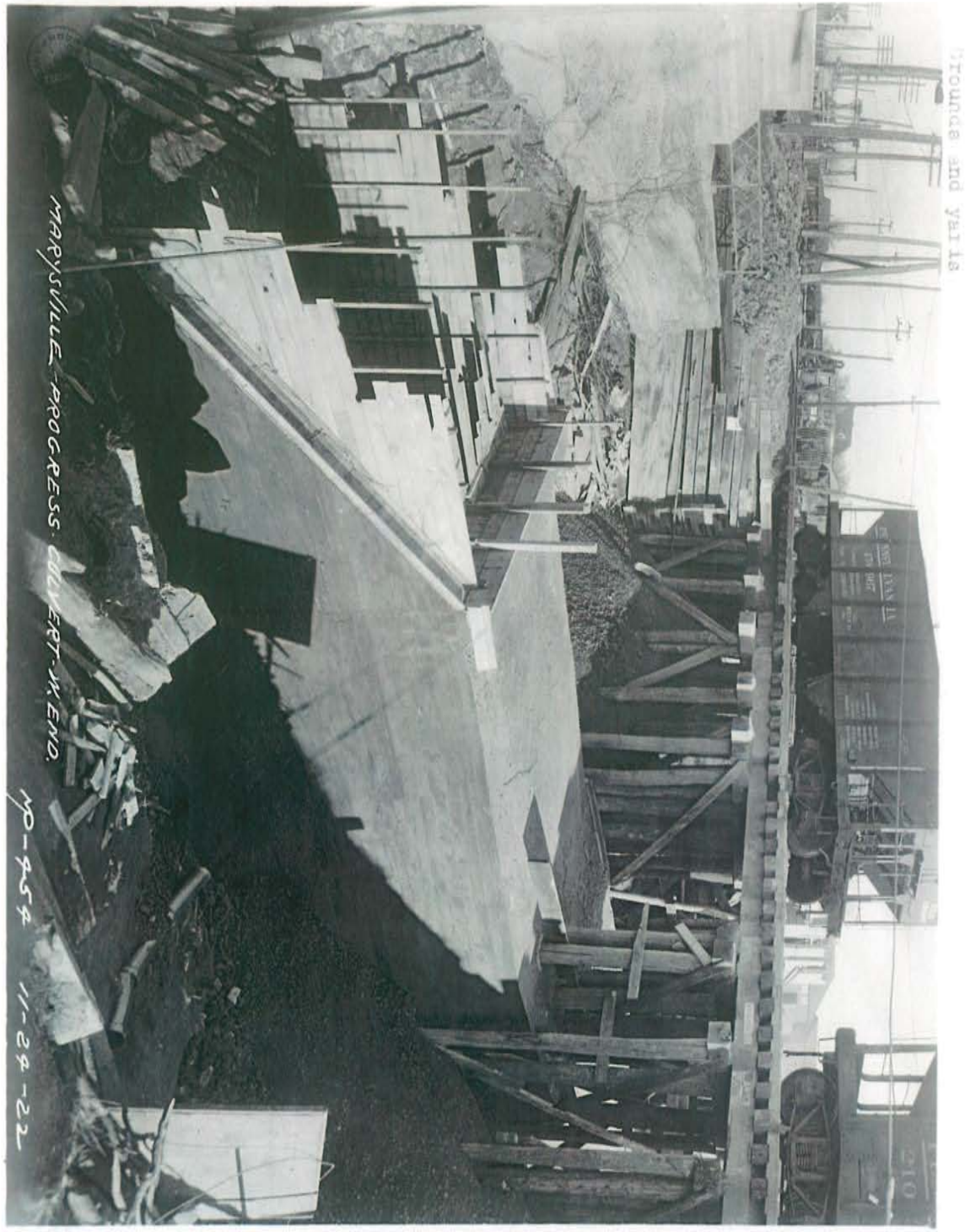
©envirologic

Pictures and yards

St. Clair River (looking north)

Grounds and yards - Docks

AOI-A

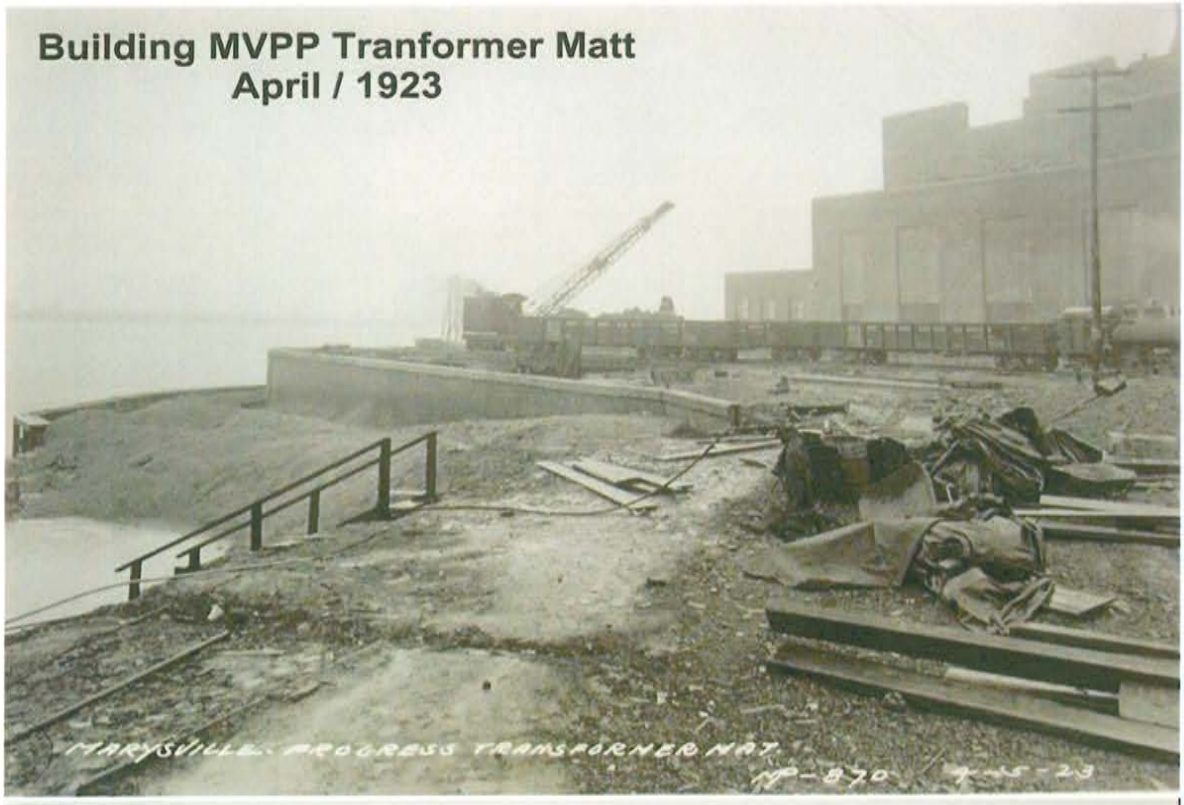


Bunce Creek culvert (AOI-E (1))

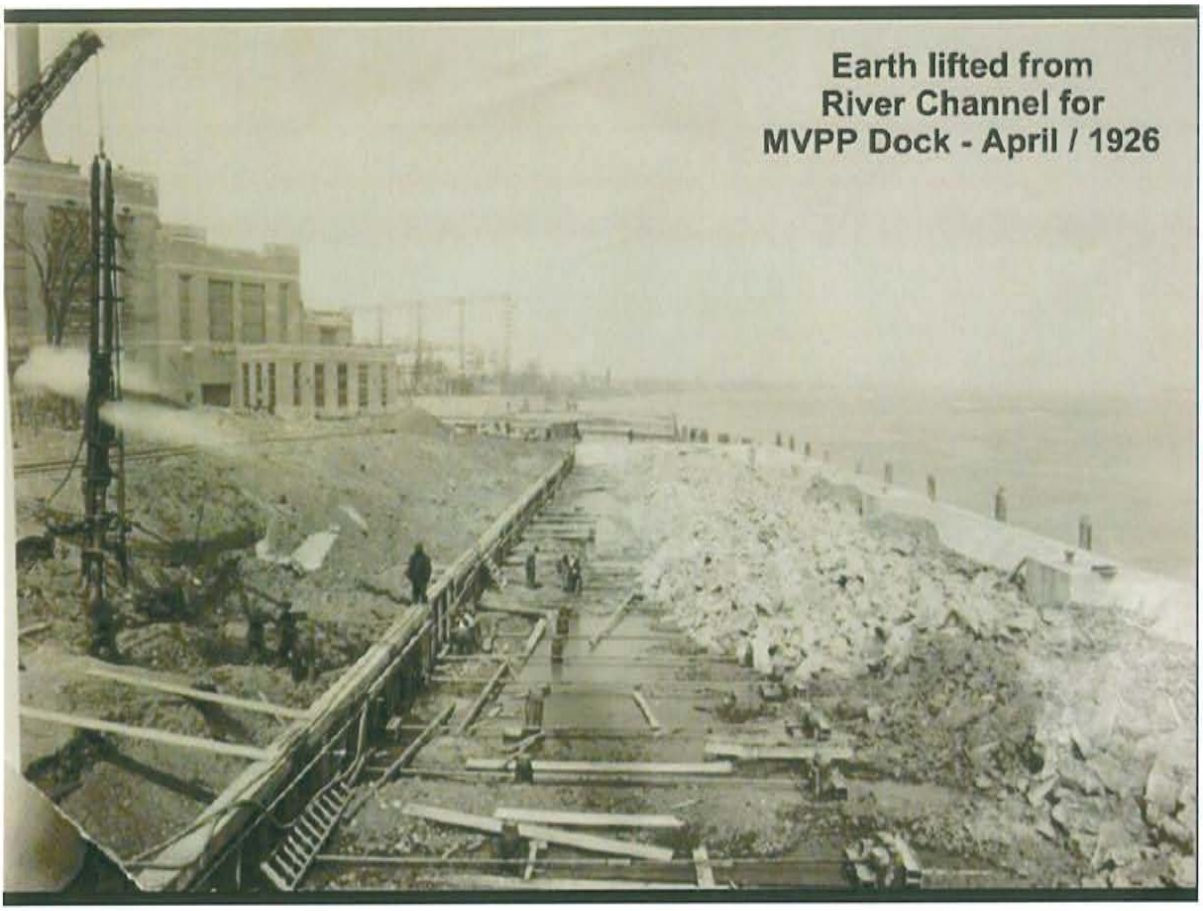
Bunce Creek (pre-power plant)

Driving Concrete Pilings for Dock
October / 1922

Driving Concrete Pilings
November / 1922


Building MVPP Tranformer Matt
April / 1923

Marysville Dock
Under Construction
November / 1923


Earth lifted from
River Channel for
MVPP Dock - April / 1926

Building Retaining wall for
Marysville PP Clubhouse
September / 1931
MARYSVILLE CLUB HOUSE
RETAINING WALL FOR DOCK

Greenwood Oil Terminal

APPENDIX F

QA/QC ANALYTICAL REPORTS

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DATA VALIDATION REPORT
(QUALITY ASSURANCE ASSESSMENT)
FOR
SUMMARY OF FIELD ACTIVITIES AND ANALYTICAL RESULTS
AT
FORMER DTE MARYSVILLE POWER PLANT
301 GRATIOT BOULEVARD
MARYSVILLE, MICHIGAN

Envirologic completed an investigation of soil and groundwater at the property known as DTE Energy Marysville Power Plant (MVPP). The investigation was completed with support from the St. Clair County Brownfield Redevelopment Authority's USEPA Coalition Assessment Grant for Hazardous Substances Contaminated Sites (Cooperative Agreement BF-00E00406-0).

The purpose of this *Data Validation Report* is to validate and verify the analytical data as well as draw conclusions based on the data in relation to the Data Quality Objectives (DQOs) for potential contamination in soil and groundwater as described in the *Sampling and Analysis Plan.*

DQOS AND SAMPLE DESIGN REVIEW

Envirologic completed an investigation of soil and groundwater at MVPP in order to assist the new owner with cleanup planning.

Previous environmental investigations have confirmed the presence of several metals in soil and groundwater at levels above Generic Residential Cleanup Criteria.

Envirologic designed and implemented an investigation to evaluate various exposure pathways and environmental risk which may be relevant during site redevelopment.

DATA QUALITY OBJECTIVES

The investigation was initiated in order to investigate the following DQO, set forth in the USEPA-approved Sampling and Analysis Plan:

1. DQO #1–*Are concentrations of metals in soil representative of background or are they indicative of a release?*
2. DQO #2—*Are contaminants found in soil and groundwater along the St. Clair River discharging to the river in excess of the Groundwater Surface Water Interface Criteria (generic or mixing zone-based)?*

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3. DQO #3—*Has soil and groundwater been impacted by the historic storage of coal and what is the remaining quantity of coal/soil mixture?*

DATA REVIEW (DATA VERIFICATION AND VALIDATION)

The data collected in the investigation was reviewed by the Data Manager. The purpose of the review was to confirm (verify) that the data was collected in accordance with the Standard Operating Procedures (SOPs) and Quality Assurance Project Plan (QAPP). The purpose of the Data Verification and Validation was to determine the usefulness of the data in making decisions proposed by the DQOs and for making decisions on future property use with respect to environmental concerns. All of the collected data was determined to be verified and valid using the PARCC criteria (precision, accuracy, representativeness, completeness, and comparability) as explained in the following table:

Criteria	Field Data	Laboratory Data
Precision	Field methods and equipment calibration SOPs were followed in order to provide data with the precision limits of the field equipment	Results between the masked duplicate samples for soil (M-1s and M-2s) are comparable to the corresponding sample result. The matrix spike and matrix spike duplicate samples returned similar results:
Accuracy	No VOC contaminants were identified in the equipment blank samples collected soil sampling equipment (EB-1s and EB-2s). No VOCs were detected in the sample "Methanol Blank 1" submitted for analysis.	The corresponding laboratory control samples were acceptable.
Representativeness	The laboratory results were representative of field observations; that is, contaminants were detected in samples where expected.	The samples submitted for analysis were extracted from the original samples following standard methods, and thus are representative.
Completeness	Soil borings and temporary monitoring wells were generally installed in their proposed locations, although locations of some were modified to accommodate site constraints and subsurface conditions.	All of the analyses provided by the laboratory were determined to be complete.
Comparability	Field methods set forth in the Standard Operating Procedure were followed during field work, and therefore are comparable to one another.	The samples were analyzed following standard methods and thus are comparable to cleanup criteria and other samples from the project site.

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FIELD PROCEDURES

Field notes and chain-of-custody procedures (including hold times) and instrument calibration were reviewed for this data assessment.

Quality Assurance/Quality Control Samples

The QA/QC samples collected for this project are presented in the following table:

Sample ID	Matrix	Type
Methanol Blank	Methanol	A methanol blanks (Methanol Blank 1) were submitted for VOCs analysis.
Trip/Field Blank	Water	Trip/field blanks of deionized water was prepared by Fibertec, Inc. of Holt, Michigan (Fibertec), and submitted for VOCs analysis.
Equipment Blank	Water	Equipment rinsate samples (EB-1s and EB-2s) were collected from soil sampling equipment and submitted for analysis of VOCs (USEPA 8260+)
Masked Duplicate	Soil	Masked Duplicates M-1s were collected and submitted for analysis of Michigan 10 Metals. Masked Duplicates M-2s were collected and submitted for analysis of Michigan 10 Metals.
MS/MSD	Soil	Matrix Spike and Matrix Spike Duplicates were collected. All MS/MSD samples were submitted for analysis of Michigan 10 Metals.

Methanol Blank

A methanol blank was submitted in order to evaluate the potential for VOC cross-contamination as a result of the methanol batch used in preparing soil sampling kits. No VOCs were identified above the reporting limit within the methanol blank sample. No concerns associated with potential cross-contamination as a result of the laboratory prepared methanol sampling vials were identified by the methanol blank analytical results.

Trip/Field Blank

A trip/field blank was prepared by Fibertec and carried in the sample cooler during the sampling activities. The trip blank was prepared in order to evaluate the potential for VOC cross-contamination due to field conditions. No VOCs were identified above the reporting limit within the trip blank sample. No concerns associated with potential cross-contamination as a result of field conditions were identified based upon the trip blank analytical results.

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Equipment Blank

The purpose of the equipment blank samples was to evaluate the efficacy of decontamination procedures in preventing cross-contamination of contaminants between samples. Equipment rinsate samples were collected at the end of each sampling event.

Masked Duplicate Sample

The purpose of the masked duplicate sample was to evaluate the ability of the laboratory to replicate data. Numerous masked duplicate samples were collected for soil and groundwater. Results between the masked duplicate samples and their respective identified soil samples had similar results, with acceptable relative percent differences.

Matrix Spike/Matrix Spike Duplicate

The purpose of the matrix spike and matrix spike duplicate samples was to evaluate the ability of the laboratory to identify a known quantity of standard above the sample matrix response, and ensure that the matrix response does not interfere with analytical results. The matrix spike and matrix spike duplicates for soil and groundwater were collected from numerous locations. Additionally, the matrix spike and matrix spike duplicate samples evaluate the laboratory's ability to replicate data.

LABORATORY DATA

Fibertec provided a Quality Assurance Case Narrative for analysis of trace metals, mercury, PCBs, VOCs, and PNAs. For the purpose of cleanup planning, a high sample bias may result in conservative decision making; therefore, the qualified result does not impact conclusions or decisions based on these data.

Envirologic conducted a comparative analysis of the matrix spike and matrix spike duplicate (MS/MSD) results. The purpose of MS/MSD samples is to verify the accuracy and precision of the laboratory operations and evaluate the impact of matrix effects (i.e., bias) on overall analytical performance. Any deviations were determined not to affect decisions or conclusions made based on these data.

DATA REDUCTION AND PROCESSING

Limited data reduction and processing was conducted. The field notes were composed by Project Geologist Derrick Lingle. The analytical laboratory data sheets were also reviewed and reduced into a table.

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Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA/140189

Fifty two soil samples were collected on July 15, 2014 through July 16, 2014 and received by Fibertec, Inc. on July 23, 2014. The shipping cooler temperature was within specifications (0 – 6 °C) and the sample containers arrived without any visible signs of tampering or breakage. The samples were prepared and analyzed within the required holding time. Exceptions are noted below.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
F-3@13'	63283-001	S	% Moisture, Trace Metals, Mercury, SVOC
F-3@20'	63283-002	S	% Moisture, Trace Metals, Mercury, SVOC
F-9@7 ½'	63283-003	S	% Moisture, Trace Metals, Mercury, SVOC
F-9@12 ½'	63283-004	S	% Moisture, Trace Metals, Mercury, SVOC
F-5@8'	63283-005	S	% Moisture, Trace Metals, Mercury, SVOC
F-5@18'	63283-006	S	% Moisture, Trace Metals, Mercury, SVOC
F-5@30'	63283-007	S	% Moisture, Trace Metals, Mercury, SVOC
F-7@9'	63283-008	S	% Moisture, Trace Metals, Mercury, SVOC
F-7@15'	63283-009	S	% Moisture, Trace Metals, Mercury, SVOC
F-6@12'	63283-010	S	% Moisture, Trace Metals, Mercury, SVOC
F-6@18'	63283-011	S	% Moisture, Trace Metals, Mercury, SVOC
F-6@18' MS	63283-012	S	% Moisture, Trace Metals, Mercury, SVOC
F-6@18' MSD	63283-013	S	% Moisture, Trace Metals, Mercury, SVOC
F-8@12'	63283-014	S	% Moisture, Trace Metals, Mercury, SVOC
F-10@4'	63283-015	S	% Moisture, Trace Metals, Mercury, SVOC
F-10@13 ½'	63283-016	S	% Moisture, Trace Metals, Mercury, SVOC
FMW-4@12 ½'	63283-017	S	% Moisture, Trace Metals, Mercury, SVOC
FMW-4@24'	63283-018	S	% Moisture, Trace Metals, Mercury, SVOC
G-4@4 ½'	63283-019	S	% Moisture, Trace Metals, Mercury, SVOC
G-4@9 ½'	63283-020	S	% Moisture, Trace Metals, Mercury, SVOC
G-8@3 ½'	63283-021	S	% Moisture, Trace Metals, Mercury, SVOC
G-8@9'	63283-022	S	% Moisture, Trace Metals, Mercury, SVOC
G-5@3 ½'	63283-023	S	% Moisture, Trace Metals, Mercury, SVOC
G-5@8 ½'	63283-024	S	% Moisture, Trace Metals, Mercury, SVOC
G-6@7'	63283-025	S	% Moisture, Trace Metals, Mercury, SVOC
G-7@9'	63283-026	S	% Moisture, Trace Metals, Mercury, SVOC
M-1s	63283-027	S	% Moisture, Trace Metals, Mercury, SVOC
M-2s	63283-028	S	% Moisture, Trace Metals, Mercury, SVOC
G-9@3 ½'	63283-029	S	% Moisture, Trace Metals, Mercury, SVOC
G-9@9 ½'	63283-030	S	% Moisture, Trace Metals, Mercury, SVOC
G-9@9 ½' MS	63283-031	S	% Moisture, Trace Metals, Mercury, SVOC
G-9@9 ½' MSD	63283-032	S	% Moisture, Trace Metals, Mercury, SVOC
G-14@3 ½'	63283-033	S	% Moisture, Trace Metals, Mercury, SVOC
G-14@9'	63283-034	S	% Moisture, Trace Metals, Mercury, SVOC
G-13@7'	63283-035	S	% Moisture, Trace Metals, Mercury, SVOC

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11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

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Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Cross reference (continued)

Client ID#	Lab ID#	Matrix	Requested Tests
G-11@6'	63283-036	S	% Moisture, Trace Metals, Mercury, SVOC
G-12@4'	63283-037	S	% Moisture, Trace Metals, Mercury, SVOC
G-12@9'	63283-038	S	% Moisture, Trace Metals, Mercury, SVOC
E-26@5'	63283-039	S	% Moisture, Trace Metals, Mercury
E-26@12 ½'	63283-040	S	% Moisture, Trace Metals, Mercury
E-26@20'	63283-041	S	% Moisture, Trace Metals, Mercury
E-27@4'	63283-042	S	% Moisture, Trace Metals, Mercury
E-27@9 ½'	63283-043	S	% Moisture, Trace Metals, Mercury
E-28@3 ½'	63283-044	S	% Moisture, Trace Metals, Mercury
E-28@9'	63283-045	S	% Moisture, Trace Metals, Mercury
E-21@3 ½'	63283-046	S	% Moisture, Trace Metals, Mercury
E-21@9'	63283-047	S	% Moisture, Trace Metals, Mercury
E-24@9'	63283-048	S	% Moisture, Trace Metals, Mercury
E-24@19'	63283-049	S	% Moisture, Trace Metals, Mercury
E-22@3'	63283-050	S	% Moisture, Trace Metals, Mercury
E-22@8 ½'	63283-051	S	% Moisture, Trace Metals, Mercury
E-22@14'	63283-052	S	% Moisture, Trace Metals, Mercury

Exceptions

Semi - Volatile Organic Compounds (SVOC) by EPA 8270C

Samples 63283-001 through 63283-022 were qualified as having estimated results for the following compounds due to low laboratory control sample (LCS) results.

Benzo(a)anthracene	53%, criteria = 56-120%
Benzo(a)pyrene	55%, criteria = 57-122%
Naphthalene	46%, criteria = 53-110%

The matrix spike/matrix spike duplicate (MS/MSD) were acceptable for all those compounds. Results may be biased low.

The matrix spike/ matrix spike duplicate (MS/MSD) pair exhibited an RPD for selenium (39%) exceeding criteria (RPD≤30%) potentially affecting sample 63283-030.

Trace Metals by EPA 6020A

Samples 63283-010 and 63283-022 were qualified as estimated for selenium due to high low level continuing calibration verification (190% recovery with criteria being 70-130%).

No other exceptions were observed.

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G25E **Preparation Date: 07/25/14**

Parameter	Method Blank (MB) Result µg/kg	PQL µg/kg	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. Acenaphthene	U	66.7		4,042	5,333	76	50 - 114						MB-1	LCS-1	
2. Acenaphthylene	U	66.7		4,051	5,333	76	53 - 115						MB-1	LCS-1	
3. Anthracene	U	66.7		3,686	5,333	69	48 - 119						MB-1	LCS-1	
4. Benzo(a)anthracene	U	66.7		3,797	5,333	71	56 - 120						MB-1	LCS-1	
5. Benzo(a)pyrene	U	66.7		3,900	5,333	73	57 - 122						MB-1	LCS-1	
6. Benzo(b)fluoranthene	U	66.7		3,740	5,333	70	50 - 131						MB-1	LCS-1	
7. Benzo(ghi)perylene	U	66.7		4,020	5,333	75	41 - 132						MB-1	LCS-1	
8. Benzo(k)fluoranthene	U	66.7		4,024	5,333	75	39 - 137						MB-1	LCS-1	
9. Chrysene	U	66.7		3,804	5,333	71	53 - 124						MB-1	LCS-1	
10. Dibenzo(a,h)anthracene	U	66.7		4,411	5,333	83	53 - 126						MB-1	LCS-1	
11. Fluoranthene	U	66.7		4,245	5,333	80	48 - 135						MB-1	LCS-1	
12. Fluorene	U	66.7		3,820	5,333	72	49 - 126						MB-1	LCS-1	
13. Indeno(1,2,3-cd)pyrene	U	66.7		4,191	5,333	79	51 - 132						MB-1	LCS-1	
14. 2-Methylnaphthalene	U	66.7		3,468	5,333	65	46 - 105						MB-1	LCS-1	
15. Naphthalene	U	66.7		3,209	5,333	60	53 - 110						MB-1	LCS-1	
16. Phenanthrene	U	66.7		3,793	5,333	71	53 - 119						MB-1	LCS-1	
17. Pyrene	U	66.7		4,449	5,333	83	55 - 127						MB-1	LCS-1	

System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/kg	Spike µg/kg	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,660	5,333	69		3,793	5,333	71	49 - 115						MB-1	LCS-1	
2. 4-Terphenyl-d14(S)	4,515	5,333	85		4,566	5,333	86	48 - 117						MB-1	LCS-1	
3. 1-Fluoronaphthalene(S)	3,834	5,333	72		3,785	5,333	71	46 - 114						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	S514G25C	07/25/14 17:11
LCS-1	S514G25C	07/25/14 17:45

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Bethany D. Annett

Bethany Annett
Group Leader, Semivolatile Organics
Monday, July 28, 2014
9:52:03 AM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G23B **Preparation Date: 07/23/14**

Parameter	Method Blank (MB) Result µg/kg	PQL µg/kg	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. Acenaphthene	U	66.7		3,025	5,333	57	50 - 114						MB-1	LCS-1	
2. Acenaphthylene	U	66.7		2,998	5,333	56	53 - 115						MB-1	LCS-1	
3. Anthracene	U	66.7		2,857	5,333	54	48 - 119						MB-1	LCS-1	
4. Benzo(a)anthracene	U	66.7		2,849	5,333	53	56 - 120	*					MB-1	LCS-1	
5. Benzo(a)pyrene	U	66.7		2,928	5,333	55	57 - 122	*					MB-1	LCS-1	
6. Benzo(b)fluoranthene	U	66.7		2,749	5,333	52	50 - 131						MB-1	LCS-1	
7. Benzo(ghi)perylene	U	66.7		3,262	5,333	61	41 - 132						MB-1	LCS-1	
8. Benzo(k)fluoranthene	U	66.7		2,941	5,333	55	39 - 137						MB-1	LCS-1	
9. Chrysene	U	66.7		2,868	5,333	54	53 - 124						MB-1	LCS-1	
10. Dibenzo(a,h)anthracene	U	66.7		3,402	5,333	64	53 - 126						MB-1	LCS-1	
11. Fluoranthene	U	66.7		2,835	5,333	53	48 - 135						MB-1	LCS-1	
12. Fluorene	U	66.7		2,853	5,333	53	49 - 126						MB-1	LCS-1	
13. Indeno(1,2,3-cd)pyrene	U	66.7		3,241	5,333	61	51 - 132						MB-1	LCS-1	
14. 2-Methylnaphthalene	U	66.7		2,790	5,333	52	46 - 105						MB-1	LCS-1	
15. Naphthalene	U	66.7		2,460	5,333	46	53 - 110	*					MB-1	LCS-1	
16. Phenanthrene	U	66.7		2,850	5,333	53	53 - 119						MB-1	LCS-1	
17. Pyrene	U	66.7		3,019	5,333	57	55 - 127						MB-1	LCS-1	

System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/kg	Spike µg/kg	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,843	5,333	72		3,071	5,333	58	49 - 115						MB-1	LCS-1	
2. 4-Terphenyl-d14(S)	4,153	5,333	78		3,233	5,333	61	48 - 117						MB-1	LCS-1	
3. 1-Fluoronaphthalene(S)	3,502	5,333	66		2,795	5,333	52	46 - 114						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	S514G23B	07/23/14 14:15
LCS-1	S514G23B	07/23/14 14:48

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Bethany D. Annett

Bethany Annett
Group Leader, Semivolatile Organics
Thursday, July 24, 2014
11:07:30 AM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14F23C **Preparation Date: 06/23/14**

Parameter	Method Blank (MB) Result µg/kg	PQL µg/kg	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. Acenaphthene	U	66.7		2,634	5,333	49	50 - 114	*					MB-1	LCS-1	
2. Acenaphthylene	U	66.7		2,738	5,333	51	53 - 115	*					MB-1	LCS-1	
3. Anthracene	U	66.7		2,786	5,333	52	48 - 119						MB-1	LCS-1	
4. Benzo(a)anthracene	U	66.7		2,875	5,333	54	56 - 120	*					MB-1	LCS-1	
5. Benzo(a)pyrene	U	66.7		2,911	5,333	55	57 - 122	*					MB-1	LCS-1	
6. Benzo(b)fluoranthene	U	66.7		2,721	5,333	51	50 - 131						MB-1	LCS-1	
7. Benzo(ghi)perylene	U	66.7		3,014	5,333	57	41 - 132						MB-1	LCS-1	
8. Benzo(k)fluoranthene	U	66.7		2,872	5,333	54	39 - 137						MB-1	LCS-1	
9. Chrysene	U	66.7		2,818	5,333	53	53 - 124						MB-1	LCS-1	
10. Dibenzo(a,h)anthracene	U	66.7		3,011	5,333	56	53 - 126						MB-1	LCS-1	
11. Fluoranthene	U	66.7		2,989	5,333	56	48 - 135						MB-1	LCS-1	
12. Fluorene	U	66.7		2,675	5,333	50	49 - 126						MB-1	LCS-1	
13. Indeno(1,2,3-cd)pyrene	U	66.7		3,300	5,333	62	51 - 132						MB-1	LCS-1	
14. 2-Methylnaphthalene	U	66.7		2,816	5,333	53	46 - 105						MB-1	LCS-1	
15. Naphthalene	U	66.7		2,622	5,333	49	53 - 110	*					MB-1	LCS-1	
16. Phenanthrene	U	66.7		2,838	5,333	53	53 - 119						MB-1	LCS-1	
17. Pyrene	U	66.7		2,909	5,333	55	55 - 127						MB-1	LCS-1	

System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/kg	Spike µg/kg	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. 2-Fluorobiphenyl(S)	3,893	5,333	73		2,784	5,333	52	49 - 115						MB-1	LCS-1	
2. 4-Terphenyl-d14(S)	4,109	5,333	77		3,004	5,333	56	48 - 117						MB-1	LCS-1	
3. 1-Fluoronaphthalene(S)	3,836	5,333	72		2,707	5,333	51	46 - 114						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	S114G23B	07/23/14 16:28
LCS-1	S114G23B	07/23/14 17:16

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Tammy M. Coffman

Tammy Coffman
Chemist, Semivolatile Organics
Thursday, July 24, 2014
11:44:27 AM

Fibertec environmental services

Volatiles Data Review Checklist
EPA 8260A/B, EPA 624 / EPA 5030A/B
EPA 5035A
GC/MS

Return to analyst for Corrective Action / Routine Maintenance. ☐

Additional documentation on back of this form. ☐

C. A. / R. M. - Change Sparge Tube / New STD
(circle one)

Completed:_____
date / initial

Analytical batch ID: VJ14H12B

Acceptance criteria are found in the applicable laboratory SOP(s) and apply to reported analytes.

Item for review		Analyst Y	Analyst N	Analyst NA	Peer/GL Y	Peer/GL N	Peer/GL NA	Notes
Prep & Analysis Batches								
pH checked for all aqueous samples		☐	☐	☒				
Autosampler sequence verified with vials in autosampler		☒	☐		☒	☐		
Vials show evidence of puncture and equal volume sampled		☒	☐					
Tune - BFB Check Report								
All criteria passing (criteria on report)		☒	☐		☒	☐		
All samples and QC within 12 hours of tune		☒	☐		☒	☐		
Internal Standards & Surrogates								
CCV IS areas 50-200% of current cal, & RTs passing		☒	☐		☒	☐		
Subsequent QC & sample IS areas 50-200% of CCV, & RTs passing		☒	☐		☒	☐		
Surrogate standards % recovery passing	G	☒	☐		☒	☐		
CCV Report								
CCC %Difference ≤ 20%		☒	☐		☒	☐		
SPCCs meet minimum RF criteria		☒	☐		☒	☐		
All non-CCC target compounds % Difference or % Drift ≤ 30% (See Note 1)	V	☒	☐		☒	☐		
QC Reports								
MB <RL or <1/10th sample results (See Note 2)	B	☒	☐		☒	☐		
LCS % recovery within range (L) & LCS/LCD RPD ≤ 20% (LCDRPD+)		☒	☐		☒	☐		
MS %D (F) within range & MS/MSD RPD ≤ 20% (MSDRPD+)		☒	☐	☐	☒	☐	☐	
DSR								
Multiplier / Dilution factor reviewed		☒	☐		☒	☐		
Samples qualified on DSR per V-245 or V-254 if necessary		☒	☐		☒	☐		
Data Qualifiers correctly recorded in LIMS, if necessary.		☒	☐		☒	☐		
Instrument Quant Reports								
Same method / calibration used for QC and samples		☒	☐		☒	☐		
Samples analyzed within hold time	H	☒	☐		☒	☐		
Chromatograms reviewed		☒	☐		☒	☐		
- Within cal range or diluted								
- Manual integrations correct and identified								

Notes / Comments

63672-014: sample soaked in MeOH => added 5mL

Defoamer used ☐ ID#_____ Samples:

NOTE 1: %D = %difference when using average response factor cal and %drift when using regression fit cal.

NOTE 2: For Ohio VAP projects, the MB must be <RL for all reported analytes which are ≥ RL.

Reviewed by Analyst CD Date: 08-13-14

Reviewed by Peer/GL [signature] Date: 8-13-14

By signing in "Reviewed by" above, I agree that I have reviewed the data as indicated on this checklist and in accordance with V-245 or V-254.

DCSID: V-514.13 (07/01/14)

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14G29E **Preparation Date:** 07/29/14

Parameter	Method Blank (MB) Result µg/kg	PQL µg/kg	Q	Laboratory Control Sample (LCS) Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1. Aluminum	8,216	600	*	56,999	50,000	114	85 - 115						MB-3	LCS-3	
2. Antimony	121	60.0	*	10,217	10,000	102	85 - 115						MB-3	LCS-3	
3. Arsenic	U	60.0		10,555	10,000	106	85 - 115						MB-3	LCS-3	
4. Barium	U	600		51,601	50,000	103	85 - 115						MB-3	LCS-3	
5. Beryllium	U	60.0		11,919	10,000	119	85 - 115	*					MB-3	LCS-3	
6. Boron	U	600		10,459	10,000	105	85 - 115						MB-3	LCS-3	
7. Cadmium	U	12.0		10,294	10,000	103	85 - 115						MB-3	LCS-3	
8. Chromium	U	120		20,336	20,000	102	85 - 115						MB-3	LCS-3	
9. Cobalt	U	60.0		10,058	10,000	101	85 - 115						MB-3	LCS-3	
10. Copper	U	120		21,695	20,000	108	85 - 115						MB-3	LCS-3	
11. Lead	U	60.0		20,375	20,000	102	85 - 115						MB-3	LCS-3	
12. Lithium	U	60.0		10,250	10,000	102	85 - 115						MB-3	LCS-3	
13. Manganese	U	600		48,922	50,000	98	85 - 115						MB-3	LCS-3	
14. Molybdenum	U	60.0		18,104	20,000	91	85 - 115						MB-3	LCS-3	
15. Nickel	920	600	*	22,068	20,000	110	85 - 115						MB-3	LCS-3	
16. Selenium	U	120		10,455	10,000	105	85 - 115						MB-3	LCS-3	
17. Silver	U	12.0		9,830	10,000	98	85 - 115						MB-3	LCS-3	
18. Strontium	U	600		10,692	10,000	107	85 - 115						MB-3	LCS-3	
19. Thallium	U	60.0		9,976	10,000	100	85 - 115						MB-3	LCS-3	
20. Thorium	U	375		4,466	5,000	89	85 - 115						MB-3	LCS-3	
21. Tin	U	300		10,413	10,000	104	85 - 115						MB-3	LCS-3	
22. Titanium	U	600		10,629	10,000	106	85 - 115						MB-3	LCS-3	
23. Uranium	U	75.0		9,465	10,000	95	85 - 115						MB-3	LCS-3	
24. Vanadium	U	60.0		10,347	10,000	103	85 - 115						MB-3	LCS-3	
25. Zinc	1,159	600	*	55,172	50,000	110	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	T414G29C	07/29/14 15:46
LCS-3	T414G29C	07/29/14 15:48

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Julie Peterson

Julie Peterson
Chemist, Trace Metals
Wednesday, August 13, 2014
12:33:26 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14G23H **Preparation Date:** 07/23/14

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Aluminum	U	500		50,517	50,000	101	85 - 115						MB-4	LCS-5	
2. Antimony	241	20.0	*	9,586	10,000	96	85 - 115						MB-4	LCS-5	
3. Arsenic	U	20.0		9,863	10,000	99	85 - 115						MB-4	LCS-5	
4. Barium	U	100		50,021	50,000	100	85 - 115						MB-4	LCS-5	
5. Beryllium	U	10.0		8,955	10,000	90	85 - 115						MB-4	LCS-5	
6. Boron	U	100		10,173	10,000	102	85 - 115						MB-4	LCS-5	
7. Cadmium	U	100		9,899	10,000	99	85 - 115						MB-4	LCS-5	
8. Chromium	U	40.0		19,506	20,000	98	85 - 115						MB-4	LCS-5	
9. Cobalt	U	10.0		9,773	10,000	98	85 - 115						MB-4	LCS-5	
10. Copper	U	200		21,240	20,000	106	85 - 115						MB-4	LCS-5	
11. Lead	U	20.0		20,400	20,000	102	85 - 115						MB-4	LCS-5	
12. Lithium	U	10.0		9,293	10,000	93	85 - 115						MB-4	LCS-5	
13. Manganese	U	100		48,686	50,000	97	85 - 115						MB-4	LCS-5	
14. Molybdenum	U	200		19,162	20,000	96	85 - 115						MB-4	LCS-5	
15. Nickel	U	200		21,308	20,000	107	85 - 115						MB-4	LCS-5	
16. Selenium	U	100		10,125	10,000	101	85 - 115						MB-4	LCS-5	
17. Silver	U	100		9,683	10,000	97	85 - 115						MB-4	LCS-5	
18. Strontium	U	20.0		10,399	10,000	104	85 - 115						MB-4	LCS-5	
19. Thallium	48.2	10.0	*	9,538	10,000	95	85 - 115						MB-4	LCS-5	
20. Thorium	30.6	10.0	*	4,431	5,000	89	85 - 115						MB-4	LCS-5	
21. Tin	U	20.0		9,935	10,000	99	85 - 115						MB-4	LCS-5	
22. Titanium	U	100		10,092	10,000	101	85 - 115						MB-4	LCS-5	
23. Uranium	U	20.0		9,375	10,000	94	85 - 115						MB-4	LCS-5	
24. Vanadium	U	20.0		9,719	10,000	97	85 - 115						MB-4	LCS-5	
25. Zinc	U	500		49,905	50,000	100	85 - 115						MB-4	LCS-5	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	T414G24A	07/24/14 10:54
LCS-5	T414G24A	07/24/14 10:55

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Julie Peterson

Julie Peterson
Chemist, Trace Metals
Wednesday, August 13, 2014
12:32:20 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Batch ID: PT14G23F
Page: 1 of 1
Date: 07/24/14

Preparation Batch: PT14G23F **Preparation Date: 07/23/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Aluminum	5,299	500	*	50,657	50,000	101	85 - 115						MB-3	LCS-3	
2. Antimony	U	20.0		9,689	10,000	97	85 - 115						MB-3	LCS-3	
3. Arsenic	U	20.0		9,808	10,000	98	85 - 115						MB-3	LCS-3	
4. Barium	123	100	*	49,565	50,000	99	85 - 115						MB-3	LCS-3	
5. Beryllium	U	10.0		8,170	10,000	82	85 - 115	*					MB-3	LCS-3	
6. Boron	259	100	*	8,875	10,000	89	85 - 115						MB-3	LCS-3	
7. Cadmium	U	100		9,744	10,000	97	85 - 115						MB-3	LCS-3	
8. Chromium	57.2	40.0	*	19,544	20,000	98	85 - 115						MB-3	LCS-3	
9. Cobalt	12.2	10.0	*	9,778	10,000	98	85 - 115						MB-3	LCS-3	
10. Copper	U	200		20,460	20,000	102	85 - 115						MB-3	LCS-3	
11. Lead	64.4	20.0	*	21,454	20,000	107	85 - 115						MB-3	LCS-3	
12. Lithium	11.5	10.0	*	9,028	10,000	90	85 - 115						MB-3	LCS-3	
13. Manganese	1,593	100	*	48,462	50,000	97	85 - 115						MB-3	LCS-3	
14. Molybdenum	U	200		19,118	20,000	96	85 - 115						MB-3	LCS-3	
15. Nickel	U	200		20,704	20,000	104	85 - 115						MB-3	LCS-3	
16. Selenium	U	100		9,965	10,000	100	85 - 115						MB-3	LCS-3	
17. Silver	U	100		10,113	10,000	101	85 - 115						MB-3	LCS-3	
18. Strontium	186	20.0	*	10,366	10,000	104	85 - 115						MB-3	LCS-3	
19. Thallium	U	10.0		10,624	10,000	106	85 - 115						MB-3	LCS-3	
20. Thorium	U	10.0		4,512	5,000	90	85 - 115						MB-3	LCS-3	
21. Tin	446	20.0	*	10,140	10,000	101	85 - 115						MB-3	LCS-3	
22. Titanium	U	100		9,896	10,000	99	85 - 115						MB-3	LCS-3	
23. Uranium	U	20.0		9,769	10,000	98	85 - 115						MB-3	LCS-3	
24. Vanadium	U	20.0		9,851	10,000	99	85 - 115						MB-3	LCS-3	
25. Zinc	1,874	500	*	51,768	50,000	104	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	T414G23C	07/23/14 15:50
LCS-3	T414G23C	07/23/14 15:51

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

J Haney

Jeri Haney
Group Leader, Trace Metals
Thursday, July 24, 2014
9:17:20 AM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21A **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	20.0		202	200	101	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	M614G22A	07/22/14 09:20
LCS-1	M614G22A	07/22/14 09:22

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Julie Peterson

Julie Peterson
Chemist, Trace Metals
Tuesday, July 22, 2014
2:12:49 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21B **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	20.0		199	200	100	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	M614G22A	07/22/14 10:56
LCS-2	M614G22A	07/22/14 10:58

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Julie Peterson

Julie Peterson
Chemist, Trace Metals
Tuesday, July 22, 2014
2:12:49 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21C **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	PQL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	20.0		202	200	101	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the PQL.
*: Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	M614G22A	07/22/14 12:52
LCS-3	M614G22A	07/22/14 12:46

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Julie Peterson

Julie Peterson
Chemist, Trace Metals
Tuesday, July 22, 2014
2:12:49 PM

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA (140189)

Seven soil samples (including blank) and two water samples (including blank) were collected on August 7, 2014 and received by Fibertec, Inc. on August 12, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
TRIP BLANK	63679-001	W	VOC
METHANOL BLANK	63679-002	S	VOC
A-MW13@25'	63679-003	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW12@28'	63679-004	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW15@26'	63679-005	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW15@26' MS	63679-006	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW15@26' MSD	63679-007	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
EB-15	63679-008	W	VOC
M-15	63679-009	S	% Moisture, Trace Metals, Mercury, VOC, SVOC

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0388
11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14H13A **Preparation Date: 08/13/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		206	200	103	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	M614H13B	08/13/14 13:28
LCS-2	M614H13B	08/13/14 13:29

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:42 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14H14A **Preparation Date: 08/14/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		5,058	5,333	95	50 - 114						MB-5	LCS-6	
2.	Acenaphthylene	U	330		5,400	5,333	101	53 - 115						MB-5	LCS-6	
3.	Anthracene	U	330		5,265	5,333	99	48 - 119						MB-5	LCS-6	
4.	Benzo(a)anthracene	U	330		5,273	5,333	99	56 - 120						MB-5	LCS-6	
5.	Benzo(a)pyrene	U	330		5,925	5,333	111	57 - 122						MB-5	LCS-6	
6.	Benzo(b)fluoranthene	U	330		5,839	5,333	109	50 - 131						MB-5	LCS-6	
7.	Benzo(ghi)perylene	U	330		5,679	5,333	106	41 - 132						MB-5	LCS-6	
8.	Benzo(k)fluoranthene	U	330		5,702	5,333	107	39 - 137						MB-5	LCS-6	
9.	Chrysene	U	330		5,448	5,333	102	53 - 124						MB-5	LCS-6	
10.	Dibenzo(a,h)anthracene	U	330		5,848	5,333	110	53 - 126						MB-5	LCS-6	
11.	Fluoranthene	U	330		5,879	5,333	110	48 - 135						MB-5	LCS-6	
12.	Fluorene	U	330		5,280	5,333	99	49 - 126						MB-5	LCS-6	
13.	Indeno(1,2,3-cd)pyrene	U	330		6,385	5,333	120	51 - 132						MB-5	LCS-6	
14.	2-Methylnaphthalene	U	330		5,362	5,333	101	46 - 105						MB-5	LCS-6	
15.	Phenanthrene	U	330		5,230	5,333	98	53 - 119						MB-5	LCS-6	
16.	Pyrene	U	330		5,788	5,333	109	55 - 127						MB-5	LCS-6	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	4,845	5,333	91		5,216	5,333	98	49 - 115						MB-5	LCS-6	
2.	4-Terphenyl-d14(S)	6,164	5,333	116		6,089	5,333	114	48 - 117						MB-5	LCS-6	
3.	1-Fluoronaphthalene(S)	5,013	5,333	94		5,522	5,333	104	46 - 114						MB-5	LCS-6	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-5	S614H14A	08/14/14 16:25
LCS-6	S614H14A	08/14/14 17:09

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:42 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14H18A **Preparation Date: 08/18/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		3,304	5,333	62	50 - 114						MB-8	LCS-8	
2.	Acenaphthylene	U	330		3,518	5,333	66	53 - 115						MB-8	LCS-8	
3.	Anthracene	U	330		3,386	5,333	63	48 - 119						MB-8	LCS-8	
4.	Benzo(a)anthracene	U	330		3,486	5,333	65	56 - 120						MB-8	LCS-8	
5.	Benzo(a)pyrene	U	330		3,914	5,333	73	57 - 122						MB-8	LCS-8	
6.	Benzo(b)fluoranthene	U	330		3,860	5,333	72	50 - 131						MB-8	LCS-8	
7.	Benzo(ghi)perylene	U	330		3,816	5,333	72	41 - 132						MB-8	LCS-8	
8.	Benzo(k)fluoranthene	U	330		3,753	5,333	70	39 - 137						MB-8	LCS-8	
9.	Chrysene	U	330		3,621	5,333	68	53 - 124						MB-8	LCS-8	
10.	Dibenzo(a,h)anthracene	U	330		3,912	5,333	73	53 - 126						MB-8	LCS-8	
11.	Fluoranthene	U	330		3,883	5,333	73	48 - 135						MB-8	LCS-8	
12.	Fluorene	U	330		3,460	5,333	65	49 - 126						MB-8	LCS-8	
13.	Indeno(1,2,3-cd)pyrene	U	330		4,090	5,333	77	51 - 132						MB-8	LCS-8	
14.	2-Methylnaphthalene	U	330		3,472	5,333	65	46 - 105						MB-8	LCS-8	
15.	Phenanthrene	U	330		3,406	5,333	64	53 - 119						MB-8	LCS-8	
16.	Pyrene	U	330		3,778	5,333	71	55 - 127						MB-8	LCS-8	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	3,167	5,333	59		3,323	5,333	62	49 - 115						MB-8	LCS-8	
2.	4-Terphenyl-d14(S)	3,678	5,333	69		3,947	5,333	74	48 - 117						MB-8	LCS-8	
3.	1-Fluoronaphthalene(S)	3,332	5,333	62		3,505	5,333	66	46 - 114						MB-8	LCS-8	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-8	S614H18A	08/18/14 17:52
LCS-8	S614H18A	08/18/14 18:35

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:43 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14H15E **Preparation Date: 08/15/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	100		9,573	10,000	96	85 - 115						MB-7	LCS-7	
2.	Barium	U	1000		47,877	50,000	96	85 - 115						MB-7	LCS-7	
3.	Cadmium	U	50		9,673	10,000	97	85 - 115						MB-7	LCS-7	
4.	Chromium	U	500		18,478	20,000	92	85 - 115						MB-7	LCS-7	
5.	Copper	U	1000		20,096	20,000	100	85 - 115						MB-7	LCS-7	
6.	Lead	U	1000		19,029	20,000	95	85 - 115						MB-7	LCS-7	
7.	Selenium	U	200		9,757	10,000	98	85 - 115						MB-7	LCS-7	
8.	Silver	U	100		9,420	10,000	94	85 - 115						MB-7	LCS-7	
9.	Zinc	U	1000		48,336	50,000	97	85 - 115						MB-7	LCS-7	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-7	T414H15A	08/15/14 11:09
LCS-7	T414H15A	08/15/14 11:11

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:43 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14H13B **Preparation Date: 08/13/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	50		112	100	112	50 - 136		106	6	20		MB-3	LCS-3	LCD-2
2.	Acrylonitrile	U	2.0		112	100	112	66 - 135		107	5	20		MB-3	LCS-3	LCD-2
3.	Benzene	U	1.0		105	100	105	70 - 130		104	1	20		MB-3	LCS-3	LCD-2
4.	Bromobenzene	U	1.0		94.1	100	94	70 - 130		91	3	20		MB-3	LCS-3	LCD-2
5.	Bromochloromethane	U	1.0		97.0	100	97	61 - 130		98	1	20		MB-3	LCS-3	LCD-2
6.	Bromodichloromethane	U	1.0		109	100	109	70 - 130		105	4	20		MB-3	LCS-3	LCD-2
7.	Bromoform	U	1.0		110	100	110	65 - 145		104	6	20		MB-3	LCS-3	LCD-2
8.	Bromomethane	U	5.0		81.8	100	82	52 - 150		81	1	20		MB-3	LCS-3	LCD-2
9.	2-Butanone	U	25		120	100	120	59 - 130		115	4	20		MB-3	LCS-3	LCD-2
10.	n-Butylbenzene	U	1.0		110	100	110	70 - 138		108	2	20		MB-3	LCS-3	LCD-2
11.	sec-Butylbenzene	U	1.0		104	100	104	70 - 130		101	3	20		MB-3	LCS-3	LCD-2
12.	tert-Butylbenzene	U	1.0		103	100	103	70 - 130		100	3	20		MB-3	LCS-3	LCD-2
13.	Carbon Disulfide	U	5.0		100	100	100	70 - 130		96	4	20		MB-3	LCS-3	LCD-2
14.	Carbon Tetrachloride	U	1.0		108	100	108	70 - 133		104	4	20		MB-3	LCS-3	LCD-2
15.	Chlorobenzene	U	1.0		99.9	100	100	70 - 130		97	3	20		MB-3	LCS-3	LCD-2
16.	Chloroethane	U	5.0		101	100	101	53 - 136		98	3	20		MB-3	LCS-3	LCD-2
17.	Chloroform	U	1.0		107	100	107	78 - 121		106	1	20		MB-3	LCS-3	LCD-2
18.	Chloromethane	U	5.0		86.5	100	87	50 - 148		84	4	20		MB-3	LCS-3	LCD-2
19.	2-Chlorotoluene	U	5.0		98.2	100	98	70 - 130		94	4	20		MB-3	LCS-3	LCD-2
20.	Dibromochloromethane	U	5.0		105	100	105	70 - 130		103	2	20		MB-3	LCS-3	LCD-2
21.	1,2-Dibromo-3-chloropropane	U	1.0		110	100	110	70 - 137		109	1	20		MB-3	LCS-3	LCD-2
22.	Dibromomethane	U	5.0		104	100	104	70 - 130		102	2	20		MB-3	LCS-3	LCD-2
23.	1,2-Dichlorobenzene	U	1.0		99.2	100	99	70 - 130		98	1	20		MB-3	LCS-3	LCD-2
24.	1,3-Dichlorobenzene	U	1.0		94.4	100	94	70 - 130		93	1	20		MB-3	LCS-3	LCD-2
25.	1,4-Dichlorobenzene	U	1.0		96.1	100	96	70 - 130		96	0	20		MB-3	LCS-3	LCD-2
26.	Dichlorodifluoromethane	U	5.0		101	100	101	70 - 139		97	4	20		MB-3	LCS-3	LCD-2
27.	1,1-Dichloroethane	U	1.0		107	100	107	70 - 130		105	2	20		MB-3	LCS-3	LCD-2
28.	1,2-Dichloroethane	U	1.0		103	100	103	70 - 130		102	1	20		MB-3	LCS-3	LCD-2
29.	1,1-Dichloroethene	U	1.0		108	100	108	72 - 126		104	4	20		MB-3	LCS-3	LCD-2
30.	cis-1,2-Dichloroethene	U	1.0		103	100	103	70 - 130		101	2	20		MB-3	LCS-3	LCD-2
31.	trans-1,2-Dichloroethene	U	1.0		106	100	106	70 - 130		102	4	20		MB-3	LCS-3	LCD-2
32.	1,2-Dichloropropane	U	1.0		106	100	106	79 - 125		105	1	20		MB-3	LCS-3	LCD-2
33.	cis-1,3-Dichloropropene	U	1.0		108	100	108	70 - 131		107	1	20		MB-3	LCS-3	LCD-2
34.	trans-1,3-Dichloropropene	U	1.0		104	100	104	70 - 130		102	2	20		MB-3	LCS-3	LCD-2
35.	Ethylbenzene	U	1.0		102	100	102	80 - 122		96	6	20		MB-3	LCS-3	LCD-2
36.	Ethylene Dibromide	U	1.0		101	100	101	70 - 130		97	4	20		MB-3	LCS-3	LCD-2
37.	2-Hexanone	U	50		122	100	122	62 - 130		112	9	20		MB-3	LCS-3	LCD-2
38.	Isopropylbenzene	U	5.0		108	100	108	70 - 130		103	5	20		MB-3	LCS-3	LCD-2
39.	Methylene Chloride	U	5.0		103	100	103	63 - 130		100	3	20		MB-3	LCS-3	LCD-2
40.	2-Methylnaphthalene	U	5.0		122	100	122	50 - 149		119	2	20		MB-3	LCS-3	LCD-2
41.	4-Methyl-2-pentanone	U	50		110	100	110	67 - 134		109	1	20		MB-3	LCS-3	LCD-2
42.	MTBE	U	5.0		108	100	108	70 - 130		107	1	20		MB-3	LCS-3	LCD-2
43.	Naphthalene	U	5.0		111	100	111	70 - 130		110	1	20		MB-3	LCS-3	LCD-2
44.	n-Propylbenzene	U	1.0		99.2	100	99	70 - 130		97	2	20		MB-3	LCS-3	LCD-2
45.	Styrene	U	1.0		104	100	104	70 - 135		101	3	20		MB-3	LCS-3	LCD-2
46.	1,1,1,2-Tetrachloroethane	U	1.0		106	100	106	70 - 130		101	5	20		MB-3	LCS-3	LCD-2
47.	1,1,2,2-Tetrachloroethane	U	1.0		98.0	100	98	70 - 130		94	4	20		MB-3	LCS-3	LCD-2
48.	Tetrachloroethene	U	1.0		102	100	102	70 - 130		97	5	20		MB-3	LCS-3	LCD-2
49.	Toluene	U	1.0		102	100	102	80 - 120		101	1	20		MB-3	LCS-3	LCD-2
50.	1,2,4-Trichlorobenzene	U	5.0		108	100	108	70 - 130		106	2	20		MB-3	LCS-3	LCD-2
51.	1,1,1-Trichloroethane	U	1.0		110	100	110	70 - 130		107	3	20		MB-3	LCS-3	LCD-2

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14H13B **Preparation Date: 08/13/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	1.0		107	100	107	70 - 130		105	2	20		MB-3	LCS-3	LCD-2
53.	Trichloroethene	U	1.0		101	100	101	71 - 130		101	0	20		MB-3	LCS-3	LCD-2
54.	Trichlorofluoromethane	U	1.0		114	100	114	69 - 131		109	4	20		MB-3	LCS-3	LCD-2
55.	1,2,3-Trichloropropane	U	1.0		97.2	100	97	70 - 130		94	3	20		MB-3	LCS-3	LCD-2
56.	1,2,3-Trimethylbenzene	U	1.0		100	100	100	70 - 130		99	1	20		MB-3	LCS-3	LCD-2
57.	1,2,4-Trimethylbenzene	U	1.0		101	100	101	70 - 130		99	2	20		MB-3	LCS-3	LCD-2
58.	1,3,5-Trimethylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-3	LCS-3	LCD-2
59.	Vinyl Chloride	U	1.0		101	100	101	73 - 125		97	4	20		MB-3	LCS-3	LCD-2
60.	m&p-Xylene	U	2.0		207	200	104	70 - 130		99	5	20		MB-3	LCS-3	LCD-2
61.	o-Xylene	U	1.0		104	100	104	70 - 130		100	4	20		MB-3	LCS-3	LCD-2

	System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/L	Spike µg/L	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1.	Dibromofluoromethane(S)	48.8	50.0	98		49.0	50.0	98	80 - 120		100	2	20		MB-3	LCS-3	LCD-2
2.	1,2-Dichloroethane-d4(S)	49.4	50.0	99		47.6	50.0	95	80 - 120		97	2	20		MB-3	LCS-3	LCD-2
3.	Toluene-d8(S)	49.7	50.0	99		49.8	50.0	100	80 - 122		101	1	20		MB-3	LCS-3	LCD-2
4.	4-Bromofluorobenzene(S)	51.1	50.0	102		51.2	50.0	102	80 - 120		101	1	20		MB-3	LCS-3	LCD-2

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	VB14H13B	08/14/14 02:29
LCS-3	VB14H13B	08/14/14 01:08
LCD-2	VB14H13B	08/14/14 01:35

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:44 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VH14H13A **Preparation Date: 08/13/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	1000		4,589	5,000	92	50 - 145		111	19	20		MB-1	LCS-1	LCD-1
2.	Acrylonitrile	U	100		4,929	5,000	99	66 - 139		109	10	20		MB-1	LCS-1	LCD-1
3.	Benzene	U	50		5,408	5,000	108	70 - 130		107	1	20		MB-1	LCS-1	LCD-1
4.	Bromobenzene	U	100		4,984	5,000	100	70 - 130		100	0	20		MB-1	LCS-1	LCD-1
5.	Bromochloromethane	U	100		4,872	5,000	97	62 - 134		97	0	20		MB-1	LCS-1	LCD-1
6.	Bromodichloromethane	U	100		5,531	5,000	111	70 - 130		109	2	20		MB-1	LCS-1	LCD-1
7.	Bromoform	U	100		4,449	5,000	89	70 - 130		93	4	20		MB-1	LCS-1	LCD-1
8.	Bromomethane	U	200		5,856	5,000	117	56 - 135		112	4	20		MB-1	LCS-1	LCD-1
9.	2-Butanone	U	750		5,591	5,000	112	56 - 141		124	10	20		MB-1	LCS-1	LCD-1
10.	n-Butylbenzene	U	50		5,704	5,000	114	70 - 141		114	0	20		MB-1	LCS-1	LCD-1
11.	sec-Butylbenzene	U	50		5,633	5,000	113	70 - 130		113	0	20		MB-1	LCS-1	LCD-1
12.	tert-Butylbenzene	U	50		5,631	5,000	113	70 - 130		112	1	20		MB-1	LCS-1	LCD-1
13.	Carbon Disulfide	U	250		5,778	5,000	116	70 - 132		109	6	20		MB-1	LCS-1	LCD-1
14.	Carbon Tetrachloride	U	50		5,754	5,000	115	70 - 143		112	3	20		MB-1	LCS-1	LCD-1
15.	Chlorobenzene	U	50		5,044	5,000	101	70 - 130		99	2	20		MB-1	LCS-1	LCD-1
16.	Chloroethane	U	250		5,176	5,000	104	60 - 150		99	5	20		MB-1	LCS-1	LCD-1
17.	Chloroform	U	50		5,191	5,000	104	71 - 126		103	1	20		MB-1	LCS-1	LCD-1
18.	Chloromethane	U	250		5,271	5,000	105	63 - 137		104	1	20		MB-1	LCS-1	LCD-1
19.	2-Chlorotoluene	U	50		5,333	5,000	107	70 - 130		106	1	20		MB-1	LCS-1	LCD-1
20.	Dibromochloromethane	U	100		5,522	5,000	110	70 - 130		113	3	20		MB-1	LCS-1	LCD-1
21.	1,2-Dibromo-3-chloropropane	U	100		4,087	5,000	82	70 - 134		96	16	20		MB-1	LCS-1	LCD-1
22.	Dibromomethane	U	250		5,266	5,000	105	70 - 130		108	3	20		MB-1	LCS-1	LCD-1
23.	1,2-Dichlorobenzene	U	100		5,178	5,000	104	70 - 130		104	0	20		MB-1	LCS-1	LCD-1
24.	1,3-Dichlorobenzene	U	100		5,235	5,000	105	70 - 130		104	1	20		MB-1	LCS-1	LCD-1
25.	1,4-Dichlorobenzene	U	100		4,949	5,000	99	70 - 130		98	1	20		MB-1	LCS-1	LCD-1
26.	Dichlorodifluoromethane	U	250		6,086	5,000	122	70 - 144		121	1	20		MB-1	LCS-1	LCD-1
27.	1,1-Dichloroethane	U	50		5,300	5,000	106	70 - 130		104	2	20		MB-1	LCS-1	LCD-1
28.	1,2-Dichloroethane	U	50		4,896	5,000	98	69 - 130		99	1	20		MB-1	LCS-1	LCD-1
29.	1,1-Dichloroethene	U	50		5,505	5,000	110	72 - 131		107	3	20		MB-1	LCS-1	LCD-1
30.	cis-1,2-Dichloroethene	U	50		5,379	5,000	108	70 - 131		106	2	20		MB-1	LCS-1	LCD-1
31.	trans-1,2-Dichloroethene	U	50		5,518	5,000	110	70 - 131		108	2	20		MB-1	LCS-1	LCD-1
32.	1,2-Dichloropropane	U	50		5,339	5,000	107	80 - 127		107	0	20		MB-1	LCS-1	LCD-1
33.	cis-1,3-Dichloropropene	U	50		6,186	5,000	124	70 - 131		123	1	20		MB-1	LCS-1	LCD-1
34.	trans-1,3-Dichloropropene	U	50		6,059	5,000	121	70 - 132		122	1	20		MB-1	LCS-1	LCD-1
35.	Ethylbenzene	U	50		5,374	5,000	107	80 - 120		107	0	20		MB-1	LCS-1	LCD-1
36.	Ethylene Dibromide	U	50		5,297	5,000	106	70 - 130		112	6	20		MB-1	LCS-1	LCD-1
37.	2-Hexanone	U	2500		6,220	5,000	124	68 - 138		138	11	20		MB-1	LCS-1	LCD-1
38.	Isopropylbenzene	U	250		5,727	5,000	115	70 - 130		114	1	20		MB-1	LCS-1	LCD-1
39.	Methylene Chloride	U	100		4,672	5,000	93	62 - 130		92	1	20		MB-1	LCS-1	LCD-1
40.	2-Methylnaphthalene	U	330		4,737	5,000	95	51 - 149		105	10	20		MB-1	LCS-1	LCD-1
41.	4-Methyl-2-pentanone	U	2500		5,073	5,000	101	70 - 133		115	13	20		MB-1	LCS-1	LCD-1
42.	MTBE	U	250		4,994	5,000	100	61 - 142		107	7	20		MB-1	LCS-1	LCD-1
43.	Naphthalene	U	330		5,096	5,000	102	70 - 136		116	13	20		MB-1	LCS-1	LCD-1
44.	n-Propylbenzene	U	100		5,448	5,000	109	70 - 130		109	0	20		MB-1	LCS-1	LCD-1
45.	Styrene	U	50		5,774	5,000	115	70 - 130		114	1	20		MB-1	LCS-1	LCD-1
46.	1,1,1,2-Tetrachloroethane	U	100		5,599	5,000	112	70 - 130		111	1	20		MB-1	LCS-1	LCD-1
47.	1,1,2,2-Tetrachloroethane	U	50		4,985	5,000	100	70 - 130		107	7	20		MB-1	LCS-1	LCD-1
48.	Tetrachloroethene	U	50		5,581	5,000	112	70 - 130		111	1	20		MB-1	LCS-1	LCD-1
49.	Toluene	U	50		5,185	5,000	104	79 - 120		102	2	20		MB-1	LCS-1	LCD-1
50.	1,2,4-Trichlorobenzene	U	330		5,274	5,000	105	70 - 133		110	5	20		MB-1	LCS-1	LCD-1
51.	1,1,1-Trichloroethane	U	50		5,534	5,000	111	70 - 130		110	1	20		MB-1	LCS-1	LCD-1

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Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VH14H13A **Preparation Date: 08/13/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	50		5,198	5,000	104	70 - 130		107	3	20		MB-1	LCS-1	LCD-1
53.	Trichloroethene	U	50		5,568	5,000	111	70 - 130		110	1	20		MB-1	LCS-1	LCD-1
54.	Trichlorofluoromethane	U	100		4,798	5,000	96	50 - 150		94	2	20		MB-1	LCS-1	LCD-1
55.	1,2,3-Trichloropropane	U	100		5,187	5,000	104	70 - 130		113	8	20		MB-1	LCS-1	LCD-1
56.	1,2,3-Trimethylbenzene	U	100		5,282	5,000	106	70 - 130		105	1	20		MB-1	LCS-1	LCD-1
57.	1,2,4-Trimethylbenzene	U	100		5,620	5,000	112	70 - 130		112	0	20		MB-1	LCS-1	LCD-1
58.	1,3,5-Trimethylbenzene	U	100		5,573	5,000	111	70 - 130		112	1	20		MB-1	LCS-1	LCD-1
59.	Vinyl Chloride	U	40		5,519	5,000	110	70 - 137		114	4	20		MB-1	LCS-1	LCD-1
60.	m&p-Xylene	U	100		10,999	10,000	110	70 - 130		110	0	20		MB-1	LCS-1	LCD-1
61.	o-Xylene	U	50		5,606	5,000	112	70 - 130		113	1	20		MB-1	LCS-1	LCD-1

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Dibromofluoromethane(S)	4,825	5,000	96		4,946	5,000	99	77 - 120		99	0	20		MB-1	LCS-1	LCD-1
2.	1,2-Dichloroethane-d4(S)	4,963	5,000	99		4,872	5,000	97	65 - 131		99	2	20		MB-1	LCS-1	LCD-1
3.	Toluene-d8(S)	4,975	5,000	99		5,012	5,000	100	75 - 121		100	0	20		MB-1	LCS-1	LCD-1
4.	4-Bromofluorobenzene(S)	4,999	5,000	100		5,129	5,000	103	80 - 120		103	0	20		MB-1	LCS-1	LCD-1

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	VH14H13A	08/13/14 13:08
LCS-1	VH14H13A	08/13/14 10:49
LCD-1	VH14H13A	08/13/14 11:15

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:45 PM

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Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VH14H14A **Preparation Date: 08/14/14**

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg		Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000			4,881	5,000	98	50 - 145		85	14	20		MB-4	LCS-4	LCD-3
2. 2-Butanone	U	750			6,055	5,000	121	56 - 141		114	6	20		MB-4	LCS-4	LCD-3

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	4,655	5,000	93		4,831	5,000	97	77 - 120		98	1	20		MB-4	LCS-4	LCD-3
2. 1,2-Dichloroethane-d4(S)	4,934	5,000	99		4,906	5,000	98	65 - 131		98	0	20		MB-4	LCS-4	LCD-3
3. Toluene-d8(S)	5,025	5,000	101		5,046	5,000	101	75 - 121		100	1	20		MB-4	LCS-4	LCD-3
4. 4-Bromofluorobenzene(S)	5,100	5,000	102		5,256	5,000	105	80 - 120		104	1	20		MB-4	LCS-4	LCD-3

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	VH14H14A	08/14/14 13:51
LCS-4	VH14H14A	08/14/14 10:17
LCD-3	VH14H14A	08/14/14 12:07

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:45 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VL14H14A **Preparation Date: 08/14/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acrylonitrile	U	100		6,083	5,000	122	66 - 139		121	1	20		MB-6	LCS-5	LCD-4
2.	Benzene	U	50		5,194	5,000	104	70 - 130		104	0	20		MB-6	LCS-5	LCD-4
3.	Bromobenzene	U	100		5,249	5,000	105	70 - 130		107	2	20		MB-6	LCS-5	LCD-4
4.	Bromochloromethane	U	100		5,573	5,000	111	62 - 134		110	1	20		MB-6	LCS-5	LCD-4
5.	Bromodichloromethane	U	100		5,021	5,000	100	70 - 130		99	1	20		MB-6	LCS-5	LCD-4
6.	Bromoform	U	100		5,371	5,000	107	70 - 130		107	0	20		MB-6	LCS-5	LCD-4
7.	Bromomethane	U	200		4,325	5,000	87	56 - 135		89	2	20		MB-6	LCS-5	LCD-4
8.	n-Butylbenzene	U	50		5,186	5,000	104	70 - 141		106	2	20		MB-6	LCS-5	LCD-4
9.	sec-Butylbenzene	U	50		5,199	5,000	104	70 - 130		105	1	20		MB-6	LCS-5	LCD-4
10.	tert-Butylbenzene	U	50		5,522	5,000	110	70 - 130		116	5	20		MB-6	LCS-5	LCD-4
11.	Carbon Disulfide	U	250		5,345	5,000	107	70 - 132		108	1	20		MB-6	LCS-5	LCD-4
12.	Carbon Tetrachloride	U	50		4,803	5,000	96	70 - 143		97	1	20		MB-6	LCS-5	LCD-4
13.	Chlorobenzene	U	50		4,972	5,000	99	70 - 130		98	1	20		MB-6	LCS-5	LCD-4
14.	Chloroethane	U	250		3,839	5,000	77	60 - 150		81	5	20		MB-6	LCS-5	LCD-4
15.	Chloroform	U	50		4,889	5,000	98	71 - 126		97	1	20		MB-6	LCS-5	LCD-4
16.	Chloromethane	U	250		5,208	5,000	104	63 - 137		107	3	20		MB-6	LCS-5	LCD-4
17.	2-Chlorotoluene	U	50		5,138	5,000	103	70 - 130		105	2	20		MB-6	LCS-5	LCD-4
18.	Dibromochloromethane	U	100		4,898	5,000	98	70 - 130		99	1	20		MB-6	LCS-5	LCD-4
19.	1,2-Dibromo-3-chloropropane	U	25		5,651	5,000	113	70 - 134		111	2	20		MB-6	LCS-5	LCD-4
20.	Dibromomethane	U	250		5,114	5,000	102	70 - 130		102	0	20		MB-6	LCS-5	LCD-4
21.	1,2-Dichlorobenzene	U	100		5,164	5,000	103	70 - 130		105	2	20		MB-6	LCS-5	LCD-4
22.	1,3-Dichlorobenzene	U	100		5,069	5,000	101	70 - 130		102	1	20		MB-6	LCS-5	LCD-4
23.	1,4-Dichlorobenzene	U	100		4,865	5,000	97	70 - 130		99	2	20		MB-6	LCS-5	LCD-4
24.	Dichlorodifluoromethane	U	250		4,723	5,000	94	70 - 144		96	2	20		MB-6	LCS-5	LCD-4
25.	1,1-Dichloroethane	U	50		5,384	5,000	108	70 - 130		108	0	20		MB-6	LCS-5	LCD-4
26.	1,2-Dichloroethane	U	50		5,020	5,000	100	69 - 130		101	1	20		MB-6	LCS-5	LCD-4
27.	1,1-Dichloroethene	U	50		5,717	5,000	114	72 - 131		116	2	20		MB-6	LCS-5	LCD-4
28.	cis-1,2-Dichloroethene	U	50		5,326	5,000	107	70 - 131		106	1	20		MB-6	LCS-5	LCD-4
29.	trans-1,2-Dichloroethene	U	50		5,466	5,000	109	70 - 131		109	0	20		MB-6	LCS-5	LCD-4
30.	1,2-Dichloropropane	U	50		5,617	5,000	112	80 - 127		112	0	20		MB-6	LCS-5	LCD-4
31.	cis-1,3-Dichloropropene	U	50		5,436	5,000	109	70 - 131		108	1	20		MB-6	LCS-5	LCD-4
32.	trans-1,3-Dichloropropene	U	50		5,269	5,000	105	70 - 132		105	0	20		MB-6	LCS-5	LCD-4
33.	Ethylbenzene	U	50		4,940	5,000	99	80 - 120		98	1	20		MB-6	LCS-5	LCD-4
34.	Ethylene Dibromide	U	25		5,040	5,000	101	70 - 130		101	0	20		MB-6	LCS-5	LCD-4
35.	2-Hexanone	U	2500		5,997	5,000	120	68 - 138		121	1	20		MB-6	LCS-5	LCD-4
36.	Isopropylbenzene	U	250		5,148	5,000	103	70 - 130		104	1	20		MB-6	LCS-5	LCD-4
37.	Methylene Chloride	U	100		5,518	5,000	110	62 - 130		109	1	20		MB-6	LCS-5	LCD-4
38.	4-Methyl-2-pentanone	U	2500		6,181	5,000	124	70 - 133		124	0	20		MB-6	LCS-5	LCD-4
39.	MTBE	U	250		5,198	5,000	104	61 - 142		103	1	20		MB-6	LCS-5	LCD-4
40.	Naphthalene	U	330		5,673	5,000	113	70 - 136		115	2	20		MB-6	LCS-5	LCD-4
41.	n-Propylbenzene	U	100		5,317	5,000	106	70 - 130		106	0	20		MB-6	LCS-5	LCD-4
42.	Styrene	U	50		5,168	5,000	103	70 - 130		104	1	20		MB-6	LCS-5	LCD-4
43.	1,1,1,2-Tetrachloroethane	U	100		4,992	5,000	100	70 - 130		101	1	20		MB-6	LCS-5	LCD-4
44.	1,1,2,2-Tetrachloroethane	U	50		5,533	5,000	111	70 - 130		110	1	20		MB-6	LCS-5	LCD-4
45.	Tetrachloroethene	U	50		5,221	5,000	104	70 - 130		105	1	20		MB-6	LCS-5	LCD-4
46.	Toluene	U	50		4,988	5,000	100	79 - 120		102	2	20		MB-6	LCS-5	LCD-4
47.	1,2,4-Trichlorobenzene	U	330		5,439	5,000	109	70 - 133		111	2	20		MB-6	LCS-5	LCD-4
48.	1,1,1-Trichloroethane	U	50		4,797	5,000	96	70 - 130		96	0	20		MB-6	LCS-5	LCD-4
49.	1,1,2-Trichloroethane	U	50		5,228	5,000	105	70 - 130		104	1	20		MB-6	LCS-5	LCD-4
50.	Trichloroethene	U	50		5,256	5,000	105	70 - 130		105	0	20		MB-6	LCS-5	LCD-4
51.	Trichlorofluoromethane	U	100		3,673	5,000	73	50 - 150		77	5	20		MB-6	LCS-5	LCD-4

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Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VL14H14A **Preparation Date: 08/14/14**

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg		Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52. 1,2,3-Trichloropropane	U	100			5,263	5,000	105	70 - 130		106	1	20		MB-6	LCS-5	LCD-4
53. 1,2,3-Trimethylbenzene	U	100			5,028	5,000	101	70 - 130		101	0	20		MB-6	LCS-5	LCD-4
54. 1,2,4-Trimethylbenzene	U	100			5,063	5,000	101	70 - 130		103	2	20		MB-6	LCS-5	LCD-4
55. 1,3,5-Trimethylbenzene	U	100			5,074	5,000	101	70 - 130		106	5	20		MB-6	LCS-5	LCD-4
56. Vinyl Chloride	U	40			4,594	5,000	92	70 - 137		92	0	20		MB-6	LCS-5	LCD-4
57. m&p-Xylene	U	100			9,268	10,000	93	70 - 130		94	1	20		MB-6	LCS-5	LCD-4
58. o-Xylene	U	50			5,026	5,000	101	70 - 130		102	1	20		MB-6	LCS-5	LCD-4

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	2,396	2,500	96		2,468	2,500	99	77 - 120		97	2	20		MB-6	LCS-5	LCD-4
2. 1,2-Dichloroethane-d4(S)	2,503	2,500	100		2,429	2,500	97	65 - 131		97	0	20		MB-6	LCS-5	LCD-4
3. Toluene-d8(S)	2,512	2,500	100		2,525	2,500	101	75 - 121		101	0	20		MB-6	LCS-5	LCD-4
4. 4-Bromofluorobenzene(S)	2,415	2,500	97		2,477	2,500	99	80 - 120		101	2	20		MB-6	LCS-5	LCD-4

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-6	VL14H14A	08/14/14 18:13
LCS-5	VL14H14A	08/14/14 12:26
LCD-4	VL14H14A	08/14/14 12:52

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:35:46 PM

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63679

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS (EPA 7471B) **Matrix: Soil/Solid**

Parent Sample:	**63679-005**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	**27.1**	µg/kg(wet)	189	229	231	107	113	70 - 130	5	20

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Matrix: Soil/Solid**

Parent Sample:	**63679-005**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**8,624**	µg/kg	10,000	18,710	18,136	101	95	70 - 130	6	20
2. Barium	**74,336**	µg/kg	50,000	126,966	121,989	105	95	70 - 130	10	20
3. Cadmium	**605**	µg/kg	10,000	10,574	10,444	100	98	70 - 130	2	20
4. Chromium	**20,569**	µg/kg	20,000	39,708	37,605	96	85	70 - 130	12	20
5. Copper	**21,094**	µg/kg	20,000	38,678	38,836	88	89	70 - 130	1	20
6. Lead	**10,095**	µg/kg	20,000	29,356	32,947	96	114	70 - 130	17	20
7. Selenium	**598**	µg/kg	10,000	10,426	10,033	98	94	70 - 130	4	20
8. Silver	**115**	µg/kg	10,000	9,925	9,735	98	96	70 - 130	2	20
9. Zinc	**68,630**	µg/kg	50,000	122,626	117,000	108	97	70 - 130	11	20

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63679-005**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene (SIM)	<133	µg/kg(wet)	5,333	3,472	3,907	65	73	52 - 105	12	30
2. Acenaphthylene (SIM)	<133	µg/kg(wet)	5,333	3,373	3,841	63	72	56 - 112	13	30
3. Anthracene (SIM)	<133	µg/kg(wet)	5,333	3,506	3,781	66	71	56 - 102	7	30
4. Benzo(a)anthracene (SIM)	<267	µg/kg(wet)	5,333	3,690	3,965	69	74	53 - 110	7	30
5. Benzo(a)pyrene (SIM)	<133	µg/kg(wet)	5,333	3,926	4,270	74	80	59 - 125	8	30
6. Benzo(b)fluoranthene (SIM)	<133	µg/kg(wet)	5,333	3,820	4,103	72	77	57 - 130	7	30
7. Benzo(ghi)perylene (SIM)	<133	µg/kg(wet)	5,333	3,860	4,095	72	77	35 - 124	7	30
8. Benzo(k)fluoranthene (SIM)	<133	µg/kg(wet)	5,333	3,938	4,236	74	79	53 - 127	7	30
9. Chrysene (SIM)	<133	µg/kg(wet)	5,333	3,890	4,186	73	78	50 - 112	7	30
10. Dibenzo(a,h)anthracene (SIM)	<133	µg/kg(wet)	5,333	3,846	4,050	72	76	51 - 122	5	30
11. Fluoranthene (SIM)	<133	µg/kg(wet)	5,333	4,081	4,376	77	82	47 - 135	6	30
12. Fluorene (SIM)	<133	µg/kg(wet)	5,333	3,571	3,937	67	74	51 - 112	10	30
13. Indeno(1,2,3-cd)pyrene (SIM)	<133	µg/kg(wet)	5,333	3,391	3,678	64	69	49 - 130	8	30

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63679

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63679-005**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
14. 2-Methylnaphthalene (SIM)	<133	µg/kg(wet)	5,333	3,243	3,755	61	70	45 - 94	14	30
15. Naphthalene (SIM)	<133	µg/kg(wet)	5,333	3,116	3,664	58	69	53 - 96	17	30
16. Phenanthrene (SIM)	<133	µg/kg(wet)	5,333	3,815	4,088	72	77	50 - 103	7	30
17. Pyrene (SIM)	<133	µg/kg(wet)	5,333	3,898	4,152	73	78	48 - 129	7	30

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63679

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Matrix: Soil/Solid**

Parent Sample:	**63679-005A**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006A**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007A**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acetone	<500	µg/kg(wet)	5,000	4,364	4,596	87	92	50 - 145	6	20
2. Acrylonitrile	<25.0	µg/kg(wet)	5,000	5,432	5,256	109	105	66 - 139	4	20
3. Benzene	<25.0	µg/kg(wet)	5,000	4,905	4,722	98	94	70 - 130	4	20
4. Bromobenzene	<25.0	µg/kg(wet)	5,000	4,804	4,526	96	91	70 - 130	5	20
5. Bromochloromethane	<25.0	µg/kg(wet)	5,000	5,146	4,963	103	99	62 - 134	4	20
6. Bromodichloromethane	<25.0	µg/kg(wet)	5,000	4,718	4,500	94	90	70 - 130	4	20
7. Bromoform	<25.0	µg/kg(wet)	5,000	5,004	4,813	100	96	70 - 130	4	20
8. Bromomethane	<100	µg/kg(wet)	5,000	4,209	4,059	84	81	56 - 135	4	20
9. 2-Butanone	<59.8	µg/kg(wet)	5,000	5,719	5,983	114	120	56 - 141	5	20
10. n-Butylbenzene	<25.0	µg/kg(wet)	5,000	5,030	4,981	101	100	70 - 141	1	20
11. sec-Butylbenzene	<25.0	µg/kg(wet)	5,000	4,888	4,745	98	95	70 - 130	3	20
12. tert-Butylbenzene	<25.0	µg/kg(wet)	5,000	4,967	4,871	99	97	70 - 130	2	20
13. Carbon Disulfide	<100	µg/kg(wet)	5,000	4,959	4,907	99	98	70 - 132	1	20
14. Carbon Tetrachloride	<25.0	µg/kg(wet)	5,000	4,617	4,419	92	88	70 - 143	4	20
15. Chlorobenzene	<25.0	µg/kg(wet)	5,000	4,601	4,520	92	90	70 - 130	2	20
16. Chloroethane	<250	µg/kg(wet)	5,000	3,952	3,780	79	76	60 - 150	4	20
17. Chloroform	<25.0	µg/kg(wet)	5,000	4,554	4,562	91	91	71 - 126	0	20
18. Chloromethane	<100	µg/kg(wet)	5,000	4,807	4,754	96	95	63 - 137	1	20
19. 2-Chlorotoluene	<25.0	µg/kg(wet)	5,000	4,699	4,575	94	91	70 - 130	3	20
20. Dibromochloromethane	<25.0	µg/kg(wet)	5,000	4,693	4,436	94	89	70 - 130	5	20
21. 1,2-Dibromo-3-chloropropane (SIM)	<25.0	µg/kg(wet)	5,000	5,469	5,211	109	104	70 - 134	5	20
22. Dibromomethane	<25.0	µg/kg(wet)	5,000	4,764	4,549	95	91	70 - 130	4	20
23. 1,2-Dichlorobenzene	<25.0	µg/kg(wet)	5,000	4,814	4,674	96	93	70 - 130	3	20
24. 1,3-Dichlorobenzene	<25.0	µg/kg(wet)	5,000	4,650	4,492	93	90	70 - 130	3	20
25. 1,4-Dichlorobenzene	<25.0	µg/kg(wet)	5,000	4,490	4,338	90	87	70 - 130	3	20
26. Dichlorodifluoromethane	<25.0	µg/kg(wet)	5,000	4,194	4,056	84	81	70 - 144	4	20
27. 1,1-Dichloroethane	<25.0	µg/kg(wet)	5,000	4,979	4,925	100	98	70 - 130	2	20
28. 1,2-Dichloroethane	<25.0	µg/kg(wet)	5,000	4,738	4,496	95	90	69 - 130	5	20
29. 1,1-Dichloroethene	<25.0	µg/kg(wet)	5,000	5,322	5,270	106	105	72 - 131	1	20
30. cis-1,2-Dichloroethene	<25.0	µg/kg(wet)	5,000	4,977	4,824	100	96	70 - 131	4	20
31. trans-1,2-Dichloroethene	<25.0	µg/kg(wet)	5,000	5,000	4,967	100	99	70 - 131	1	20
32. 1,2-Dichloropropane	<25.0	µg/kg(wet)	5,000	5,260	5,008	105	100	80 - 127	5	20
33. cis-1,3-Dichloropropene	<25.0	µg/kg(wet)	5,000	5,214	4,985	104	100	70 - 131	4	20
34. trans-1,3-Dichloropropene	<25.0	µg/kg(wet)	5,000	4,978	4,764	100	95	70 - 132	5	20
35. Ethylbenzene	<25.0	µg/kg(wet)	5,000	4,665	4,493	93	90	80 - 120	3	20
36. Ethylene Dibromide	<25.0	µg/kg(wet)	5,000	4,780	4,657	96	93	70 - 130	3	20
37. 2-Hexanone	<25.0	µg/kg(wet)	5,000	6,418	6,524	128	130	68 - 138	2	20
38. Isopropylbenzene	<25.0	µg/kg(wet)	5,000	4,924	4,751	98	95	70 - 130	3	20

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63679

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS, 5035 (EPA 5035A/EPA 8260B) **Matrix: Soil/Solid**

Parent Sample:	**63679-005A**	Description:	**A-MW15@26'**	Sample No:	**5**	Collect Date:	**08/07/14**	**16:35**
MS Sample ID:	**63679-006A**	Description:	**A-MW15@26' MS**	Sample No:	**6**	Collect Date:	**08/07/14**	**16:35**
MSD Sample ID:	**63679-007A**	Description:	**A-MW15@26' MSD**	Sample No:	**7**	Collect Date:	**08/07/14**	**16:35**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
39. Methylene Chloride	<100	µg/kg(wet)	5,000	5,098	5,016	102	100	62 - 130	2	20
40. 2-Methylnaphthalene	<53.5	µg/kg(wet)	5,000	5,557	5,403	111	108	51 - 149	3	20
41. 4-Methyl-2-pentanone	<25.0	µg/kg(wet)	5,000	5,717	5,768	114	115	70 - 133	1	20
42. MTBE	<25.0	µg/kg(wet)	5,000	4,597	4,553	92	91	61 - 142	1	20
43. Naphthalene	<25.0	µg/kg(wet)	5,000	5,264	5,089	105	102	70 - 136	3	20
44. n-Propylbenzene	<25.0	µg/kg(wet)	5,000	4,880	4,677	98	94	70 - 130	4	20
45. Styrene	<25.0	µg/kg(wet)	5,000	4,920	4,746	98	95	70 - 130	3	20
46. 1,1,1,2-Tetrachloroethane	<25.0	µg/kg(wet)	5,000	4,662	4,494	93	90	70 - 130	3	20
47. 1,1,2,2-Tetrachloroethane	<25.0	µg/kg(wet)	5,000	5,113	4,992	102	100	70 - 130	2	20
48. Tetrachloroethene	<25.0	µg/kg(wet)	5,000	4,914	4,875	98	98	70 - 130	0	20
49. Toluene	<25.0	µg/kg(wet)	5,000	4,700	4,654	94	93	79 - 120	1	20
50. 1,2,4-Trichlorobenzene	<25.0	µg/kg(wet)	5,000	5,163	5,082	103	102	70 - 133	1	20
51. 1,1,1-Trichloroethane	<25.0	µg/kg(wet)	5,000	4,548	4,482	91	90	70 - 130	1	20
52. 1,1,2-Trichloroethane	<25.0	µg/kg(wet)	5,000	5,000	4,716	100	94	70 - 130	6	20
53. Trichloroethene	<25.0	µg/kg(wet)	5,000	5,020	4,830	100	97	70 - 130	3	20
54. Trichlorofluoromethane	<25.0	µg/kg(wet)	5,000	3,723	3,557	74	71	50 - 150	4	20
55. 1,2,3-Trichloropropane	<25.0	µg/kg(wet)	5,000	4,972	4,787	99	96	70 - 130	3	20
56. 1,2,3-Trimethylbenzene	<25.0	µg/kg(wet)	5,000	4,618	4,504	92	90	70 - 130	2	20
57. 1,2,4-Trimethylbenzene	<25.0	µg/kg(wet)	5,000	4,695	4,601	94	92	70 - 130	2	20
58. 1,3,5-Trimethylbenzene	<25.0	µg/kg(wet)	5,000	4,762	4,670	95	93	70 - 130	2	20
59. Vinyl Chloride	<25.0	µg/kg(wet)	5,000	4,204	4,008	84	80	70 - 137	5	20
60. m&p-Xylene	<50.0	µg/kg(wet)	10,000	8,789	8,632	88	86	70 - 130	2	20
61. o-Xylene	<25.0	µg/kg(wet)	5,000	4,755	4,576	95	92	70 - 130	3	20

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Thursday, February 26, 2015
1:07:21 PM

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

T104704518-15-3 (TX)

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Twenty seven soil samples and two water samples (including blank) were collected on August 24, 2014 and received by Fibertec, Inc. on August 25, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
D-MW-6@15'	63426-001	S	% Moisture, Trace Metals, Mercury
D-MW-6@22.½'	63426-002	S	% Moisture, Trace Metals, Mercury
D-MW-6@22.½' MS	63426-003	S	% Moisture, Trace Metals, Mercury
D-MW-6@22.½' MSD	63426-004	S	% Moisture, Trace Metals, Mercury
D-MW-10@6.½'	63426-005	S	% Moisture, Trace Metals, Mercury
I-MW-7@4'	63426-006	S	% Moisture, Trace Metals, Mercury
I-MW-7@10'	63426-007	S	% Moisture, Trace Metals, Mercury
I-MW-5@3'	63426-008	S	% Moisture, Trace Metals, Mercury
I-MW-5@9'	63426-009	S	% Moisture, Trace Metals, Mercury
B-MW-11@8'	63426-010	S	% Moisture, Trace Metals, Mercury
B-MW-11@14'	63426-011	S	% Moisture, Trace Metals, Mercury
B-MW-11@20'	63426-012	S	% Moisture, Trace Metals, Mercury
B-MW-8@4'	63426-013	S	% Moisture, Trace Metals, Mercury
B-MW-8@10'	63426-014	S	% Moisture, Trace Metals, Mercury
B-MW-9@4'	63426-015	S	% Moisture, Trace Metals, Mercury
B-MW-9@8'	63426-016	S	% Moisture, Trace Metals, Mercury
B-MW-9@14½'	63426-017	S	% Moisture, Trace Metals, Mercury
B-MW-10@4'	63426-018	S	% Moisture, Trace Metals, Mercury
B-MW-10@10'	63426-019	S	% Moisture, Trace Metals, Mercury
Methanol Blank #2	63426-020	S	VOC
A-MW-21@15'	63426-021	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW-20@15'	63426-022	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW-19@20'	63426-023	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW-16@15'	63426-024	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW-17@15'	63426-025	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
A-MW-14@15'	63426-026	S	% Moisture, Trace Metals, Mercury, VOC, SVOC
EB-1S	63426-027	W	VOC
M-3S	63426-028	S	% Moisture, Trace Metals, Mercury
Trip Blank	63426-029	W	VOC

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0388
11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63426

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS (EPA 7471B) **Matrix: Soil/Solid**

Parent Sample:	**63426-002**	Description:	**D-MW-6@22.5'**	Sample No:	**2**	Collect Date:	**07/24/14**	**11:00**
MS Sample ID:	**63426-003**	Description:	**D-MW-6@22.5' MS**	Sample No:	**3**	Collect Date:	**07/24/14**	**11:00**
MSD Sample ID:	**63426-004**	Description:	**D-MW-6@22.5' MSD**	Sample No:	**4**	Collect Date:	**07/24/14**	**11:00**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<17.2	µg/kg(wet)	186	187	169	101	101	70 - 130	0	20

Michigan 10 Elements by ICP/MS (EPA 0200.2-M/EPA 6020A) **Matrix: Soil/Solid**

Parent Sample:	**63426-002**	Description:	**D-MW-6@22.5'**	Sample No:	**2**	Collect Date:	**07/24/14**	**11:00**
MS Sample ID:	**63426-003**	Description:	**D-MW-6@22.5' MS**	Sample No:	**3**	Collect Date:	**07/24/14**	**11:00**
MSD Sample ID:	**63426-004**	Description:	**D-MW-6@22.5' MSD**	Sample No:	**4**	Collect Date:	**07/24/14**	**11:00**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**8,792**	µg/kg	10,000	18,025	18,194	92	94	70 - 130	2	20
2. Barium	**79,776**	µg/kg	50,000	122,758	119,841	86	80	70 - 130	7	20
3. Cadmium	**661**	µg/kg	10,000	10,319	10,472	97	98	70 - 130	1	20
4. Chromium	**20,071**	µg/kg	20,000	37,681	37,521	88	87	70 - 130	1	20
5. Copper	**21,236**	µg/kg	20,000	38,610	37,871	87	83	70 - 130	5	20
6. Lead	**9,856**	µg/kg	20,000	27,750	28,286	89	92	70 - 130	3	20
7. Selenium	**656**	µg/kg	10,000	10,034	10,164	94	95	70 - 130	1	20
8. Silver	**63.5**	µg/kg	10,000	8,686	8,719	86	87	70 - 130	1	20
9. Zinc	**80,291**	µg/kg	50,000	106,205	114,506	52 *	68 *	70 - 130	27 *	20

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Thursday, February 26, 2015
1:14:58 PM

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Accreditation Number(s):

T104704518-15-3 (TX)

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G30A **Preparation Date: 07/30/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		188	200	94	85 - 115						MB-4	LCS-4	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	M614G30A	07/30/14 15:34
LCS-4	M614G30A	07/30/14 15:36

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:32 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G30B **Preparation Date: 07/30/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		183	200	92	85 - 115						MB-5	LCS-5	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-5	M614G30A	07/30/14 16:23
LCS-5	M614G30A	07/30/14 16:55

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:32 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G30F **Preparation Date: 07/30/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		3,811	5,333	71	50 - 114						MB-7	LCS-7	
2.	Acenaphthylene	U	330		3,844	5,333	72	53 - 115						MB-7	LCS-7	
3.	Anthracene	U	330		3,652	5,333	68	48 - 119						MB-7	LCS-7	
4.	Benzo(a)anthracene	U	330		3,960	5,333	74	56 - 120						MB-7	LCS-7	
5.	Benzo(a)pyrene	U	330		3,924	5,333	74	57 - 122						MB-7	LCS-7	
6.	Benzo(b)fluoranthene	U	330		3,789	5,333	71	50 - 131						MB-7	LCS-7	
7.	Benzo(ghi)perylene	U	330		4,172	5,333	78	41 - 132						MB-7	LCS-7	
8.	Benzo(k)fluoranthene	U	330		4,009	5,333	75	39 - 137						MB-7	LCS-7	
9.	Chrysene	U	330		3,904	5,333	73	53 - 124						MB-7	LCS-7	
10.	Dibenzo(a,h)anthracene	U	330		4,496	5,333	84	53 - 126						MB-7	LCS-7	
11.	Fluoranthene	U	330		4,146	5,333	78	48 - 135						MB-7	LCS-7	
12.	Fluorene	U	330		3,823	5,333	72	49 - 126						MB-7	LCS-7	
13.	Indeno(1,2,3-cd)pyrene	U	330		4,425	5,333	83	51 - 132						MB-7	LCS-7	
14.	2-Methylnaphthalene	U	330		3,815	5,333	72	46 - 105						MB-7	LCS-7	
15.	Phenanthrene	U	330		3,912	5,333	73	53 - 119						MB-7	LCS-7	
16.	Pyrene	U	330		4,255	5,333	80	55 - 127						MB-7	LCS-7	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	4,788	5,333	90		4,022	5,333	75	49 - 115						MB-7	LCS-7	
2.	4-Terphenyl-d14(S)	5,169	5,333	97		4,314	5,333	81	48 - 117						MB-7	LCS-7	
3.	1-Fluoronaphthalene(S)	4,485	5,333	84		3,709	5,333	70	46 - 114						MB-7	LCS-7	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-7	S514G31A	07/31/14 10:48
LCS-7	S514G31A	07/31/14 11:22

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:32 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14G31E **Preparation Date: 07/31/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		9,455	10,000	95	85 - 115						MB-9	LCS-9	
2. Selenium	U	200		8,865	10,000	89	85 - 115						MB-9	LCS-9	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-9	T214H04A	08/04/14 08:23
LCS-9	T214H04A	08/04/14 08:23

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:32 PM

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Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14G31F **Preparation Date: 07/31/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	100		9,616	10,000	96	85 - 115						MB-10	LCS-10	
2.	Barium	U	1000		49,888	50,000	100	85 - 115						MB-8	LCS-8	
3.	Cadmium	U	50		9,667	10,000	97	85 - 115						MB-8	LCS-8	
4.	Chromium	U	500		19,811	20,000	99	85 - 115						MB-8	LCS-8	
5.	Copper	U	1000		20,918	20,000	105	85 - 115						MB-8	LCS-8	
6.	Lead	U	1000		19,021	20,000	95	85 - 115						MB-8	LCS-8	
7.	Selenium	U	200		9,078	10,000	91	85 - 115						MB-10	LCS-10	
8.	Silver	U	100		9,343	10,000	93	85 - 115						MB-8	LCS-8	
9.	Zinc	2,749	1000	*	51,648	50,000	103	85 - 115						MB-8	LCS-8	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-10	T214H04A	08/04/14 08:40
LCS-10	T214H04A	08/04/14 08:41
MB-8	T414G31A	07/31/14 12:53
LCS-8	T414G31A	07/31/14 12:55

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

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Information Technology Officer
Wednesday, February 25, 2015
1:31:32 PM

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Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14G28A **Preparation Date: 07/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	50		82.7	100	83	50 - 136		80	4	20		MB-1	LCS-1	LCD-1
2.	Acrylonitrile	U	2.0		110	100	110	66 - 135		114	4	20		MB-1	LCS-1	LCD-1
3.	Benzene	U	1.0		102	100	102	70 - 130		99	3	20		MB-1	LCS-1	LCD-1
4.	Bromobenzene	U	1.0		91.7	100	92	70 - 130		91	1	20		MB-1	LCS-1	LCD-1
5.	Bromochloromethane	U	1.0		86.5	100	87	61 - 130		87	0	20		MB-1	LCS-1	LCD-1
6.	Bromodichloromethane	U	1.0		105	100	105	70 - 130		104	1	20		MB-1	LCS-1	LCD-1
7.	Bromoform	U	1.0		118	100	118	65 - 145		119	1	20		MB-1	LCS-1	LCD-1
8.	Bromomethane	U	5.0		85.2	100	85	52 - 150		86	1	20		MB-1	LCS-1	LCD-1
9.	2-Butanone	U	25		89.6	100	90	59 - 130		88	2	20		MB-1	LCS-1	LCD-1
10.	n-Butylbenzene	U	1.0		108	100	108	70 - 138		107	1	20		MB-1	LCS-1	LCD-1
11.	sec-Butylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
12.	tert-Butylbenzene	U	1.0		105	100	105	70 - 130		103	2	20		MB-1	LCS-1	LCD-1
13.	Carbon Disulfide	U	5.0		95.3	100	95	70 - 130		94	1	20		MB-1	LCS-1	LCD-1
14.	Carbon Tetrachloride	U	1.0		107	100	107	70 - 133		105	2	20		MB-1	LCS-1	LCD-1
15.	Chlorobenzene	U	1.0		100	100	100	70 - 130		99	1	20		MB-1	LCS-1	LCD-1
16.	Chloroethane	U	5.0		111	100	111	53 - 136		109	2	20		MB-1	LCS-1	LCD-1
17.	Chloroform	U	1.0		104	100	104	78 - 121		101	3	20		MB-1	LCS-1	LCD-1
18.	Chloromethane	U	5.0		93.6	100	94	50 - 148		92	2	20		MB-1	LCS-1	LCD-1
19.	2-Chlorotoluene	U	5.0		95.9	100	96	70 - 130		95	1	20		MB-1	LCS-1	LCD-1
20.	Dibromochloromethane	U	5.0		111	100	111	70 - 130		111	0	20		MB-1	LCS-1	LCD-1
21.	1,2-Dibromo-3-chloropropane	U	1.0		124	100	124	70 - 137		127	2	20		MB-1	LCS-1	LCD-1
22.	Dibromomethane	U	5.0		103	100	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
23.	1,2-Dichlorobenzene	U	1.0		101	100	101	70 - 130		101	0	20		MB-1	LCS-1	LCD-1
24.	1,3-Dichlorobenzene	U	1.0		99.7	100	100	70 - 130		99	1	20		MB-1	LCS-1	LCD-1
25.	1,4-Dichlorobenzene	U	1.0		98.5	100	98	70 - 130		98	0	20		MB-1	LCS-1	LCD-1
26.	Dichlorodifluoromethane	U	5.0		97.4	100	97	70 - 139		98	1	20		MB-1	LCS-1	LCD-1
27.	1,1-Dichloroethane	U	1.0		102	100	102	70 - 130		101	1	20		MB-1	LCS-1	LCD-1
28.	1,2-Dichloroethane	U	1.0		99.4	100	99	70 - 130		99	0	20		MB-1	LCS-1	LCD-1
29.	1,1-Dichloroethene	U	1.0		100	100	100	72 - 126		100	0	20		MB-1	LCS-1	LCD-1
30.	cis-1,2-Dichloroethene	U	1.0		95.8	100	96	70 - 130		95	1	20		MB-1	LCS-1	LCD-1
31.	trans-1,2-Dichloroethene	U	1.0		98.2	100	98	70 - 130		97	1	20		MB-1	LCS-1	LCD-1
32.	1,2-Dichloropropane	U	1.0		104	100	104	79 - 125		102	2	20		MB-1	LCS-1	LCD-1
33.	cis-1,3-Dichloropropene	U	1.0		111	100	111	70 - 131		108	3	20		MB-1	LCS-1	LCD-1
34.	trans-1,3-Dichloropropene	U	1.0		107	100	107	70 - 130		107	0	20		MB-1	LCS-1	LCD-1
35.	Ethylbenzene	U	1.0		101	100	101	80 - 122		100	1	20		MB-1	LCS-1	LCD-1
36.	Ethylene Dibromide	U	1.0		104	100	104	70 - 130		106	2	20		MB-1	LCS-1	LCD-1
37.	2-Hexanone	U	50		95.9	100	96	62 - 130		93	3	20		MB-1	LCS-1	LCD-1
38.	Isopropylbenzene	U	5.0		107	100	107	70 - 130		107	0	20		MB-1	LCS-1	LCD-1
39.	Methylene Chloride	U	5.0		93.0	100	93	63 - 130		94	1	20		MB-1	LCS-1	LCD-1
40.	2-Methylnaphthalene	U	5.0		107	100	107	50 - 149		110	3	20		MB-1	LCS-1	LCD-1
41.	4-Methyl-2-pentanone	U	50		111	100	111	67 - 134		115	4	20		MB-1	LCS-1	LCD-1
42.	MTBE	U	5.0		107	100	107	70 - 130		107	0	20		MB-1	LCS-1	LCD-1
43.	Naphthalene	U	5.0		118	100	118	70 - 130		122	3	20		MB-1	LCS-1	LCD-1
44.	n-Propylbenzene	U	1.0		101	100	101	70 - 130		99	2	20		MB-1	LCS-1	LCD-1
45.	Styrene	U	1.0		107	100	107	70 - 135		106	1	20		MB-1	LCS-1	LCD-1
46.	1,1,1,2-Tetrachloroethane	U	1.0		108	100	108	70 - 130		106	2	20		MB-1	LCS-1	LCD-1
47.	1,1,2,2-Tetrachloroethane	U	1.0		108	100	108	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
48.	Tetrachloroethene	U	1.0		107	100	107	70 - 130		105	2	20		MB-1	LCS-1	LCD-1
49.	Toluene	U	1.0		102	100	102	80 - 120		100	2	20		MB-1	LCS-1	LCD-1
50.	1,2,4-Trichlorobenzene	U	5.0		109	100	109	70 - 130		109	0	20		MB-1	LCS-1	LCD-1
51.	1,1,1-Trichloroethane	U	1.0		105	100	105	70 - 130		103	2	20		MB-1	LCS-1	LCD-1

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Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14G28A **Preparation Date: 07/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	1.0		103	100	103	70 - 130		105	2	20		MB-1	LCS-1	LCD-1
53.	Trichloroethene	U	1.0		104	100	104	71 - 130		103	1	20		MB-1	LCS-1	LCD-1
54.	Trichlorofluoromethane	U	1.0		105	100	105	69 - 131		104	1	20		MB-1	LCS-1	LCD-1
55.	1,2,3-Trichloropropane	U	1.0		105	100	105	70 - 130		105	0	20		MB-1	LCS-1	LCD-1
56.	1,2,3-Trimethylbenzene	U	1.0		97.6	100	98	70 - 130		98	0	20		MB-1	LCS-1	LCD-1
57.	1,2,4-Trimethylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
58.	1,3,5-Trimethylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-1	LCS-1	LCD-1
59.	Vinyl Chloride	U	1.0		101	100	101	73 - 125		100	1	20		MB-1	LCS-1	LCD-1
60.	m&p-Xylene	U	2.0		204	200	102	70 - 130		101	1	20		MB-1	LCS-1	LCD-1
61.	o-Xylene	U	1.0		104	100	104	70 - 130		104	0	20		MB-1	LCS-1	LCD-1

	System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/L	Spike µg/L	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1.	Dibromofluoromethane(S)	50.2	50.0	100		47.5	50.0	95	80 - 120		95	0	20		MB-1	LCS-1	LCD-1
2.	1,2-Dichloroethane-d4(S)	47.6	50.0	95		45.3	50.0	91	80 - 120		90	1	20		MB-1	LCS-1	LCD-1
3.	Toluene-d8(S)	49.2	50.0	98		49.6	50.0	99	80 - 122		98	1	20		MB-1	LCS-1	LCD-1
4.	4-Bromofluorobenzene(S)	50.2	50.0	100		49.8	50.0	100	80 - 120		100	0	20		MB-1	LCS-1	LCD-1

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	VB14G28A	07/28/14 13:29
LCS-1	VB14G28A	07/28/14 11:09
LCD-1	VB14G28A	07/28/14 11:37

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:34 PM

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Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VJ14G29A **Preparation Date: 07/29/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acrylonitrile	U	100		5,269	5,000	105	66 - 139		97	8	20		MB-2	LCS-2	LCD-2
2.	Benzene	U	50		5,205	5,000	104	70 - 130		95	9	20		MB-2	LCS-2	LCD-2
3.	Bromobenzene	U	100		4,677	5,000	94	70 - 130		86	9	20		MB-2	LCS-2	LCD-2
4.	Bromochloromethane	U	100		3,733	5,000	75	62 - 134		71	5	20		MB-2	LCS-2	LCD-2
5.	Bromodichloromethane	U	100		4,930	5,000	99	70 - 130		91	8	20		MB-2	LCS-2	LCD-2
6.	Bromoform	U	100		6,282	5,000	126	70 - 130		116	8	20		MB-2	LCS-2	LCD-2
7.	Bromomethane	U	200		5,115	5,000	102	56 - 135		99	3	20		MB-2	LCS-2	LCD-2
8.	2-Butanone	U	750		4,905	5,000	98	56 - 141		82	18	20		MB-2	LCS-2	LCD-2
9.	n-Butylbenzene	U	50		5,625	5,000	113	70 - 141		102	10	20		MB-2	LCS-2	LCD-2
10.	sec-Butylbenzene	U	50		5,578	5,000	112	70 - 130		101	10	20		MB-2	LCS-2	LCD-2
11.	tert-Butylbenzene	U	50		5,649	5,000	113	70 - 130		104	8	20		MB-2	LCS-2	LCD-2
12.	Carbon Disulfide	U	250		4,417	5,000	88	70 - 132		81	8	20		MB-2	LCS-2	LCD-2
13.	Carbon Tetrachloride	U	50		5,406	5,000	108	70 - 143		98	10	20		MB-2	LCS-2	LCD-2
14.	Chlorobenzene	U	50		5,334	5,000	107	70 - 130		98	9	20		MB-2	LCS-2	LCD-2
15.	Chloroethane	U	250		3,884	5,000	78	60 - 150		71	9	20		MB-2	LCS-2	LCD-2
16.	Chloroform	U	50		4,452	5,000	89	71 - 126		82	8	20		MB-2	LCS-2	LCD-2
17.	Chloromethane	U	250		3,832	5,000	77	63 - 137		70	10	20		MB-2	LCS-2	LCD-2
18.	2-Chlorotoluene	U	50		5,134	5,000	103	70 - 130		94	9	20		MB-2	LCS-2	LCD-2
19.	Dibromochloromethane	U	100		5,618	5,000	112	70 - 130		104	7	20		MB-2	LCS-2	LCD-2
20.	1,2-Dibromo-3-chloropropane	U	50		5,911	5,000	118	70 - 134		108	9	20		MB-2	LCS-2	LCD-2
21.	Dibromomethane	U	250		5,689	5,000	114	70 - 130		106	7	20		MB-2	LCS-2	LCD-2
22.	1,2-Dichlorobenzene	U	100		5,448	5,000	109	70 - 130		101	8	20		MB-2	LCS-2	LCD-2
23.	1,3-Dichlorobenzene	U	100		5,267	5,000	105	70 - 130		97	8	20		MB-2	LCS-2	LCD-2
24.	1,4-Dichlorobenzene	U	100		5,074	5,000	101	70 - 130		94	7	20		MB-2	LCS-2	LCD-2
25.	Dichlorodifluoromethane	U	250		4,132	5,000	83	70 - 144		75	10	20		MB-2	LCS-2	LCD-2
26.	1,1-Dichloroethane	U	50		4,377	5,000	88	70 - 130		81	8	20		MB-2	LCS-2	LCD-2
27.	1,2-Dichloroethane	U	50		4,492	5,000	90	69 - 130		84	7	20		MB-2	LCS-2	LCD-2
28.	1,1-Dichloroethene	U	50		4,260	5,000	85	72 - 131		78	9	20		MB-2	LCS-2	LCD-2
29.	cis-1,2-Dichloroethene	U	50		4,385	5,000	88	70 - 131		81	8	20		MB-2	LCS-2	LCD-2
30.	trans-1,2-Dichloroethene	U	50		4,410	5,000	88	70 - 131		81	8	20		MB-2	LCS-2	LCD-2
31.	1,2-Dichloropropane	U	50		4,874	5,000	97	80 - 127		90	7	20		MB-2	LCS-2	LCD-2
32.	cis-1,3-Dichloropropene	U	50		5,393	5,000	108	70 - 131		100	8	20		MB-2	LCS-2	LCD-2
33.	trans-1,3-Dichloropropene	U	50		5,460	5,000	109	70 - 132		101	8	20		MB-2	LCS-2	LCD-2
34.	Ethylbenzene	U	50		5,339	5,000	107	80 - 120		98	9	20		MB-2	LCS-2	LCD-2
35.	Ethylene Dibromide	U	25		5,537	5,000	111	70 - 130		103	7	20		MB-2	LCS-2	LCD-2
36.	2-Hexanone	U	2500		5,554	5,000	111	68 - 138		97	13	20		MB-2	LCS-2	LCD-2
37.	Isopropylbenzene	U	250		5,876	5,000	118	70 - 130		108	9	20		MB-2	LCS-2	LCD-2
38.	Methylene Chloride	U	100		3,799	5,000	76	62 - 130		71	7	20		MB-2	LCS-2	LCD-2
39.	2-Methylnaphthalene	U	330		5,848	5,000	117	51 - 149		107	9	20		MB-2	LCS-2	LCD-2
40.	4-Methyl-2-pentanone	U	2500		6,117	5,000	122	70 - 133		110	10	20		MB-2	LCS-2	LCD-2
41.	MTBE	U	250		4,758	5,000	95	61 - 142		89	7	20		MB-2	LCS-2	LCD-2
42.	Naphthalene	U	330		6,393	5,000	128	70 - 136		117	9	20		MB-2	LCS-2	LCD-2
43.	n-Propylbenzene	U	100		5,238	5,000	105	70 - 130		96	9	20		MB-2	LCS-2	LCD-2
44.	Styrene	U	50		5,901	5,000	118	70 - 130		109	8	20		MB-2	LCS-2	LCD-2
45.	1,1,1,2-Tetrachloroethane	U	100		5,574	5,000	111	70 - 130		103	7	20		MB-2	LCS-2	LCD-2
46.	1,1,2,2-Tetrachloroethane	U	50		5,021	5,000	100	70 - 130		93	7	20		MB-2	LCS-2	LCD-2
47.	Tetrachloroethene	U	50		5,684	5,000	114	70 - 130		104	9	20		MB-2	LCS-2	LCD-2
48.	Toluene	U	50		5,116	5,000	102	79 - 120		93	9	20		MB-2	LCS-2	LCD-2
49.	1,2,4-Trichlorobenzene	U	330		6,011	5,000	120	70 - 133		111	8	20		MB-2	LCS-2	LCD-2
50.	1,1,1-Trichloroethane	U	50		4,558	5,000	91	70 - 130		83	9	20		MB-2	LCS-2	LCD-2
51.	1,1,2-Trichloroethane	U	50		5,232	5,000	105	70 - 130		97	8	20		MB-2	LCS-2	LCD-2

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VJ14G29A **Preparation Date: 07/29/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52. Trichloroethene	U	50		5,641	5,000	113	70 - 130		102	10	20		MB-2	LCS-2	LCD-2
53. Trichlorofluoromethane	U	100		4,630	5,000	93	50 - 150		84	10	20		MB-2	LCS-2	LCD-2
54. 1,2,3-Trichloropropane	U	100		5,334	5,000	107	70 - 130		99	8	20		MB-2	LCS-2	LCD-2
55. 1,2,3-Trimethylbenzene	U	100		5,302	5,000	106	70 - 130		98	8	20		MB-2	LCS-2	LCD-2
56. 1,2,4-Trimethylbenzene	U	100		5,606	5,000	112	70 - 130		103	8	20		MB-2	LCS-2	LCD-2
57. 1,3,5-Trimethylbenzene	U	100		5,543	5,000	111	70 - 130		102	8	20		MB-2	LCS-2	LCD-2
58. Vinyl Chloride	U	40		4,341	5,000	87	70 - 137		79	10	20		MB-2	LCS-2	LCD-2
59. m&p-Xylene	U	100		10,927	10,000	109	70 - 130		100	9	20		MB-2	LCS-2	LCD-2
60. o-Xylene	U	50		5,451	5,000	109	70 - 130		100	9	20		MB-2	LCS-2	LCD-2

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	2,299	2,500	92		2,203	2,500	88	77 - 120		87	1	20		MB-2	LCS-2	LCD-2
2. 1,2-Dichloroethane-d4(S)	2,169	2,500	87		2,153	2,500	86	65 - 131		84	2	20		MB-2	LCS-2	LCD-2
3. Toluene-d8(S)	2,394	2,500	96		2,396	2,500	96	75 - 121		96	0	20		MB-2	LCS-2	LCD-2
4. 4-Bromofluorobenzene(S)	2,328	2,500	93		2,413	2,500	97	80 - 120		96	1	20		MB-2	LCS-2	LCD-2

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	VJ14G29A	07/29/14 11:35
LCS-2	VJ14G29A	07/29/14 10:06
LCD-2	VJ14G29A	07/29/14 10:30

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:35 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VL14G30A **Preparation Date: 07/30/14**

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg		Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000			6,491	5,000	130	50 - 145		128	2	20		MB-3	LCS-3	LCD-3

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	2,239	2,500	90		2,359	2,500	94	77 - 120		94	0	20		MB-3	LCS-3	LCD-3
2. 1,2-Dichloroethane-d4(S)	2,433	2,500	97		2,353	2,500	94	65 - 131		94	0	20		MB-3	LCS-3	LCD-3
3. Toluene-d8(S)	2,400	2,500	96		2,489	2,500	100	75 - 121		99	1	20		MB-3	LCS-3	LCD-3
4. 4-Bromofluorobenzene(S)	2,265	2,500	91		2,548	2,500	102	80 - 120		102	0	20		MB-3	LCS-3	LCD-3

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	VL14G30A	07/30/14 12:30
LCS-3	VL14G30A	07/30/14 10:21
LCD-3	VL14G30A	07/30/14 10:46

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:35 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Soil/Solid

Preparation Batch: VL14G30B **Preparation Date: 07/30/14**

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg		Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Acetone	U	1000			6,350	5,000	127	50 - 145		139	9	20		MB-6	LCS-6	LCD-4

	Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Dibromofluoromethane(S)	2,331	2,500	93		2,491	2,500	100	77 - 120		102	2	20		MB-6	LCS-6	LCD-4
2. 1,2-Dichloroethane-d4(S)	2,505	2,500	100		2,436	2,500	97	65 - 131		97	0	20		MB-6	LCS-6	LCD-4
3. Toluene-d8(S)	2,477	2,500	99		2,500	2,500	100	75 - 121		100	0	20		MB-6	LCS-6	LCD-4
4. 4-Bromofluorobenzene(S)	2,325	2,500	93		2,547	2,500	102	80 - 120		106	4	20		MB-6	LCS-6	LCD-4

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-6	VL14G30B	07/31/14 00:25
LCS-6	VL14G30B	07/30/14 22:18
LCD-4	VL14G30B	07/30/14 22:44

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:31:35 PM

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Seven water samples were collected on August 25, 2014 through August 26, 2014 and received by Fibertec, Inc. on August 26, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
D-MW-06	63890-001	W	Trace Metals, Mercury
F-MW-5s	63890-002	W	Trace Metals, Mercury, SVOC
F-MW-5d	63890-003	W	Trace Metals, Mercury, SVOC
B-MW-09	63890-004	W	Trace Metals, Mercury
G-MW-9	63890-005	W	Trace Metals, Mercury, SVOC
I-MW-7	63890-006	W	Trace Metals, Mercury
B-MW-11	63890-007	W	Trace Metals, Mercury

Exceptions

Trace Metals by EPA 6020A

Sample 63890-006 was qualified as estimated for copper due to high low level continuing calibration verification (132% recovery with criteria being 70-130%). Results may be biased slightly high.

Semi - Volatile Organic Compounds (SVOC) by EPA 8270C

Samples 63890-002, 63890-003 and 63890-005 were qualified as having estimated results for the following compounds due to low laboratory control sample (LCS) results.

Anthracene	56%, criteria = 58-110%
Benzo(a)anthracene	54%, criteria = 56-112%
Benzo(a)pyrene	54%, criteria = 59-113%
Benzo(b)fluoranthene	52%, criteria = 59-113%
Benzo(k)fluoranthene	52%, criteria = 59-111%
Crysene	52%, criteria = 53-112%
Fluoranthene	62%, criteria = 69-112%
Fluorene	55%, criteria = 61-108%
Phenanthrene	59%, criteria = 64-107%
Pyrene	62%, criteria = 67-112%

Results may be biased slightly low.

No other exceptions were observed.

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11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Aqueous

Preparation Batch: PM14H28B **Preparation Date: 08/28/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	0.20		0.255	0.250	102	85 - 115						MB-5	LCS-5	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-5	M614H29A	08/29/14 10:47
LCS-5	M614H29A	08/29/14 10:49

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:49:33 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Aqueous

Preparation Batch: PS14H28B **Preparation Date: 08/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	5.0		42.6	80.0	53	53 - 106		61	14	30		MB-1	LCS-2	LCD-1
2.	Acenaphthylene	U	5.0		45.0	80.0	56	56 - 104		64	13	30		MB-1	LCS-2	LCD-1
3.	Anthracene	U	5.0		45.0	80.0	56	58 - 110	*	66	16	30		MB-1	LCS-2	LCD-1
4.	Benzo(a)anthracene	U	1.0		43.2	80.0	54	56 - 112	*	64	17	30		MB-1	LCS-2	LCD-1
5.	Benzo(a)pyrene	U	1.0		43.3	80.0	54	59 - 113	*	65	18	30		MB-1	LCS-2	LCD-1
6.	Benzo(b)fluoranthene	U	1.0		41.8	80.0	52	59 - 113	*	64	21	30		MB-1	LCS-2	LCD-1
7.	Benzo(ghi)perylene	U	1.0		43.7	80.0	55	46 - 124		66	18	30		MB-1	LCS-2	LCD-1
8.	Benzo(k)fluoranthene	U	1.0		41.9	80.0	52	59 - 111	*	61	16	30		MB-1	LCS-2	LCD-1
9.	Chrysene	U	1.0		41.5	80.0	52	53 - 112	*	63	19	30		MB-1	LCS-2	LCD-1
10.	Dibenzo(a,h)anthracene	U	2.0		43.4	80.0	54	48 - 131		65	18	30		MB-1	LCS-2	LCD-1
11.	Fluoranthene	U	1.0		49.6	80.0	62	69 - 112	*	73	16	30		MB-1	LCS-2	LCD-1
12.	Fluorene	U	5.0		44.2	80.0	55	61 - 108	*	63	14	30		MB-1	LCS-2	LCD-1
13.	Indeno(1,2,3-cd)pyrene	U	2.0		48.9	80.0	61	54 - 128		70	14	30		MB-1	LCS-2	LCD-1
14.	2-Methylnaphthalene	U	5.0		42.3	80.0	53	31 - 113		58	9	30		MB-1	LCS-2	LCD-1
15.	Naphthalene	U	5.0		39.5	80.0	49	37 - 107		54	10	30		MB-1	LCS-2	LCD-1
16.	Phenanthrene	U	2.0		47.0	80.0	59	64 - 107	*	68	14	30		MB-1	LCS-2	LCD-1
17.	Pyrene	U	5.0		49.9	80.0	62	67 - 112	*	73	16	30		MB-1	LCS-2	LCD-1

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/L	Spike µg/L	Rec. %	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	48.4	80.0	61		45.4	80.0	57	44 - 109		65	13	30		MB-1	LCS-2	LCD-1
2.	4-Terphenyl-d14(S)	53.4	80.0	67		49.5	80.0	62	44 - 124		73	16	30		MB-1	LCS-2	LCD-1
3.	1-Fluoronaphthalene(S)	47.7	80.0	60		43.2	80.0	54	44 - 103		59	9	30		MB-1	LCS-2	LCD-1

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	S114H28A	08/28/14 13:20
LCS-2	S114H28A	08/28/14 14:56
LCD-1	S114H28A	08/28/14 16:43

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:49:33 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT14H28B **Preparation Date: 08/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		96.1	100	96	85 - 115						MB-2	LCS-1	
2.	Barium	U	100		489	500	98	85 - 115						MB-2	LCS-1	
3.	Cadmium	U	1.0		96.4	100	96	85 - 115						MB-2	LCS-1	
4.	Chromium	U	10		207	200	104	85 - 115						MB-2	LCS-1	
5.	Copper	U	4.0		220	200	110	85 - 115						MB-2	LCS-1	
6.	Lead	U	3.0		212	200	106	85 - 115						MB-2	LCS-1	
7.	Selenium	U	5.0		94.1	100	94	85 - 115						MB-2	LCS-1	
8.	Silver	U	0.20		99.7	100	100	85 - 115						MB-2	LCS-1	
9.	Zinc	U	50		684	500	137	85 - 115	*					MB-2	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	T414H28B	08/28/14 13:26
LCS-1	T414H28B	08/28/14 13:28

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:49:33 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT14H28C **Preparation Date: 08/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		97.7	100	98	85 - 115						MB-3	LCS-3	
2.	Barium	U	100		501	500	100	85 - 115						MB-3	LCS-3	
3.	Cadmium	U	1.0		99.6	100	100	85 - 115						MB-3	LCS-3	
4.	Chromium	U	10		203	200	101	85 - 115						MB-3	LCS-3	
5.	Copper	U	4.0		217	200	109	85 - 115						MB-3	LCS-3	
6.	Lead	U	3.0		212	200	106	85 - 115						MB-3	LCS-3	
7.	Selenium	U	5.0		96.7	100	97	85 - 115						MB-3	LCS-3	
8.	Silver	U	0.20		102	100	102	85 - 115						MB-3	LCS-3	
9.	Zinc	U	50		547	500	109	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	T414H28B	08/28/14 15:20
LCS-3	T414H28B	08/28/14 15:22

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

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Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:49:33 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT14H28D **Preparation Date: 08/28/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		9.63	10.0	96	85 - 115						MB-4	LCS-4	
2.	Barium	U	100		48.1	50.0	96	85 - 115						MB-4	LCS-4	
3.	Cadmium	U	1.0		9.66	10.0	97	85 - 115						MB-4	LCS-4	
4.	Chromium	U	10		19.5	20.0	98	85 - 115						MB-4	LCS-4	
5.	Copper	U	4.0		21.3	20.0	106	85 - 115						MB-4	LCS-4	
6.	Lead	U	3.0		21.3	20.0	107	85 - 115						MB-4	LCS-4	
7.	Selenium	U	5.0		9.66	10.0	97	85 - 115						MB-4	LCS-4	
8.	Silver	U	0.20		9.92	10.0	99	85 - 115						MB-4	LCS-4	
9.	Zinc	U	50		54.1	50.0	108	85 - 115						MB-4	LCS-4	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	T414H28B	08/28/14 17:35
LCS-4	T414H28B	08/28/14 17:37

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:49:33 PM

Case Narrative - Supplemental

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA/140189

On August 28, 2014, analysis for arsenic, copper, selenium and mercury were requested as listed below. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
G-9@3 ½'	63283-029	S	Arsenic, Copper, Selenium, Mercury
G-14@3 ½'	63283-033	S	Arsenic, Copper, Selenium, Mercury

1914 Holloway Drive Holt, Michigan 48842 Telephone: (517) 699-0345 Facsimile: (517) 699-0388
11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14H29A **Preparation Date: 08/29/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		198	200	99	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	M614H29B	08/29/14 12:44
LCS-1	M614H29B	08/29/14 12:46

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:17:10 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14H29A **Preparation Date: 08/29/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	100		9,839	10,000	98	85 - 115						MB-2	LCS-2	
2.	Copper	U	1000		19,455	20,000	97	85 - 115						MB-2	LCS-2	
3.	Selenium	U	200		9,369	10,000	94	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	T214H29A	08/29/14 13:48
LCS-2	T214H29A	08/29/14 13:50

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:17:10 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21A **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		202	200	101	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	M614G22A	07/22/14 09:20
LCS-1	M614G22A	07/22/14 09:22

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:16 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21B **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		199	200	100	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	M614G22A	07/22/14 10:56
LCS-2	M614G22A	07/22/14 10:58

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:16 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14G21C **Preparation Date: 07/21/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		202	200	101	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	M614G22A	07/22/14 12:52
LCS-3	M614G22A	07/22/14 12:46

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:16 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14H29A **Preparation Date: 08/29/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		198	200	99	85 - 115						MB-10	LCS-10	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-10	M614H29B	08/29/14 12:44
LCS-10	M614H29B	08/29/14 12:46

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:16 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G23B **Preparation Date: 07/23/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		3,025	5,333	57	50 - 114						MB-4	LCS-4	
2.	Acenaphthylene	U	330		2,998	5,333	56	53 - 115						MB-4	LCS-4	
3.	Anthracene	U	330		2,857	5,333	54	48 - 119						MB-4	LCS-4	
4.	Benzo(a)anthracene	U	330		2,849	5,333	53	56 - 120	*					MB-4	LCS-4	
5.	Benzo(a)pyrene	U	330		2,928	5,333	55	57 - 122	*					MB-4	LCS-4	
6.	Benzo(b)fluoranthene	U	330		2,749	5,333	52	50 - 131						MB-4	LCS-4	
7.	Benzo(ghi)perylene	U	330		3,262	5,333	61	41 - 132						MB-4	LCS-4	
8.	Benzo(k)fluoranthene	U	330		2,941	5,333	55	39 - 137						MB-4	LCS-4	
9.	Chrysene	U	330		2,868	5,333	54	53 - 124						MB-4	LCS-4	
10.	Dibenzo(a,h)anthracene	U	330		3,402	5,333	64	53 - 126						MB-4	LCS-4	
11.	Fluoranthene	U	330		2,835	5,333	53	48 - 135						MB-4	LCS-4	
12.	Fluorene	U	330		2,853	5,333	53	49 - 126						MB-4	LCS-4	
13.	Indeno(1,2,3-cd)pyrene	U	330		3,241	5,333	61	51 - 132						MB-4	LCS-4	
14.	2-Methylnaphthalene	U	330		2,790	5,333	52	46 - 105						MB-4	LCS-4	
15.	Naphthalene	U	330		2,460	5,333	46	53 - 110	*					MB-4	LCS-4	
16.	Phenanthrene	U	330		2,850	5,333	53	53 - 119						MB-4	LCS-4	
17.	Pyrene	U	330		3,019	5,333	57	55 - 127						MB-4	LCS-4	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	3,843	5,333	72		3,071	5,333	58	49 - 115						MB-4	LCS-4	
2.	4-Terphenyl-d14(S)	4,153	5,333	78		3,233	5,333	61	48 - 117						MB-4	LCS-4	
3.	1-Fluoronaphthalene(S)	3,502	5,333	66		2,795	5,333	52	46 - 114						MB-4	LCS-4	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	S514G23B	07/23/14 14:15
LCS-4	S514G23B	07/23/14 14:48

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:17 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G25E **Preparation Date: 07/25/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		4,042	5,333	76	50 - 114						MB-8	LCS-8	
2.	Acenaphthylene	U	330		4,051	5,333	76	53 - 115						MB-8	LCS-8	
3.	Anthracene	U	330		3,686	5,333	69	48 - 119						MB-8	LCS-8	
4.	Benzo(a)anthracene	U	330		3,797	5,333	71	56 - 120						MB-8	LCS-8	
5.	Benzo(a)pyrene	U	330		3,900	5,333	73	57 - 122						MB-8	LCS-8	
6.	Benzo(b)fluoranthene	U	330		3,740	5,333	70	50 - 131						MB-8	LCS-8	
7.	Benzo(ghi)perylene	U	330		4,020	5,333	75	41 - 132						MB-8	LCS-8	
8.	Benzo(k)fluoranthene	U	330		4,024	5,333	75	39 - 137						MB-8	LCS-8	
9.	Chrysene	U	330		3,804	5,333	71	53 - 124						MB-8	LCS-8	
10.	Dibenzo(a,h)anthracene	U	330		4,411	5,333	83	53 - 126						MB-8	LCS-8	
11.	Fluoranthene	U	330		4,245	5,333	80	48 - 135						MB-8	LCS-8	
12.	Fluorene	U	330		3,820	5,333	72	49 - 126						MB-8	LCS-8	
13.	Indeno(1,2,3-cd)pyrene	U	330		4,191	5,333	79	51 - 132						MB-8	LCS-8	
14.	2-Methylnaphthalene	U	330		3,468	5,333	65	46 - 105						MB-8	LCS-8	
15.	Naphthalene	U	330		3,209	5,333	60	53 - 110						MB-8	LCS-8	
16.	Phenanthrene	U	330		3,793	5,333	71	53 - 119						MB-8	LCS-8	
17.	Pyrene	U	330		4,449	5,333	83	55 - 127						MB-8	LCS-8	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	3,660	5,333	69		3,793	5,333	71	49 - 115						MB-8	LCS-8	
2.	4-Terphenyl-d14(S)	4,515	5,333	85		4,566	5,333	86	48 - 117						MB-8	LCS-8	
3.	1-Fluoronaphthalene(S)	3,834	5,333	72		3,785	5,333	71	46 - 114						MB-8	LCS-8	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-8	S514G25C	07/25/14 17:11
LCS-8	S514G25C	07/25/14 17:45

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:17 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14G29D **Preparation Date: 07/29/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		4,489	5,333	84	50 - 114						MB-9	LCS-9	
2.	Acenaphthylene	U	330		4,440	5,333	83	53 - 115						MB-9	LCS-9	
3.	Anthracene	U	330		4,444	5,333	83	48 - 119						MB-9	LCS-9	
4.	Benzo(a)anthracene	U	330		3,997	5,333	75	56 - 120						MB-9	LCS-9	
5.	Benzo(a)pyrene	U	330		4,239	5,333	79	57 - 122						MB-9	LCS-9	
6.	Benzo(b)fluoranthene	U	330		4,037	5,333	76	50 - 131						MB-9	LCS-9	
7.	Benzo(ghi)perylene	U	330		4,345	5,333	81	41 - 132						MB-9	LCS-9	
8.	Benzo(k)fluoranthene	U	330		4,316	5,333	81	39 - 137						MB-9	LCS-9	
9.	Chrysene	U	330		4,003	5,333	75	53 - 124						MB-9	LCS-9	
10.	Dibenzo(a,h)anthracene	U	330		4,658	5,333	87	53 - 126						MB-9	LCS-9	
11.	Fluoranthene	U	330		4,266	5,333	80	48 - 135						MB-9	LCS-9	
12.	Fluorene	U	330		4,439	5,333	83	49 - 126						MB-9	LCS-9	
13.	Indeno(1,2,3-cd)pyrene	U	330		4,557	5,333	85	51 - 132						MB-9	LCS-9	
14.	2-Methylnaphthalene	U	330		4,268	5,333	80	46 - 105						MB-9	LCS-9	
15.	Naphthalene	U	330		3,645	5,333	68	53 - 110						MB-9	LCS-9	
16.	Phenanthrene	U	330		4,216	5,333	79	53 - 119						MB-9	LCS-9	
17.	Pyrene	U	330		4,630	5,333	87	55 - 127						MB-9	LCS-9	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	6,474	5,333	121	*	4,457	5,333	84	49 - 115						MB-9	LCS-9	
2.	4-Terphenyl-d14(S)	6,838	5,333	128	*	4,496	5,333	84	48 - 117						MB-9	LCS-9	
3.	1-Fluoronaphthalene(S)	5,818	5,333	109		4,113	5,333	77	46 - 114						MB-9	LCS-9	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-9	S514G29B	07/29/14 17:31
LCS-9	S514G29B	07/29/14 18:05

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:22:17 PM

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63283

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS (EPA 7471B) **Matrix: Soil/Solid**

Parent Sample:	**63283-011**	Description:	**F-6@18'**	Sample No:	**11**	Collect Date:	**07/15/14**	**10:30**
MS Sample ID:	**63283-012**	Description:	**F-6@18' MS**	Sample No:	**12**	Collect Date:	**07/15/14**	**10:30**
MSD Sample ID:	**63283-013**	Description:	**F-6@18' MSD**	Sample No:	**13**	Collect Date:	**07/15/14**	**10:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<16.8	µg/kg(wet)	175	191	188	109	110	70 - 130	1	20

Michigan 10 Elements by ICP/MS (EPA 6020A) **Matrix: Soil/Solid**

Parent Sample:	**63283-011**	Description:	**F-6@18'**	Sample No:	**11**	Collect Date:	**07/15/14**	**10:30**
MS Sample ID:	**63283-012**	Description:	**F-6@18' MS**	Sample No:	**12**	Collect Date:	**07/15/14**	**10:30**
MSD Sample ID:	**63283-013**	Description:	**F-6@18' MSD**	Sample No:	**13**	Collect Date:	**07/15/14**	**10:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**7,190**	µg/kg	10,000	17,926	18,600	107	114	70 - 130	6	20
2. Barium	**54,115**	µg/kg	50,000	112,775	157,141	117	206 *	70 - 130	55 *	20
3. Cadmium	**624**	µg/kg	10,000	10,906	10,834	103	102	70 - 130	1	20
4. Chromium	**19,529**	µg/kg	20,000	38,525	42,614	95	115	70 - 130	19	20
5. Copper	**21,063**	µg/kg	20,000	39,581	39,540	93	92	70 - 130	1	20
6. Lead	**10,271**	µg/kg	20,000	28,811	29,741	93	97	70 - 130	4	20
7. Selenium	**750**	µg/kg	10,000	9,382	9,126	86	84	70 - 130	2	20
8. Silver	<100	µg/kg	10,000	9,093	9,145	91	91	70 - 130	0	20
9. Zinc	**72,808**	µg/kg	50,000	110,969	117,998	76	90	70 - 130	17	20

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63283-011**	Description:	**F-6@18'**	Sample No:	**11**	Collect Date:	**07/15/14**	**10:30**
MS Sample ID:	**63283-012**	Description:	**F-6@18' MS**	Sample No:	**12**	Collect Date:	**07/15/14**	**10:30**
MSD Sample ID:	**63283-013**	Description:	**F-6@18' MSD**	Sample No:	**13**	Collect Date:	**07/15/14**	**10:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene	<66.7	µg/kg(wet)	5,333	3,450	3,400	65	64	50 - 114	2	30
2. Acenaphthylene	<66.7	µg/kg(wet)	5,333	3,390	3,255	64	61	53 - 115	5	30
3. Anthracene	<66.7	µg/kg(wet)	5,333	3,178	3,145	60	59	48 - 119	2	30
4. Benzo(a)anthracene	<66.7	µg/kg(wet)	5,333	3,261	3,090	61	58	56 - 120	5	30
5. Benzo(a)pyrene	<66.7	µg/kg(wet)	5,333	3,214	3,118	60	58	57 - 122	3	30
6. Benzo(b)fluoranthene	<66.7	µg/kg(wet)	5,333	3,062	2,985	57	56	50 - 131	2	30
7. Benzo(ghi)perylene	<66.7	µg/kg(wet)	5,333	3,483	3,327	65	62	41 - 132	5	30
8. Benzo(k)fluoranthene	<66.7	µg/kg(wet)	5,333	3,257	3,132	61	59	39 - 137	3	30
9. Chrysene	<66.7	µg/kg(wet)	5,333	3,294	3,104	62	58	53 - 124	7	30
10. Dibenzo(a,h)anthracene	<66.7	µg/kg(wet)	5,333	3,686	3,511	69	66	53 - 126	4	30
11. Fluoranthene	<66.7	µg/kg(wet)	5,333	3,191	3,189	60	60	48 - 135	0	30
12. Fluorene	<66.7	µg/kg(wet)	5,333	3,300	3,229	62	61	49 - 126	2	30
13. Indeno(1,2,3-cd)pyrene	<66.7	µg/kg(wet)	5,333	3,492	3,365	65	63	51 - 132	3	30

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63283

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63283-011**	Description:	**F-6@18'**	Sample No:	**11**	Collect Date:	**07/15/14**	**10:30**
MS Sample ID:	**63283-012**	Description:	**F-6@18' MS**	Sample No:	**12**	Collect Date:	**07/15/14**	**10:30**
MSD Sample ID:	**63283-013**	Description:	**F-6@18' MSD**	Sample No:	**13**	Collect Date:	**07/15/14**	**10:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
14. 2-Methylnaphthalene	<66.7	µg/kg(wet)	5,333	3,169	3,185	59	60	46 - 105	2	30
15. Naphthalene	<66.7	µg/kg(wet)	5,333	2,810	2,803	53	53	53 - 110	0	30
16. Phenanthrene	<66.7	µg/kg(wet)	5,333	3,318	3,343	62	63	53 - 119	2	30
17. Pyrene	<66.7	µg/kg(wet)	5,333	3,463	3,280	65	61	55 - 127	6	30

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63283

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS (EPA 7471B) **Matrix: Soil/Solid**

Parent Sample:	**63283-030**	Description:	**G-9@9.5'**	Sample No:	**30**	Collect Date:	**07/16/14**	**08:30**
MS Sample ID:	**63283-031**	Description:	**G-9@9.5' MS**	Sample No:	**31**	Collect Date:	**07/16/14**	**08:30**
MSD Sample ID:	**63283-032**	Description:	**G-9@9.5' MSD**	Sample No:	**32**	Collect Date:	**07/16/14**	**08:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<17.7	µg/kg(wet)	182	197	197	108	110	70 - 130	2	20

Michigan 10 Elements by ICP/MS (EPA 6020A) **Matrix: Soil/Solid**

Parent Sample:	**63283-030**	Description:	**G-9@9.5'**	Sample No:	**30**	Collect Date:	**07/16/14**	**08:30**
MS Sample ID:	**63283-031**	Description:	**G-9@9.5' MS**	Sample No:	**31**	Collect Date:	**07/16/14**	**08:30**
MSD Sample ID:	**63283-032**	Description:	**G-9@9.5' MSD**	Sample No:	**32**	Collect Date:	**07/16/14**	**08:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**9,559**	µg/kg	10,000	21,175	18,833	116	93	70 - 130	22 *	20
2. Barium	**92,764**	µg/kg	50,000	143,684	119,123	102	53 *	70 - 130	63 *	20
3. Cadmium	**289**	µg/kg	10,000	10,738	10,505	104	102	70 - 130	2	20
4. Chromium	**17,360**	µg/kg	20,000	36,532	37,634	96	101	70 - 130	5	20
5. Copper	**19,312**	µg/kg	20,000	38,762	40,298	97	105	70 - 130	8	20
6. Lead	**9,561**	µg/kg	20,000	29,967	29,008	102	97	70 - 130	5	20
7. Selenium	**382**	µg/kg	10,000	9,342	8,771	90	84	70 - 130	7	20
8. Silver	<100	µg/kg	10,000	9,202	9,347	92	93	70 - 130	1	20
9. Zinc	**55,755**	µg/kg	50,000	106,867	101,452	102	91	70 - 130	11	20

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63283-030**	Description:	**G-9@9.5'**	Sample No:	**30**	Collect Date:	**07/16/14**	**08:30**
MS Sample ID:	**63283-031**	Description:	**G-9@9.5' MS**	Sample No:	**31**	Collect Date:	**07/16/14**	**08:30**
MSD Sample ID:	**63283-032**	Description:	**G-9@9.5' MSD**	Sample No:	**32**	Collect Date:	**07/16/14**	**08:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene	<66.7	µg/kg(wet)	5,333	3,751	4,459	70	84	50 - 114	18	30
2. Acenaphthylene	<66.7	µg/kg(wet)	5,333	3,629	4,443	68	83	53 - 115	20	30
3. Anthracene	<66.7	µg/kg(wet)	5,333	3,429	4,457	64	84	48 - 119	27	30
4. Benzo(a)anthracene	<66.7	µg/kg(wet)	5,333	3,504	4,408	66	83	56 - 120	23	30
5. Benzo(a)pyrene	<66.7	µg/kg(wet)	5,333	3,556	4,393	67	82	57 - 122	20	30
6. Benzo(b)fluoranthene	<66.7	µg/kg(wet)	5,333	3,478	4,216	65	79	50 - 131	19	30
7. Benzo(ghi)perylene	<66.7	µg/kg(wet)	5,333	3,427	4,654	64	87	41 - 132	30	30
8. Benzo(k)fluoranthene	<66.7	µg/kg(wet)	5,333	3,609	4,550	68	85	39 - 137	22	30
9. Chrysene	<66.7	µg/kg(wet)	5,333	3,372	4,136	63	78	53 - 124	21	30
10. Dibenzo(a,h)anthracene	<66.7	µg/kg(wet)	5,333	4,239	5,044	79	95	53 - 126	18	30
11. Fluoranthene	<66.7	µg/kg(wet)	5,333	3,546	5,248	66	98	48 - 135	39 *	30
12. Fluorene	<66.7	µg/kg(wet)	5,333	3,625	4,408	68	83	49 - 126	20	30
13. Indeno(1,2,3-cd)pyrene	<66.7	µg/kg(wet)	5,333	3,925	4,756	74	89	51 - 132	18	30

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63283

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments: **Soil results have been calculated and reported on a dry weight basis unless otherwise noted.**

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3546/EPA 8270C) **Matrix: Soil/Solid**

Parent Sample:	**63283-030**	Description:	**G-9@9.5'**	Sample No:	**30**	Collect Date:	**07/16/14**	**08:30**
MS Sample ID:	**63283-031**	Description:	**G-9@9.5' MS**	Sample No:	**31**	Collect Date:	**07/16/14**	**08:30**
MSD Sample ID:	**63283-032**	Description:	**G-9@9.5' MSD**	Sample No:	**32**	Collect Date:	**07/16/14**	**08:30**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
14. 2-Methylnaphthalene	<66.7	µg/kg(wet)	5,333	3,556	4,193	67	79	46 - 105	16	30
15. Naphthalene	<66.7	µg/kg(wet)	5,333	3,035	3,684	57	69	53 - 110	19	30
16. Phenanthrene	<66.7	µg/kg(wet)	5,333	3,488	4,349	65	82	53 - 119	23	30
17. Pyrene	<66.7	µg/kg(wet)	5,333	4,069	5,207	76	98	55 - 127	25	30

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Thursday, February 26, 2015
1:33:29 PM

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

T104704518-15-3 (TX)

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140190

Nineteen water samples (including blank) were collected on August 27, 2014 through August 29, 2014 and received by Fibertec, Inc. on August 29, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time. Exceptions are noted below.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
J-MW-21	63965-001	W	Trace Metals, Mercury
J-MW-81	63965-002	W	Trace Metals, Mercury
J-MW-83	63965-003	W	Trace Metals, Mercury
J-MW-47	63965-004	W	Trace Metals, Mercury
J-MW-55	63965-005	W	Trace Metals, Mercury
J-MW-38	63965-006	W	Trace Metals, Mercury
J-MW-61	63965-007	W	Trace Metals, Mercury, VOC
TRIP BLANK	63965-008	W	VOC
J-MW-30	63965-009	W	Trace Metals, Mercury, VOC, SVOC
J-MW-28	63965-010	W	Trace Metals, Mercury, VOC, SVOC
A-MW-31	63965-011	W	Trace Metals, Mercury, VOC, SVOC
A-MW-78	63965-012	W	Trace Metals, Mercury, VOC, SVOC
A-MW-74	63965-013	W	Trace Metals, Mercury, VOC, SVOC
A-MW-74 MS	63965-014	W	Trace Metals, Mercury, VOC, SVOC
A-MW-74 MSD	63965-015	W	Trace Metals, Mercury, VOC, SVOC
A-MW-77	63965-016	W	Trace Metals, Mercury, VOC, SVOC
A-MW-76	63965-017	W	Trace Metals, Mercury, VOC, SVOC
EB-1GW	63965-018	W	VOC
M-1GW	63965-019	W	Trace Metals, Mercury, VOC, SVOC

Exceptions

Volatile Organic Compounds (VOC) by EPA 8260B

Samples 63965-007 through 63965-013 and 63965-016 through 63965-019 were qualified as estimated for 2-butanone and 2-hexanone due to high laboratory control sample (133, 143, and 138% recovery with criteria being 59-130% and 141, 153 and 139% recovery with criteria being 62-130%, respectively). Results may be biased high.

Samples 63965-014 and 63965-015 were qualified as estimated for 2-butanone and 2-hexanone due to high continuing calibration verification (133 and 135% recovery with criteria being 70-130%, respectively). Results may be biased slightly high.

No other exceptions were observed.

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11766 E. Grand River Brighton, Michigan 48116 Telephone: (810) 220-3300 Facsimile: (810) 220-3311
8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Sixteen water samples (including blank) were collected on August 26, 2014 through August 27, 2014and received by Fibertec, Inc. on August 29, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time. Exceptions are noted below.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
Trip Blank	63963-001	W	VOC
B-MW-8	63963-002	W	Trace Metals, Mercury
A-MW-20	63963-003	W	Trace Metals, Mercury, VOC, SVOC
A-MW-20 MS	63963-004	W	Trace Metals, Mercury, VOC, SVOC
A-MW-20 MSD	63963-005	W	Trace Metals, Mercury, VOC, SVOC
A-MW-19	63963-006	W	Trace Metals, Mercury, VOC, SVOC
A-MW-16	63963-007	W	Trace Metals, Mercury, VOC, SVOC
A-MW-17s	63963-008	W	Trace Metals, Mercury, VOC, SVOC
A-MW-17d	63963-009	W	Trace Metals, Mercury, VOC, SVOC
EB-1GW	63963-010	W	VOC
A-MW-15	63963-011	W	Trace Metals, Mercury, VOC, SVOC
A-MW-13	63963-012	W	Trace Metals, Mercury, VOC, SVOC
A-MW-12s	63963-013	W	Trace Metals, Mercury, VOC, SVOC
A-MW-12d	63963-014	W	Trace Metals, Mercury, VOC, SVOC
EB-2GW	63963-015	W	VOC
M-1GW	63963-016	W	Trace Metals, Mercury, VOC, SVOC

Exceptions

Volatile Organic Compounds (VOC) by EPA 8260B

Sample 63963-001was qualified as estimated for 2-butanone and 2-hexanone due to high laboratory control sample (143% recovery with criteria being 59-130% and 153% recovery with criteria being 62-130%, respectively). Results may be biased high.

Samples 63963-003, 63963-006 through and 63963-016 were qualified as estimated for 2-butanone and 2-hexanone due to high laboratory control sample (133% recovery with criteria being 59-130% and 141% recovery with criteria being 62-130%, respectively). Results may be biased high.

Samples 63963-004 and 63963-005 were qualified as estimated for 2-butanoe and 2-hexanone due to high continuing calibration verification (131 and 138% recovery with criteria being 70-130%, respectively). Results may be biased high.

Mercury Dissolved by EPA 7470A

Samples 63963-004 and 63963-005 were qualified as estimated for mercury due to high continuing calibration verification (106% recovery with criteria being 95-105%). Results may be biased slightly high.

No other exceptions were observed.

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8660 S. Mackinaw Trail Cadillac, Michigan 49601 Telephone: (231) 775-8368 Facsimile: (231) 775-8584

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63965

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140190)** Client Project No: **140190**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Matrix: Ground Water**

Parent Sample:	**63965-013**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acetone	<10.0	µg/L	100	61.4	67.6	61	68	50 - 136	11	20
2. Acrylonitrile	<2.00	µg/L	100	112	105	112	105	66 - 135	6	20
3. Benzene	<0.500	µg/L	100	118	107	118	107	70 - 130	10	20
4. Bromobenzene	<1.00	µg/L	100	103	93.3	103	93	70 - 130	10	20
5. Bromochloromethane	<1.00	µg/L	100	105	90.6	105	91	61 - 130	14	20
6. Bromodichloromethane	<1.00	µg/L	100	121	107	121	107	70 - 130	12	20
7. Bromoform	<1.00	µg/L	100	121	109	121	109	65 - 145	10	20
8. Bromomethane	<2.00	µg/L	100	96.0	80.4	96	80	52 - 150	18	20
9. 2-Butanone	<5.00	µg/L	100	89.6	89.6	90	90	59 - 130	0	20
10. n-Butylbenzene	<1.00	µg/L	100	122	114	122	114	70 - 138	7	20
11. sec-Butylbenzene	<0.500	µg/L	100	119	110	119	110	70 - 130	8	20
12. tert-Butylbenzene	<0.500	µg/L	100	116	107	116	107	70 - 130	8	20
13. Carbon Disulfide	<2.00	µg/L	100	123	113	123	113	70 - 130	8	20
14. Carbon Tetrachloride	<1.00	µg/L	100	131	118	131	118	70 - 133	10	20
15. Chlorobenzene	<1.00	µg/L	100	113	102	113	102	70 - 130	10	20
16. Chloroethane	<2.00	µg/L	100	131	117	131	117	53 - 136	11	20
17. Chloroform	<0.500	µg/L	100	122	106	122 *	106	78 - 121	14	20
18. Chloromethane	<2.00	µg/L	100	101	95.0	101	95	50 - 148	6	20
19. 2-Chlorotoluene	<1.00	µg/L	100	109	99.9	109	100	70 - 130	9	20
20. Dibromochloromethane	<1.00	µg/L	100	116	108	116	108	70 - 130	7	20
21. 1,2-Dibromo-3-chloropropane (SIM)	<0.500	µg/L	100	113	110	113	110	70 - 137	3	20
22. Dibromomethane	<1.00	µg/L	100	108	101	108	101	70 - 130	7	20
23. 1,2-Dichlorobenzene	<1.00	µg/L	100	111	101	111	101	70 - 130	9	20
24. 1,3-Dichlorobenzene	<1.00	µg/L	100	105	95.7	105	96	70 - 130	9	20
25. 1,4-Dichlorobenzene	<1.00	µg/L	100	107	97.7	107	98	70 - 130	9	20
26. Dichlorodifluoromethane	<1.00	µg/L	100	139	128	139	128	70 - 139	8	20
27. 1,1-Dichloroethane	<0.500	µg/L	100	120	107	120	107	70 - 130	11	20
28. 1,2-Dichloroethane	<1.00	µg/L	100	119	107	119	107	70 - 130	11	20
29. 1,1-Dichloroethene	<0.500	µg/L	100	129	116	129 *	116	72 - 126	11	20
30. cis-1,2-Dichloroethene	<0.500	µg/L	100	116	103	116	103	70 - 130	12	20
31. trans-1,2-Dichloroethene	<1.00	µg/L	100	121	107	121	107	70 - 130	12	20
32. 1,2-Dichloropropane	<1.00	µg/L	100	117	106	117	106	79 - 125	10	20
33. cis-1,3-Dichloropropene	<1.00	µg/L	100	118	108	118	108	70 - 131	9	20
34. trans-1,3-Dichloropropene	<1.00	µg/L	100	114	106	114	106	70 - 130	7	20
35. Ethylbenzene	<0.500	µg/L	100	115	105	115	105	80 - 122	9	20
36. Ethylene Dibromide	<1.00	µg/L	100	108	101	108	101	70 - 130	7	20
37. 2-Hexanone	<5.00	µg/L	100	98.1	98.0	98	98	62 - 130	0	20
38. Isopropylbenzene	<0.500	µg/L	100	126	117	126	117	70 - 130	7	20

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63965

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140190)** Client Project No: **140190**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Volatile Organic Compounds (VOCs) by GC/MS (EPA 5030B/EPA 8260B) **Matrix: Ground Water**

Parent Sample:	**63965-013**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
39. Methylene Chloride	<2.00	µg/L	100	111	101	111	101	63 - 130	9	20
40. 2-Methylnaphthalene	<1.00	µg/L	100	112	116	112	116	50 - 149	4	20
41. 4-Methyl-2-pentanone	<5.00	µg/L	100	110	108	110	108	67 - 134	2	20
42. MTBE	<0.500	µg/L	100	120	107	120	107	70 - 130	11	20
43. Naphthalene	<1.00	µg/L	100	111	106	111	106	70 - 130	5	20
44. n-Propylbenzene	<0.500	µg/L	100	111	104	111	104	70 - 130	7	20
45. Styrene	<0.500	µg/L	100	120	109	120	109	70 - 135	10	20
46. 1,1,1,2-Tetrachloroethane	<1.00	µg/L	100	120	107	120	107	70 - 130	11	20
47. 1,1,2,2-Tetrachloroethane	<1.00	µg/L	100	106	98.4	106	98	70 - 130	8	20
48. Tetrachloroethene	<0.500	µg/L	100	117	107	117	107	70 - 130	9	20
49. Toluene	<0.500	µg/L	100	115	105	115	105	80 - 120	9	20
50. 1,2,4-Trichlorobenzene	<1.00	µg/L	100	111	104	111	104	70 - 130	7	20
51. 1,1,1-Trichloroethane	<1.00	µg/L	100	130	116	130	116	70 - 130	11	20
52. 1,1,2-Trichloroethane	<1.00	µg/L	100	117	108	117	108	70 - 130	8	20
53. Trichloroethene	<0.500	µg/L	100	112	101	112	101	71 - 130	10	20
54. Trichlorofluoromethane	<1.00	µg/L	100	143	128	143 *	128	69 - 131	11	20
55. 1,2,3-Trichloropropane	<1.00	µg/L	100	103	98.5	103	98	70 - 130	5	20
56. 1,2,3-Trimethylbenzene	<0.500	µg/L	100	116	103	116	103	70 - 130	12	20
57. 1,2,4-Trimethylbenzene	<0.500	µg/L	100	114	104	114	104	70 - 130	9	20
58. 1,3,5-Trimethylbenzene	<0.500	µg/L	100	116	106	116	106	70 - 130	9	20
59. Vinyl Chloride	<1.00	µg/L	100	127	115	127 *	115	73 - 125	10	20
60. m&p-Xylene	<1.00	µg/L	200	236	217	118	108	70 - 130	9	20
61. o-Xylene	<0.500	µg/L	100	120	109	120	109	70 - 130	10	20

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63965

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140190)** Client Project No: **140190**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Polynuclear Aromatic Hydrocarbons (PNAs) (EPA 3510C/EPA 8270C) **Matrix: Ground Water**

Parent Sample:	**63965-013A**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014A**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015A**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Acenaphthene	<1.00	µg/L	80.0	58.6	64.4	73	80	53 - 106	9	30
2. Acenaphthylene	<1.00	µg/L	80.0	61.8	68.1	77	85	56 - 104	10	30
3. Anthracene	<1.00	µg/L	80.0	62.1	67.4	78	84	58 - 110	7	30
4. Benzo(a)anthracene	<1.00	µg/L	80.0	66.1	71.7	83	90	56 - 112	8	30
5. Benzo(a)pyrene	<1.00	µg/L	80.0	67.0	72.2	84	90	59 - 113	7	30
6. Benzo(b)fluoranthene	<1.00	µg/L	80.0	63.4	70.4	79	88	59 - 113	11	30
7. Benzo(ghi)perylene	<1.00	µg/L	80.0	67.3	73.2	84	91	46 - 124	8	30
8. Benzo(k)fluoranthene	<1.00	µg/L	80.0	64.6	67.7	81	85	59 - 111	5	30
9. Chrysene	<1.00	µg/L	80.0	66.1	70.4	83	88	53 - 112	6	30
10. Dibenzo(a,h)anthracene	<1.00	µg/L	80.0	66.8	71.7	83	90	48 - 131	8	30
11. Fluoranthene	<1.00	µg/L	80.0	69.4	75.7	87	95	69 - 112	9	30
12. Fluorene	<1.00	µg/L	80.0	59.7	67.0	75	84	61 - 108	11	30
13. Indeno(1,2,3-cd)pyrene	<1.00	µg/L	80.0	69.2	70.9	86	89	54 - 128	3	30
14. 2-Methylnaphthalene	<1.00	µg/L	80.0	59.5	65.7	74	82	31 - 113	10	30
15. Naphthalene	<1.00	µg/L	80.0	54.6	59.9	68	75	37 - 107	10	30
16. Phenanthrene	<1.00	µg/L	80.0	64.6	71.2	81	89	64 - 107	9	30
17. Pyrene	<1.00	µg/L	80.0	70.5	75.6	88	95	67 - 112	8	30

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63965

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140190)** Client Project No: **140190**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS, Total (EPA 7470A) **Matrix: Ground Water**

Parent Sample:	**63965-013B**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014B**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015B**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<0.0200	µg/L	0.250	0.256	0.250	102	100	70 - 130	2	20

Trace Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Matrix: Ground Water**

Parent Sample:	**63965-013B**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014B**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015B**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**174**	µg/L	100	284	288	110	115	70 - 130	4	20
2. Barium	**160**	µg/L	500	687	694	105	107	70 - 130	2	20
3. Cadmium	<0.120	µg/L	100	103	105	103	105	70 - 130	2	20
4. Chromium	<1.20	µg/L	200	202	204	101	102	70 - 130	1	20
5. Copper	<1.20	µg/L	200	215	220	107	110	70 - 130	3	20
6. Lead	**0.654**	µg/L	200	211	216	105	108	70 - 130	3	20
7. Lithium	**37.2**	µg/L	100	141	141	103	104	70 - 130	1	20
8. Selenium	<1.20	µg/L	100	101	105	101	105	70 - 130	4	20
9. Silver	<0.120	µg/L	100	101	103	101	103	70 - 130	2	20
10. Zinc	**9.70**	µg/L	500	554	570	109	112	70 - 130	3	20

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 63965

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140190)** Client Project No: **140190**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS, Dissolved (EPA 7470A) **Matrix: Ground Water**

Parent Sample:	**63965-013C**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014C**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015C**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<0.0200	µg/L	0.250	0.255	0.253	102	101	70 - 130	1	20

Trace Elements by ICP/MS, Dissolved (CODE FF/EPA 6020A) **Matrix: Ground Water**

Parent Sample:	**63965-013C**	Description:	**A-MW-74**	Sample No:	**13**	Collect Date:	**08/29/14**	**14:05**
MS Sample ID:	**63965-014C**	Description:	**A-MW-74 MS**	Sample No:	**14**	Collect Date:	**08/29/14**	**14:05**
MSD Sample ID:	**63965-015C**	Description:	**A-MW-74 MSD**	Sample No:	**15**	Collect Date:	**08/29/14**	**14:05**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**154**	µg/L	100	247	254	94	101	70 - 130	7	20
2. Barium	**161**	µg/L	500	647	665	97	101	70 - 130	4	20
3. Cadmium	<0.120	µg/L	100	99.0	103	99	103	70 - 130	4	20
4. Chromium	<1.20	µg/L	200	183	192	92	96	70 - 130	4	20
5. Copper	<1.20	µg/L	200	203	210	101	105	70 - 130	4	20
6. Lead	<0.600	µg/L	200	197	204	99	102	70 - 130	3	20
7. Lithium	**39.7**	µg/L	100	140	141	101	102	70 - 130	1	20
8. Selenium	**1.42**	µg/L	100	102	107	101	106	70 - 130	5	20
9. Silver	<0.120	µg/L	100	95.3	97.6	95	98	70 - 130	3	20
10. Zinc	**8.81**	µg/L	500	547	561	108	110	70 - 130	2	20

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Thursday, February 26, 2015
12:30:20 PM

ACCREDITED IN ACCORDANCE WITH nelac

Accreditation Number(s):

T104704518-15-3 (TX)

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Aqueous

Preparation Batch: PM14I03B **Preparation Date: 09/03/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	0.20		0.250	0.250	100	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	M614I03A	09/03/14 13:43
LCS-3	M614I03A	09/03/14 13:45

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:26 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Aqueous

Preparation Batch: PM14I03C **Preparation Date: 09/03/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	0.20		0.249	0.250	100	85 - 115						MB-4	LCS-4	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	M614I03A	09/03/14 14:31
LCS-4	M614I03A	09/03/14 14:33

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:27 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Aqueous

Preparation Batch: PM14I03D **Preparation Date: 09/03/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	0.20		0.250	0.250	100	85 - 115						MB-5	LCS-5	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-5	M614I03A	09/03/14 15:25
LCS-5	M614I03A	09/03/14 15:27

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:27 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Aqueous

Preparation Batch: PS14I03A **Preparation Date: 09/03/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	5.0		62.9	80.0	79	53 - 106						MB-2	LCS-2	
2.	Acenaphthylene	U	5.0		66.0	80.0	82	56 - 104						MB-2	LCS-2	
3.	Anthracene	U	5.0		65.4	80.0	82	58 - 110						MB-2	LCS-2	
4.	Benzo(a)anthracene	U	1.0		64.9	80.0	81	56 - 112						MB-2	LCS-2	
5.	Benzo(a)pyrene	U	1.0		65.2	80.0	82	59 - 113						MB-2	LCS-2	
6.	Benzo(b)fluoranthene	U	1.0		63.0	80.0	79	59 - 113						MB-2	LCS-2	
7.	Benzo(ghi)perylene	U	1.0		64.4	80.0	81	46 - 124						MB-2	LCS-2	
8.	Benzo(k)fluoranthene	U	1.0		63.2	80.0	79	59 - 111						MB-2	LCS-2	
9.	Chrysene	U	1.0		63.8	80.0	80	53 - 112						MB-2	LCS-2	
10.	Dibenzo(a,h)anthracene	U	2.0		64.9	80.0	81	48 - 131						MB-2	LCS-2	
11.	Fluoranthene	U	1.0		72.8	80.0	91	69 - 112						MB-2	LCS-2	
12.	Fluorene	U	5.0		64.4	80.0	81	61 - 108						MB-2	LCS-2	
13.	Indeno(1,2,3-cd)pyrene	U	2.0		64.5	80.0	81	54 - 128						MB-2	LCS-2	
14.	2-Methylnaphthalene	U	5.0		64.7	80.0	81	31 - 113						MB-2	LCS-2	
15.	Phenanthrene	U	2.0		69.0	80.0	86	64 - 107						MB-2	LCS-2	
16.	Pyrene	U	5.0		74.9	80.0	94	67 - 112						MB-2	LCS-2	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/L	Spike µg/L	Rec. %	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	54.2	80.0	68		66.2	80.0	83	44 - 109						MB-2	LCS-2	
2.	4-Terphenyl-d14(S)	66.8	80.0	84		73.3	80.0	92	44 - 124						MB-2	LCS-2	
3.	1-Fluoronaphthalene(S)	53.5	80.0	67		64.7	80.0	81	44 - 103						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	S114I03A	09/03/14 10:57
LCS-2	S114I03A	09/03/14 11:45

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:27 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT14I02B **Preparation Date: 09/02/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		96.1	10.0	961	85 - 115	*					MB-7	LCS-8	
2.	Barium	U	100		488	50.0	975	85 - 115	*					MB-7	LCS-8	
3.	Cadmium	U	1.0		97.9	10.0	979	85 - 115	*					MB-7	LCS-8	
4.	Chromium	U	10		204	20.0	1,020	85 - 115	*					MB-7	LCS-8	
5.	Copper	U	4.0		213	20.0	1,063	85 - 115	*					MB-7	LCS-8	
6.	Lead	U	3.0		206	20.0	1,030	85 - 115	*					MB-7	LCS-8	
7.	Lithium	U	10		106	10.0	1,055	85 - 115	*					MB-7	LCS-8	
8.	Selenium	U	5.0		95.6	10.0	956	85 - 115	*					MB-7	LCS-8	
9.	Silver	U	0.20		103	10.0	1,031	85 - 115	*					MB-7	LCS-8	
10.	Zinc	U	50		535	50.0	1,069	85 - 115	*					MB-7	LCS-8	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-7	T414I04C	09/04/14 13:47
LCS-8	T414I04C	09/04/14 13:49

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:27 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT14I02E **Preparation Date: 09/02/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		96.1	100	96	85 - 115						MB-7	LCS-8	
2.	Barium	U	100		488	500	98	85 - 115						MB-7	LCS-8	
3.	Cadmium	U	1.0		97.9	100	98	85 - 115						MB-7	LCS-8	
4.	Chromium	U	10		204	200	102	85 - 115						MB-7	LCS-8	
5.	Copper	U	4.0		213	200	106	85 - 115						MB-7	LCS-8	
6.	Lead	U	3.0		206	200	103	85 - 115						MB-7	LCS-8	
7.	Lithium	U	10		106	100	106	85 - 115						MB-7	LCS-8	
8.	Selenium	U	5.0		95.6	100	96	85 - 115						MB-7	LCS-8	
9.	Silver	U	0.20		103	100	103	85 - 115						MB-7	LCS-8	
10.	Zinc	U	50		535	500	107	85 - 115						MB-7	LCS-8	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-7	T414I04C	09/04/14 13:47
LCS-8	T414I04C	09/04/14 13:49

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:27 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I02A **Preparation Date: 09/02/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	50		126	100	126	50 - 136		114	10	20		MB-1	LCS-1	LCD-1
2.	Acrylonitrile	U	2.0		112	100	112	66 - 135		113	1	20		MB-1	LCS-1	LCD-1
3.	Benzene	U	1.0		109	100	109	70 - 130		106	3	20		MB-1	LCS-1	LCD-1
4.	Bromobenzene	U	1.0		95.5	100	96	70 - 130		98	2	20		MB-1	LCS-1	LCD-1
5.	Bromochloromethane	U	1.0		90.9	100	91	61 - 130		96	5	20		MB-1	LCS-1	LCD-1
6.	Bromodichloromethane	U	1.0		108	100	108	70 - 130		106	2	20		MB-1	LCS-1	LCD-1
7.	Bromoform	U	1.0		109	100	109	65 - 145		111	2	20		MB-1	LCS-1	LCD-1
8.	Bromomethane	U	5.0		71.5	100	71	52 - 150		76	7	20		MB-1	LCS-1	LCD-1
9.	2-Butanone	U	25		143	100	143	59 - 130	*	132	8	20		MB-1	LCS-1	LCD-1
10.	n-Butylbenzene	U	1.0		117	100	117	70 - 138		119	2	20		MB-1	LCS-1	LCD-1
11.	sec-Butylbenzene	U	1.0		110	100	110	70 - 130		112	2	20		MB-1	LCS-1	LCD-1
12.	tert-Butylbenzene	U	1.0		108	100	108	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
13.	Carbon Disulfide	U	5.0		109	100	109	70 - 130		111	2	20		MB-1	LCS-1	LCD-1
14.	Carbon Tetrachloride	U	1.0		113	100	113	70 - 133		110	3	20		MB-1	LCS-1	LCD-1
15.	Chlorobenzene	U	1.0		103	100	103	70 - 130		103	0	20		MB-1	LCS-1	LCD-1
16.	Chloroethane	U	5.0		111	100	111	53 - 136		112	1	20		MB-1	LCS-1	LCD-1
17.	Chloroform	U	1.0		106	100	106	78 - 121		107	1	20		MB-1	LCS-1	LCD-1
18.	Chloromethane	U	5.0		95.2	100	95	50 - 148		92	3	20		MB-1	LCS-1	LCD-1
19.	2-Chlorotoluene	U	5.0		103	100	103	70 - 130		103	0	20		MB-1	LCS-1	LCD-1
20.	Dibromochloromethane	U	5.0		108	100	108	70 - 130		107	1	20		MB-1	LCS-1	LCD-1
21.	1,2-Dibromo-3-chloropropane	U	1.0		117	100	117	70 - 137		118	1	20		MB-1	LCS-1	LCD-1
22.	Dibromomethane	U	5.0		104	100	104	70 - 130		103	1	20		MB-1	LCS-1	LCD-1
23.	1,2-Dichlorobenzene	U	1.0		102	100	102	70 - 130		106	4	20		MB-1	LCS-1	LCD-1
24.	1,3-Dichlorobenzene	U	1.0		99.9	100	100	70 - 130		102	2	20		MB-1	LCS-1	LCD-1
25.	1,4-Dichlorobenzene	U	1.0		102	100	102	70 - 130		105	3	20		MB-1	LCS-1	LCD-1
26.	Dichlorodifluoromethane	U	5.0		126	100	126	70 - 139		124	2	20		MB-1	LCS-1	LCD-1
27.	1,1-Dichloroethane	U	1.0		108	100	108	70 - 130		107	1	20		MB-1	LCS-1	LCD-1
28.	1,2-Dichloroethane	U	1.0		105	100	105	70 - 130		106	1	20		MB-1	LCS-1	LCD-1
29.	1,1-Dichloroethene	U	1.0		110	100	110	72 - 126		112	2	20		MB-1	LCS-1	LCD-1
30.	cis-1,2-Dichloroethene	U	1.0		102	100	102	70 - 130		102	0	20		MB-1	LCS-1	LCD-1
31.	trans-1,2-Dichloroethene	U	1.0		106	100	106	70 - 130		107	1	20		MB-1	LCS-1	LCD-1
32.	1,2-Dichloropropane	U	1.0		106	100	106	79 - 125		104	2	20		MB-1	LCS-1	LCD-1
33.	cis-1,3-Dichloropropene	U	1.0		115	100	115	70 - 131		112	3	20		MB-1	LCS-1	LCD-1
34.	trans-1,3-Dichloropropene	U	1.0		109	100	109	70 - 130		108	1	20		MB-1	LCS-1	LCD-1
35.	Ethylbenzene	U	1.0		105	100	105	80 - 122		105	0	20		MB-1	LCS-1	LCD-1
36.	Ethylene Dibromide	U	1.0		101	100	101	70 - 130		104	3	20		MB-1	LCS-1	LCD-1
37.	2-Hexanone	U	50		153	100	153	62 - 130	*	137	11	20		MB-1	LCS-1	LCD-1
38.	Isopropylbenzene	U	5.0		113	100	113	70 - 130		113	0	20		MB-1	LCS-1	LCD-1
39.	Methylene Chloride	U	5.0		101	100	101	63 - 130		100	1	20		MB-1	LCS-1	LCD-1
40.	2-Methylnaphthalene	U	5.0		128	100	128	50 - 149		124	3	20		MB-1	LCS-1	LCD-1
41.	4-Methyl-2-pentanone	U	50		123	100	123	67 - 134		115	7	20		MB-1	LCS-1	LCD-1
42.	MTBE	U	5.0		110	100	110	70 - 130		111	1	20		MB-1	LCS-1	LCD-1
43.	Naphthalene	U	5.0		114	100	114	70 - 130		116	2	20		MB-1	LCS-1	LCD-1
44.	n-Propylbenzene	U	1.0		104	100	104	70 - 130		104	0	20		MB-1	LCS-1	LCD-1
45.	Styrene	U	1.0		109	100	109	70 - 135		109	0	20		MB-1	LCS-1	LCD-1
46.	1,1,1,2-Tetrachloroethane	U	1.0		110	100	110	70 - 130		109	1	20		MB-1	LCS-1	LCD-1
47.	1,1,2,2-Tetrachloroethane	U	1.0		105	100	105	70 - 130		106	1	20		MB-1	LCS-1	LCD-1
48.	Tetrachloroethene	U	1.0		105	100	105	70 - 130		108	3	20		MB-1	LCS-1	LCD-1
49.	Toluene	U	1.0		103	100	103	80 - 120		105	2	20		MB-1	LCS-1	LCD-1
50.	1,2,4-Trichlorobenzene	U	5.0		111	100	111	70 - 130		115	4	20		MB-1	LCS-1	LCD-1
51.	1,1,1-Trichloroethane	U	1.0		109	100	109	70 - 130		111	2	20		MB-1	LCS-1	LCD-1

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Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I02A **Preparation Date: 09/02/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	1.0		108	100	108	70 - 130		111	3	20		MB-1	LCS-1	LCD-1
53.	Trichloroethene	U	1.0		101	100	101	71 - 130		100	1	20		MB-1	LCS-1	LCD-1
54.	Trichlorofluoromethane	U	1.0		118	100	118	69 - 131		117	1	20		MB-1	LCS-1	LCD-1
55.	1,2,3-Trichloropropane	U	1.0		100	100	100	70 - 130		104	4	20		MB-1	LCS-1	LCD-1
56.	1,2,3-Trimethylbenzene	U	1.0		106	100	106	70 - 130		109	3	20		MB-1	LCS-1	LCD-1
57.	1,2,4-Trimethylbenzene	U	1.0		107	100	107	70 - 130		108	1	20		MB-1	LCS-1	LCD-1
58.	1,3,5-Trimethylbenzene	U	1.0		109	100	109	70 - 130		110	1	20		MB-1	LCS-1	LCD-1
59.	Vinyl Chloride	U	1.0		112	100	112	73 - 125		113	1	20		MB-1	LCS-1	LCD-1
60.	m&p-Xylene	U	2.0		213	200	106	70 - 130		108	2	20		MB-1	LCS-1	LCD-1
61.	o-Xylene	U	1.0		107	100	107	70 - 130		109	2	20		MB-1	LCS-1	LCD-1

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/L	Spike µg/L	Rec. %	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Dibromofluoromethane(S)	49.7	50.0	99		47.9	50.0	96	80 - 120		98	2	20		MB-1	LCS-1	LCD-1
2.	1,2-Dichloroethane-d4(S)	52.2	50.0	104		50.3	50.0	101	80 - 120		100	1	20		MB-1	LCS-1	LCD-1
3.	Toluene-d8(S)	49.8	50.0	100		49.7	50.0	99	80 - 122		99	0	20		MB-1	LCS-1	LCD-1
4.	4-Bromofluorobenzene(S)	52.1	50.0	104		51.4	50.0	103	80 - 120		105	2	20		MB-1	LCS-1	LCD-1

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	VB14I02A	09/02/14 12:02
LCS-1	VB14I02A	09/02/14 10:41
LCD-1	VB14I02A	09/02/14 11:08

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:28 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I04A **Preparation Date: 09/04/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	50		116	100	116	50 - 136		124	7	20		MB-8	LCS-6	LCD-2
2.	Acrylonitrile	U	2.0		104	100	104	66 - 135		110	6	20		MB-8	LCS-6	LCD-2
3.	Benzene	U	1.0		106	100	106	70 - 130		101	5	20		MB-8	LCS-6	LCD-2
4.	Bromobenzene	U	1.0		93.9	100	94	70 - 130		91	3	20		MB-8	LCS-6	LCD-2
5.	Bromochloromethane	U	1.0		93.5	100	93	61 - 130		91	2	20		MB-8	LCS-6	LCD-2
6.	Bromodichloromethane	U	1.0		106	100	106	70 - 130		104	2	20		MB-8	LCS-6	LCD-2
7.	Bromoform	U	1.0		106	100	106	65 - 145		106	0	20		MB-8	LCS-6	LCD-2
8.	Bromomethane	U	5.0		70.8	100	71	52 - 150		71	0	20		MB-8	LCS-6	LCD-2
9.	2-Butanone	U	25		133	100	133	59 - 130	*	143	7	20		MB-8	LCS-6	LCD-2
10.	n-Butylbenzene	U	1.0		115	100	115	70 - 138		109	5	20		MB-8	LCS-6	LCD-2
11.	sec-Butylbenzene	U	1.0		106	100	106	70 - 130		103	3	20		MB-8	LCS-6	LCD-2
12.	tert-Butylbenzene	U	1.0		105	100	105	70 - 130		102	3	20		MB-8	LCS-6	LCD-2
13.	Carbon Disulfide	U	5.0		104	100	104	70 - 130		102	2	20		MB-8	LCS-6	LCD-2
14.	Carbon Tetrachloride	U	1.0		111	100	111	70 - 133		107	4	20		MB-8	LCS-6	LCD-2
15.	Chlorobenzene	U	1.0		103	100	103	70 - 130		99	4	20		MB-8	LCS-6	LCD-2
16.	Chloroethane	U	5.0		112	100	112	53 - 136		106	6	20		MB-8	LCS-6	LCD-2
17.	Chloroform	U	1.0		105	100	105	78 - 121		105	0	20		MB-8	LCS-6	LCD-2
18.	Chloromethane	U	5.0		82.6	100	83	50 - 148		83	0	20		MB-8	LCS-6	LCD-2
19.	2-Chlorotoluene	U	5.0		99.2	100	99	70 - 130		95	4	20		MB-8	LCS-6	LCD-2
20.	Dibromochloromethane	U	5.0		107	100	107	70 - 130		106	1	20		MB-8	LCS-6	LCD-2
21.	1,2-Dibromo-3-chloropropane	U	1.0		106	100	106	70 - 137		110	4	20		MB-8	LCS-6	LCD-2
22.	Dibromomethane	U	5.0		101	100	101	70 - 130		98	3	20		MB-8	LCS-6	LCD-2
23.	1,2-Dichlorobenzene	U	1.0		100	100	100	70 - 130		97	3	20		MB-8	LCS-6	LCD-2
24.	1,3-Dichlorobenzene	U	1.0		96.4	100	96	70 - 130		94	2	20		MB-8	LCS-6	LCD-2
25.	1,4-Dichlorobenzene	U	1.0		97.8	100	98	70 - 130		96	2	20		MB-8	LCS-6	LCD-2
26.	Dichlorodifluoromethane	U	5.0		113	100	113	70 - 139		108	5	20		MB-8	LCS-6	LCD-2
27.	1,1-Dichloroethane	U	1.0		105	100	105	70 - 130		104	1	20		MB-8	LCS-6	LCD-2
28.	1,2-Dichloroethane	U	1.0		108	100	108	70 - 130		105	3	20		MB-8	LCS-6	LCD-2
29.	1,1-Dichloroethene	U	1.0		108	100	108	72 - 126		103	5	20		MB-8	LCS-6	LCD-2
30.	cis-1,2-Dichloroethene	U	1.0		100	100	100	70 - 130		99	1	20		MB-8	LCS-6	LCD-2
31.	trans-1,2-Dichloroethene	U	1.0		105	100	105	70 - 130		104	1	20		MB-8	LCS-6	LCD-2
32.	1,2-Dichloropropane	U	1.0		105	100	105	79 - 125		100	5	20		MB-8	LCS-6	LCD-2
33.	cis-1,3-Dichloropropene	U	1.0		111	100	111	70 - 131		107	4	20		MB-8	LCS-6	LCD-2
34.	trans-1,3-Dichloropropene	U	1.0		108	100	108	70 - 130		106	2	20		MB-8	LCS-6	LCD-2
35.	Ethylbenzene	U	1.0		103	100	103	80 - 122		100	3	20		MB-8	LCS-6	LCD-2
36.	Ethylene Dibromide	U	1.0		102	100	102	70 - 130		96	6	20		MB-8	LCS-6	LCD-2
37.	2-Hexanone	U	50		141	100	141	62 - 130	*	149	6	20		MB-8	LCS-6	LCD-2
38.	Isopropylbenzene	U	5.0		113	100	113	70 - 130		108	5	20		MB-8	LCS-6	LCD-2
39.	Methylene Chloride	U	5.0		99.8	100	100	63 - 130		97	3	20		MB-8	LCS-6	LCD-2
40.	2-Methylnaphthalene	U	5.0		113	100	113	50 - 149		115	2	20		MB-8	LCS-6	LCD-2
41.	4-Methyl-2-pentanone	U	50		111	100	111	67 - 134		112	1	20		MB-8	LCS-6	LCD-2
42.	MTBE	U	5.0		108	100	108	70 - 130		108	0	20		MB-8	LCS-6	LCD-2
43.	Naphthalene	U	5.0		106	100	106	70 - 130		106	0	20		MB-8	LCS-6	LCD-2
44.	n-Propylbenzene	U	1.0		102	100	102	70 - 130		98	4	20		MB-8	LCS-6	LCD-2
45.	Styrene	U	1.0		108	100	108	70 - 135		105	3	20		MB-8	LCS-6	LCD-2
46.	1,1,1,2-Tetrachloroethane	U	1.0		106	100	106	70 - 130		104	2	20		MB-8	LCS-6	LCD-2
47.	1,1,2,2-Tetrachloroethane	U	1.0		97.2	100	97	70 - 130		96	1	20		MB-8	LCS-6	LCD-2
48.	Tetrachloroethene	U	1.0		104	100	104	70 - 130		102	2	20		MB-8	LCS-6	LCD-2
49.	Toluene	U	1.0		104	100	104	80 - 120		98	6	20		MB-8	LCS-6	LCD-2
50.	1,2,4-Trichlorobenzene	U	5.0		105	100	105	70 - 130		103	2	20		MB-8	LCS-6	LCD-2
51.	1,1,1-Trichloroethane	U	1.0		109	100	109	70 - 130		108	1	20		MB-8	LCS-6	LCD-2

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I04A **Preparation Date: 09/04/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	1.0		105	100	105	70 - 130		106	1	20		MB-8	LCS-6	LCD-2
53.	Trichloroethene	U	1.0		101	100	101	71 - 130		97	4	20		MB-8	LCS-6	LCD-2
54.	Trichlorofluoromethane	U	1.0		117	100	117	69 - 131		115	2	20		MB-8	LCS-6	LCD-2
55.	1,2,3-Trichloropropane	U	1.0		96.2	100	96	70 - 130		98	2	20		MB-8	LCS-6	LCD-2
56.	1,2,3-Trimethylbenzene	U	1.0		104	100	104	70 - 130		101	3	20		MB-8	LCS-6	LCD-2
57.	1,2,4-Trimethylbenzene	U	1.0		104	100	104	70 - 130		100	4	20		MB-8	LCS-6	LCD-2
58.	1,3,5-Trimethylbenzene	U	1.0		105	100	105	70 - 130		101	4	20		MB-8	LCS-6	LCD-2
59.	Vinyl Chloride	U	1.0		104	100	104	73 - 125		101	3	20		MB-8	LCS-6	LCD-2
60.	m&p-Xylene	U	2.0		211	200	105	70 - 130		102	3	20		MB-8	LCS-6	LCD-2
61.	o-Xylene	U	1.0		107	100	107	70 - 130		104	3	20		MB-8	LCS-6	LCD-2

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/L	Spike µg/L	Rec. %	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Dibromofluoromethane(S)	50.0	50.0	100		50.3	50.0	101	80 - 120		104	3	20		MB-8	LCS-6	LCD-2
2.	1,2-Dichloroethane-d4(S)	51.1	50.0	102		50.8	50.0	102	80 - 120		99	3	20		MB-8	LCS-6	LCD-2
3.	Toluene-d8(S)	48.6	50.0	97		50.2	50.0	100	80 - 122		98	2	20		MB-8	LCS-6	LCD-2
4.	4-Bromofluorobenzene(S)	53.7	50.0	107		51.1	50.0	102	80 - 120		106	4	20		MB-8	LCS-6	LCD-2

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-8	VB14I04A	09/04/14 14:58
LCS-6	VB14I04A	09/04/14 12:42
LCD-2	VB14I04A	09/04/14 13:09

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:30 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I04B **Preparation Date: 09/04/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acetone	U	50		123	100	123	50 - 136		139	12	20		MB-9	LCS-9	LCD-3
2.	Acrylonitrile	U	2.0		110	100	110	66 - 135		112	2	20		MB-9	LCS-9	LCD-3
3.	Benzene	U	1.0		106	100	106	70 - 130		101	5	20		MB-9	LCS-9	LCD-3
4.	Bromobenzene	U	1.0		94.0	100	94	70 - 130		92	2	20		MB-9	LCS-9	LCD-3
5.	Bromochloromethane	U	1.0		93.4	100	93	61 - 130		90	3	20		MB-9	LCS-9	LCD-3
6.	Bromodichloromethane	U	1.0		109	100	109	70 - 130		104	5	20		MB-9	LCS-9	LCD-3
7.	Bromoform	U	1.0		110	100	110	65 - 145		106	4	20		MB-9	LCS-9	LCD-3
8.	Bromomethane	U	5.0		74.3	100	74	52 - 150		70	6	20		MB-9	LCS-9	LCD-3
9.	2-Butanone	U	25		138	100	138	59 - 130	*	153	10	20		MB-9	LCS-9	LCD-3
10.	n-Butylbenzene	U	1.0		112	100	112	70 - 138		108	4	20		MB-9	LCS-9	LCD-3
11.	sec-Butylbenzene	U	1.0		105	100	105	70 - 130		104	1	20		MB-9	LCS-9	LCD-3
12.	tert-Butylbenzene	U	1.0		102	100	102	70 - 130		101	1	20		MB-9	LCS-9	LCD-3
13.	Carbon Disulfide	U	5.0		106	100	106	70 - 130		103	3	20		MB-9	LCS-9	LCD-3
14.	Carbon Tetrachloride	U	1.0		113	100	113	70 - 133		108	5	20		MB-9	LCS-9	LCD-3
15.	Chlorobenzene	U	1.0		101	100	101	70 - 130		99	2	20		MB-9	LCS-9	LCD-3
16.	Chloroethane	U	5.0		114	100	114	53 - 136		112	2	20		MB-9	LCS-9	LCD-3
17.	Chloroform	U	1.0		107	100	107	78 - 121		106	1	20		MB-9	LCS-9	LCD-3
18.	Chloromethane	U	5.0		89.1	100	89	50 - 148		88	1	20		MB-9	LCS-9	LCD-3
19.	2-Chlorotoluene	U	5.0		97.0	100	97	70 - 130		97	0	20		MB-9	LCS-9	LCD-3
20.	Dibromochloromethane	U	5.0		108	100	108	70 - 130		106	2	20		MB-9	LCS-9	LCD-3
21.	1,2-Dibromo-3-chloropropane	U	1.0		108	100	108	70 - 137		112	4	20		MB-9	LCS-9	LCD-3
22.	Dibromomethane	U	5.0		103	100	103	70 - 130		101	2	20		MB-9	LCS-9	LCD-3
23.	1,2-Dichlorobenzene	U	1.0		100	100	100	70 - 130		99	1	20		MB-9	LCS-9	LCD-3
24.	1,3-Dichlorobenzene	U	1.0		95.3	100	95	70 - 130		94	1	20		MB-9	LCS-9	LCD-3
25.	1,4-Dichlorobenzene	U	1.0		97.9	100	98	70 - 130		98	0	20		MB-9	LCS-9	LCD-3
26.	Dichlorodifluoromethane	U	5.0		120	100	120	70 - 139		116	3	20		MB-9	LCS-9	LCD-3
27.	1,1-Dichloroethane	U	1.0		104	100	104	70 - 130		103	1	20		MB-9	LCS-9	LCD-3
28.	1,2-Dichloroethane	U	1.0		110	100	110	70 - 130		103	7	20		MB-9	LCS-9	LCD-3
29.	1,1-Dichloroethene	U	1.0		110	100	110	72 - 126		106	4	20		MB-9	LCS-9	LCD-3
30.	cis-1,2-Dichloroethene	U	1.0		102	100	102	70 - 130		99	3	20		MB-9	LCS-9	LCD-3
31.	trans-1,2-Dichloroethene	U	1.0		106	100	106	70 - 130		103	3	20		MB-9	LCS-9	LCD-3
32.	1,2-Dichloropropane	U	1.0		105	100	105	79 - 125		101	4	20		MB-9	LCS-9	LCD-3
33.	cis-1,3-Dichloropropene	U	1.0		109	100	109	70 - 131		106	3	20		MB-9	LCS-9	LCD-3
34.	trans-1,3-Dichloropropene	U	1.0		106	100	106	70 - 130		104	2	20		MB-9	LCS-9	LCD-3
35.	Ethylbenzene	U	1.0		103	100	103	80 - 122		101	2	20		MB-9	LCS-9	LCD-3
36.	Ethylene Dibromide	U	1.0		100	100	100	70 - 130		100	0	20		MB-9	LCS-9	LCD-3
37.	2-Hexanone	U	50		139	100	139	62 - 130	*	157	12	20		MB-9	LCS-9	LCD-3
38.	Isopropylbenzene	U	5.0		113	100	113	70 - 130		110	3	20		MB-9	LCS-9	LCD-3
39.	Methylene Chloride	U	5.0		100	100	100	63 - 130		98	2	20		MB-9	LCS-9	LCD-3
40.	2-Methylnaphthalene	U	5.0		114	100	114	50 - 149		116	2	20		MB-9	LCS-9	LCD-3
41.	4-Methyl-2-pentanone	U	50		114	100	114	67 - 134		119	4	20		MB-9	LCS-9	LCD-3
42.	MTBE	U	5.0		109	100	109	70 - 130		110	1	20		MB-9	LCS-9	LCD-3
43.	Naphthalene	U	5.0		106	100	106	70 - 130		109	3	20		MB-9	LCS-9	LCD-3
44.	n-Propylbenzene	U	1.0		99.7	100	100	70 - 130		98	2	20		MB-9	LCS-9	LCD-3
45.	Styrene	U	1.0		107	100	107	70 - 135		106	1	20		MB-9	LCS-9	LCD-3
46.	1,1,1,2-Tetrachloroethane	U	1.0		108	100	108	70 - 130		105	3	20		MB-9	LCS-9	LCD-3
47.	1,1,2,2-Tetrachloroethane	U	1.0		94.4	100	94	70 - 130		95	1	20		MB-9	LCS-9	LCD-3
48.	Tetrachloroethene	U	1.0		104	100	104	70 - 130		101	3	20		MB-9	LCS-9	LCD-3
49.	Toluene	U	1.0		104	100	104	80 - 120		100	4	20		MB-9	LCS-9	LCD-3
50.	1,2,4-Trichlorobenzene	U	5.0		107	100	107	70 - 130		103	4	20		MB-9	LCS-9	LCD-3
51.	1,1,1-Trichloroethane	U	1.0		112	100	112	70 - 130		109	3	20		MB-9	LCS-9	LCD-3

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Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Volatiles)
Aqueous

Preparation Batch: VB14I04B **Preparation Date: 09/04/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
52.	1,1,2-Trichloroethane	U	1.0		107	100	107	70 - 130		107	0	20		MB-9	LCS-9	LCD-3
53.	Trichloroethene	U	1.0		104	100	104	71 - 130		100	4	20		MB-9	LCS-9	LCD-3
54.	Trichlorofluoromethane	U	1.0		120	100	120	69 - 131		118	2	20		MB-9	LCS-9	LCD-3
55.	1,2,3-Trichloropropane	U	1.0		99.6	100	100	70 - 130		102	2	20		MB-9	LCS-9	LCD-3
56.	1,2,3-Trimethylbenzene	U	1.0		102	100	102	70 - 130		101	1	20		MB-9	LCS-9	LCD-3
57.	1,2,4-Trimethylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-9	LCS-9	LCD-3
58.	1,3,5-Trimethylbenzene	U	1.0		103	100	103	70 - 130		102	1	20		MB-9	LCS-9	LCD-3
59.	Vinyl Chloride	U	1.0		107	100	107	73 - 125		105	2	20		MB-9	LCS-9	LCD-3
60.	m&p-Xylene	U	2.0		212	200	106	70 - 130		103	3	20		MB-9	LCS-9	LCD-3
61.	o-Xylene	U	1.0		108	100	108	70 - 130		105	3	20		MB-9	LCS-9	LCD-3

	System Monitoring Compounds (Surrogates):	Method Blank (MB) Result µg/L	Spike µg/L	Rec. %	Q	Laboratory Control Sample (LCS) Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	LCS Duplicate (LCD) Rec. %	RPD %	UCL %	Q	Run Code MB	LCS	LCD
1.	Dibromofluoromethane(S)	50.9	50.0	102		48.6	50.0	97	80 - 120		102	5	20		MB-9	LCS-9	LCD-3
2.	1,2-Dichloroethane-d4(S)	51.4	50.0	103		51.3	50.0	103	80 - 120		101	2	20		MB-9	LCS-9	LCD-3
3.	Toluene-d8(S)	49.4	50.0	99		49.3	50.0	99	80 - 122		98	1	20		MB-9	LCS-9	LCD-3
4.	4-Bromofluorobenzene(S)	53.5	50.0	107		52.3	50.0	105	80 - 120		105	0	20		MB-9	LCS-9	LCD-3

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-9	VB14I04B	09/05/14 03:52
LCS-9	VB14I04B	09/05/14 01:37
LCD-3	VB14I04B	09/05/14 02:04

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Wednesday, February 25, 2015
1:46:31 PM

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Twenty three soil samples were collected on October 27, 2014 through October 28, 2014 and received by Fibertec, Inc. on October 30, 2014. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
F-11@2'	65039-001	S	% Moisture, Trace Metals, Mercury
F-11@4'	65039-002	S	% Moisture, Trace Metals, Mercury
G-4@1.5'	65039-003	S	% Moisture, Trace Metals, Mercury, SVOC
F-8@4'	65039-004	S	% Moisture, Trace Metals, Mercury
F-8@9'	65039-005	S	% Moisture, Trace Metals, Mercury
F-14@2.5'	65039-006	S	% Moisture, Trace Metals, Mercury
F-14@9'	65039-007	S	% Moisture, Trace Metals, Mercury
F-15@2'	65039-008	S	% Moisture, Trace Metals, Mercury
F-15@6'	65039-009	S	% Moisture, Trace Metals, Mercury
F-7@4'	65039-010	S	% Moisture, Trace Metals, Mercury
F-7@4' MS	65039-011	S	% Moisture, Trace Metals, Mercury
F-7@4' MSD	65039-012	S	% Moisture, Trace Metals, Mercury
F-16@1'	65039-013	S	% Moisture, Trace Metals, Mercury
F-16@7.5'	65039-014	S	% Moisture, Trace Metals, Mercury
F-4@3'	65039-015	S	% Moisture, Trace Metals, Mercury
F-4@9'	65039-016	S	% Moisture, Trace Metals, Mercury
F-3@3'	65039-017	S	% Moisture, Trace Metals, Mercury
F-3@9'	65039-018	S	% Moisture, Trace Metals, Mercury
M-15	65039-019	S	% Moisture, Trace Metals, Mercury
F-13@3.5'	65039-020	S	% Moisture, Trace Metals, Mercury
F-13@7'	65039-021	S	% Moisture, Trace Metals, Mercury
F-12@4'	65039-022	S	% Moisture, Trace Metals, Mercury
F-12@8'	65039-023	S	% Moisture, Trace Metals, Mercury

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Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14K03C **Preparation Date: 11/03/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		199	200	100	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	M614K05A	11/05/14 12:46
LCS-1	M614K05A	11/05/14 12:51

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Monday, November 10, 2014
5:16:46 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Soil/Solid

Preparation Batch: PM14K03E **Preparation Date: 11/03/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	50		0	200	0	85 - 115	*					MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	M614K05A	11/05/14 13:36
LCS-2	M614K05A	11/05/14 13:38

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Monday, November 10, 2014
5:16:46 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Gas Chromatography - Mass Spectrometry (Semivolatiles)
Soil/Solid

Preparation Batch: PS14K05H **Preparation Date: 11/05/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Acenaphthene	U	330		2,429	2,667	91	50 - 114						MB-3	LCS-3	
2.	Acenaphthylene	U	330		2,405	2,667	90	53 - 115						MB-3	LCS-3	
3.	Anthracene	U	330		2,265	2,667	85	48 - 119						MB-3	LCS-3	
4.	Benzo(a)anthracene	U	330		2,422	2,667	91	56 - 120						MB-3	LCS-3	
5.	Benzo(a)pyrene	U	330		2,434	2,667	91	57 - 122						MB-3	LCS-3	
6.	Benzo(b)fluoranthene	U	330		2,327	2,667	87	50 - 131						MB-3	LCS-3	
7.	Benzo(ghi)perylene	U	330		2,496	2,667	94	41 - 132						MB-3	LCS-3	
8.	Benzo(k)fluoranthene	U	330		2,401	2,667	90	39 - 137						MB-3	LCS-3	
9.	Chrysene	U	330		2,412	2,667	90	53 - 124						MB-3	LCS-3	
10.	Dibenzo(a,h)anthracene	U	330		2,515	2,667	94	53 - 126						MB-3	LCS-3	
11.	Fluoranthene	U	330		2,468	2,667	93	48 - 135						MB-3	LCS-3	
12.	Fluorene	U	330		2,461	2,667	92	49 - 126						MB-3	LCS-3	
13.	Indeno(1,2,3-cd)pyrene	U	330		2,842	2,667	107	51 - 132						MB-3	LCS-3	
14.	2-Methylnaphthalene	U	330		2,264	2,667	85	46 - 105						MB-3	LCS-3	
15.	Naphthalene	U	330		2,289	2,667	86	53 - 110						MB-3	LCS-3	
16.	Phenanthrene	U	330		2,455	2,667	92	53 - 119						MB-3	LCS-3	
17.	Pyrene	U	330		2,409	2,667	90	55 - 127						MB-3	LCS-3	

		Method Blank (MB)				Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	System Monitoring Compounds (Surrogates):	Result µg/kg	Spike µg/kg	Rec. %	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	2-Fluorobiphenyl(S)	1,977	2,667	74		2,543	2,667	95	49 - 115						MB-3	LCS-3	
2.	4-Terphenyl-d14(S)	2,841	2,667	107		2,589	2,667	97	48 - 117						MB-3	LCS-3	
3.	1-Fluoronaphthalene(S)	1,837	2,667	69		2,395	2,667	90	46 - 114						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

LCS-3	S114K05B	11/05/14 21:14
MB-3	S714K05B	11/05/14 18:42

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Monday, November 10, 2014
5:16:47 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14K04D **Preparation Date: 11/04/14**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Arsenic	U	100		9,357	10,000	94	85 - 115						MB-4	LCS-4	
2. Barium	U	1000		49,049	50,000	98	85 - 115						MB-4	LCS-4	
3. Cadmium	U	50		9,453	10,000	95	85 - 115						MB-4	LCS-4	
4. Chromium	U	500		19,786	20,000	99	85 - 115						MB-4	LCS-4	
5. Copper	U	1000		21,553	20,000	108	85 - 115						MB-4	LCS-4	
6. Lead	U	1000		21,801	20,000	109	85 - 115						MB-4	LCS-4	
7. Selenium	U	200		8,577	10,000	86	85 - 115						MB-4	LCS-4	
8. Silver	U	100		9,947	10,000	99	85 - 115						MB-4	LCS-4	
9. Zinc	U	1000		47,113	50,000	94	85 - 115						MB-4	LCS-4	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-4	T414K06A	11/06/14 12:04
LCS-4	T414K06A	11/06/14 12:06

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Monday, November 10, 2014
5:16:47 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Soil/Solid

Preparation Batch: PT14K04E **Preparation Date: 11/04/14**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/kg	RL µg/kg	Q	Result µg/kg	Spike µg/kg	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	100		9,310	10,000	93	85 - 115						MB-5	LCS-5	
2.	Barium	U	1000		48,631	50,000	97	85 - 115						MB-5	LCS-5	
3.	Cadmium	U	50		9,451	10,000	95	85 - 115						MB-5	LCS-5	
4.	Chromium	U	500		19,030	20,000	95	85 - 115						MB-5	LCS-5	
5.	Copper	U	1000		20,907	20,000	105	85 - 115						MB-5	LCS-5	
6.	Lead	U	1000		21,786	20,000	109	85 - 115						MB-5	LCS-5	
7.	Selenium	U	200		8,561	10,000	86	85 - 115						MB-5	LCS-5	
8.	Silver	U	100		9,942	10,000	99	85 - 115						MB-5	LCS-5	
9.	Zinc	U	1000		46,953	50,000	94	85 - 115						MB-5	LCS-5	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-5	T414K06A	11/06/14 12:43
LCS-5	T414K06A	11/06/14 12:45

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Anthony Donnelly
Information Technology Officer
Monday, November 10, 2014
5:16:47 PM

Case Narrative

Client: Envirologic Technologies, Inc.
Project Identification: SCCBRA /140189

Sixteen water samples were collected on February 9, 2015 through February 10, 2015 and received by Fibertec, Inc. on February 11, 2015. The shipping cooler temperature was within specifications (0 – 6 ºC) and the sample containers arrived without any visible signs of tampering or breakage. Containers were checked for correct pH, where appropriate, and were properly preserved as needed. The samples were prepared and analyzed within the required holding time. No exceptions were observed.

Cross reference

Client ID#	Lab ID#	Matrix	Requested Tests
F-MW-07	66456-001	W	Trace Metals, Mercury
D-MW-06	66456-002	W	Trace Metals, Mercury
F-MW-05s	66456-003	W	Trace Metals, Mercury
F-MW-05s MS	66456-004	W	Trace Metals, Mercury
F-MW-05s MSD	66456-005	W	Trace Metals, Mercury
F-MW-05d	66456-006	W	Trace Metals, Mercury
A-MW-19	66456-007	W	Trace Metals, Mercury
A-MW-20	66456-008	W	Trace Metals, Mercury
A-MW-13	66456-009	W	Trace Metals, Mercury
A-MW-12s	66456-010	W	Trace Metals, Mercury
A-MW-12d	66456-011	W	Trace Metals, Mercury
A-MW-15	66456-012	W	Trace Metals, Mercury
A-MW-16	66456-013	W	Trace Metals, Mercury
A-MW-17d	66456-014	W	Trace Metals, Mercury
A-MW-17s	66456-015	W	Trace Metals, Mercury
M-1	66456-016	W	Trace Metals, Mercury

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Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Cold Vapor Atomic Absorption Spectrometry
Aqueous

Preparation Batch: PM15B13B **Preparation Date: 02/13/15**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Mercury	U	0.20		0.256	0.250	102	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	M615B13A	02/13/15 14:30
LCS-1	M615B13A	02/13/15 14:32

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Petrovsky

Amanda Petrovsky
Client Services Representative
Wednesday, February 18, 2015
3:18:55 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT15B16E **Preparation Date: 02/16/15**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Arsenic	U	5.0		98.6	100	99	85 - 115						MB-2	LCS-2	
2.	Barium	U	100		473	500	95	85 - 115						MB-2	LCS-2	
3.	Cadmium	U	1.0		95.3	100	95	85 - 115						MB-2	LCS-2	
4.	Chromium	U	10		198	200	99	85 - 115						MB-2	LCS-2	
5.	Copper	U	4.0		210	200	105	85 - 115						MB-2	LCS-2	
6.	Lead	U	3.0		206	200	103	85 - 115						MB-2	LCS-2	
7.	Selenium	U	5.0		103	100	103	85 - 115						MB-2	LCS-2	
8.	Silver	U	0.20		97.6	100	98	85 - 115						MB-2	LCS-2	
9.	Zinc	67.0	50	*	545	500	109	85 - 115						MB-2	LCS-2	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-2	T415B17A	02/17/15 09:42
LCS-2	T415B17A	02/17/15 09:43

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Petrovsky

Amanda Petrovsky
Client Services Representative
Wednesday, February 18, 2015
3:18:55 PM

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT15B18B **Preparation Date: 02/18/15**

		Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
	Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1.	Copper	U	4.0		208	200	104	85 - 115						MB-3	LCS-3	
2.	Lead	U	3.0		203	200	101	85 - 115						MB-3	LCS-3	
3.	Zinc	U	50		521	500	104	85 - 115						MB-3	LCS-3	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-3	T415B18A	02/18/15 09:52
LCS-3	T415B18A	02/18/15 09:54

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Petrovsky

Amanda Petrovsky
Client Services Representative
Wednesday, February 18, 2015
3:18:55 PM

Fibertec environmental services

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 66456

Client Identification: **Envirologic Technologies, Inc.** Client Project Name: **SCCBRA (140189)** Client Project No: **140189**

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable

Mercury by CVAAS, Total (EPA 7470A) **Matrix: Ground Water**

Parent Sample:	**66456-003**	Description:	**F-MW-5s**	Sample No:	**3**	Collect Date:	**02/09/15**	**15:40**
MS Sample ID:	**66456-004**	Description:	**F-MW-5s MS**	Sample No:	**4**	Collect Date:	**02/09/15**	**15:40**
MSD Sample ID:	**66456-005**	Description:	**F-MW-5s MSD**	Sample No:	**5**	Collect Date:	**02/09/15**	**15:40**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Mercury	<0.0200	µg/L	0.250	0.263	0.260	105	104	70 - 130	1	20

Michigan 10 Elements by ICP/MS, Total Recoverable (EPA 3005A-M/EPA 6020A) **Matrix: Ground Water**

Parent Sample:	**66456-003**	Description:	**F-MW-5s**	Sample No:	**3**	Collect Date:	**02/09/15**	**15:40**
MS Sample ID:	**66456-004**	Description:	**F-MW-5s MS**	Sample No:	**4**	Collect Date:	**02/09/15**	**15:40**
MSD Sample ID:	**66456-005**	Description:	**F-MW-5s MSD**	Sample No:	**5**	Collect Date:	**02/09/15**	**15:40**

Parameter(s)	Result	Units	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	MS/MSD LCL - UCL	RPD %	RPD UCL
1. Arsenic	**0.687**	µg/L	100	99.7	107	99	106	70 - 130	7	20
2. Barium	**20.7**	µg/L	500	473	506	90	97	70 - 130	7	20
3. Cadmium	<0.120	µg/L	100	95.0	99.2	95	99	70 - 130	4	20
4. Chromium	<1.20	µg/L	200	201	212	100	106	70 - 130	6	20
5. Copper	**2.38**	µg/L	200	205	215	101	106	70 - 130	5	20
6. Lead	<0.600	µg/L	200	193	202	96	101	70 - 130	5	20
7. Selenium	**1.71**	µg/L	100	97.9	106	96	104	70 - 130	8	20
8. Silver	<0.120	µg/L	100	94.5	98.2	95	98	70 - 130	3	20
9. Zinc	**13.3**	µg/L	500	513	553	100	108	70 - 130	8	20

Quality Control Report
Matrix Spike Summary
Laboratory Project Number: 66456

Definitions/ Qualifiers:

A: Spike recovery or precision unusable due to dilution.
B: The analyte was detected in the associated method blank.
E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
J: The concentration is an estimated value.
M: Modified Method
U: The analyte was not detected at or above the reporting limit.
X: Matrix Interference has resulted in a raised reporting limit or distorted result.
W: Results reported on a wet-weight basis.
***:** Value reported is outside QA limits

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Petrovsky
Client Services Representative
Friday, February 20, 2015
11:36:57 AM

Accreditation Number(s):

T104704518-15-3 (TX)

Fibertec environmental services

Quality Control Report
Preparation Batch QC Summary
Inductively Coupled Plasma - Mass Spectrometry
Aqueous

Preparation Batch: PT15I10E **Preparation Date: 09/10/15**

	Method Blank (MB)			Laboratory Control Sample (LCS)					LCS Duplicate (LCD)				Run Code		
Parameter	Result µg/L	RL µg/L	Q	Result µg/L	Spike µg/L	Rec. %	LCL - UCL %	Q	Rec. %	RPD %	UCL %	Q	MB	LCS	LCD
1. Calcium	U	1000		16,632	15,000	111	85 - 115						MB-1	LCS-1	
2. Magnesium	U	300		5,349	5,000	107	85 - 115						MB-1	LCS-1	

Definitions/ Qualifiers:

U: The analyte was not detected at or above the Reporting Limit (RL).
***:** Value reported is outside QC limits

Run Code (Analysis Sequence/Run Time):

MB-1	T415I10A	09/10/15 13:12
LCS-1	T415I10A	09/10/15 13:14

Exception Summary:

Exceptions have been properly noted on reported results or affected samples have been scheduled for reanalysis when appropriate.

Report Generated By:

Amanda Pet

By Amanda Petrovsky at 2:29 PM, Sep 14, 2015