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**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**SOUND MATTRESS AND FELT SITE
1940 EAST 11TH STREET
TACOMA, WASHINGTON
FS ID 1232087
VCP SITE SW0857**

Submitted by:

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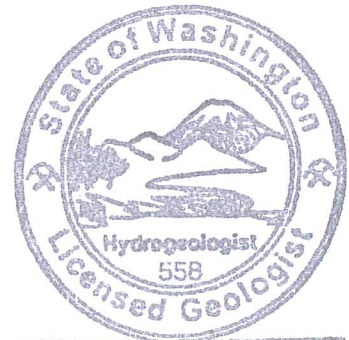


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1.0 INTRODUCTION

Pacific Crest Environmental, LLC (Pacific Crest) has prepared this Feasibility Study (FS) Report on behalf of the Sound Mattress and Felt Company (Sound Mattress) to evaluate cleanup alternatives for contaminated media affected by a release of chlorinated volatile organic compounds (CVOCs) and metals that occurred at 1940 East 11th Street in Tacoma, Washington (Tax Parcel No. 2275200661) (Figure 1). The Site has been assigned Facility/Site No. 1232087 and Voluntary Cleanup Program (VCP) Project No. SW0857 by the Washington State Department of Ecology (Ecology), and is defined as the areal and vertical extent of the contaminants of concern (COCs) in the media of concern. This FS was conducted in accordance with the Model Toxics Control Act (MTCA) Cleanup Regulation (Chapter 173-340 of the Washington Administrative Code [WAC 173-340], as revised 2013) which specifies the requirements for completing a FS and selecting a cleanup action alternative.

1.1 PURPOSE

The purpose of this FS is to develop and evaluate cleanup action alternatives to facilitate selection of a final cleanup action for the Site in accordance with WAC 173-340-350(8) and WAC 173-340-360. The FS includes: an evaluation of regulatory requirements applicable to the cleanup action; an evaluation of remediation technologies; and selection of a cleanup action approach in accordance with MTCA.

1.2 REMEDIAL ACTION RESPONSIBILITIES

The remedial action is being conducted under the direction of the former property owner, Sound Mattress:

Sound Mattress and Felt Company
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The environmental consultant for the remedial action is:

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1.3 BACKGROUND

1.3.1 Tax Parcel No. 2275200661

1.3.1.1 Description

Tax Parcel No 2275200661 is a 5.77-acre irregular-shaped parcel that is bounded to the north by Thorne Road and beyond by commercial/industrial properties; to the west by East 11th Street and beyond by the Port of Tacoma (Port) administration building; and to the south and east by commercial/industrial properties (Shaub-Ellison and Castan Trucking). The City of Tacoma zoning designation for Tax Parcel No. 2275200661 is: PMI- Port Maritime and Industrial. Former

improvements to Tax Parcel No. 2275200661 included an 112,280 square-foot masonry warehouse building (the Building) that was constructed between 1948 and 1953. In late 2014 and early 2015, the Port demolished the Building. Tax Parcel No. 2275200661 is presently vacant with no structures. The property features and former improvements are illustrated on Figure 2.

1.3.1.2 Property Development and Uses

A chronologic summary of the development of Tax Parcel No. 2275200661 and the south-adjacent Shaub-Ellison Property, located at 1132 Thorne Road, is provided below:

- Prior to 1948, Tax Parcel No. 2275200661 was vacant and undeveloped tide-flat land.
- In 1948, Washington Steel Products, Inc. (Washington Steel) constructed the northern portion of the Building. Washington Steel extended the Building with additions built in 1950 and 1953 (Tacoma Public Library - Tacoma-Pierce County Buildings Index).
- Between 1948 and 1959, Washington Steel conducted manufacturing operations in the Building that included the manufacturing of hardware including enameled metal drawers, knobs, pulls, and hinges (Tacoma Library Photo Archive). A Sanborn map prepared for Tax Parcel No. 2275200661 indicates areas inside the Building dedicated to drying, painting, plating, etching, manufacturing, packing, and shipping.
- In 1959, Ekco Products Company (Ekco) purchased Washington Steel, and in 1965 American Home Products Corp. (American Home Products) purchased Ekco.
- In 1964, Sound Mattress purchased Tax Parcel No. 2275200661 from Ekco. Sound Mattress did not occupy or conduct manufacturing operations on Tax Parcel No. 2275200661 but, instead, continued to lease portions of the Building to Ekco and, later, American Home Products until at least 1967.
- In 1965, Sound Mattress leased a portion of the Building to Brown and Haley, Inc. (Brown and Haley) for commercial activities associated with the sales and distribution of Brown and Haley candy (Pacific Crest 2006).
- The Polk City Directory identifies the tenants of Tax Parcel No. 2275200661 as "Washington Steel Products" in 1960 and as Brown & Haley, Ekco Products Co., Dell's Copy Shop, Washington Line Federal Credit Union, and Washington Steel Products in 1967. From 1972 through the 2005, Tax Parcel No. 2275200661 tenants are listed as Brown & Haley (1972, 1977, 1982, 1987, 1992, 2001, and 2005) and/or Westlocknational (1997); Cardservice International (2001 and 2005); Northwest Cardservice (2001); Hoops Unlimited (2001); and Westpac Marketing (2001).
- In 1970, the south-adjacent Shaub-Ellison Property consisted of undeveloped land and was purchased by Mr. Sanford Shaub from Mr. Robert Shea Sr.
- In 1973, the Shaub-Ellison Property was first developed with a 7,300 square-foot, split-level, concrete tilt-up building erected on approximately 0.78-acres. Additional improvements to the Shaub-Ellison Property include an asphalt-paved storage yard in the western portion of the parcel, and an asphalt-paved parking area on the eastern portion of the parcel.
- From 1974 through 1998, the Shaub-Ellison Property was operated by the Shaub-Ellison Company, a retail automotive tire service facility.
- Since 2000, the Shaub-Ellison Property has operated as RevChem Plastics, an industrial chemical and supply company.

- In October 2006, the Port purchased Tax Parcel No. 2275200661 from Sound Mattress.
- In late 2014 and early 2015, the Port demolished the Building.

1.3.1.3 Underground Utilities

Prior to demolition of the Building, Tax Parcel No. 2275200661 was serviced by natural gas, telephone, water, and stormwater and sanitary sewers located in the rights-of-way of East 11th Street and Thorne Road. The locations of underground stormwater and sanitary sewers are illustrated on Figure 2. Available information about the stormwater and sanitary sewer utilities is presented below:

- One 60-inch diameter concrete stormwater line (“60-inch stormwater line”) was constructed in 1951 and is located in the right-of-way of Thorne Road. The 60-inch stormwater line was previously connected to private stormwater laterals and private catch basins that collected stormwater runoff from the parking lot located north of the Building, as well as roof drains from the Building.
- One 12-inch diameter concrete sanitary sewer line is located in the right-of-way of Thorne Road. The 12-inch sanitary sewer flows south along Thorne Road to the City of Tacoma wastewater treatment plant.
- A 60-inch diameter cement reinforced steel sanitary sewer line is located in the right-of-way of East 11th Street. The 60-inch diameter sewer transports treated wastewater from the City of Tacoma wastewater treatment plant to an outfall located in Commencement Bay.
- Information obtained by personal communication between Ms. Lauren Carroll of Pacific Crest and Mr. Robert Shea, during a May 8, 2006 meeting at the Site, revealed that Mr. Robert Shea, Sr., installed a polyvinyl chloride (PVC) underground sanitary sewer line in the alley southeast of the Former Building, located between Tax Parcel No. 2275200661 and the Shaub-Ellison Property. It was Mr. Shea’s understanding that the sanitary sewer line installed by his father exited the southeast side of the Building in the alley and ended in an open termination point in the alley, without connection to the municipal sewer line on Thorne Road (Figure 2).

1.3.1.4 Former Building Demolition and PCB Cleanup

In late 2014 and early 2015, the Port demolished the Building. The work included: abandonment of existing monitoring and pilot test wells on Tax Parcel No. 2275200661; deconstruction and demolition of the Building; removal of portions of the underlying concrete slab; off-site disposal of the building materials; removal and off-site disposal of PCB-impacted shallow soils; restoring Tax Parcel No. 2275200661 by grading the surface and installing a liner and coarse gravel cap; and installing chain-link security fencing around the perimeter of Tax Parcel No. 2275200661.

The PCB cleanup involved the excavation and off-site disposal of 1,243 tons of PCB-impacted soils that exceeded the MTCA Method A cleanup level for Unrestricted Land Use of 1 milligram per kilogram (mg/kg). The PCB-impacted soils were located around the outside perimeter of the Building and were remediated by the Port in accordance with the Port’s *TSCA Self-Implementing Cleanup Notification* (CRETE 2014). The Port concluded that the apparent source of the PCBs in shallow soil was leaching and flaking paint and caulk from the exterior of the Building. The Port conducted the Building demolition, hazardous materials abatement, and excavation activities

independently to facilitate the Port's business objectives. This FS does not evaluate cleanup actions implemented independently by the Port.

1.3.2 Natural Setting

1.3.2.1 Physiographic Setting

Tax Parcel No. 2275200661 is located in the near-shore tidal flats area of the Port of Tacoma near the Sitcum Waterway and Commencement Bay of the Puget Sound. In the late 1800s, the southern and eastern shoreline of Commencement Bay consisted of tidal flats formed as part of the Puyallup River delta. Dredge and fill activities, conducted since the 1910s, have significantly changed the estuarine nature of this shoreline and the tidal flats. The historic meandering streams and rivers were dredged to form waterways, and the intertidal areas between the waterways were filled with dredge material to create usable land. The newly created land has since been used for commercial and industrial operations including shipbuilding, chemical manufacturing, ore smelting, oil refining, food preservation, and transportation facilities. The tide-flats in the vicinity of Tax Parcel No. 2275200661 appear to have been backfilled in the 1940s.

1.3.2.2 Surface Water

Tax Parcel No. 2275200661 is located approximately 350 feet southeast of the Sitcum Waterway, a manmade marine waterway that is located between the Blair Waterway and former Milwaukee Waterway and is used by the Port and the Port's tenants for container and bulk product unloading from cargo vessels. The Port owns the adjacent upland properties on all sides of the Sitcum Waterway and owns the submerged land and bottom sediment in the Sitcum Waterway. The Port routinely dredges sediment from the Sitcum Waterway to maintain sufficient depth for vessels to access the docks, and the shoreline and submerged slope are armored with rip-rap to prevent erosion. Industrial loading, unloading, and other operations have been conducted on properties along the Commencement Bay and Sitcum Waterway for over 100 years. Due to security and safety considerations, public access to the Sitcum Waterway shoreline is limited to the Observation Deck located in the parking area adjacent to the Port's administration offices (City of Tacoma 2014).

The past industrial practices in the Sitcum Waterway resulted in areas of sediment contaminated with metals (arsenic, cadmium, copper, lead, nickel, and zinc) and polycyclic aromatic hydrocarbons (PAHs). In 1983, the United States Environmental Protection Agency (EPA) placed portions of Commencement Bay, including the area identified as the Sitcum Waterway Problem Area, on the Superfund National Priorities List due to widespread contamination of the water, sediments, and upland areas. Polychlorinated biphenyls (PCBs) and VOCs were not listed as COCs for the Sitcum Waterway Problem Area. Since 1985, the Washington State Department of Health (DOH) has posted "Fish Consumption" warning signs in public access areas, and the entire Commencement Bay area, including the Sitcum Waterway, is classified by the DOH as "closed" to shellfish harvesting due to pollution.

Since 1991, investigation and cleanup of the Sitcum Waterway Problem Area has been conducted by the Port with EPA oversight. EPA attributed the contaminants in sediment to historical releases of metal ores handled at Terminal 7 and releases from a stormwater outfall (SI-172) that discharges runoff from an industrial and commercial area of the Tacoma Tideflats covering approximately 170 acres. In 1993, the EPA approved source control measures to address the stormwater discharge from SI-172; dredging of contaminated sediments in the main channel of the waterway for disposal in the Milwaukee Nearshore Confined Disposal Facility (NCDF); and

natural attenuation for contaminated sediments located beneath and in the vicinity of the terminal on the north side of the waterway (Terminal 7). The remedial action to address the Sitcum Waterway Problem Area was completed in 1995. Since 1995, the Port has monitored the groundwater and sediment quality in the Sitcum Waterway Problem Area in accordance with the *Operations, Maintenance, and Monitoring Plan (OMMP)*, dated June 3, 1994 (Port 1994), and the *Work Plan for Long-term Sediment Quality Monitoring*, dated 1996. Laboratory analysis of sediment and groundwater samples collected during the most recent sediment sampling event in 2003 and groundwater sampling event in 2013 indicated that source control, dredging, and monitored natural attenuation were effective for cleanup of the Sitcum Waterway Problem Area.

1.3.2.3 Geologic Setting

The regional unconsolidated geology in the Puget Sound area consists primarily of interbedded Pleistocene Era clays, silts, and sands deposited as a result of glacial activity. Glacial outwash sediments in the region were deposited, eroded, and re-deposited by rivers and streams. The advance and retreat of glacial ice sheets also resulted in the compaction of underlying sediments into glacial till. Alluvial deposits in the region are present in the vicinity of streams in the major regional river valleys and typically consist of unconsolidated, stratified, clay, silt, and very fine to fine sand, with considerable organic matter. Medium to coarse sand and gravel units underlie much of the fine-grained floodplain sediment in the region and are common in small stream valley bottoms (Galster and Laprade 1991). As discussed above, anthropogenic activities (i.e., dredging and filling) have altered much of the shallow subsurface in the Port of Tacoma tidal flats.

1.3.2.4 Hydrogeologic Setting

Groundwater aquifers in the Puget Sound area are generally confined to recent alluvial deposits of sands and gravel, which are stratigraphically delimited by aquitards (low permeability units) consisting of glacial till deposits. Discontinuous perched shallow groundwater zones may be seasonally or locally present above the glacial till deposits (Galster and Laprade 1991). The groundwater in aquifers that are located in close proximity to saline surface water generally meets the non-potability criteria of MTCA (WAC 173-340-720(2)(d)).

1.4 REMEDIAL INVESTIGATION

1.4.1 Historic Site Investigation Activities

In April 2004, during a preliminary due-diligence subsurface investigation performed by Environmental Associates, Inc. (EAI) at the neighboring Shaub-Ellison Property located at 1132 Thorne Road, laboratory analysis detected tetrachloroethene (PCE) in one groundwater sample (boring B2) (EAI 2004a). Further investigation on Tax Parcel No. 2275200661 and the Shaub-Ellison property identified apparent source areas on Tax Parcel No. 2275200661 where releases of PCE appear to have occurred and have resulted in PCE and associated daughter products generated by reductive dechlorination, including trichloroethene (TCE), cis-1,2-dichloroethene (c-DCE), trans-1,2-dichloroethene (t-DCE), and vinyl chloride (VC) in soil and groundwater.

The remedial investigation (RI) activities conducted between 2004 and 2010 have been documented in reports previously submitted to Ecology. The historic RI activities included: advancing soil borings; installing groundwater monitoring wells; collecting soil, groundwater and air samples for laboratory analysis; conducting tidal studies; performing passive soil vapor surveys; and assessing the results in accordance with industry practice. A chronologic summary of the RI activities and related Ecology correspondence is provided below:

- In April 2004, EAI advanced 17 soil borings (Borings B1 through B17) during a preliminary due diligence subsurface investigation at the Shaub-Ellison Property. EAI collected soil and groundwater samples from the borings and submitted the samples to an independent laboratory for analysis (EAI 2004a).
- In April and May 2004, EAI advanced an additional 11 borings (Borings B18 through B28) and four test pits (TP1 through TP4) on the Shaub-Ellison Property. EAI collected soil samples from the borings and test pits, and groundwater samples from select borings, and submitted the samples to an independent laboratory for analysis (EAI 2004a).
- In July 2004, EAI advanced five borings (B29 through B32 and MW-4) and converted four of the borings into groundwater monitoring wells (MW-1 through MW-4). EAI collected groundwater samples from the borings and wells and submitted the samples to an independent laboratory for analysis (EAI 2004b).
- In January 2005, EAI advanced eight borings (B-33 through B-40) and converted four of the borings, located in the alley between Tax Parcel No. 2275200661 and the Shaub-Ellison Property, into groundwater monitoring wells (MW-5 through MW-8). EAI collected groundwater samples from the borings and wells and submitted the samples to an independent laboratory for analysis (EAI 2005).
- In July 2005, LSI Adapt, Inc. (LSI Adapt) collected groundwater samples from monitoring wells MW-1 through MW-8 and submitted the samples to an independent laboratory for analysis. During the same groundwater monitoring event, Environmental Management Services (EMS) collected split samples from wells MW-5 through MW-8 (EMS 2005).
- In August 2005, LSI Adapt advanced five borings (SC-1 through SC-4 and MW-9) and converted one boring into a groundwater monitoring well (MW-9) (LSI Adapt 2005).
- In April 2006, Pacific Crest assessed the alley between Tax Parcel No. 2275200661 and the Shaub-Ellison Property for conductive and non-conductive underground utilities (Pacific Crest 2006).
- In May 2006, Pacific Crest conducted a passive soil gas survey to assess the concentrations of CVOCs in the Site vadose zone using W.L. Gore and Associates (Gore) soil vapor sorbent modules (Sorbents) and submitted the Sorbents to Gore for analysis of CVOCs by modified SW-846 Method 8260/8270 (Pacific Crest 2006).
- In October 2006, Pacific Crest advanced one soil boring (Boring MW-10) and converted it into a groundwater monitoring well (MW-10). Pacific Crest collected a soil sample from the boring and submitted the sample to an independent laboratory for analysis (Pacific Crest 2009).
- In 2007, the Site was enrolled in Ecology's VCP.
- In February 2007, Pacific Crest measured groundwater elevations in all Site monitoring wells and collected groundwater samples from monitoring wells MW-1 through MW-8 and MW-10, and submitted these samples to an independent laboratory for analysis (Pacific Crest 2009).
- In November 2007, Pacific Crest advanced four reconnaissance soil borings (B-1 through B-4) and submitted soil and groundwater samples from these borings to an independent laboratory for analysis (Pacific Crest 2009).

- In November 2008, Pacific Crest advanced boring MW-11, converted the boring into monitoring well MW-11, collected a soil sample from the boring, and submitted the sample to an independent laboratory for analysis (Pacific Crest 2009).
- In November 2008, Pacific Crest measured groundwater elevations in all Site monitoring wells, collected groundwater samples from monitoring wells MW-1 through MW-11, and submitted the samples to an independent laboratory for analysis (Pacific Crest 2009).
- In March 2009, Pacific Crest advanced three soil borings and converted them into groundwater monitoring wells MW-12, MW-13, and MW-14. Soil samples were collected from the borings, groundwater samples were collected from the wells, and the samples were submitted to an independent laboratory for analysis (Pacific Crest 2009).
- In April 2009, Pacific Crest conducted a 72-hour tidal study by monitoring groundwater elevations in select Site monitoring wells using data logging pressure transducers (Pacific Crest 2009).
- In June 2009, the Port conducted an indoor air survey by collecting indoor air and ambient air samples and submitting these samples to an independent laboratory for analysis (Pacific Crest 2009).
- In August 2009, Pacific Crest conducted a soil vapor survey by installing and retrieving Gore-Sorber passive soil vapor sampling modules at 33 locations beneath the Former Building. Soil vapor modules were submitted to the Gore laboratory for analysis (Pacific Crest 2009).
- The results of RI activities were submitted to Ecology in the RI Report dated December 9, 2009. Several RI data gaps were identified in the RI Report that required additional investigation to fully characterize the nature and extent of contamination.
- In May 2010, Pacific Crest advanced seven reconnaissance soil borings (borings B-5 through B-11) and submitted soil and groundwater samples from these borings to an independent laboratory for analysis (Pacific Crest 2010).
- In June 2010, Pacific Crest advanced three reconnaissance soil borings (borings B-12 through B-14) and submitted soil and groundwater samples from these borings to an independent laboratory for analysis (Pacific Crest 2010).
- In June 2010, Pacific Crest advanced boring MW-15, converted the boring into monitoring well MW-15, collected a soil sample from the boring, and submitted the sample to an independent laboratory for analysis (Pacific Crest 2010).
- In June 2010, Pacific Crest measured groundwater elevations in all Site monitoring wells, collected a groundwater sample from monitoring well MW-15, and submitted the sample to an independent laboratory for analysis (Pacific Crest 2010).
- In 2010, the results of further characterization were submitted to Ecology in the Data Gap Investigation Report dated August 4, 2010, with a request for an Opinion Letter.
- Ecology issued an Opinion Letter dated November 8, 2010, that approved the RI activities and established cleanup levels for the COCs in soil, groundwater, and air.

1.4.2 Post Remedial Investigation Activities (2010 – 2014)

Between 2011 and 2014, Pacific Crest conducted post RI activities to: further characterize the Site; assess the effectiveness of remediation technologies that are capable of achieving the cleanup standards established for the Site; and develop a preferred cleanup action approach for the Site. The activities included: meeting with Port representatives to resolve concerns about the characterization of the Site; collecting soil, groundwater, and surface water samples for laboratory analysis; conducting in-situ hydraulic conductivity testing; and, conducting in-situ soil vapor extraction (SVE), air sparging (AS), and enhanced aerobic bioremediation (EAB) pilot tests. A chronologic summary of the post RI activities is provided below:

- In January 2011, Pacific Crest advanced eight soil borings (borings B-15 through B-22) and submitted soil samples from these borings to an independent laboratory for analysis.
- In November 2012, Pacific Crest advanced two soil borings (borings B-23 and B-24) and submitted soil and groundwater samples from these borings to an independent laboratory for analysis.
- In April 2012, Pacific Crest measured groundwater elevations and collected groundwater samples from all Site monitoring wells and submitted the samples to an independent laboratory for analysis.
- Between September and December 2012, Pacific Crest conducted an EAB pilot test to assess the feasibility of enhancing aerobic bioremediation of VC in groundwater by artificially increasing dissolved oxygen (DO) in groundwater using Oxygen Release Compound (ORC[®]), a proprietary formulation of magnesium peroxide manufactured by Regenesis, Inc. (Regenesis) that releases oxygen when hydrated.
- In November and December 2012, Pacific Crest conducted pilot test activities to assess the effectiveness of SVE and AS for remediation of soil and groundwater at the Site.
- In September 2014, Pacific Crest advanced 20 soil borings (borings P-1 through P-14; and P-16 through P-21) and submitted soil samples from these borings to an independent laboratory for analysis.
- In September 2014, Pacific Crest measured groundwater elevations and collected groundwater samples from all Site monitoring wells and submitted the samples to an independent laboratory for analysis.
- In September 2014, Pacific Crest conducted rising and falling head slug tests in monitoring wells MW-6, MW-7, MW-11, MW-13, MW-14, and MW-16.
- In October 2014, Pacific Crest collected surface water samples at three locations near the groundwater/surface water interface within the Sitcum Waterway and submitted the samples to an independent laboratory for analysis.

The post RI investigation activities methods are described in detail in Appendix A. The post-RI investigation results are illustrated on figures provided in Appendix B. Laboratory analytical reports for post-RI investigation activities are provided in Appendix C. Boring logs for borings advanced during the post-RI investigation activities are provided in Appendix D. Data and analysis of in-situ hydraulic conductivity testing and pilot tests conducted during the post-RI investigation activities are provided in Appendix E and Appendix F, respectively. Waste disposal documentation is provided in Appendix G.

1.4.3 Remedial investigation Results

The results and conclusions of the investigations are summarized below.

- Geologic conditions within the Site boundaries are consistent with the regional unconsolidated geology. The unsaturated soil in the vicinity of the Site consists of sand/silt and/or gravel fill (Upper Fill) to a depth of up to 10 feet below ground surface (bgs), overlying fine sand and silty sand with occasional minor silt and shell fragments at a depth of 8 feet to 15 feet bgs (Upper Sand). The Upper Fill and Upper Sand consist of similar material and are nearly indistinguishable by visual inspection in some locations. The Upper Sand is underlain by a thin discontinuous silt (Upper Silt) that is up to 5 feet thick in places. The Upper Silt is present beneath the majority of Tax Parcel No. 2275200661 and the Port property located north of East 11th Street, but does not appear to be present in the immediate vicinity of East 11th Street along the northern boundary of Tax Parcel No. 2275200661. The Upper Silt is underlain by sand (Lower Sand) to a depth of approximately 30 feet bgs. The Lower Sand is underlain by clayey silt (Lower Silt) that appears to be continuous across the Site. The unconsolidated geology in the Site vicinity is illustrated in cross section view on Figure 3 and Figure 4.
- Shallow groundwater in the vicinity of the Site is encountered in the Upper Sand between the depths of approximately 7.5 feet bgs to 11 feet bgs. Saturated conditions extend to the top of the Lower Silt, interpreted as an aquitard and the base of the shallow water-bearing zone, at approximately 30 feet bgs. Due to the discontinuous nature of the Upper Silt, the Upper Sand and Lower Sand are interpreted as a single hydrogeologic unit. The Site groundwater is influenced by tidal fluctuations in the adjacent surface water body and meets the MTCA criteria for non-potability (WAC 173-340-720(2)(d)). The in-situ hydraulic conductivity slug test results for the wells completed in the Upper and Lower Sand ranged from 0.000021 (2.1×10^{-5}) centimeters per second (cm/s) to 0.0062 (6.2×10^{-3}) cm/s with a geometric mean of 0.000299 (2.99×10^{-4}) cm/sec.
- The potentiometric surface calculated for the Site, based on the April 10, 2012 and September 5, 2014 groundwater monitoring data, indicates a groundwater flow direction to the northwest. The potentiometric surface calculated for the Site, based on the September 5, 2014 groundwater monitoring data, indicates a groundwater flow direction to the northwest towards the Sitcum Waterway under an average gradient of approximately 0.012 feet per foot (ft/ft) in the vicinity of well MW-13, and 0.005 ft/ft in the vicinity of well MW-6. The groundwater elevation data are summarized in Table 1. The potentiometric surface contours for April 10, 2012 and September 5, 2014 are illustrated on Figure 5 and Figure 6, respectively.
- Laboratory analysis of soil, groundwater, soil vapor and indoor air samples collected during the investigation activities detected one or more of the following CVOC compounds: PCE, TCE, c-DCE, t-DCE, and VC. Analysis of soil and groundwater samples detected one or more of the following metals: arsenic, cadmium, chromium, copper, lead, nickel, tin, and zinc. Concentrations of CVOCs were not detected in surface water samples. The analytical results for soil samples are summarized in Table 2 and Table 3. The analytical results for groundwater samples collected from monitoring wells are summarized in Table 4 and Table 5; and reconnaissance groundwater analytical results are summarized in Table 6. Groundwater quality parameters measured during groundwater sampling are summarized in Table 7. The analytical results for indoor air are summarized in Table 8. The analytical results for surface water are summarized in Table 9.

- The distribution of the contaminants of potential concern (COPCs) in groundwater at the Site is affected by abiotic, biologic, hydrogeologic, and geochemical variables. Concentrations of chlorinated ethenes adsorbed to saturated soil and dissolved in groundwater are subject to abiotic reductive dehalogenation and biologically mediated processes including reductive dechlorination, aerobic oxidation, and co-metabolism. Select bacteria that thrive in anaerobic environments are capable of utilizing PCE, TCE, and other CVOC constituents as energy sources and can, through the process of biodegradation, transform the CVOCs into innocuous byproducts. The typical breakdown sequence for PCE and CVOCs under anaerobic conditions is summarized below:

PCE ► TCE ► c-DCE (primarily) ► VC ► Ethene and Carbon Dioxide (CO₂)

The presence of all of the reductive dechlorination degradation compounds of PCE in groundwater indicates that the groundwater geochemistry is conducive to reductive dechlorination. Conditions in anaerobic groundwater may also be conducive to abiotic biogeochemical reactions where iron sulfide minerals breakdown PCE and TCE without generating c-DCE or VC (NAVTFAC 2014).

The fate and transport mechanisms for metals in groundwater are primarily dependent upon geochemical variables, including redox potential, dissolved oxygen content, pH, and the chemical composition of the aquifer. Concentrations of metals in groundwater are not subject to degradation, but may be preferentially adsorbed to naturally occurring chemical components of soil. The formation of insoluble metal precipitates is controlled by pH and redox conditions in groundwater.

- The results of geochemical parameter monitoring in wells MW-15 and MW-17 following the ORC[®] injection event indicated an increase in DO compared to baseline measurements. Laboratory analysis of groundwater samples collected from monitoring wells MW-15 and MW-17 detected changes in concentrations of COCs (c-DCE and VC). The results of the EAB pilot test monitoring are presented in Table 10.
- The results of the SVE step test, and constant rate SVE pilot and AS/SVE pilot test for the Site conducted on December 19 and 20, 2012 indicated SVE was an effective remediation technology for remediation of soil at the Site. The field data, mass recovery, and ROI calculations are presented in Appendix F. Summaries of SVE pilot testing and air analytical data resulting from SVE testing are presented in Tables 11 and 12, respectively. The mass recovery results are presented in Table 13.
 - The SVE and AS/SVE pilot tests were conducted over a total of 7 hours. During the SVE step test, the initial vacuum applied to well SVE-1 was 10 inches of water (in-H₂O), and the maximum vacuum applied to well SVE-1 was 60 in-H₂O. At 60 in-H₂O, groundwater was observed entering the water knock-out drum. During the constant rate SVE pilot test, 30 in-H₂O was applied to well SVE-1 to prevent the accumulation of water in the knock-out drum. During the AS/SVE pilot test, 30 in-H₂O of vacuum was applied to well SVE-1, and 20 pounds per square inch (psi) was applied to well AS-1.
 - An effective radius of influence (ROI) of 38 feet was calculated using data from the constant rate SVE pilot test.
 - Laboratory analysis of effluent vapor samples collected from well SVE-1 during the constant rate SVE pilot test and AS/SVE pilot test detected PCE at concentrations ranging from 230 µg/l (230,000 micrograms per cubic meter [µg/m³]) to 81 µg/l

(81,000 $\mu\text{g}/\text{m}^3$) and detected TCE at concentrations ranging from 3.1 $\mu\text{g}/\text{l}$ to 1.6 $\mu\text{g}/\text{l}$. During the constant rate SVE and AS/SVE pilot tests, approximately 96 grams of PCE were extracted from the Site's subsurface.

2.0 CLEANUP STANDARDS AND CONCEPTUAL SITE MODEL

As defined in WAC 173-340-700, cleanup standards are established cleanup levels and points of compliance at which those cleanup levels will be attained. The cleanup standards for the Site have been established in accordance with WAC 173-340-700 through WAC 173-340-760, which are protective of human health and the environment, and also comply with the applicable or relevant and appropriate requirements (ARARs) for the Site. The conceptual site model (CSM) identifies plausible exposure pathways for human receptors to the focused list of COPCs.

2.1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

MTCA requires that cleanup actions comply with applicable state and federal laws (WAC 173-340-360(2)a(iii)), which include legally applicable requirements, as well as requirements that the department determines are relevant and appropriate. ARARs for cleanup actions often include various construction-related permits, air emission requirements, water discharge requirements, off-site disposal requirements, and other issues related to impacts in and around the site. ARARs can be categorized as follows:

- Chemical-specific ARARs are laws and requirements that establish health- or risk-based numerical values or methodologies for developing such values. These ARARs are used to establish the acceptable concentration of a chemical that may remain in or be discharged to the environment. As such, chemical-specific ARARs are considered in developing cleanup standards.
- Action-specific ARARs are performance, design, or other requirements that may place controls or restrictions on a particular remedial action.
- Location-specific ARARs are requirements that are triggered based on the location of the remedial action to be undertaken.

The MTCA Cleanup Regulation (Chapter 173-340 WAC) authorizes Ecology to adopt cleanup standards for groundwater, soil, surface water, and air at sites where hazardous substances are present, and establishes processes for identifying, investigating, and cleaning up these sites. Other potentially applicable regulatory requirements for Site cleanup actions include:

- Clean Water Act (33 United States Code [USC] Section 1251);
- National Toxics Rule, 40 CFR 131 – Human Health and Aquatic Life – Marine (Acute and Chronic);
- Water Pollution Control Act (Chapter 90.48 RCW; Chapter 173 201A WAC; Chapter 173-200 WAC);
- Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and All Appropriate Inquiries (AAI) (40 Code of Federal Regulations [CFR] Part 312);
- Resource Conservation and Recovery Act (RCRA);
- Sediment Management Standards (Chapter 173-204 WAC);
- Hazardous Waste Management Act (Chapter 70.105 RCW; Chapter 173 303 WAC);
- Federal and state Clean Air Acts (42 USC 7401 et seq.; 40 CFR 50; RCW 70.94; WAC 173-400, 403);

- State Environmental Policy Act (SEPA) (RCW 43.21C; WAC 197-11);
- Occupational Safety and Health Act (OSHA) (Part 1910 of Title 29 of the Code of Federal Regulations [29 CFR 1910]);
- General Occupational Health Standards (Chapter 296-62 WAC);
- Safety Standards for Construction Work (Chapter 296-155 WAC);
- Minimum Standards for Construction and Maintenance of Wells (Chapter 173-160 WAC);
- Underground Injection Control Program (Chapter 173-218 WAC); and
- Permits from local municipalities as required for activities at the Site. Examples include Pierce County and City of Tacoma permits for sewer discharges, and City of Tacoma grading permits, street-use permits, or shoreline permits.

Many ARARs are commonly addressed through standard industry practices. For instance, construction of monitoring or remediation wells will be conducted by a Washington State licensed driller, and construction work is conducted under site-specific health and safety plans in compliance with applicable safety regulations.

2.2 PRELIMINARY SCREENING LEVELS

On the basis of the industrial activities conducted on Tax Parcel No. 2275200661 (metal finishing and plating) and primary sources of contamination, the preliminary COPCs considered in this FS Report were: VOCs (chlorinated and non-chlorinated), metals (arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and zinc), and cyanide. Pacific Crest reduced the list of preliminary COPCs based on those compounds detected in more than 5% of soil and/or groundwater samples to the following: arsenic, cadmium, chromium, copper, lead, nickel, tin, zinc, PCE, TCE, c-DCE, t-DCE, VC, 1,1-DCE, 1,1,1-TCA, acetone, carbon disulfide, benzene, ethylbenzene, and xylenes. The focused list of preliminary COPCs was further reduced by comparison of the detected concentrations in the media of concern to the following preliminary screening levels (pSLs) and site-specific screening levels (ssSLs):

- Ecology-approved cleanup levels for the Site as presented in the Opinion Letter dated November 8, 2010;
- Natural Background for Metals in Washington State;
- MTCA Method A – Unrestricted for Soil and Groundwater – 173-340 WAC;
- MTCA Method B – Protection of Drinking Water for Soil and Groundwater and Direct Contact – 173-340 WAC;
- MTCA Method C – Direct Contact – 173-340 WAC;
- Human Health and Aquatic Life – Marine Chronic – 40 CFR 131; and
- Human Health Marine Waters – Clean Water Act (CWA).

The numerical values for the PSLs are presented in Appendix H and summarized in the applicable data tables. The COPCs that exceeded one or more of the PSLs consist of: cadmium, copper, nickel, zinc, PCE, TCE, c-DCE, and VC.

2.3 CLEANUP LEVELS

As part of the RI, Pacific Crest developed cleanup levels for the COCs in the media of concern that were protective of human health and the environment under specified exposure conditions (WAC 173-340-200) and used those cleanup levels to define the areas of the Site that required cleanup. In the Opinion Letter dated November 8, 2010, Ecology approved final RI Cleanup Levels that were adjusted to reflect applicable ARARs. The RI Cleanup Levels for PCE, TCE, c-DCE, and VC in groundwater were based on the 2009 National Recommended Water Quality Criteria (Section 304 of the Clean Water Act).

As part of the FS, Pacific Crest calculated ssSL for cadmium, copper, nickel, and zinc, and recalculated the site-specific cleanup levels for PCE, TCE, c-DCE, and VC to account for the following:

- In September 2012, Ecology revised several toxicological parameters that are used in the calculation of cleanup levels for PCE and TCE (Cleanup Levels and Risk Calculations [CLARC] 2012).
- In April 2015, Ecology removed c-DCE as a potential contaminant of concern for inhalation (Ecology 2015).
- On November 15, 2016, the EPA published a final rule in the Federal Register to revise the CWA human health water quality criteria applicable to surface waters of Washington state.
- As part of this FS, Pacific Crest revised the RI Cleanup Levels to eliminate protection of surface water as an exposure route for contaminants which do not “reach” surface water (WAC -340-720 (6)(c)(i)(F)). Cleanup levels for groundwater and soil (i.e., leaching to groundwater) that are protective of surface water are not applicable at the Site for those contaminants that do not “reach” surface water.
- The current and future land use on Tax Parcel No. 2275200661 is industrial and consistent with MTCA Method C Reasonable Maximum Exposure (RME) and the Port, as current property owner, has made representations to Sound Mattress in January 2016 that MTCA Method C cleanup levels would be acceptable and that future land use will remain industrial.
- MTCA requires the downward adjustment of cleanup levels for individual hazardous substances to ensure that the combined Site risk for all COCs does not exceed a non-carcinogenic Hazard Quotient of 1 and carcinogenic risk of 10^{-5} when the reasonable maximum exposure scenario as defined in WAC 173-340-708(3) indicates multiple pathways for human exposure. The specific adjustments are presented in Appendix H – Table 1.

The pSLs, ssSLs, and draft site-specific cleanup levels (ssCULs) for the Site are presented below:

Cobalt, Mercury, Selenium, and Silver – Laboratory analysis of unfiltered groundwater samples did not detect cobalt, mercury, selenium, or silver at concentrations above the method detection limits (MDLs). Cobalt, mercury, selenium, and silver were not retained as COPCs for either groundwater, surface water, or soil because they were not detected in unfiltered groundwater samples.

Arsenic, Chromium, and Lead – Laboratory analysis of unfiltered groundwater samples detected concentrations of arsenic, chromium, and lead in at least one sample, but the compounds were not detected in follow-up analysis of filtered groundwater. Pacific Crest used natural background values as the pSLs and the MTCA Method A Industrial Property Cleanup Levels as ssSLs for arsenic, chromium, and lead in soil. Concentrations of arsenic, chromium, and lead in at least one soil sample exceeded their respective pSL, but did not exceed their respective ssSL. Arsenic, chromium, and lead were not retained as COPCs for groundwater, surface water, or soil because they were not detected in filtered groundwater samples and were not detected above ssSLs in soil samples.

Cyanide - Laboratory analysis detected free cyanide in the groundwater sample collected from well MW-7 only. Laboratory analysis of follow-up groundwater samples for Weak Acid Dissociable (WAD) cyanide did not detect WAD cyanide in any samples. Due to the absence of WAD cyanide – a more sensitive and inclusive analysis – in the sample from well MW-7, the free cyanide result is interpreted to be the result of matrix interferences and a false positive, not representative of groundwater conditions at the Site. Cyanide was not retained as a COPC for either groundwater, surface water, or soil.

Tin - Laboratory analysis detected concentrations of tin in one unfiltered groundwater sample, but the compound was not detected in follow-up analysis of a filtered groundwater sample. Pacific Crest used MTCA Method B Cleanup Level for Dermal Exposure as pSL for tin in soil because no natural background value is available. Concentrations of tin were not detected above the pSL. Tin was not retained as COPCs for groundwater, surface water, or soil because it was not detected in filtered groundwater samples and it was not detected above pSL in soil samples.

Cadmium – Ecology has established baseline natural background concentrations of cadmium in soil in Western Washington to be 1 mg/kg. The screening and cleanup levels for the media of concern are discussed below:

- **Non-potable Groundwater and Surface Water** - Laboratory analysis of groundwater samples collected to date detected cadmium in unfiltered and filtered samples collected from Well MW-11 at concentrations ranging from 21 µg/L (filtered) to 170 µg/L (unfiltered). Pacific Crest used the surface water ARAR (Aquatic Life Marine/Chronic CWA §304) of 8.8 µg/L as the pSL and the MTCA Method B Surface Water Cleanup Level of 40.5 µg/L as the ssSL for cadmium in filtered groundwater. Concentrations of cadmium in filtered groundwater exceed the pSL in the sample collected from Well MW-11, but do not exceed the ssSL. The extent of concentrations of cadmium in groundwater is defined by groundwater samples collected to date and does not “reach” surface water. On the basis of the geochemical groundwater conditions, cadmium is not likely to “reach” surface water in the future. Cadmium is not retained as a COC for groundwater or surface water related exposure pathways, including soil leaching to groundwater, because concentrations of cadmium in groundwater do not exceed the ssSL or “reach” surface water, but it is retained as a COPC for future monitoring.

- **Soil** –Laboratory analysis of soil samples detected cadmium concentrations ranging from 0.15 mg/kg to 99 mg/kg. Pacific Crest used the natural background of 1 mg/kg as the pSL and the MTCA Method C Direct Contact Cleanup Level of 3,500 mg/kg as the ssSL for cadmium in soil. Concentrations of cadmium in soil exceed the pSL, but do not exceed the ssSL. The draft ssCUL for cadmium in soil is the risk adjusted MTCA Method C Direct Contact Cleanup Level of 100 mg/kg. Cadmium concentrations in soil do not exceed the ssCUL. Cadmium is retained as a COPC for soil.

Copper – Ecology has established baseline natural background concentrations of copper in soil to be 36 mg/kg. The screening and cleanup levels for the media of concern are discussed below:

- **Non-potable Groundwater and Surface Water** - Laboratory analysis of unfiltered and filtered groundwater samples detected copper concentrations ranging from 1.3 µg/L (filtered) to 31 µg/L (unfiltered). Pacific Crest used the surface water ARAR (Aquatic Life Marine/Chronic CWA §304) of 3.1 µg/L as the pSL for copper in filtered groundwater. Concentrations of copper in filtered groundwater do not exceed the pSL of 3.1 µg/L. Copper is not retained as a COC for groundwater- or surface water-related exposure pathways, including soil leaching to groundwater.
- **Soil** – Laboratory analysis of soil samples detected copper concentrations ranging from 8.2 mg/kg to 180 mg/kg. Pacific Crest used the natural background concentration of 36 mg/kg as the pSL and the MTCA Method C Direct Contact Cleanup Level of 140,000 mg/kg as the ssSL for copper in soil. Concentrations of copper in soil exceed the natural background, but do not exceed the ssSL. The draft ssCUL for copper in soil is the risk adjusted MTCA Method C Direct Contact Cleanup Level of 200 mg/kg. The concentrations of copper in soil do not exceed the ssCUL. Copper is retained as a COPC for soil.

Nickel – Ecology has established baseline natural background concentrations of nickel in soil to be 48 mg/kg. The screening and cleanup levels for the media of concern are discussed below:

- **Non-potable Groundwater and Surface Water** - Laboratory analysis of unfiltered groundwater samples collected to date detected nickel concentrations ranging from 0.75 µg/L to 190 µg/L and in filtered samples at concentrations ranging from 0.58 µg/L to 71 µg/L. Pacific Crest used the surface water ARAR (Aquatic Life Marine/Chronic CWA §304) of 8.2 µg/L as the pSL for nickel in filtered groundwater. The extent of concentrations of nickel in groundwater is defined by groundwater samples collected to date and does not “reach” surface water. Similar to cadmium, on the basis of the geochemical groundwater conditions, nickel is not likely to “reach” surface water in the future. In accordance with WAC 173-340-720 (6)(c)(i)(F), the ssSL for cadmium in groundwater is the MTCA Method B Surface Water Cleanup Level of 1,100 µg/L. Concentrations of nickel in filtered groundwater exceed the pSL, but do not exceed the ssSL. Nickel is not retained as a COC for groundwater or surface water related exposure pathways, including soil leaching to groundwater, but is retained as a COPC for future monitoring.
- **Soil** –Laboratory analysis detected nickel concentrations ranging from 6.0 mg/kg to 160 mg/kg. Pacific Crest used the natural background concentration of 48 mg/kg as the pSL and the MTCA Method B Direct Contact Cleanup Level of 70,000 mg/kg as the ssSL for nickel in soil. Nickel concentrations in soil exceed natural background but

do not exceed the ssSL. The draft ssCUL for nickel in soil is the risk adjusted MTCA Method C Direct Contact Cleanup Level of 200 mg/kg. The concentrations of nickel in soil do not exceed the ssCUL. Nickel is retained as a COPC for soil.

Zinc – Ecology has established baseline natural background concentrations of zinc in soil to be 85 mg/kg. The screening and cleanup levels for the media of concern are discussed below:

- **Non-potable Groundwater and Surface Water** - Laboratory analysis of unfiltered groundwater samples detected zinc concentrations ranging from 3.3 µg/L to 340 µg/L and in filtered samples at concentrations ranging from 3.8 µg/L to 31 µg/L. Pacific Crest used the surface water ARAR (Aquatic Life Marine/Chronic CWA §304) of 81 µg/L as the pSL for zinc in filtered groundwater. Concentrations of zinc in filtered groundwater do not exceed the pSL of 81 µg/L. Zinc is not retained as a COC for groundwater- or surface water-related exposure pathways, including soil leaching to groundwater, but it is retained as a COPC for future monitoring.
- **Soil** – Laboratory analysis detected zinc at concentrations ranging from 17 mg/kg to 120 mg/kg. Pacific Crest used the natural background concentration of 48 mg/kg as the pSL and the MTCA Method B Direct Contact Cleanup Level of 1,050,000 mg/kg as the ssSL for zinc in soil. Concentrations of zinc in soil exceed natural background but do not exceed the ssSL. The draft ssCUL for zinc in soil is the risk adjusted MTCA Method C Direct Contact Cleanup Level of 200 mg/kg. The concentrations of zinc in soil do not exceed the ssCUL. Zinc is retained as a COPC for soil.

Tetrachloroethene (PCE) – The primary sources of PCE (C₂Cl₄) concentrations in soil and groundwater appear to be associated with former industrial operations conducted on Tax Parcel No. 2275200661. The screening and cleanup levels for the media of concern are discussed below:

- **Air** – Laboratory analysis of indoor air samples, collected by the Port prior to demolition of the Building, detected PCE at concentrations ranging from 6.2 µg/m³ to 25 µg/m³. PCE was not detected in samples of ambient (outdoor) air collected by the Port. Due to the presence of PCE in soil, soil vapor and groundwater, vapor intrusion is a potential source of PCE in air. PCE is retained as a COC for air. The ssSL for PCE in air is the MTCA Method B Cleanup Level of 9.6 µg/m³. The draft ssCUL is the risk adjusted MTCA Method C Cleanup Level of 9.6 µg/m³.
- **Groundwater and Surface Water** – Laboratory analysis of surface water samples did not detect PCE. Laboratory analysis of groundwater samples collected to date detected PCE concentrations ranging from 0.33 µg/L to 2,600 µg/L. Pacific Crest used the surface water ARAR (Human Health – Marine Waters - Organism Only - CWA §304) value of 2.9 µg/L as a screening level for PCE in groundwater that is protective of surface water. Empirical data indicates that PCE in groundwater does not currently and is unlikely in the future to ever “reach” surface water; therefore, Pacific Crest used Protection of Air, instead of Protection of Surface Water, as the pathway for developing non-potable groundwater cleanup levels. Based on the current, and likely future land use, the ssSL for PCE in groundwater is the risk adjusted MTCA Method C Screening Level that is protective of air of 24.5 µg/L. Laboratory analysis of groundwater samples collected on the Tax Parcel No. 2275200661 exceed the ssSL for PCE. PCE is retained as a COC for groundwater.

The vertical and horizontal extent of concentrations of PCE in groundwater is defined by groundwater samples collected to date. The draft ssCUL for PCE in non-potable groundwater is the risk adjusted MTCA Method C Screening Level that is protective of air of 24.5 µg/L.

- **Soil** – Laboratory analysis of soil samples detected PCE concentrations ranging from 0.002 mg/kg to 34 mg/kg. The maximum concentration of PCE in soil does not exceed the MTCA Method B Cleanup Level for direct contact of 476 mg/kg. Pacific Crest used the MTCA Method A Cleanup Level of 0.05 mg/kg as the pSL for PCE in soil and the risk adjusted MTCA Method C Cleanup Level calculated to be protective of the groundwater ssCUL of 0.24 mg/kg as the ssSL. Concentrations of PCE in soil exceed the pSL and ssSL. PCE is retained as a COC for soil. The vertical and horizontal extent of concentrations of PCE in soil is defined by soil samples collected to date. The draft ssCUL for PCE in soil is the risk adjusted MTCA Method C Cleanup Level calculated to be protective of the non-potable groundwater ssCUL.

Trichloroethene (TCE) – The TCE (C₂HCl₃) concentrations in soil and groundwater appear to be due to degradation of PCE associated with former industrial operations. The screening and cleanup levels for the media of concern are discussed below:

- **Air** – Laboratory analysis of indoor air samples, collected by the Port prior to demolition of the Building, detected TCE concentrations ranging from 0.56 µg/m³ to 1.2 µg/m³. TCE was not detected in samples of ambient (outdoor) air collected by the Port. Due to the presence of TCE in soil, soil vapor and groundwater, vapor intrusion is a potential source of TCE in air. TCE is retained as a COC for air. The pSL for TCE in air is the MTCA Method B Cleanup Level of 0.37 µg/m³. The draft ssCUL is the risk adjusted MTCA Method C Cleanup Level of 1.4 µg/m³. The ssSL for TCE in non-potable groundwater is the risk adjusted MTCA Method C Screening Level that is protective of air of 5.8 µg/L.
- **Non-potable Groundwater and Surface Water** – Laboratory analysis of surface water samples did not detect TCE. Laboratory analysis of groundwater samples collected to date detected TCE concentrations ranging from 0.24 µg/L to 1,400 µg/L. Pacific Crest used the surface water ARAR (Human Health – Marine Waters - Organism Only - CWA §304) value of 0.7 µg/L as the pSL for TCE in groundwater that is protective of surface water. Empirical data indicates that TCE in groundwater does not currently and is unlikely in the future to ever “reach” surface water; therefore, Pacific Crest used Protection of Air as the pathway for developing groundwater cleanup levels instead of Protection of Surface Water. TCE is retained as a COC for non-potable groundwater. The ssSL for TCE in non-potable groundwater is the risk adjusted MTCA Method C Screening Level that is protective of air of 5.8 µg/L. Laboratory analysis of groundwater samples collected on Tax Parcel No. 2275200661 exceed the pSL and ssSL for TCE. The vertical and horizontal extent of concentrations of TCE in groundwater is defined by groundwater samples collected to date. The draft ssCUL for TCE in non-potable groundwater is the risk adjusted MTCA Method C Screening Level that is protective of air of 5.8 µg/L.
- **Soil** – Laboratory analysis of soil samples detected TCE concentrations ranging from 0.012 mg/kg to 4.9 mg/kg. The maximum concentration of TCE in soil does

not exceed the MTCA Method B Cleanup Level for direct contact of 12 mg/kg. Pacific Crest used the MTCA Method A Cleanup Level of 0.03 mg/kg as the pSL for TCE in soil and the risk adjusted MTCA Method C Cleanup Level calculated to be protective of the non-potable groundwater ssCUL of 0.036 mg/kg as the ssSL. TCE is retained as a COC for soil. Concentrations of TCE in soil exceed the ssSL. The vertical and horizontal extent of concentrations of TCE in soil is defined by soil samples collected to date. The draft ssCUL for TCE in soil is the risk adjusted MTCA Method C Cleanup Level calculated to be protective of the non-potable groundwater ssCUL.

Cis-1,2-Dichloroethene (c-DCE) – The c-DCE ($C_2H_2Cl_2$) concentrations in soil and groundwater appear to be due to degradation of TCE. The screening and cleanup levels for the media of concern are discussed below:

- **Air** – Laboratory analysis of indoor air samples, collected by the Port prior to demolition of the Building, detected c-DCE at a concentration of 0.16 $\mu\text{g}/\text{m}^3$ in one sample. Laboratory analysis did not detect c-DCE in the ambient (outdoor) air sample collected by the Port. Ecology's CLARC database no longer identifies c-DCE as having a carcinogenic or non-carcinogenic human health risk associated with inhalation; therefore, c-DCE is not retained as a COC for air and no ssCUL is proposed for c-DCE in air.
- **Non-Groundwater and Surface Water** – Laboratory analysis of surface water samples did not detect c-DCE. Laboratory analysis of groundwater samples collected to date detected c-DCE at concentrations ranging from 0.33 $\mu\text{g}/\text{L}$ to 15,000 $\mu\text{g}/\text{L}$. Pacific Crest used the MTCA Method B Cleanup Level for potable groundwater of 16 $\mu\text{g}/\text{L}$ as the pSL. The vertical and horizontal extent of c-DCE is delineated by the samples collected to date. Ecology's CLARC database no longer identifies c-DCE as having a carcinogenic or non-carcinogenic human health risk associated with non-potable groundwater or surface water; therefore, c-DCE is not retained as a COC for groundwater and no ssCUL is proposed for c-DCE in groundwater or surface water.
- **Soil** – Laboratory analysis of soil samples detected c-DCE concentrations ranging from 0.0014 mg/kg to 47 mg/kg. Pacific Crest used the MTCA Method B Direct Contact Cleanup Level of 160 mg/kg as the pSL and the risk adjusted MTCA Method C Cleanup Level calculated to be protective of direct contact of 50 mg/kg as the ssSL. The maximum concentration of c-DCE in soil does not exceed either the pSL or the ssSL. C-DCE is retained as a COPC for soil. The draft ssCUL for c-DCE in soil is the risk adjusted MTCA Method C Cleanup Level calculated to be protective of direct contact.

Vinyl Chloride (VC) – The primary sources of VC ($H_2C=CHCl$) concentrations in soil and groundwater appear to be associated with degradation of c-DCE. The screening and cleanup levels for the media of concern are discussed below:

- **Air** – Laboratory analysis of indoor and ambient air samples collected by the Port prior to demolition of the Building did not detect VC at concentrations above the MDL and VC has not been detected in soil vapor or unsaturated soil samples. However, due to the presence of VC in groundwater, vapor intrusion is a potential source of VC in air. The draft ssCUL for VC in air is the risk adjusted MTCA Method

C Cleanup Level of 2.5 µg/m³. The risk adjusted MTCA Method C Screening Level for non-potable groundwater that is protective of the air ssCUL is 1.3 µg/L.

- **Groundwater and Surface Water** – Laboratory analysis of surface water samples did not detect VC. Laboratory analysis of groundwater samples collected to date detected VC concentrations ranging from 0.33 µg/L to 190 µg/L. Pacific Crest used the surface water ARAR (Human Health – Marine Waters - Organism Only - CWA §304) value of 0.18 µg/L as the pSL and draft ssCUL for VC in groundwater that is protective of surface water. VC is retained as a COC for groundwater and surface water. The vertical and horizontal extent of concentrations of VC in groundwater is defined by groundwater samples collected to date.
- **Soil** – Laboratory analysis of soil samples detected VC concentrations ranging from 0.0037 mg/kg to 5.5 mg/kg. However, VC was only detected in soil samples located below groundwater and co-located with concentrations of VC in groundwater. The pSL and draft ssCUL for VC in unsaturated is the practical quantitation limit (PQL). Cleanup of saturated soil will be demonstrated empirically in accordance with WAC 173-340-747(9) by comparison of analytical results of groundwater samples to groundwater cleanup standards and by a demonstration that concentrations of contaminants in soil will not result in a future exceedance of a groundwater cleanup standard.

2.4 POINTS OF COMPLIANCE

The point of compliance is defined in WAC 173-340-200 as the point where cleanup levels, established in accordance with WAC 173-340-720 through WAC 173-340-760, shall be attained. Once the cleanup levels are attained at the point of compliance, the concentrations of COCs have achieved the regulatory requirements established under MTCA.

2.4.1 Point of Compliance for Groundwater

The point of compliance for groundwater is defined as groundwater throughout the Site, from the uppermost level of the saturated zone extending vertically to the lowest depth that is affected by COCs. Performance monitoring of groundwater will be conducted during the cleanup action to monitor the attenuation of concentrations of COCs in groundwater.

2.4.2 Point of Compliance for Soil

The point of compliance for soil cleanup levels based on direct contact is soil between ground surface and 15 feet bgs. Cleanup of saturated soil will be demonstrated empirically in accordance with WAC 173-340-747(9) by comparison of analytical results of groundwater samples to groundwater cleanup standards and by a demonstration that concentrations of contaminants in soil will not result in a future exceedance of a groundwater cleanup standard.

2.4.3 Point of Compliance for Air

Air cleanup standards apply to ambient (outdoor) air and to air within any building or other structure large enough to fit a person. The point of compliance for air is defined as air throughout the Site.

2.5 CONCEPTUAL SITE MODEL

A CSM has been developed for the Site that is based on the data collected by Pacific Crest and others during the RI and FS activities. The CSM identifies plausible exposure pathways for human and ecological receptors to the focused list of COPCs. The CSM is illustrated on Figure 7, and the CSM elements are discussed below:

- **Primary Sources of Contamination** – Washington Steel conducted industrial activities including: metal degreasing and metal plating. PCE, cadmium, copper, nickel, and zinc appear to have been used by Washington Steel in their industrial activities.
- **Contaminants of Potential Concern** – Based on the industrial activities conducted by Washington Steel and primary sources of contamination, the preliminary list of COPCs considered in this FS Report included: VOCs, metals, and cyanide. The focused list of COPCs consists of PCE, TCE, c-DCE, VC, cadmium, copper, nickel, and zinc. The COCs for the Site will be those COPCs that are present in the media of concern at concentrations that present an unacceptable risk to human health or the environment (PCE, TCE and VC).
- **Primary Release Mechanisms** – The release mechanisms associated with the Site appear to have been surface spills of the PCE and metals associated with plating and leaks from the sewer line in the alley southeast of the former Building.
- **Transport Media** – The Site is characterized in the southeast by elevated concentrations of CVOCs (primarily PCE, TCE, and cis-1,2-DCE) and metals (cadmium, copper, nickel and zinc) in soil and groundwater in the Upper Fill and Upper Sand (<15 feet bgs) above the Upper Silt located near the suspected source areas. Concentrations of PCE indicative of dense non-aqueous phase liquid (DNAPL) have been historically detected in one well (MW-11) located near the former metal finishing areas, though recent monitoring results suggest substantial reductive dechlorination has occurred. Concentrations of CVOCs are present in soil vapor at the Site due to volatilization from shallow soil and groundwater.

The northwestern portion of the Site is characterized by concentrations of the degradation products of TCE (c-DCE and VC) that have migrated in groundwater vertically downward into the Lower Sand below the Upper Silt and laterally to the northwest, away from the source areas, due to groundwater flow and the tidal influence of the Sitcum Waterway. Concentrations of PCE, TCE, and metals in groundwater do not “reach” the Sitcum Waterway.

In the southeastern portion of the Site, the soil and groundwater in the Lower Sand do not appear to be impacted, and in the northwestern portion of the Site, the soil, soil vapor, and groundwater in the Upper Sand do not appear to be impacted. This distribution of contaminants appears to be controlled by groundwater flow and the gap in the Upper Silt located near East 11th Street, as depicted in cross-section on Figure 3. Concentrations of the COPCs have not been detected in surface water.

- **Exposure Media and Secondary Release Mechanisms** – The exposure media (i.e., media of concern where concentrations of COPCs have been detected or have the potential to be detected) include: soil, groundwater, air, surface water, and sediment. Secondary release mechanisms applicable to the exposure media include: retention of adsorbed contaminants on shallow soil; leaching of contaminants from shallow soil to groundwater; retention of dissolved contaminants in groundwater; discharge of dissolved contaminants in groundwater to surface water; and, volatilization of dissolved and adsorbed contaminants from groundwater and soil into soil vapor.

- **Potential Receptors** – The Site is located in a designated industrial zone; therefore, residents and upland ecological receptors are not considered plausible receptors under current or future land use. The potential human receptors are: adult industrial workers, adult temporary construction workers, and adult Site visitors. Ingestion of aquatic biota by non-industrial receptors is considered potentially complete in the future, if industrial activities in the Sitcum Waterway ceased.
- **Complete and Potentially Complete Exposure Pathways** – Ingestion of groundwater and ingestion of surface water are not complete exposure routes because surface water is saline and non-potable and groundwater meets the criteria for non-potability. A complete exposure pathway consists of a source of contaminants and a potential or known exposure route for contaminants to reach a current or future receptor. Pacific Crest identified the following complete or potentially complete exposure pathways that are applicable to the Site:
 - *Direct Contact and Incidental Ingestion of COPCs in Soil* – Future industrial workers, current and future temporary construction workers, and future Site visitors to the portion of the Site located on Tax Parcel No. 2275200661 have the potential to be exposed to COPCs (CVOCs and metals) in shallow soil. The concentrations of COPCs do not exceed the draft ssSLs or applicable ssCULs for direct contact. The direct contact pathway is only potentially complete if the MTCA Method C exposure assumptions change.
 - *Inhalation of CVOCs in Air* – Future industrial workers, current and future temporary construction workers, and current and future Site visitors to the portion of the Site located on Tax Parcel No. 2275200661 have the potential to be exposed to CVOCs in air. Metals are not volatile and do not present a human health risk due to vapor intrusion. Volatilization of CVOCs to indoor air is considered only a potential future exposure pathway because there are no current buildings on Tax Parcel No. 2275200661, and since soil, soil vapor, and groundwater in the Upper Sand do not appear to be impacted in the northwestern portion of the Site.
 - *Ingestion of Aquatic Biota* – Human ingestion of aquatic biota exposed to contaminants in surface water or in groundwater discharging to surface water is considered only a potential future exposure pathway for Site visitors (i.e., recreational users). Due to unrelated pollution, DOH fish and shellfish consumption advisories are currently in effect for the entire Commencement Bay area, including the Sitcum Waterway.

2.6 SITE BOUNDARIES

The Site is defined as the area where releases of hazardous substances to the media of concern have come to be located. Cleanup actions are required for those portions of the Site where concentrations of COCs in media of concern exceed their respective ssCULs. The Site extends from southeast to northwest: beginning on a portion of the adjacent former Shaub-Ellison property; extending across Tax Parcel No. 2275200661; underneath East 11th Street; beneath the parking lot for the Port of Tacoma Administrative Building; and, ultimately, terminating at the Sitcum Waterway. The Site is located within properties that are currently owned by the Port.

2.6.1 Soil

Soil with concentrations of COCs (PCE, TCE, and VC) above the ssCULs has been delineated and appears to be located primarily beneath the footprint of the former Building, with elevated

PCE concentrations also present in surface soil in a limited area of the alley between Tax Parcel No. 2275200661 and Shaub-Ellison properties. The highest PCE concentration detected to date in soil was 34 mg/kg in a sample collected from boring P-9 from 6 feet to 8.5 feet bgs, which suggests that the primary CVOC source area is located in the vicinity of this boring. The estimated areal extent of soil requiring cleanup action is illustrated on Figure 8. The estimated vertical extent of soil requiring cleanup action is illustrated in cross-section on Figures 3 and 4.

2.6.2 Groundwater

The extent of COCs (PCE, TCE, and VC) in groundwater has been delineated by samples collected to date. Groundwater with dissolved CVOC concentrations that exceed the ssCULs extends from the alley southeast of the former Building to adjacent to the Sitcum Waterway north of the Port's Administration Building. Groundwater in the southeast portion of the Site is characterized by elevated concentrations of PCE, TCE, c-DCE, and VC in the Upper Sand above the Upper Silt. Groundwater in the northwestern portion of the Site is characterized by concentrations of TCE degradation products (c-DCE and VC) that have migrated downward in groundwater into the Lower Sand below the Upper Silt, and laterally to the northwest due to groundwater flow and tidal influence of the Sitcum Waterway. In the southeastern portion of the Site, soil and groundwater in the Lower Sand does not appear to be impacted; and in the northwestern portion of the Site, soil and groundwater in the Upper Sand does not appear to be impacted. The distribution of contaminants appears to be controlled by groundwater flow, as well as the discontinuity in the Upper Silt in the vicinity of East 11th Street. The estimated areal extent of groundwater requiring cleanup action is illustrated on Figure 8.

2.6.3 Sub Areas and Draft FS Remediation Levels

For the purposes of evaluating cleanup action alternatives, the investigation area for the Site is divided into two sub-areas (Zone A and Zone B) to account for the varying subsurface characteristics. Zone A includes areas of the Site located southeast of East 11th Street; Zone B includes areas of the Site located between 11th Street and the Sitcum Waterway.

A remediation level is a concentration of a hazardous substance in a specific media above which a particular cleanup action component will be conducted. Remediation levels, by definition, exceed cleanup levels. MTCA provides for the use of remediation levels at certain sites, and states that a cleanup action selected in accordance with WAC 173-340-350 through 173-340-390, which includes remediation levels, constitutes a cleanup action which is protective of human health and the environment. Site specific remediation levels for VC are proposed for groundwater in Zone A (zaRL) and Zone B (zbRL). The basis for the remediation levels is presented below:

- **Zone A** – The only potentially complete future exposure pathway for VC in Zone A is volatilization from groundwater into air. The proposed zaRL for VC in groundwater is the risk adjusted MTCA Method C Screening Level that is protective of the air ssCUL (1.3 µg/L).
- **Zone B** – The only potentially complete future exposure pathway for VC in Zone B is groundwater migration to surface water and ingestion of aquatic biota. The proposed zbRL for VC in groundwater is the MTCA Method C Screening Level for VC (92.3 µg/L).

Zone A, Zone B, and the lateral extent of COCs that exceed the ssCULs and remediation levels are illustrated on Figure 8. The vertical extent of CVOCs that exceed the ssCULs in groundwater is illustrated in cross-section on Figures 3 and 4.

3.0 CLEANUP ALTERNATIVES

3.1 REMEDIAL ACTION OBJECTIVES

Remedial action objectives (RAOs) are specific goals to be achieved by the cleanup alternatives that meet cleanup standards and provide adequate protection of human health and the environment under a specified land use. Site-wide RAOs are summarized below:

- **RAO 1:** Risks associated with direct contact with surface or subsurface soils will be reduced to acceptable levels through mass reduction or the use of institutional controls and, if necessary, engineered barriers. Institutional controls are required for MTCA Method C cleanup levels that rely on industrial land use.
- **RAO 2:** Unacceptable risks associated with inhalation of COC concentrations in air will be controlled by reducing concentrations of COCs in shallow soil and/or groundwater to acceptable levels (i.e. ssCULs). If mass reduction is not practicable, risks associated with inhaling COC concentrations in indoor air will be reduced to acceptable levels through the use of engineered barriers (i.e. vapor intrusion mitigation). The concentrations of CVOC COCs exceed risk adjusted MTCA Method C ssCULs that are protective of air. Institutional controls are required for MTCA Method C cleanup levels that rely on industrial land use.
- **RAO 3:** Within a reasonable time frame, reduce COC concentrations in soil and groundwater posing a potentially unacceptable health risk to human and ecological surface water receptors to acceptable levels. If mass reduction is not practicable, reduce the health risks associated with COC exposure to acceptable levels through the use of institutional controls. The concentrations of one COC (VC) exceeds the ssCUL for non-potable groundwater that is based on protection of surface water (Human Health – Marine Waters - Organism Only - CWA §304).

3.2 CLEANUP TECHNOLOGIES

3.2.1 Identification of Potential Cleanup Technologies

Numerous remediation technologies have been developed, tested and utilized to remediate contaminated soil and groundwater at similar sites. CVOCs in soil and groundwater can be remediated using passive (e.g., monitored attenuation) or active (e.g., soil vapor extraction or excavation) technologies. In addition, some technologies focus on a single type of media (e.g., excavation of soil or air sparging for groundwater) while other technologies are capable of remediating several media at one time (e.g., dual phase extraction).

The potential technologies for Site remediation were selected from the Federal Remediation Technologies Roundtable's Treatment Technologies Screening Matrix (FRTR 2007) and screened to identify those technologies best-suited to achieving the remediation objectives. The criteria used for screening remedial technologies are as follows:

- **Technology Development Status (bench, pilot, or full scale)** - Technologies with full scale implementation and pilot test success were favored over less developed technologies. Technologies successfully implemented in a variety of environmental and geologic settings were favored over technologies with a more restricted application record.

- **Performance Record** - The record of successfully attaining the remediation objectives established for the technology in prior implementations. Technologies with a more successful performance record were favored over technologies with fewer successes or more failures.
- **Constituents Addressed** - The COCs the technology is capable of addressing. Only technologies which have been demonstrated capable of addressing the specific constituents in the specific media of interest (soil or groundwater) were retained for evaluation in the FS.
- **Ability to Implement within the Constraints of the Site** - The expected capability of successfully implementing the technology in the project area within a reasonable time frame. Technologies requiring minimal access and simpler permitting were favored over technologies requiring extensive permitting or access to numerous locations. Technologies that require significant infrastructure or would pose extensive administrative and logistical challenges and may ultimately be considered administratively not implementable were also not favored. Technologies that utilize existing infrastructure such as the Site monitoring well network are preferred.

The technology screening step is intended to produce a very short list of only the most applicable and promising technologies for further consideration. Technologies were either retained or rejected based upon their prior application history, ability to meet the remediation objectives, and an evaluation against the above screening criteria. The results of the technology screening are summarized in Table 14 and the retained technologies are summarized below:

- **Excavation and Off-Site Disposal** – Excavation of shallow contaminated soil using readily available construction equipment is a rapid and effective, though costly, remediation method for soil. Excavation is the process of physically removing contaminated soil from a site and either treating the soil above ground or transporting the soil off-site for treatment and disposal. Following soil excavation, confirmation samples are collected and the excavation is backfilled with clean material.

Current state and federal regulations governing waste disposal prohibit land disposal of any untreated hazardous waste. Under these regulations, soil that contains concentrations of a listed hazardous waste (e.g., PCE) and is being excavated as a part of cleanup action must be handled as listed waste, regardless of the concentration of hazardous waste constituents present in the soil. In response to the unintended consequence of significantly increased cleanup costs without any observable improvement for human health or the environment that resulted from the strict interpretation of these regulations, EPA issued the “Contained-In” Policy to clarify the application of hazardous waste regulations to environmental media generated during a site cleanup. The “Contained-In” Policy allows soil from a cleanup action to be handled as a non-hazardous waste which can be disposed of at a Subtitle D Landfill, provided that only minimal concentrations of hazardous waste constituents are present in the soil.

Soil with concentrations of PCE and some metals may also be classified as a “characteristic” hazardous waste by comparison of constituent concentrations in leachate, extracted from the waste using the Toxicity Characteristic Leaching Procedure (TCLP), with the limits specified in Title 40, Part 261.24 of the Code of the Federal Regulations (40 CFR 261.24). The TCLP levels for the COPCs are listed in Appendix H – Table H-3. Soil with COPC concentrations that exceed 20 times the TCLP level (the “20x Rule”) have the potential to exhibit a hazardous characteristic. Laboratory analysis of unsaturated soil has detected PCE, cadmium, and chromium at concentrations that exceed the 20x Rule. Disposal options

for soil that is classified as a characteristic hazardous waste are more stringent and costly than soil classified as non-hazardous waste (i.e. disposal at a Subtitle C Landfill instead of a Subtitle D Landfill).

Excavation is retained as a remediation technology for the Site because it is capable of achieving the goal of RAO No. 2 and it has been used with success on Tax Parcel No. 2275200661.

- **Soil Vapor Extraction (SVE)** – SVE operates by inducing a vacuum on wells to recover CVOCs in soil vapor from the subsurface. SVE is effective for remediation of permeable material (sand and silty sand). SVE is not a feasible technology for CVOc contamination located in saturated material or below groundwater. The recovered media are typically treated before being discharged. During operation of a typical SVE system, the concentrations of CVOcs in soil gas decrease as the mass of contaminants present in the soil pore space is reduced. Over time, the CVOc recovery rate tends to become a function of the rate of desorption of contaminants from soil and recovery rates reach asymptotic levels.

SVE is retained as a remediation technology because it is capable of achieving the goal of RAO No. 2. The soil encountered in the shallow subsurface consists primarily of sand and silty sand which is conducive to the application of SVE and SVE pilot tests conducted at the Site indicated that SVE creates a large ROI and is capable of recovering significant CVOc mass in soil vapor. SVE is typically less effective in remediating low permeability silts. A potential drawback to implementation of SVE is the presence of a silt layer in the shallow Upper Fill.

- **Groundwater Extraction and Treatment (GE&T)** – GE&T consists of extracting groundwater from recovery wells screened in the zone of contamination to both remove contaminant mass and to control groundwater migration (hydraulic control). The recovered groundwater is then treated before being discharged, typically to a sewer system under a permit with the local municipality. GE&T systems are capable of controlling the hydraulic gradient of groundwater, but they are not generally considered effective in achieving cleanup levels at sites impacted with CVOcs. In addition, groundwater treatment can be complicated by metals and naturally high iron concentrations present in anaerobic groundwater and low treatment standards required by the treatment facility.
- **In-situ Bioremediation by Monitored Natural Attenuation and/or Enhanced Reductive Dechlorination** – In-situ bioremediation is the process by which select bacteria under certain conditions transform contaminants into innocuous byproducts. The typical breakdown sequence for CVOcs under anaerobic conditions is summarized below:

PCE ► TCE ► c-DCE (primarily) ► VC ► ethene and carbon dioxide (CO₂)

Reductive dechlorination occurs under anaerobic conditions that are conducive to the growth of bacteria capable of consuming CVOcs. The naturally occurring reductive dechlorination processes (monitored natural attenuation [MNA]) can be enhanced to accelerate degradation of CVOcs by adding organic substrates to the subsurface (enhanced reductive dechlorination [ERD]). Numerous organic substrates are available that can be naturally degraded and fermented in the subsurface resulting in the generation of hydrogen to enhance reductive dechlorination. Carbohydrates (e.g., sugars), alcohols, low-molecular-weight fatty acids (e.g., lactate), vegetable oils, and plant debris (e.g., mulch) are examples of easily fermentable organic substrates. Anaerobic bioremediation (ERD and MNA under current conditions) are retained as remediation technologies for the Site

because they are capable of achieving the goals of RAO No. 3 and partially achieving the goals of RAO No. 2.

- **In-Situ Chemical Reduction (ISCR)** – In situ chemical reduction (ISCR) is the combination of abiotic chemical reduction using a reductant or reductant-generating material (e.g., zero valent iron [ZVI], ferrous iron, sodium dithionite, sulfide salts, and hydrogen sulfide), coupled with anaerobic bioremediation. ISCR abiotically transforms CVOCs into innocuous byproducts and immobilizes metals by adsorption or precipitation. ISCR products can be injected into the subsurface via soil borings or existing wells; applied to the vadose zone through excavation or soil mixing; or emplaced in a barrier wall intercepting a mobile dissolved contaminant plume (i.e., permeable reactive barrier [PRB]). PRBs are commonly installed within a continuous trench excavated perpendicular to the contaminant plume, though reductants can also be introduced to the subsurface via injection wells, direct push injections, soil mixing, and pneumatic fracturing.

3.3 CLEANUP ACTION ALTERNATIVES

The purpose of this FS is to develop and evaluate cleanup action alternatives to facilitate selection of a final cleanup action for the Site. Cleanup action alternatives consist of combinations of remediation technologies that have the potential to achieve the goals of the RAOs. The technology screening process retained excavation, SVE, anaerobic bioremediation (ERD and MNA), ISCR, and GE&T as potentially feasible remediation technologies. Due to the variation in conditions across the Site, no single technology is likely to be capable of achieving the cleanup standards for soil and groundwater across the entire Site; therefore, a combination of technologies must be evaluated in the FS and implemented in areas where they are most likely to be effective. The cleanup action alternatives are presented in the following sections and summarized in Table 15.

3.3.1 Common Elements and Assumptions

The cleanup action alternatives consist of a combination of different remediation alternatives. Common elements and assumptions used for developing the alternatives are discussed below:

- **Estimated Costs** - The design for each cleanup alternative presented below is conceptual, not detailed, and the cost estimate should be considered approximate and for comparison purposes. In accordance with EPA guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs.
- **Net Present Value (NPV)** - For those cleanup elements that occur over an extended time period (e.g. groundwater monitoring, system operation and maintenance and post-cleanup confirmation sampling), costs were adjusted to net-present value (NPV). In *A Guide to Developing and Documenting Cost Estimates During the Feasibility Study* (EPA 2000), EPA recommends using the current real interest rate from which the inflation premium has been removed (i.e. real interest rate) as the discount rate for NPV analysis. The current real interest rates are updated annually by the U.S. Office of Management and Budget (OMB) in revisions to OMB Circular A-94. The current discount rates for a 20 year and 30 year maturity are 0.5% and 0.7%, respectively (OMB 2016). This FS uses a discount rate of 0.7% for the NPV analysis of Cleanup Alternative No. 1 and 0.5% for the NPV analysis of the remaining alternatives.

- **Monitoring Well Network** - Each of the cleanup action alternatives includes installation of additional groundwater monitoring wells to replace wells decommissioned by the Port and to provide more robust monitoring capabilities.
- **Engineering Design** – Alternative No. 2 through Alternative No. 4 rely on technologies that have not been pilot tested at the Site. The final design of each alternative would be based on preliminary engineering design activities that would be conducted prior to development of the draft Cleanup Action Plan (dCAP).
- **Institutional Controls** - MTCA Method C requires implementation of institutional controls regarding industrial land use. The goal of RAO No. 1 is met in each cleanup action alternative by the implementation of institutional controls to limit land use in the future to industrial, consistent with MTCA Method C.
- **Compliance Monitoring** - Each cleanup action alternative includes: worker protection monitoring during implementation; performance groundwater monitoring to evaluate the progress of the cleanup; confirmation soil sampling; and confirmation groundwater monitoring consisting of four quarters of compliant groundwater monitoring to demonstrate long-term effectiveness of the cleanup action. Progress monitoring will consist of monitoring of all groundwater monitoring wells and analysis of samples collected for CVOCs (PCE, TCE, c-DCE, t-DCE and VC) by SW-846 Method 8260 and analysis filtered groundwater samples collected from select wells for cadmium, copper, nickel, and zinc by SW-846 Method 200.8. The progress monitoring schedule varies for each alternative on the basis of the restoration timeframe.
- **Post-Remediation Contingency Measures** – Tax Parcel No. 2275200661 is currently vacant, but the Port has indicated that redevelopment of the parcel is planned in the future. Soil generated during redevelopment activities conducted after the cleanup action has achieved the RAOs may still require special handling for off-site disposal. The incremental costs for soil disposal during redevelopment are based on conservative assumptions of the effectiveness of the cleanup and the extent of soil contamination.
- **MNA** - Consistent with EPA guidance, MNA is appropriate when combined with other remedial measures or as a follow up to active remediation (EPA 1999). Aggressive source removal improves the potential for effective implementation of MNA, but is not a precondition for success. MNA may be appropriate as a sole ground water remedy if site conditions indicate that natural attenuation alone would meet the RAOs. A varying degree of MNA is included in each cleanup alternative.

3.3.2 Alternative No. 1 – Institutional Controls and MNA

Alternative No. 1 does not include active remediation but consists of monitoring the natural reductions in concentrations of the COCs in the media of concern in Zone A and Zone B. The components of this alternative are described below and illustrated on Figure 9:

- **Primary Cleanup Element** - Attenuation of CVOC concentrations in groundwater as a result of reductive dechlorination is occurring and will likely continue to occur until contaminants are completely degraded. Volatilization of CVOC concentrations in unsaturated soil is the only attenuation mechanism for soil remediation.
- **Institutional Controls** – Permanent institutional controls will be recorded on the deeds of affected parcels including: limitation on land use to industrial. Temporary institutional

controls requiring vapor intrusion mitigation for new construction; limitations on recreational fishing in the Sitcum Waterway; requirement for long term groundwater monitoring to ensure concentrations of COCs in groundwater do not pose a threat to surface water will be recorded on the affected parcel deeds until concentrations of the COCs are below their respective ssCULs.

- **Restoration Timeframe** - Alternative No. 1 can be implemented quickly; however, it would likely require a considerable amount of time (50 to over 100 years) to reach cleanup standards without performing source remediation in Zone A.
- **Ability to Achieve RAOs** - Alternative No. 1 meets the goals of RAO No. 1, RAO No. 2, and RAO 3 by reducing COC concentration in the media of concern by MNA and by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers.
- **Cost** - The estimated cost to implement Alternative No. 1 is approximately \$2,900,000. In accordance with EPA guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs to be approximately \$2,000,000 to \$4,300,000.

3.3.3 Alternative No. 2 – Excavation and GE&T

Alternative No. 2 consists of: excavation of unsaturated soil in Zone A with concentrations of COCs above their respective ssCULs; GE&T to remediate affected saturated soil and groundwater in Zone A; GE&T to hydraulically control groundwater in Zone B; and implementation of MNA for remediation of recalcitrant contaminants. The components of this alternative are described below and illustrated on Figure 10:

- **Primary Remediation Element – Soil** – Excavation to 11 feet bgs and off-site transportation of approximately 15,000 cubic yards of contaminated soil to an approved landfill on the basis of the exceedances of the ssCULs in unsaturated soil (Subtitle D or Subtitle C landfill). The excavated area would be backfilled with clean fill material.
- **Primary Remediation Element – Zone A - Groundwater** – Installation and operation of a network of groundwater recovery wells connected to a centralized recovery and treatment system to facilitate contaminant extraction and saturated soil and groundwater remediation in Zone A. The recovery wells would be screened in the Upper Fill and Upper Sand to remediate saturated soil and groundwater. The spacing of the recovery wells would be based on the additional pilot test activities conducted prior to development of the dCAP. For the purposes of this FS, three recovery wells are assumed sufficient to hydraulically contain the plume of COCs dissolved in groundwater. Desorption of COCs from the Upper Silt may result in extended operation of the system. The GE&T system would operate until either concentrations of PCE, TCE, and VC are below their respective ssCULs or zaRL in groundwater or system monitoring indicates that the system has recovered contaminants to the extent practicable (10 years to 15 years).
- **Primary Remediation Element – Zone B - Groundwater** - Installation and operation of a secondary network of groundwater recovery wells connected to a centralized recovery and treatment system to facilitate hydraulic control and groundwater remediation in Zone B. The purpose of the GE&T system is hydraulic control of groundwater until concentrations of VC in Zone B groundwater decrease to below the zbRL. The GE&T system would require the installation of treatment equipment and a connection to the sanitary or storm sewer system for disposal of treated water, and multiple groundwater recovery wells to ensure containment

of the contaminant plume in groundwater. The recovery wells would be screened in the Lower Sand in Zone B. Iron fouling is anticipated to present a significant operation and maintenance issue. Due to the physical characteristics of the COCs, the GE&T system is anticipated to operate for 10 years or more.

- **Secondary Remediation Element – Groundwater** - Aggressive source removal improves the potential for effective implementation of MNA. The aggressive remediation activities are intended to remediate the source area and would minimize the potential for recontamination. MNA would consist of performance monitoring to verify that conditions are conducive to reductive dechlorination and that naturally-occurring bacteria are continuing to degrade the CVOCs until concentrations are below the ssCULs.
- **Institutional Controls** – Permanent institutional controls will be recorded on the deeds of affected parcels including: limitation on land use to industrial. Temporary institutional controls requiring vapor intrusion mitigation for new construction; limitations on recreational fishing in the Sitcum Waterway; requirement for long term groundwater monitoring to ensure concentrations of COCs in groundwater do not pose a threat to surface water will be recorded on the affected parcel deeds until concentrations of the COCs are below their respective ssCULs.
- **Restoration Timeframe** - On the basis of experience at similar sites, the estimated remediation timeframe for this alternative is between 15 and 20 years.
- **Ability to Achieve RAOs** - Alternative No. 2 meets the goals of RAO No. 1, RAO No. 2, and RAO 3 by permanently reducing COC concentration in the media of concern by excavation and groundwater extraction and treatment, and by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers.
- **Cost** - The estimated cost to implement Alternative No. 2 is approximately \$5,000,000. In accordance with EPA guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs to be approximately \$3,500,000 to \$7,500,000.

3.3.4 Alternative No. 3 –SVE and ERD

Alternative No. 3 consists of SVE to remediate soil; ERD to address COCs in groundwater; and MNA to address recalcitrant compounds. The components of this alternative are described below and illustrated on Figure 11:

- **Primary Remedial Element – Soil** – Installation and operation of a network of vertical SVE recovery wells and a centralized treatment system to facilitate contaminant extraction. The SVE recovery wells would be screened in the Upper Fill and Upper Sand to remediate shallow contaminated soil. The spacing of the recovery wells would be based on the ROI calculated during the SVE pilot test. For the purposes of the FS, six recovery wells are assumed. The SVE system would operate until concentrations of the CVOCs in soil are below ssCULs.
- **Primary Remedial Element – Groundwater** – Injection of a solution of water and a organic substrate compound into groundwater through vertical borings or wells and monitoring the resulting reductive dechlorination of CVOC concentrations in groundwater. Implementation of ERD would be conducted in Zone A and Zone B. The commercially available substrates that can be added to the subsurface to enhance anaerobic

bioremediation include sodium lactate, molasses, Hydrogen Release Compound (HRC™), and emulsified oil substrate (EOS). Periodic injection events to add substrate may be required to ensure continued effectiveness and rapid degradation of the CVOCs. The spacing of the injection points and injected material would be based on the additional pilot test activities conducted prior to development of the dCAP. For the purposes of this FS, 40 injection points are assumed sufficient.

- **Secondary Remediation Element – Groundwater** - Aggressive source removal improves the potential for effective implementation of MNA. The aggressive remediation activities are intended to remediate the source area and would minimize the potential for recontamination. MNA would consist of performance monitoring to verify that conditions are conducive to reductive dechlorination and that naturally occurring bacteria are continuing to degrade the CVOCs until concentrations are below the ssCULs.
- **Institutional Controls** – Permanent institutional controls would be recorded on the deeds of affected parcels including: limitation on land use to industrial. Temporary institutional controls requiring vapor intrusion mitigation for new construction; limitations on recreational fishing in the Sitcum Waterway; requirement for long term groundwater monitoring to ensure concentrations of COCs in groundwater do not pose a threat to surface water would be recorded on the affected parcel deeds until concentrations of the COCs are below their respective ssCULs.
- **Restoration Timeframe** - On the basis of experience at similar sites, the estimated remediation timeframe for this alternative is between 10 and 15 years.
- **Ability to Achieve RAOs** - Alternative No. 3 meets the goals of RAO No. 1, RAO No. 2, and RAO 3 by permanently reducing COC concentration in the media of concern by SVE and ERD, and by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers.
- **Cost** - The estimated cost to implement Alternative No. 3 is approximately \$2,900,000. In accordance with EPA guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs to be approximately \$2,100,000 to \$4,400,000.

3.3.5 Alternative No. 4 – SVE and ISCR

Alternative No. 4 consists of SVE to remediate soil; ISCR to address COCs in groundwater; and MNA to address recalcitrant compounds. The components of this alternative are described below and illustrated on Figure 12:

- **Primary Remedial Element – Soil** – Installation and operation of a network of vertical SVE recovery wells and a centralized treatment system to facilitate contaminant extraction. The SVE recovery wells would be screened in the Upper Fill and Upper Sand to remediate shallow contaminated soil. The spacing of the recovery wells would be based on the ROI calculated during the SVE pilot test. For the purposes of the FS, six recovery wells are assumed. The SVE system would operate until concentrations of the CVOCs in soil are below ssCULs. This element is identical to implantation of SVE in Alternative No. 3.
- **Primary Remedial Element – Groundwater** – Injection of a solution of water and a chemical reductant into groundwater through vertical borings or wells and monitoring the resulting reductive dechlorination of CVOC concentrations in groundwater.

Implementation of ISCR would be conducted in Zone A and Zone B. The commercially available reductants that can be added to the subsurface include: ZVI, ferrous iron, sodium dithionite, sulfide salts, and hydrogen sulfide. Some commercially available products include carbon substrates to enhance anaerobic bioremediation. Periodic injection events to add reductants may be required to ensure continued effectiveness and rapid degradation of the CVOCs. The spacing of the injection points would be based on the additional pilot test activities conducted prior to development of the dCAP. For the purposes of this FS, 40 injection points are assumed sufficient.

- **Secondary Remediation Element – Groundwater** - Aggressive source removal improves the potential for effective implementation of MNA. The aggressive remediation activities are intended to remediate the source area and would minimize the potential for recontamination. MNA would consist of performance monitoring to verify that conditions are conducive to reductive dechlorination and that naturally occurring bacteria are continuing to degrade the CVOCs until concentrations are below the ssCULs.
- **Institutional Controls** – Permanent institutional controls would be recorded on the deeds of affected parcels including: limitation on land use to industrial. Temporary institutional controls requiring vapor intrusion mitigation for new construction; limitations on recreational fishing in the Sitcum Waterway; requirement for long term groundwater monitoring to ensure concentrations of COCs in groundwater do not pose a threat to surface water would be recorded on the affected parcel deeds until concentrations of the COCs are below their respective ssCULs.
- **Restoration Timeframe** - On the basis of experience at similar sites, the estimated remediation timeframe for this alternative is between 5 and 15 years.
- **Ability to Achieve RAOs** - Alternative No. 4 meets the goals of RAO No. 1, RAO No. 2, and RAO 3 by permanently reducing COC concentration in the media of concern by SVE and ISCR, and by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers.
- **Cost** - The estimated cost to implement Alternative No. 4 is approximately \$2,700,000. In accordance with EPA guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs to be approximately \$1,900,000 to \$4,100,000.

4.0 DETAILED EVALUATION AND SELECTION OF ALTERNATIVES

The evaluation criteria used to select the cleanup action approach consists of the MTCA requirements (WAC 173-340-360). The evaluation criteria for this FS are presented in the following sections.

4.1 THRESHOLD AND OTHER REQUIREMENTS

In accordance with MTCA (WAC 173-340-360(2)), all cleanup actions are required to meet the following threshold requirements:

- Protect human health and the environment;
- Comply with cleanup standards;
- Comply with applicable state and federal laws;
- Provide for compliance monitoring; and,
- Provide for a reasonable restoration time frame.

The ability of the cleanup action alternatives to meet the threshold and other requirements is discussed in the following sections.

4.1.1 Protect Human Health and the Environment

Protection of human health and the environment includes consideration of the degree each alternative reduces risk, restoration timeframe, on and off-site risks related to implementing a cleanup and residual post-remediation risk and protection of ecological receptors. A discussion of how each alternative meets these considerations is provided below:

- **Alternative No. 1** - Alternative No. 1 meets the threshold requirement by reducing COC concentration in the media of concern through MNA and by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers. This alternative would achieve the threshold requirement at the completion of the restoration timeframe of between 50 and 100 years. Residual risks are controlled by implementation of institutional controls and engineered barriers. On the basis of the RI results, the alternative is also protective of ecological receptors.
- **Alternative No. 2** - Alternative No. 2 meets the threshold requirement by reducing COC concentration in the media of concern through excavation of soil; groundwater extraction and treatment; and, by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers. This alternative would achieve the threshold requirement at the completion of the restoration timeframe of between 15 and 20 years. Residual risks are controlled by implementation of institutional controls and engineered barriers. On the basis of the RI results, the alternative is also protective of ecological receptors.
- **Alternative No. 3** - Alternative No. 3 meets the threshold requirement by reducing COC concentration in the media of concern through SVE and ERD and, by controlling exposure to COCs in the media of concern using a combination of institutional controls and

engineered barriers. This alternative would achieve the threshold requirement at the completion of the restoration timeframe of between 10 and 15 years. Residual risks are controlled by implementation of institutional controls and engineered barriers. On the basis of the RI results, the alternative is also protective of ecological receptors.

- **Alternative No. 4** - Alternative No. 4 meets the threshold requirement by reducing COC concentration in the media of concern through SVE and ISCR and, by controlling exposure to COCs in the media of concern using a combination of institutional controls and engineered barriers. This alternative would achieve the threshold requirement at the completion of the restoration timeframe of between 5 and 10 years. Residual risks are controlled by implementation of institutional controls and engineered barriers. On the basis of the RI results, the alternative is also protective of ecological receptors.

4.1.2 Comply with Cleanup Standards

As defined in WAC 173-340-700, cleanup standards are established cleanup levels and points of compliance at which those cleanup levels will be attained. The cleanup standards for the Site have been established in accordance with WAC 173-340-700 through WAC 173-340-760, which are protective of human health and the environment, and also comply with ARARs for the Site. The data collected during the RI and FS activities indicates that each of the alternatives are capable of achieving the cleanup standards for the COCs.

4.1.3 Comply with Applicable State and Federal Laws

MTCA requires that cleanup actions comply with applicable state and federal laws (WAC 173-340-360(2)a(iii)), which include legally applicable requirements, as well as requirements that the department determines are relevant and appropriate. ARARs for cleanup actions often include various construction-related permits, air emission requirements, water discharge requirements, off-site disposal requirements, and other issues related to impacts in and around the site. Compliance with ARARs was an important consideration during the development of cleanup standards and the design of cleanup alternatives. The data collected during the RI and FS activities indicates that each of the alternatives would comply with applicable state and federal laws.

4.1.4 Provide for Compliance Monitoring

MTCA requires that cleanup actions provide for compliance monitoring (WAC 173-340-360(2)a(iv)). As discussed in Section 3, each of the alternatives provides for compliance monitoring.

4.1.5 Reasonable Restoration Time Frame

MTCA requires a reasonable restoration time frame for cleanup actions (WAC 173-340-360(2)b(ii)). Factors considered in determining a reasonable restoration time frame are discussed below:

- **Potential Risks Posed by the Site to Human Health and the Environment** – A discussion of current human health risk is provided in the CSM.
- **Current and Future Use of the Site and Surrounding Areas** – The current and future land use at the Site and in the vicinity of the Site is industrial. Each of the alternatives includes institutional controls to ensure current and future industrial land use.
- **Availability of Alternative Water Supplies** – Groundwater at the Site meets the MTCA non-potability criteria.

- **Likely Effectiveness of the Institutional Controls** – The Port owns Tax Parcel No. 2275200661 and downgradient affected parcels and controls access to the Sitcum Waterway. Many properties within the Tacoma tideflats have institutional controls and the proposed institutional controls are likely to be highly effective.
- **Ability to Control and Monitor Migration of Hazardous Substances at the Site** – The existing monitoring well network has been effective in monitoring the concentrations of COPCs in the media of concern. The ability to monitor the conditions is not likely to change in the future.
- **Toxicity of the Hazardous Substances at the Site** – The COCs and COPCs include human carcinogens with non-carcinogenic risk. The cleanup levels calculated for the Site account for the combined risk factors.
- **Natural Processes that Reduce Concentrations of Hazardous Substances** – As discussed in Section 2, reductive dechlorination processes have been documented at the Site and are actively reducing concentrations of CVOCs in groundwater at the Site.

On the basis of the criteria discussed above, the range of restoration time frames contemplated by the cleanup alternatives is reasonable.

4.2 DISPROPORTIONATE COST ANALYSIS

The MTCA regulations require that selected alternatives be permanent to the maximum extent practicable. Determination of practicability includes conducting a disproportionate cost analysis (DCA) that ranks cleanup action alternatives according to the seven criteria listed in WAC 173-340-360(f) and then compares the ranked alternatives on the basis of cost. The cost of an alternative is considered disproportionate if its incremental cost exceeds its incremental benefit. Alternatives that exhibit disproportionate costs are considered “impracticable” under MTCA.

4.2.1 Ranking Criteria

The Site specific cleanup action alternatives presented in Section 3.3 were screened in accordance with the Ranked Pair Method (Jones 1998). Pair ranking is conducted by selecting one preferred or superior alternative over another for each ranking criteria and assigning a rank (higher number indicates a higher rank) to each alternative and each criteria. The Ranked Pair results were further evaluated using a weighted ranking scheme that emphasized overall protectiveness (30%), permanence (20%), long term effectiveness (20%), management of short term risks (10%), implementability (10%), public concern (10%), and cost in order to select the preferred cleanup alternative. Detailed descriptions of the ranking criteria are presented below:

- **Overall Protectiveness (30%)** - The remedial alternatives are all considered to be protective of human health and the environment, but vary in the technologies used to achieve that protectiveness and in restoration time frame. Ranking of overall protectiveness considered the restoration time frame, reliability of the selected technology, and reliability of institutional controls. Alternatives that have a shorter restoration time frame ranked higher than ones with longer restoration time frames; proven technologies and institutional control ranked higher than untested technologies and complex controls.
- **Permanence (20%)** – Analysis of permanence assesses the degree to which the alternatives permanently reduce the toxicity, mobility, or volume of hazardous substances. Ranking of permanence considered: capabilities of the treatment technologies, management of sources of releases, degree of irreversibility of treatment, and the quantity

and quality of treatment wastes. All alternatives are considered to have a relatively high permanence because cVOCs are irreversibly destroyed through a combination of active treatment and natural attenuation. Plating metals (which cannot be ‘destroyed’) have been shown to be immobile and do not present a human health risk under current or future exposure scenarios. Alternatives that have a shorter restoration time frame ranked higher than ones with longer restoration time frames; alternatives that generate low toxicity degradation products ranked higher than those that generate higher toxicity degradation products.

- **Long Term Effectiveness (20%)** – Analysis of long-term effectiveness includes: the degree of certainty that the alternative will be successful; the reliability of the alternative during the period of time hazardous substances are expected to remain on-site at concentrations that exceed cleanup levels; the magnitude of residual risk with the alternative in place; and, the effectiveness of controls required to manage treatment residues or remaining wastes. Alternatives relying most heavily on institutional controls and monitoring should generally be viewed as relatively less effective over the long term. Alternatives capable of more confidently achieving the RAOs should typically be seen as more effective. Alternatives that generate toxic degradation products (e.g. VC) are generally considered less effective in the long term than those that minimize the generation of harmful degradation products.
- **Management of short term risks (10%)** – Analysis of the management of short term risks includes consideration of risks to human health and the environment associated with each alternative during construction and implementation. On the basis of the RI results and current and near-future land use, risks to workers and the public can generally be managed using appropriate best management practices. Alternatives relying on institutional controls and barriers are generally ranked lower than alternatives that rely on active remediation. Alternatives that rely on active remediation are ranked on the basis of the potential hazardous chemicals or physical hazards inherent in the technology implementation and the duration of the construction and implementation risk.
- **Implementability (10%)** - Analysis of implementability includes consideration of whether an alternative is technically and administratively implementable. Each of the alternative considered target relatively accessible areas and use readily available services/equipment and common implementation techniques. Alternatives that relied on non-invasive approaches that utilized current land use ranked higher than those that relied on highly invasive technologies or relied on acquiring waste disposal profiles or permits from regulatory agencies.
- **Public Concerns (10%)** – To date, no reports have been subject to public comment and Pacific Crest is not aware of any public comment related to the Site. However, analysis of public concerns assumed the following: alternatives that more quickly restore groundwater discharging to the Sitcum Waterway are preferred; institutional controls and engineered barriers that are coupled with active remedial measures are preferred over alternatives that don’t include active remediation.
- **Cost** – The design for each cleanup alternative is conceptual, not detailed, and the cost estimate should be considered to be approximate. In accordance with U.S. Environmental Protection Agency (EPA) guidance (EPA 530-R-00-002), Pacific Crest used -30% and +50% of the “best estimate” to calculate a range of potential future costs. The costs for the alternatives considered in the FS ranged from \$2,700,000 to \$5,000,000. The wide

range of costs is due to the consideration of alternatives that include substantial or full removal and off-site disposal of impacted soil.

5.0 REMEDY SELECTION

The selection of a remedy for implementation is based upon comparison of the cleanup action alternatives to the threshold and evaluation criteria established under WAC 173-340-360. The evaluation criteria results for each alternative were discussed in Section 4.0. The results of this evaluation indicate that Alternative No. 1, Alternative No. 2, Alternative No. 3, and Alternative No. 4 meet the threshold criteria and therefore, were retained for further evaluation.

The retained alternatives were screened in accordance with the Weighted Ranking Method and criteria described in Section 4.4. A MTCA benefits ranking was calculated for each alternative by multiplying the six rating values by their corresponding weighting factors, and summing the weighted values. Finally, the benefits ranking of each alternative is divided by the alternative's estimated cost to obtain a benefit/cost ratio, which is a relative measure of the cost effectiveness of the alternative. Under this selection methodology, the remedial alternative that achieves the highest ranking (i.e., highest cost/benefit rank number) is selected as the preferred Cleanup Action Alternative for the Site. The weighted rank pair results for each alternative are summarized in Table 16. The ranking results are discussed below:

- Alternative No. 2 is ranked highest in the MTCA criteria because it removes the source area soil contamination faster than the remaining alternatives and controls groundwater migration. Alternative No. 2 is the most costly alternative and is ranked 2nd for cost effectiveness.
- Alternative No. 1 is ranked lowest because it has the longest restoration time frame and relies on MNA for contaminant reduction. Alternative No. 1 is the 2nd most costly and is ranked 4th for cost effectiveness.
- Alternative No. 4 is ranked higher than Alternative No. 3 because ISCR minimizes the production of VC during implementation. Alternative No. 4 is the least costly and is ranked 1st for cost effectiveness.

Based on the results of the DCA presented above, Alternative No. 4 is the most cost effective of the alternatives evaluated in this FS. Therefore, this alternative is deemed to satisfy the MTCA requirement for an alternative to be permanent to the maximum extent practicable.

5.1 PREFERRED ALTERNATIVE

The FS presented herein is intended to provide sufficient information to enable Ecology and Mr. Shea to reach concurrence on the selection of a final cleanup action alternative under the VCP, and for Ecology to provide an opinion letter stating that this FS meets the substantive requirements of MTCA. After receipt of this letter from Ecology, design specifications and details regarding implementing the Alternative No. 4 will be provided to Ecology via a Cleanup Action Plan for the Site.

6.0 REFERENCES

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7.0 LIMITATIONS

The conclusions and recommendations contained in this report are based on professional opinions with regard to the subject matter. These opinions have been arrived at in accordance with currently accepted hydrogeologic and engineering standards and practices applicable to this location and are subject to the following inherent limitations:

- **Accuracy of Information.** Certain information used by Pacific Crest in this report has been obtained, reviewed, and evaluated from various sources believed to be reliable. Although the conclusions, opinions, and recommendations are based in part on such information, Pacific Crest's services did not include the verification of its accuracy or authenticity. Should such information prove to be inaccurate or unreliable, Pacific Crest reserves the right to amend or revise its conclusions, opinions, and/or recommendations.

FIGURES

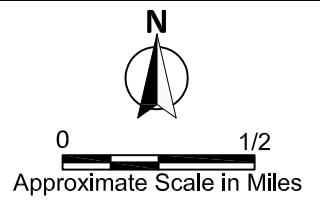
DRAFT FOR ECOLOGY REVIEW FEASIBILITY STUDY REPORT

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001



Source: Google Earth Pro



2/28/2017 110-001-046.dwg Fig 1 Location

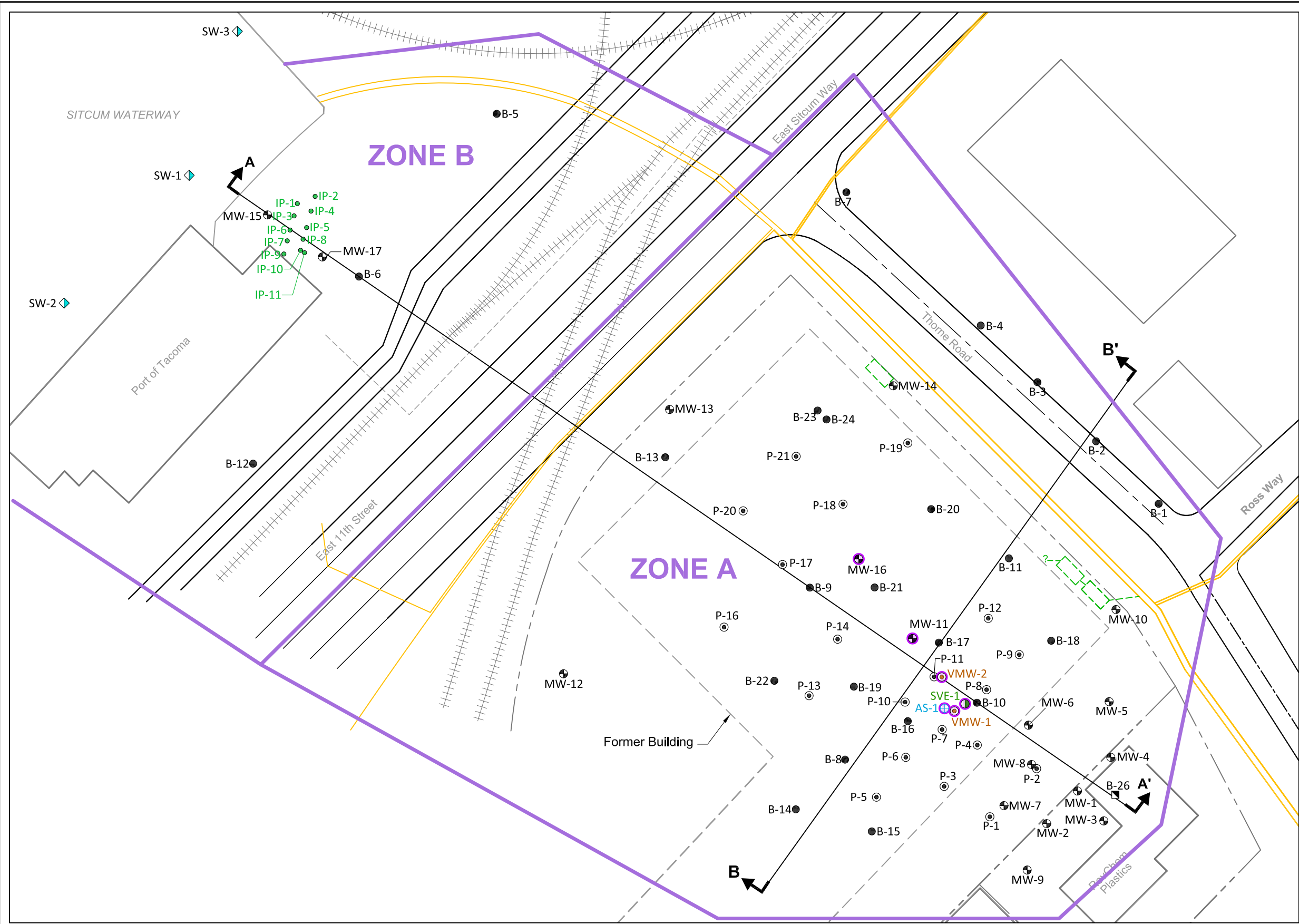


Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington

PN: 110-001

Figure 1
 Site Location Map

2/28/2017 110-001-049.dwg FIG 2



Legend

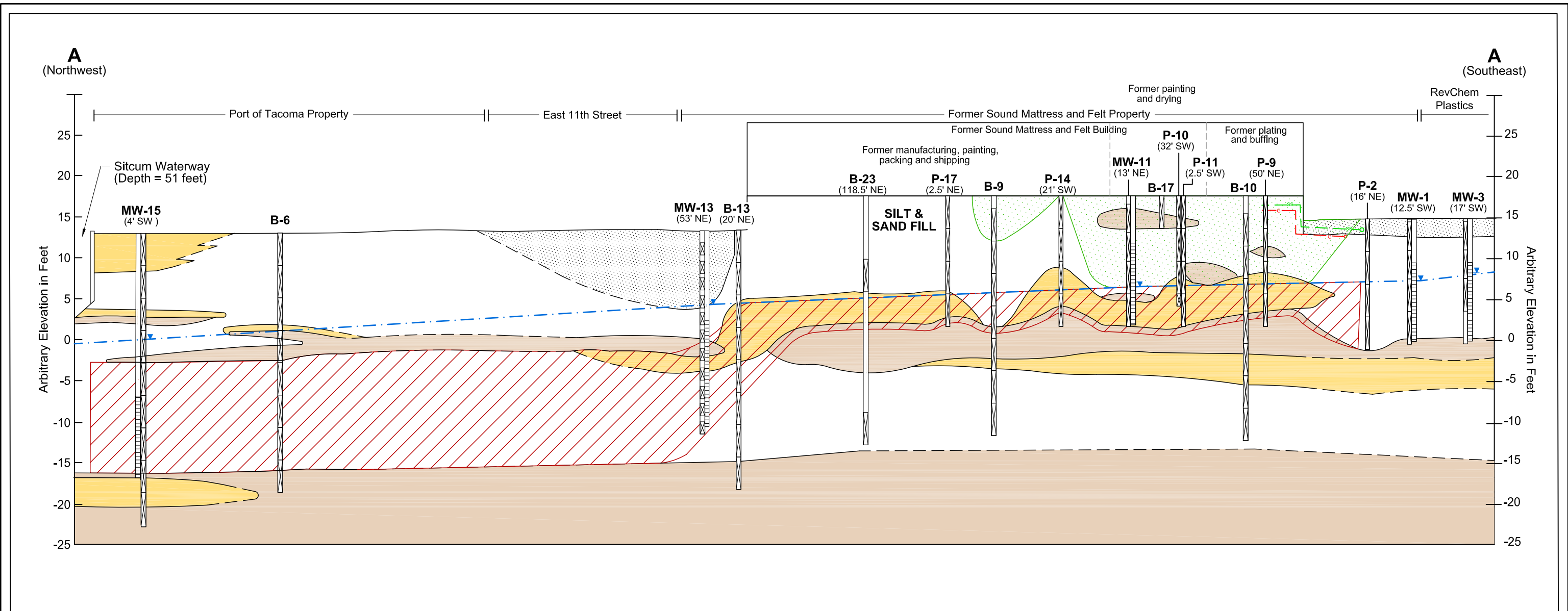
- MW-1 Groundwater Monitoring Well
- Groundwater Monitoring Well (D)
- AS-1 Air Sparging Well (D)
- SVE-1 Soil Vapor Extraction Well (D)
- VMW-1 Vapor Monitoring Well (D)
- P-1 Soil Boring (Pacific Crest, 2014)
- B-1 Soil Boring
- SW-1 Surface Water Sample Location (Pacific Crest, 2014)
- IP-1 ORC Injection Point
- ORC OX Reduction Compound
- D decommissioned
- Road
- Former Building
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks
- Sanitary Sewer
- Storm Sewer
- Potential Septic Tank Location (per Port of Tacoma)
- Cross Section Location and Designation

0 80
Approximate Scale in Feet



Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington
 PN: 110-001

Figure 2
 Site Plan with Cross Section locations



Legend

- Fill
- SP, GP-SP = Sand, Gravel and Sand
- SM, GM, SM-GM = Sand Gravel or Sand and Gravel containing Silt
- ML = Silt
- Contact Between Sediment Types (Dashed Where Inferred)
- Approximate Groundwater Potentiometric Surface (9/5/2014) (tidally influenced)
- Sanitary Sewer
- Gas Line

- MW-13** Boring ID
(X' X) Offset Distance & Direction
- Well Location
 - Screened Interval
 - Potentiometric Elevation in Well
 - Bottom of Boring

- Estimated Extent of Groundwater with Concentrations of Site COCs Exceeding Preliminary Cleanup Levels
- Estimated Extent of undisturbed Soil with Concentrations of Site COCs Exceeding Preliminary Cleanup Levels
- COC Contaminant of Concern
- µg/L micrograms per liter
- mg/kg milligrams per kilogram

Approximate Horizontal Scale in Feet

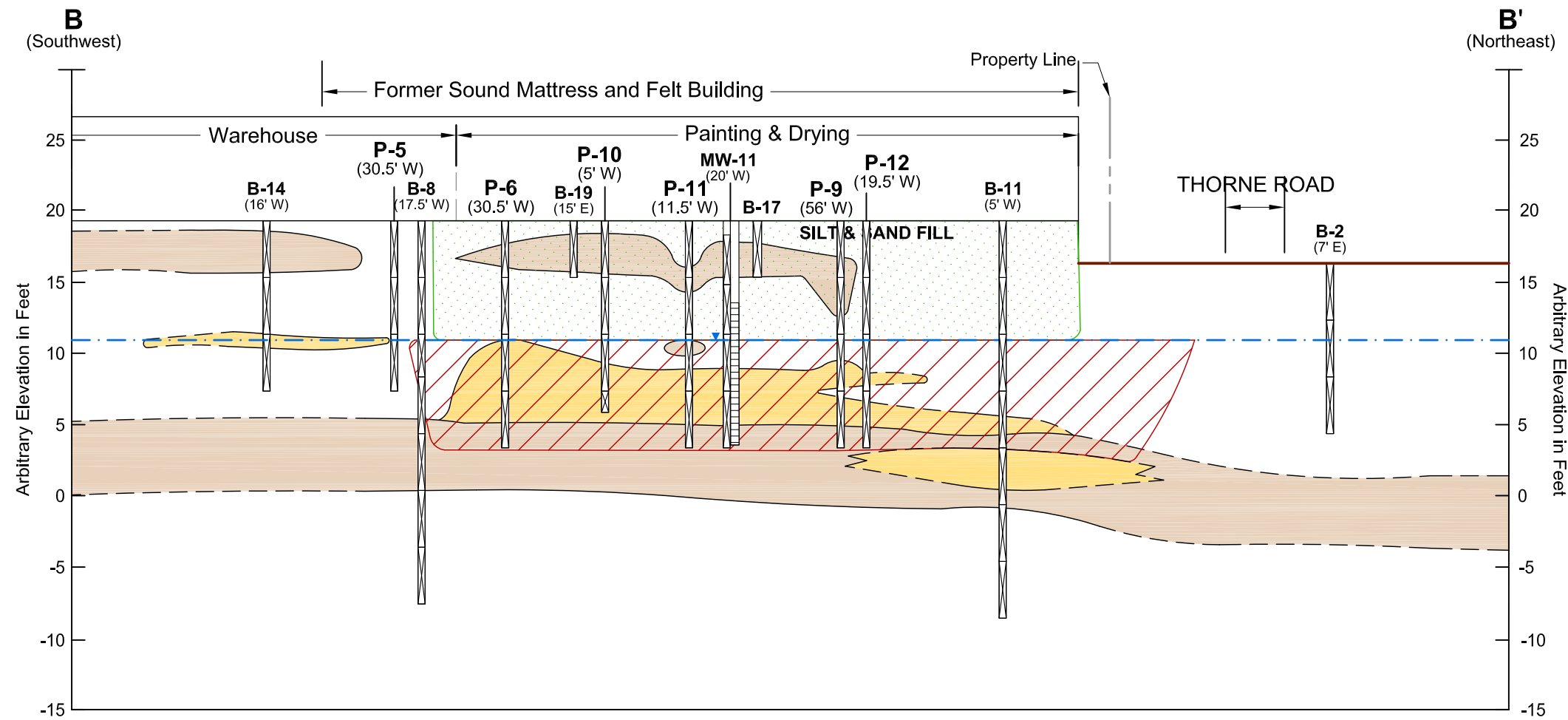
 0 60
 Approximate Vertical Scale in Feet
 Vertical Exaggeration x 5

2/28/2017 110-001-040.dwg FIG 3



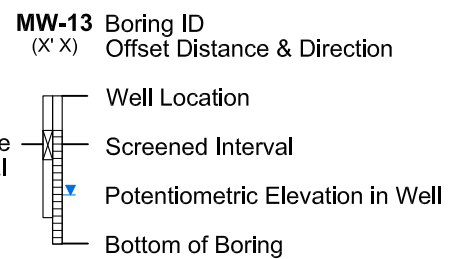
Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington
 PN: 110-001

Figure 3
 Cross Section A-A'

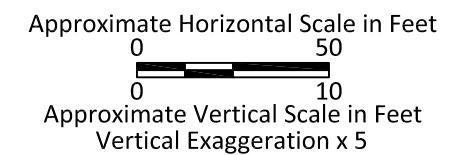


Legend

- Fill
- SP, GP-SP = Sand, Gravel and Sand
- SM, GM, SM-GM = Sand Gravel or Sand and Gravel containing Silt
- ML = Silt
- Contact Between Sediment Types (Dashed Where Inferred)
- Approximate Groundwater Potentiometric Surface (9/5/2014)
- Sanitary Sewer
- Gas Line



- Estimated Extent of Groundwater with Concentrations of Site COCs Exceeding Preliminary Cleanup Levels
- Estimated Extent of undisturbed Soil with Concentrations of Site COCs Exceeding Preliminary Cleanup Levels
- COC Contaminant of Concern
- µg/L micrograms per liter
- mg/kg milligrams per kilogram



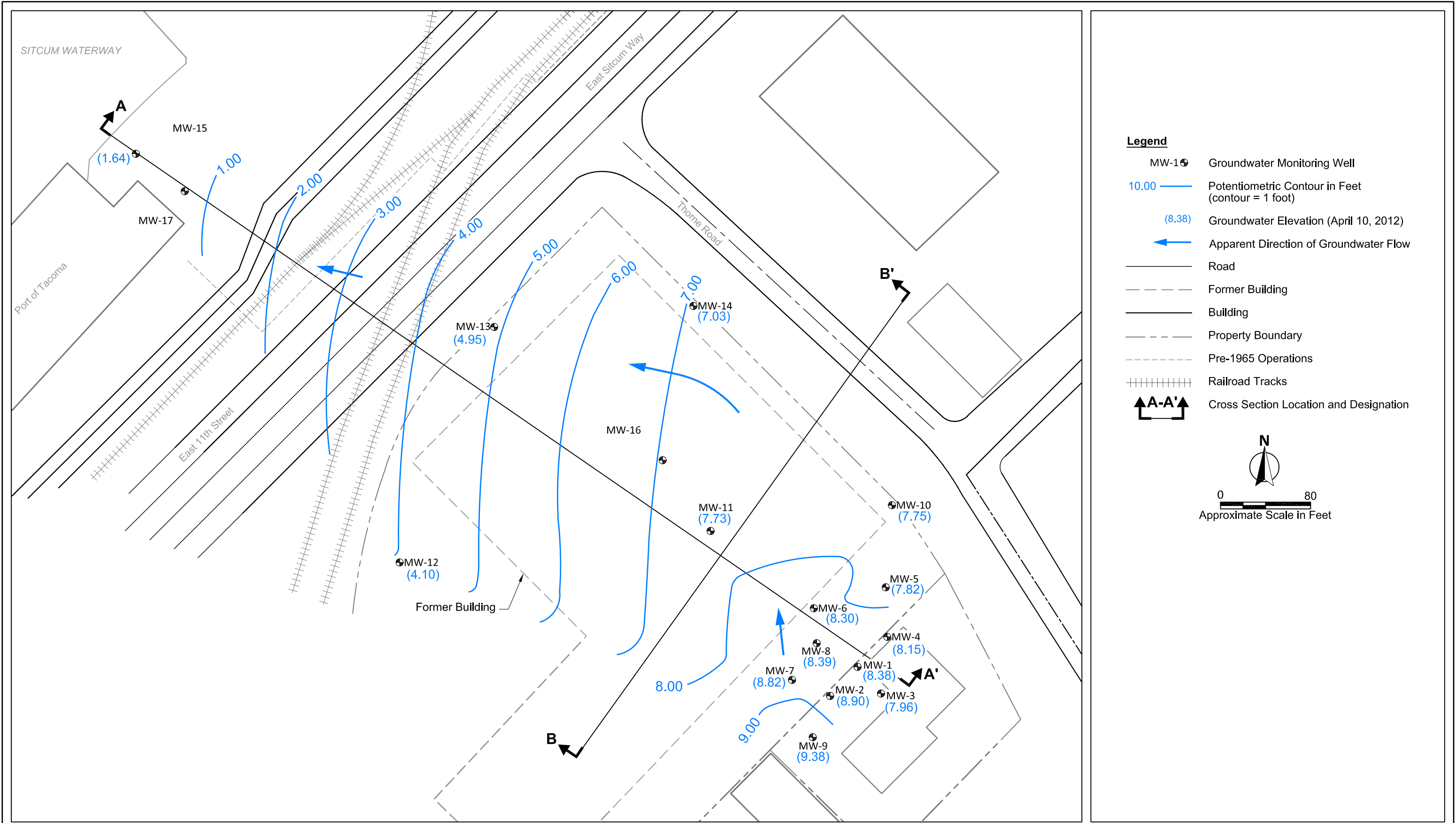
2/28/2017 11:00:01-040.dwg FIG 4



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Tacoma, Washington

PN: 110-001

Figure 4
Cross Section B-B'



2/28/2017 110-001-048.dwg FIG 5 April 2012

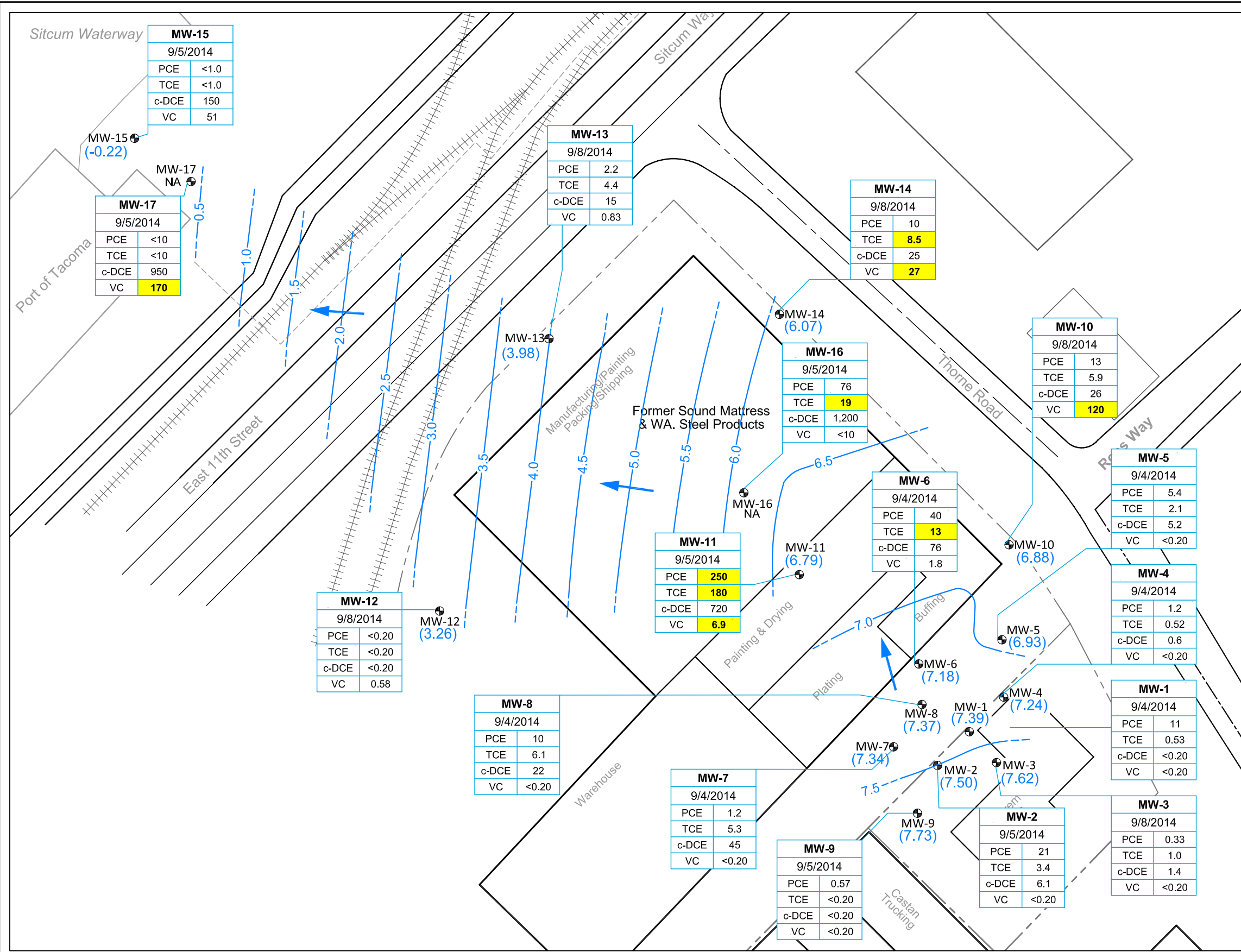


Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure 5
Site Plan with Potentiometric Surface Contours for April 10, 2012

2/28/2017 110-001-020.dwg FIG 6 Sept 2014



Legend

MW-1 Groundwater Monitoring Well

10.00 Potentiometric Contour in Feet (contour = 1 foot)

(8.38) Groundwater Elevation (April 10, 2012)

Apparent Direction of Groundwater Flow

NA not available

Well ID	
Date	
PCE	101.5 ¹ / 8.85 ² µg/L
TCE	8.4 ¹ / 81 ² µg/L
c-DCE	10,000 µg/L
VC	3.5 ¹ / 92.3 ² µg/L

Preliminary Screening Level

BOLD Concentration exceeds applicable Preliminary Cleanup Level

µg/L micrograms per liter

PCE tetrachloroethene

TCE trichloroethene

cis-DCE cis -1,2-dichloroethene

VC vinyl chloride

HVOCs halogenated volatile organic compounds

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

Road

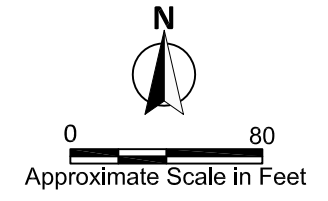
Former Building

Building

Property Boundary

Pre-1965 Operations

Railroad Tracks



Notes:

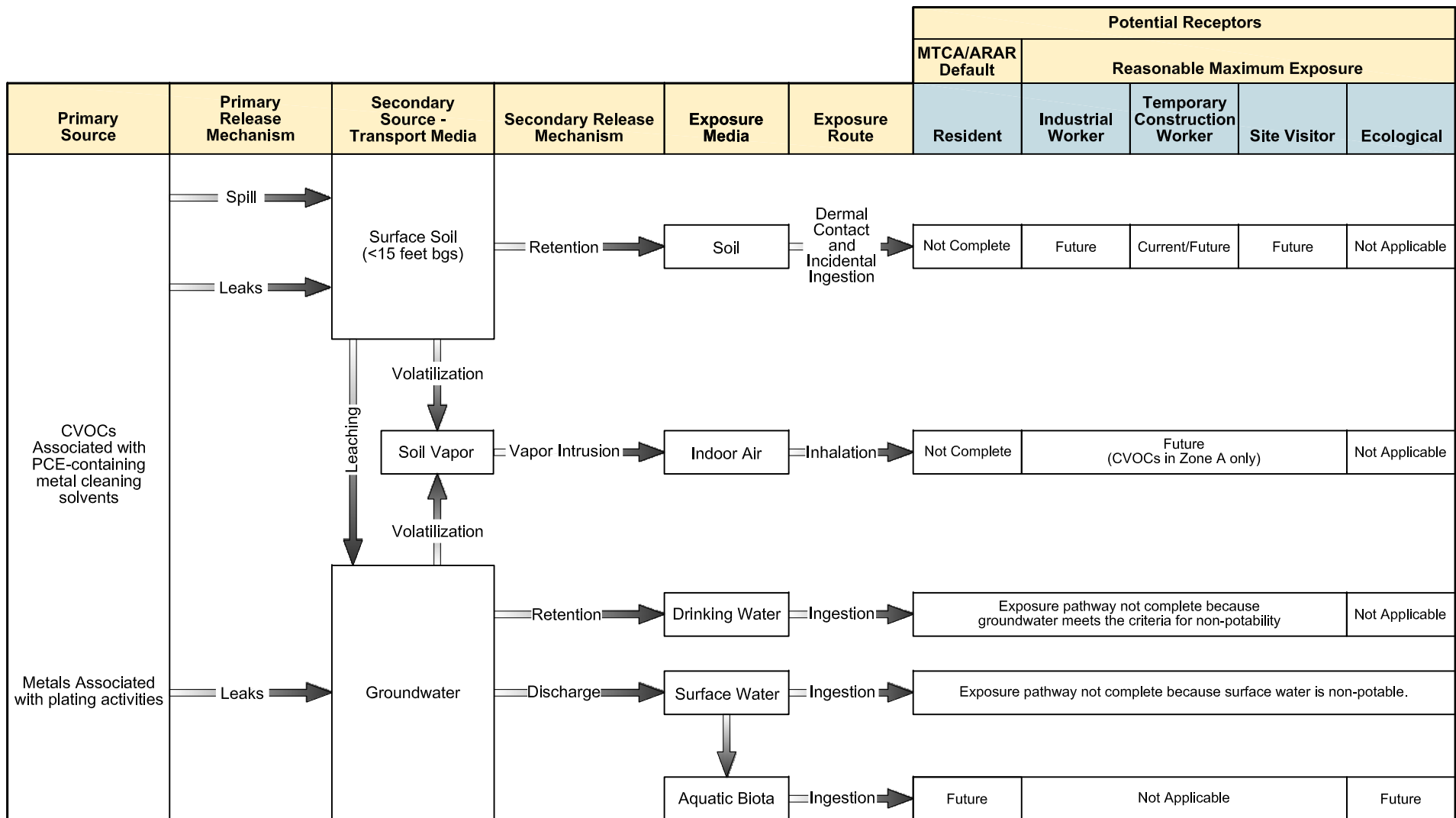
- Preliminary Screening Level for PCE, TCE, & VC in groundwater wells on and up-gradient of the former Sound Mattress Property.
- Preliminary Screening Level for PCE, TCE, & VC in groundwater wells on and down-gradient of the former Sound Mattress Property (MW-15 & MW-17).



Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure 6
Site Plan with Potentiometric Surface Contours for September 5, 2014



Legend

- PCE tetrachloroethene
- CVOCs chlorinated volatile organic compounds
- bgs below ground surface
- COCs contaminants of concern
- ARAR Applicable or Relevant and Appropriate Requirements



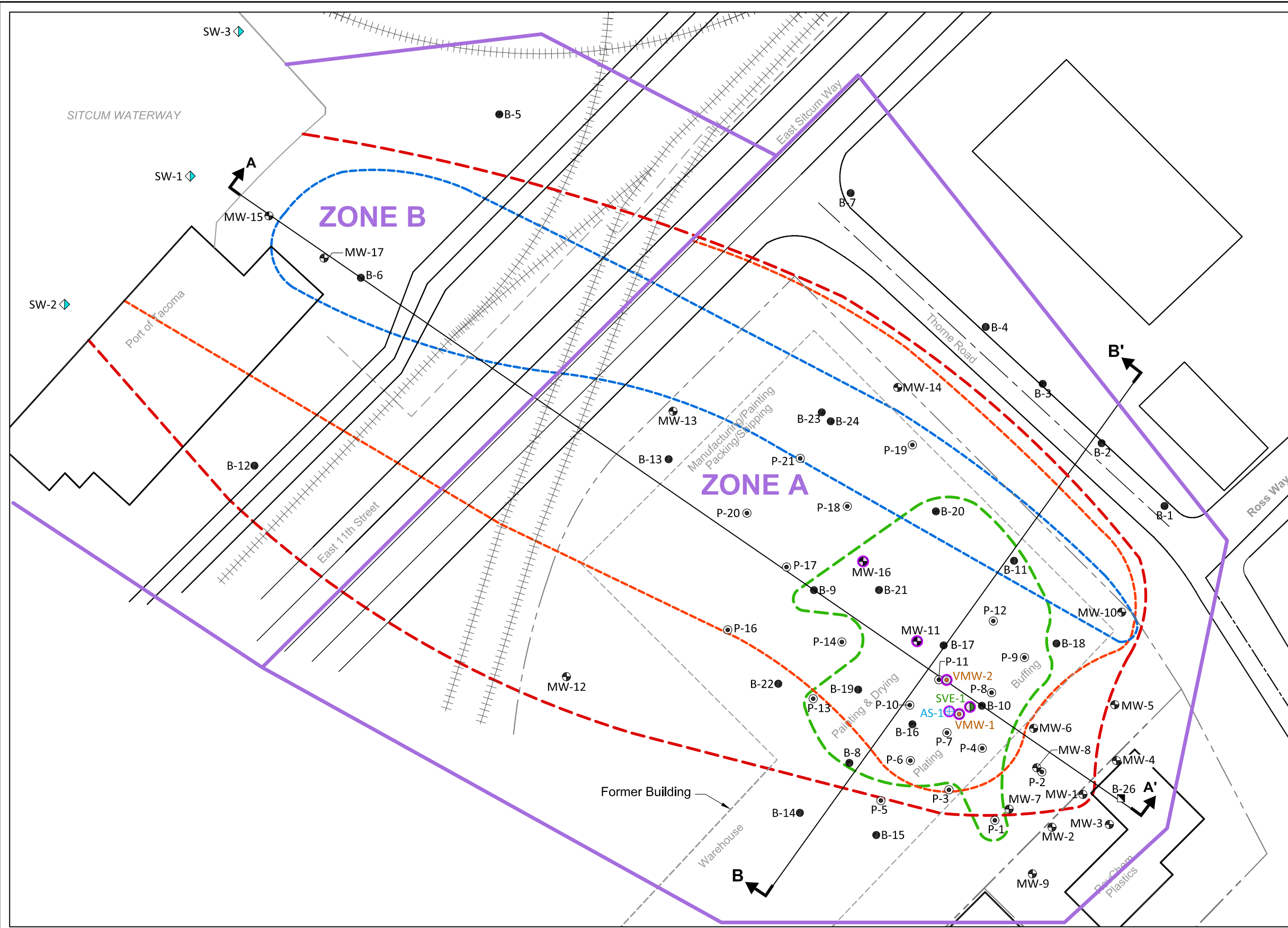
PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

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 1940 East 11th Street
 Tacoma, Washington

PN: 110-001

Figure 7
 Conceptual Site Model

2/28/2017 110-001-069.dwg FIG 8 Site Extent



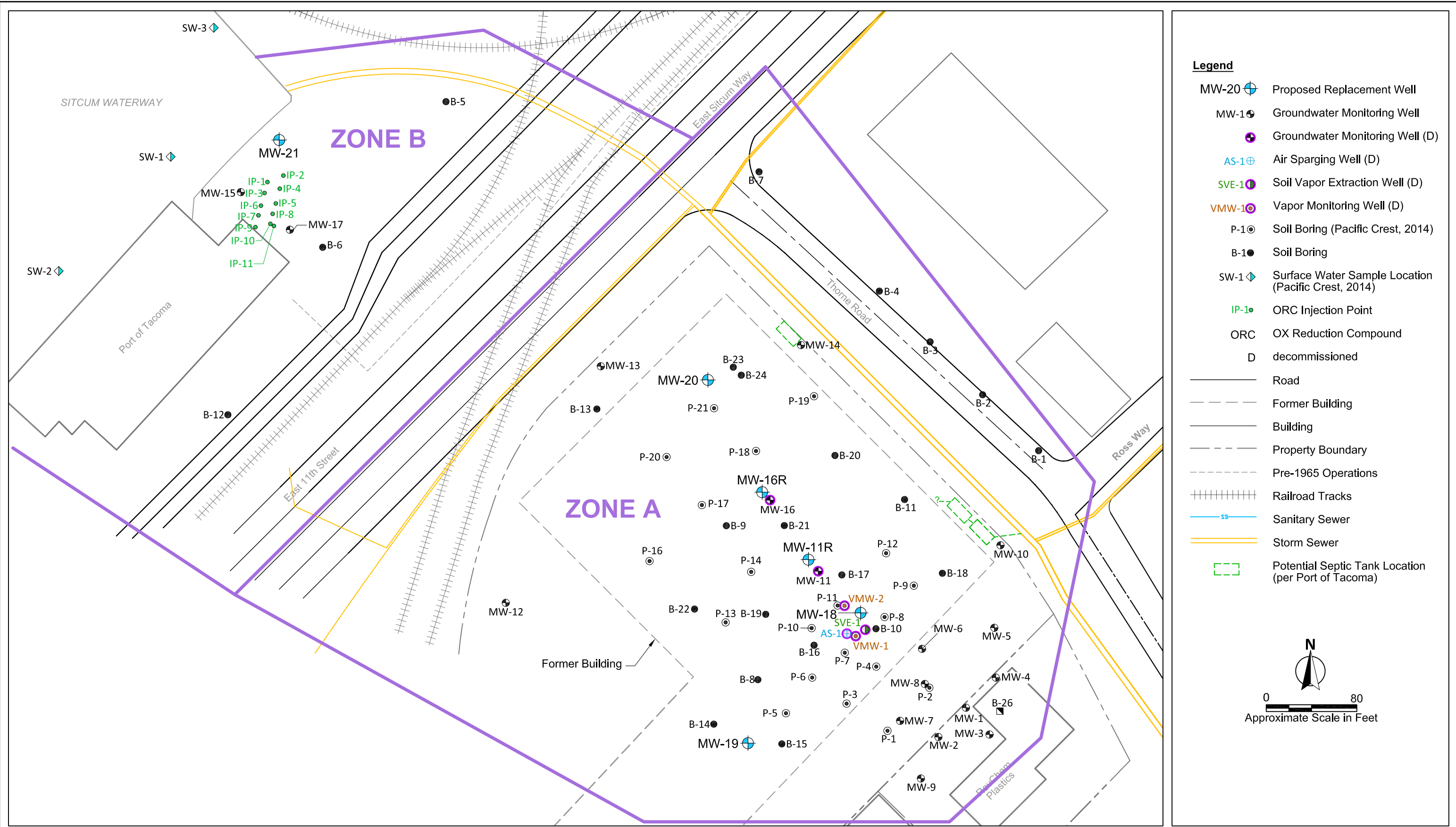
Legend

- MW-1 Groundwater Monitoring Well
- Groundwater Monitoring Well (D)
- AS-1 Air Sparging Well (D)
- SVE-1 Soil Vapor Extraction Well (D)
- VMW-1 Vapor Monitoring Well (D)
- P-1 Soil Boring (Pacific Crest, 2014)
- B-1 Soil Boring
- SW-1 Surface Water Sample Location (Pacific Crest, 2014)
- D decommissioned
- Estimated extent of groundwater with CVOC COC concentrations exceeding applicable Site Specific Cleanup Levels
- Estimated extent of unsaturated soil with CVOC COC concentrations exceeding applicable Site Specific Cleanup Levels
- VC Zone A RL = 1.3 µg/L
- VC Zone B RL = 92.3 µg/L
- VC vinyl chloride
- RL remediation level
- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks
- Cross Section Location and Designation

0 80
 Approximate Scale in Feet

Figure 8
 Site Extent

2/28/2017 110-001-070.dwg FIG 9 Alt 1

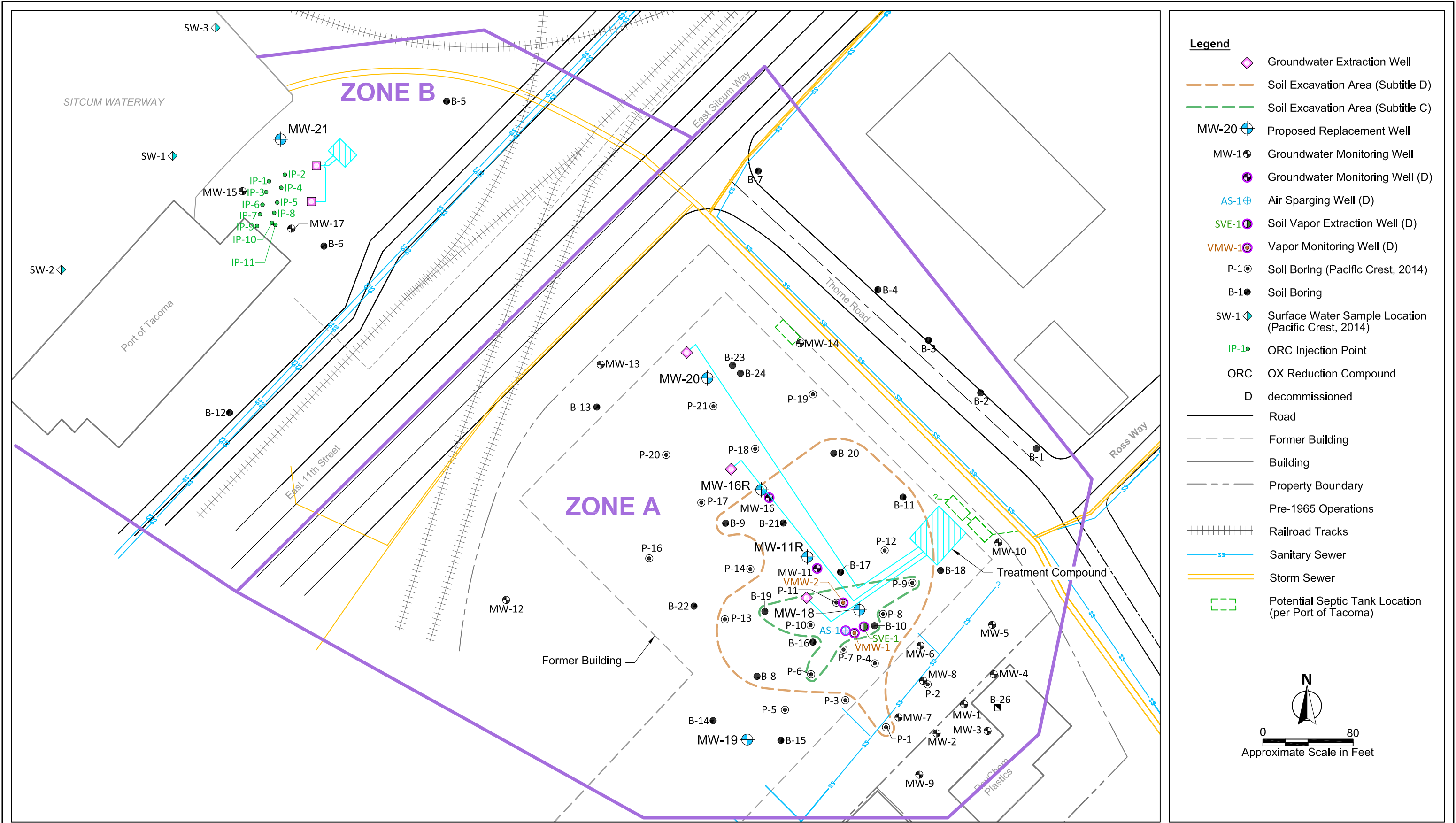


Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington

PN: 110-001

Figure 9
 Site Plan with Cleanup Elements: Alternative No. 1

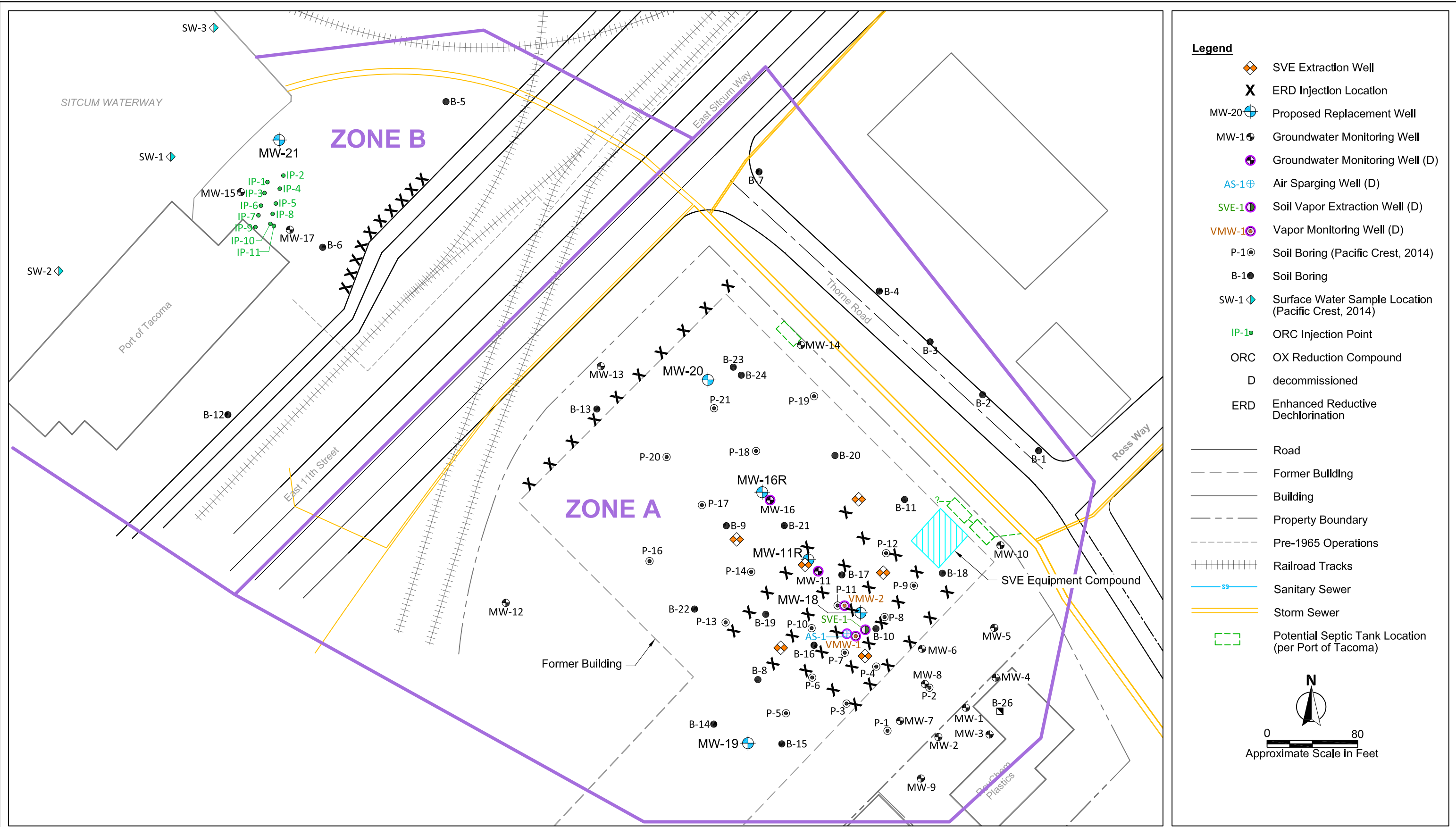
2/28/2017 110-001-071.dwg FIG.10 Alt 2



Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington
 PN: 110-001

Figure 10
 Site Plan with Cleanup Elements: Alternative No. 2

2/28/2017 11:00:01-072.dwg FIG.11 Alt 3

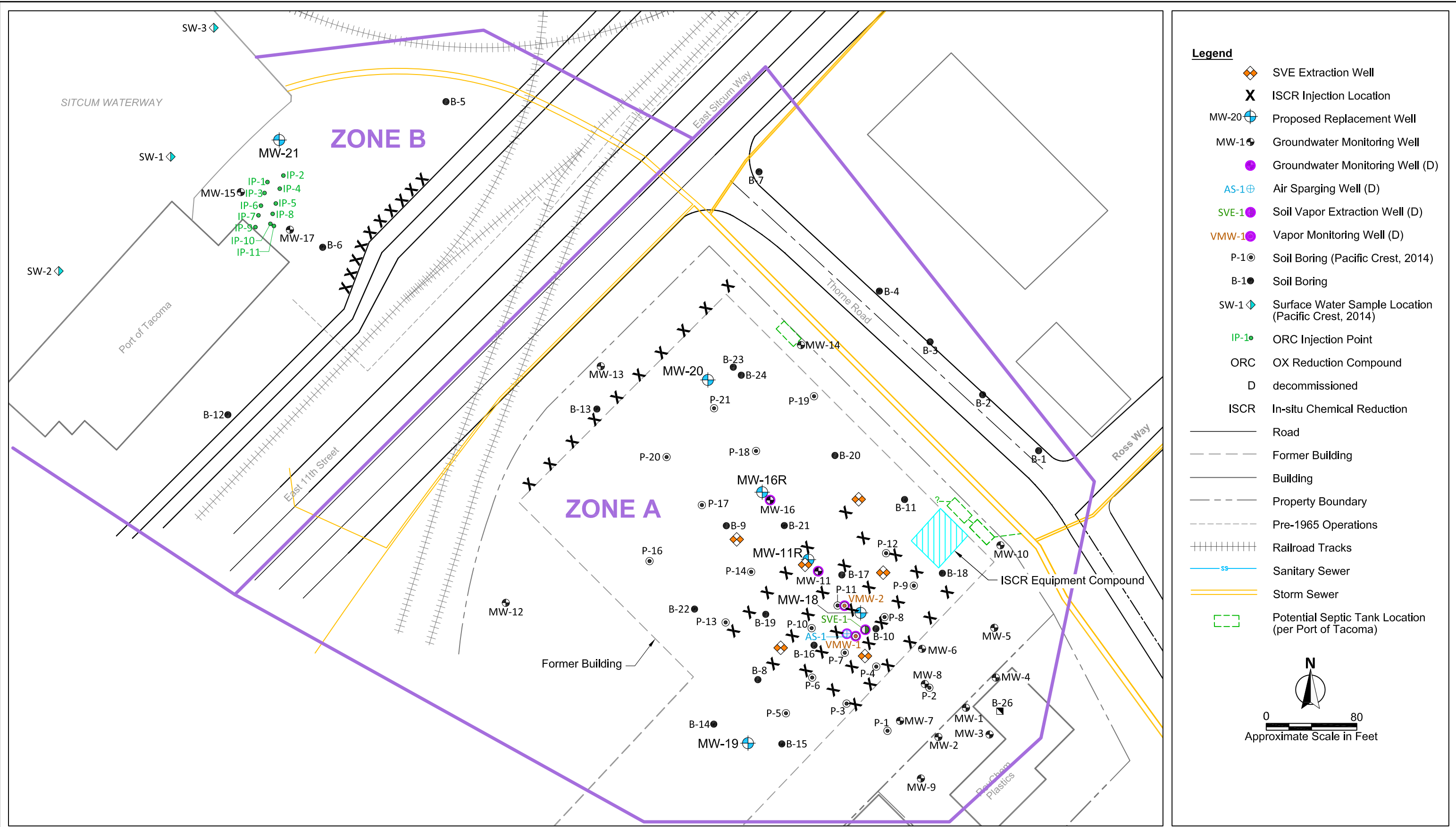


Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington

PN: 110-001

Figure 11
 Site Plan with Cleanup Elements: Alternative No. 3

2/28/2017 11:00:01-072.dwg FIG.12 Alt 4



Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure 12
Site Plan with Cleanup Elements: Alternative No. 4

TABLES

DRAFT FOR ECOLOGY REVIEW FEASIBILITY STUDY REPORT

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

**Table 1
Groundwater Elevation Data Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001**

Well Identification	Screen Interval	Date Gauged	Collected By	Top of Casing Elevation (feet) ¹	Total Well Depth (feet) ²	Depth to Groundwater (feet) ²	Potentiometric Surface (feet)
MW-1	5-15	7/12/2004	EAI	15.00	--	7.76	7.24
		1/27/2005	EAI	15.00	--	7.43	7.57
		7/7/2005	LSI	15.00	--	7.54	7.46
		9/27/2005	LSI	14.94 ³	--	8.13	6.81
		2/6/2007	Pacific Crest	14.94	14.6	6.44	8.50
		11/20/2008	Pacific Crest	14.94	--	7.71	7.23
		3/10/2009	Pacific Crest	14.94	--	7.09	7.85
		6/17/2010	Pacific Crest	14.94	--	6.46	8.48
		4/10/2012	Pacific Crest	14.94	--	6.56	8.38
		9/4/2014	Pacific Crest	14.94	15.0	7.55	7.39
MW-2	5-15	7/12/2004	EAI	13.88	--	6.48	7.40
		1/27/2005	EAI	13.88	--	6.11	7.77
		7/7/2005	LSI	13.88	--	6.22	7.66
		9/27/2005	LSI	13.88	--	6.96	6.92
		2/6/2007	Pacific Crest	13.88	14.68	5.15	8.73
		11/20/2008	Pacific Crest	13.88	--	6.45	7.43
		3/10/2009	Pacific Crest	13.88	--	5.82	8.06
		6/17/2010	Pacific Crest	13.88	--	5.20	8.68
		4/10/2012	Pacific Crest	13.88	--	4.98	8.90
		9/5/2014	Pacific Crest	13.88	15.5	6.38	7.50
MW-3	5-15	7/12/2004	EAI	14.93	--	7.46	7.47
		1/27/2005	EAI	14.93	--	7.11	7.82
		7/7/2005	LSI	14.93	--	7.22	7.71
		9/27/2005	LSI	14.93	--	7.95	6.98
		2/6/2007	Pacific Crest	14.93	14.92	6.17	8.76
		11/20/2008	Pacific Crest	14.93	--	7.45	7.48
		3/10/2009	Pacific Crest	14.93	--	6.80	8.13
		6/17/2010	Pacific Crest	14.93	--	6.17	8.76
		4/10/2012	Pacific Crest	14.93	--	6.97	7.96
		9/5/2014	Pacific Crest	14.93	15.0	7.31	7.62
MW-4	5-15	7/12/2004	EAI	15.10	--	7.99	7.11
		1/27/2005	EAI	15.10	--	7.68	7.42
		7/7/2005	LSI	15.10	--	7.80	7.30
		9/27/2005	LSI	15.10	--	8.40	6.70
		2/6/2007	Pacific Crest	15.10	14.85	6.81	8.29
		11/20/2008	Pacific Crest	15.10	--	8.02	7.08
		3/10/2009	Pacific Crest	15.10	--	7.43	7.67
		6/17/2010	Pacific Crest	15.10	--	6.83	8.27
		4/10/2012	Pacific Crest	15.10	--	6.95	8.15
		9/5/2014	Pacific Crest	15.10	15.5	7.86	7.24
MW-5	5.5-15.5	1/27/2005	EAI	13.33	--	6.06	7.27
		7/7/2005	LSI	13.33	--	6.21	7.12
		9/27/2005	LSI	13.33	--	NM	--
		2/6/2007	Pacific Crest	13.33	14.58	5.45	7.88
		11/20/2008	Pacific Crest	13.33	--	NM	--
		3/10/2009	Pacific Crest	13.33	--	NM	--
		6/17/2010	Pacific Crest	13.33	--	5.36	7.97
		4/10/2012	Pacific Crest	13.33	--	5.51	7.82
		9/5/2014	Pacific Crest	13.33	15.5	6.40	6.93

Table 1
Groundwater Elevation Data Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Well Identification	Screen Interval	Date Gauged	Collected By	Top of Casing Elevation (feet) ¹	Total Well Depth (feet) ²	Depth to Groundwater (feet) ²	Potentiometric Surface (feet)
MW-6	5.5-15.5	1/27/2005	EAI	13.51	--	6.18	7.33
		7/7/2005	LSI	13.51	--	6.29	7.22
		9/27/2005	LSI	13.51	--	NM	--
		2/6/2007	Pacific Crest	13.51	14.03	5.35	8.16
		11/20/2008	Pacific Crest	13.51	--	6.43	7.08
		3/10/2009	Pacific Crest	13.51	--	5.90	7.61
		6/17/2010	Pacific Crest	13.51	--	5.35	8.16
		4/10/2012	Pacific Crest	13.51	--	5.21	8.30
		9/5/2014	Pacific Crest	13.51	15.5	6.33	7.18
MW-7	5.5-15.5	1/27/2005	EAI	13.64	--	5.98	7.66
		7/7/2005	LSI	13.64	--	6.11	7.53
		9/27/2005	LSI	13.64	--	NM	--
		2/6/2007	Pacific Crest	13.64	14.59	5.05	8.59
		11/20/2008	Pacific Crest	13.64	--	6.23	7.41
		3/10/2009	Pacific Crest	13.64	--	4.62	9.02
		6/17/2010	Pacific Crest	13.64	--	5.09	8.55
		4/10/2012	Pacific Crest	13.64	--	4.82	8.82
		9/5/2014	Pacific Crest	13.64	15.5	6.30	7.34
MW-8	5.5-15.5	1/27/2005	EAI	13.68	--	6.18	7.50
		7/7/2005	LSI	13.68	--	6.27	7.41
		9/27/2005	LSI	13.68	--	NM	--
		2/6/2007	Pacific Crest	13.68	14.44	5.21	8.47
		11/20/2008	Pacific Crest	13.68	--	5.84	7.84
		3/10/2009	Pacific Crest	13.68	--	4.69	8.99
		6/17/2010	Pacific Crest	13.68	--	5.35	8.33
		4/10/2012	Pacific Crest	13.68	--	5.29	8.39
		9/5/2014	Pacific Crest	13.68	15.5	6.31	7.37
MW-9	5.5-15.5	9/27/2005	LSI	13.57	--	6.46	7.11
		2/6/2007	Pacific Crest	13.57	14.74	4.35	9.22
		11/20/2008	Pacific Crest	13.57	--	5.69	7.88
		3/10/2009	Pacific Crest	13.57	--	5.12	8.45
		6/17/2010	Pacific Crest	13.57	--	4.52	9.05
		4/10/2012	Pacific Crest	13.57	--	4.19	9.38
		9/5/2014	Pacific Crest	13.57	15.5	5.84	7.73
MW-10	5-15	2/6/2007	Pacific Crest	12.81	14.79	5.19	7.62
		11/20/2008	Pacific Crest	12.81	--	5.89	6.92
		3/10/2009	Pacific Crest	12.81	--	5.60	7.21
		6/17/2010	Pacific Crest	12.81	--	5.28	7.53
		4/10/2012	Pacific Crest	12.81	--	5.06	7.75
		9/5/2014	Pacific Crest	12.81	15.0	5.93	6.88
MW-11	5.8-15.8	11/20/2008	Pacific Crest	15.42	15.8	8.79	6.63
		3/10/2009	Pacific Crest	15.42	--	8.30	7.12
		6/17/2010	Pacific Crest	15.42	--	7.81	7.61
		4/10/2012	Pacific Crest	15.42	--	7.79	7.63
		9/5/2014	Pacific Crest	15.42	15.8	8.63	6.79
MW-12	10-20	3/10/2009	Pacific Crest	12.01	20.0	8.09	3.92
		6/17/2010	Pacific Crest	12.01	--	7.23	4.78
		4/10/2012	Pacific Crest	12.01	--	7.91	4.10
		9/5/2014	Pacific Crest	12.01	--	8.75	3.26

Table 1
Groundwater Elevation Data Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Well Identification	Screen Interval	Date Gauged	Collected By	Top of Casing Elevation (feet) ¹	Total Well Depth (feet) ²	Depth to Groundwater (feet) ²	Potentiometric Surface (feet)
MW-13	10-20	3/10/2009	Pacific Crest	12.90	20.0	9.22	3.68
		6/17/2010	Pacific Crest	12.90	--	7.70	5.2
		4/10/2012	Pacific Crest	12.90	--	7.95	4.95
		9/5/2014	Pacific Crest	12.90	--	8.92	3.98
MW-14	6-11	3/10/2009	Pacific Crest	12.34	11.0	5.80	6.54
		6/17/2010	Pacific Crest	12.34	--	5.52	6.82
		4.10/12	Pacific Crest	12.34	--	5.31	7.03
		9/5/2014	Pacific Crest	12.34	--	6.27	6.07
MW-15	20-30	6/15-6/16/2010 ⁴	Pacific Crest	12.76	30.0	10.11	2.65
		4/10/2012	Pacific Crest	12.76	--	14.40	-1.64
		9/17/2012	Pacific Crest	12.76	--	7.35	5.41
		9/21/2012	Pacific Crest	12.76	--	9.88	2.88
		10/4/2012	Pacific Crest	12.76	--	9.95	2.81
		11/27/2012	Pacific Crest	12.76	--	6.84	5.92
		9/5/2014	Pacific Crest	12.76	30.0	12.98	-0.22
MW-16	3-13	9/5/2014	Pacific Crest	-	13.0	9.12	-
MW-17	20-28.8	9/9/2012	Pacific Crest	-	--	--	-
		9/17/2012	Pacific Crest	-	--	8.02	-
		9/21/2012	Pacific Crest	-	--	9.06	-
		10/4/2012	Pacific Crest	-	--	8.19	-
		11/27/2012	Pacific Crest	-	--	6.97	-
		9/5/2014	Pacific Crest	-	28.8	11.86	-

NOTES:

¹ Elevations are relative to an arbitrary Site benchmark

² Depth below top of well casing.

³ MW-1 casing was repaired and resurveyed.

⁴ Depth to groundwater calculated by averaging depths to water measured with pressure transducer.

-- = not available

NM = not measured

EAI = Environmental Associates, Inc.

LSI = LSI Adapt

Pacific Crest = Pacific Crest Environmental, LLC

Table 2
Soil Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth ²	Soil Analytical Results (milligrams per kilogram) ¹										
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	Acetone	Carbon Disulfide	Benzene	Ethylbenzene	Total Xylenes
B26	B26-1'-2'	EAI	5/14/2004	1-2	<0.05	<0.03	<0.05	<0.05	<0.5	<0.5	NA	NA	NA	NA	NA
	B26-5'-6'	EAI	5/14/2004	5-6	<0.05	<0.03	<0.05	<0.05	<0.5	<0.5	NA	NA	NA	NA	NA
SC-1	SC1-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
SC-2	SC2-14.5	LSI	8/23/2005	14-14.5	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
SC-3	SC3-14.5	LSI	8/23/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
SC-4	SC4-14.5	LSI	8/23/2005	14-14.5	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	<0.0014	NA	NA	NA	NA	NA
MW-9	MW9/14.5	LSI	9/21/2005	14-14.5	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
MW-10	MW10-5-6.5	Pacific Crest	10/20/2006	5-6.5	0.024	0.0015	0.0035	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
B-1	B1-6-8	Pacific Crest	11/29/2007	6-8	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
B-2	B2-6-8	Pacific Crest	11/29/2007	6-8	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
B-3	B3-6-8	Pacific Crest	11/29/2007	6-8	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	NA	NA	NA	NA	NA
B-4	B4-6-8	Pacific Crest	11/29/2007	6-8	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
MW-11	MW11-8-10-111908	Pacific Crest	11/19/2008	8-10	1.5	0.013	<0.0013	<0.0013	<0.0066	<0.0013	NA	NA	NA	NA	NA
MW-12	MW12-18-22	Pacific Crest	3/4/2009	18-22	<0.00092	<0.00092	<0.00092	<0.00092	<0.0046	<0.00092	NA	NA	NA	NA	NA
MW-13	MW13-18-19	Pacific Crest	3/4/2009	18-19	0.028	0.013	0.012	<0.0012	<0.0061	<0.0012	NA	NA	NA	NA	NA
MW-14	MW14-7	Pacific Crest	3/6/2009	7	0.002	0.0025	<0.0012	<0.0012	<0.006	<0.0012	NA	NA	NA	NA	NA
B-5	B5-7.0	Pacific Crest	5/25/2010	7	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
B-6	B6-10.0	Pacific Crest	5/25/2010	10	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	<0.00089	NA	NA	NA	NA	NA
B-7	B7-6.0	Pacific Crest	5/25/2010	6	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
B-8	B8-4.0	Pacific Crest	5/26/2010	4	0.67	0.0071	<0.00088	<0.00088	<0.00088	<0.00088	NA	NA	NA	NA	NA
	B8-10.0	Pacific Crest	5/26/2010	10	0.065	0.0012	<0.00096	<0.00096	<0.00096	<0.00096	NA	NA	NA	NA	NA
B-9	B9-4.0	Pacific Crest	5/26/2010	4	1.2	0.013	0.0027	<0.0010	<0.0010	<0.0010	NA	NA	NA	NA	NA
	B9-10.0	Pacific Crest	5/26/2010	10	0.95	0.020	0.043	<0.00087	<0.00087	<0.00087	NA	NA	NA	NA	NA
B-10	B10-4.0	Pacific Crest	5/26/2010	4	16	0.042	<0.00092	<0.00092	<0.00096	<0.00092	NA	NA	NA	NA	NA
	B10-10.0	Pacific Crest	5/26/2010	10	0.033	0.0046	0.063	0.0027	<0.00096	<0.00096	NA	NA	NA	NA	NA
B-11	B11-4.0	Pacific Crest	5/26/2010	4	2.6	0.044	<0.00089	<0.00089	<0.00089	<0.00089	NA	NA	NA	NA	NA
	B11-10.0	Pacific Crest	5/26/2010	10	0.099	0.0052	<0.00094	<0.00094	<0.00094	<0.00094	NA	NA	NA	NA	NA
B-12	B12-4.0	Pacific Crest	6/16/2010	4	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	NA	NA	NA	NA
B-13	B13-4.0	Pacific Crest	6/16/2010	4	0.029	0.0032	<0.0010	<0.0010	<0.0010	<0.0010	NA	NA	NA	NA	NA
	B13-10.0	Pacific Crest	6/16/2010	10	0.045	0.013	0.037	<0.00094	<0.00094	<0.00094	NA	NA	NA	NA	NA
B-14	B14-4.0	Pacific Crest	6/16/2010	4	0.10	0.02	<0.00092	<0.00092	<0.00092	<0.00092	NA	NA	NA	NA	NA
	B14-8.0	Pacific Crest	6/16/2010	8	0.027	0.0042	<0.00098	<0.00098	<0.00098	<0.00098	NA	NA	NA	NA	NA
MW-15	MW15-8.0	Pacific Crest	6/15/2010	8	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	NA	NA	NA	NA	NA
B-15	B15-4.0	Pacific Crest	1/14/2011	1-4	0.029	0.0037	<0.00088	<0.00088	<0.00088	<0.00088	NA	NA	NA	NA	NA
B-16	B16-4.0	Pacific Crest	1/14/2011	1-4	1.5	0.012	<0.00088	<0.00088	<0.00088	<0.00076	NA	NA	NA	NA	NA
B-17	B17-4.0	Pacific Crest	1/14/2011	1-4	1.1	0.0079	<0.00076	<0.00076	<0.00076	<0.0010	NA	NA	NA	NA	NA

Table 2
Soil Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth ²	Soil Analytical Results (milligrams per kilogram) ¹										
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	Acetone	Carbon Disulfide	Benzene	Ethylbenzene	Total Xylenes
B-18	B18-4.0	Pacific Crest	1/14/2011	1-4	0.94	0.0077	<0.0051	<0.0051	<0.0051	<0.0010	NA	NA	NA	NA	NA
B-19	B19-4.0	Pacific Crest	1/14/2011	1-4	7.4	0.064	<0.00084	<0.00084	<0.00084	<0.00084	NA	NA	NA	NA	NA
B-20	B20-4.0	Pacific Crest	1/14/2011	1-4	1.2	0.035	<0.00090	<0.00090	<0.00090	<0.00090	NA	NA	NA	NA	NA
B-21	B21-4.0	Pacific Crest	1/14/2011	1-4	4.9	0.085	0.0023	<0.00095	<0.00095	<0.00095	NA	NA	NA	NA	NA
B-22	B22-4.0	Pacific Crest	1/14/2011	1-4	0.17	0.0017	<0.0011	<0.0011	<0.0011	<0.0011	NA	NA	NA	NA	NA
B-24	B24-0.0-2.0	Pacific Crest	11/8/2012	0-2	0.054	0.027	0.0014	<0.0012	<0.0016	<0.0012	NA	NA	NA	NA	NA
	B24-4.0-6.0	Pacific Crest	11/8/2012	4-6	0.053	0.024	0.0014	<0.0012	<0.0017	<0.0012	NA	NA	NA	NA	NA
P-1	P1-090914-2.5-4.0	Pacific Crest	9/9/2014	2.5-4.0	1.0	0.011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0056	<0.0011	<0.0011	<0.0011	<0.0033
	P1-090914-10.5-12.0	Pacific Crest	9/9/2014	10.5-12.0	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	0.012	0.0083	<0.0012	<0.0012	<0.0036
P-2	P2-090914-4.0-5.5	Pacific Crest	9/9/2014	4.0-5.5	0.12	0.0025	<0.0012	<0.0012	<0.0012	<0.0012	<0.0058	<0.0012	<0.0012	<0.0012	<0.0035
	P2-090914-8.0-9.5	Pacific Crest	9/9/2014	8.0-9.5	0.15	0.0032	0.0022	<0.00093	<0.00093	<0.00093	0.017 ³	0.00099	<0.00093	<0.00093	<0.00283
P-3	P3-091014-4.5-6.0	Pacific Crest	9/10/2014	4.5-6.0	0.22	0.0017	<0.0012	<0.0012	<0.0012	<0.0012	<0.0058	<0.0012	<0.0012	<0.0012	<0.0035
	P3-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.015 ³	0.0059	<0.0013	<0.0013	<0.0038
P-4	P4-091014-3.5-5.0	Pacific Crest	9/10/2014	3.5-5.0	0.89	0.0048	<0.0011	<0.0011	<0.0011	<0.0011	<0.0054	<0.0011	<0.0011	<0.0011	<0.0033
	P4-091014-15.0-16.0	Pacific Crest	9/10/2014	15.0-16.0	<0.0012	<0.0012	0.076	0.0045	<0.0012	<0.0012	0.0078 ³	0.0036	<0.0012	<0.0012	<0.0024
P-5	P5-090914-2.0-4.0	Pacific Crest	9/9/2014	2.0-4.0	0.15	0.0016	<0.0014	<0.0014	<0.0014	<0.0014	<0.0068	<0.0014	<0.0014	<0.0014	<0.0041
	P5-090914-8.5-9.5	Pacific Crest	9/9/2014	8.5-9.5	<0.0013	<0.0013	<0.0013	0.002	<0.0013	<0.0013	0.0072 ³	0.0037	<0.0013	<0.0013	<0.0039
P-6	P6-090914-2.5-4.0	Pacific Crest	9/9/2014	2.5-4.0	17	0.53	0.43	0.0034	<0.0011	<0.0011	<0.0056	<0.0011	<0.0011	<0.0011	<0.0034
	P6-090914-10.5-12.0	Pacific Crest	9/9/2014	10.5-12.0	2.0	4.0	0.24	0.048	<0.0013	<0.0013	0.025 ³	0.033	<0.0013	0.0013	<0.0039
P-7	P7-091014-3.5-5.5	Pacific Crest	9/10/2014	3.5-5.5	1.9	0.0046	<0.0014	<0.0014	<0.0014	<0.0014	<0.0072	<0.0014	<0.0014	<0.0014	0.003
	P7-091014-12.0-14.0	Pacific Crest	9/10/2014	12.0-14.0	<0.0011	<0.0011	0.014	0.0034	<0.0011	<0.0011	<0.0054	0.0041	<0.0011	<0.0011	<0.0033
P-8	P8-090914-4.0-6.0	Pacific Crest	9/9/2014	4.0-6.0	0.56	0.0057	<0.00079	<0.00079	<0.00079	<0.00079	<0.0040	<0.00079	<0.00079	0.00079	<0.00239
	P8-090914-14.0-16.0	Pacific Crest	9/9/2014	14.0-16.0	0.0081	0.0033	4.5	0.05	0.13	0.0093	0.017	0.011	<0.0016	<0.0016	<0.0048
P-9	P9-090914-6.0-8.5	Pacific Crest	9/9/2014	6.0-8.5	34	4.9	0.0043	0.0021	<0.0013	<0.0013	<0.0064	<0.0013	<0.0013	<0.0013	<0.0038
	P9-090914-14.0-16.0	Pacific Crest	9/9/2014	14.0-16.0	0.0029	0.0026	2.7	0.22	0.0037	0.0019	0.013 ³	0.0068	<0.0014	<0.0014	<0.0042
P-10	P10-090914-3.0-4.0	Pacific Crest	9/9/2014	3.0-4.0	2.0	0.013	<0.00096	<0.00096	<0.00096	<0.00096	<0.0048	<0.00096	<0.00096	<0.0096	<0.00286
	P10-090914-10.0-12.0	Pacific Crest	9/9/2014	10.0-12.0	13	0.37	0.061	0.0027	<0.0010	<0.0010	0.011	0.007	<0.0010	<0.0010	<0.0031
P-11	P11-090914-3.8-5.0	Pacific Crest	9/9/2014	3.8-5.0	29	0.15	<0.052	<0.0011	<0.0011	<0.0011	0.011 ³	0.0049	<0.0011	0.0014	0.0062
	P11-090914-14.5-16.0	Pacific Crest	9/9/2014	14.5-16.0	0.0036	<0.0013	12	0.072	0.024	0.0033	0.019 ³	0.026	<0.0013	<0.0013	<0.0038
P-12	P12-090914-4.0-5.5	Pacific Crest	9/9/2014	4.0-5.5	1.8	0.064	<0.0011	<0.0011	<0.0011	<0.0011	<0.0054	<0.0011	<0.0011	0.0011	0.0079
	P12-090914-14.5-16.0	Pacific Crest	9/9/2014	14.5-16.0	0.15	0.0028	19	0.97	0.35	0.0079	0.022 ³	0.0097	<0.0012	<0.0024	<0.0036
P-13	P13-091014-2.5-4.0	Pacific Crest	9/10/2014	2.5-4.0	0.92	0.0039	<0.0011	<0.0011	<0.0011	<0.0011	<0.0054	<0.0011	<0.0011	<0.0011	<0.0033
	P13-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	<0.0016	0.030 ³	0.013	<0.0016	<0.0016	<0.0049
P-14	P14-091014-2.5-4.0	Pacific Crest	9/10/2014	2.5-4.0	0.22	0.0054	<0.0013	<0.0013	<0.0013	<0.0013	<0.0063	<0.0013	<0.0013	<0.0013	<0.0026
	P14-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	0.0029	<0.0017	37	0.33	0.046	0.048	0.057 ³	0.07	0.0032	<0.0017	<0.0052

Table 2
Soil Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth ²	Soil Analytical Results (milligrams per kilogram) ¹										
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethene	Acetone	Carbon Disulfide	Benzene	Ethylbenzene	Total Xylenes
P-16	P16-091014-2.5-5.0	Pacific Crest	9/10/2014	2.5-5.0	0.018	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0056	<0.0011	<0.0011	<0.0011	<0.0033
	P16-091014-15.0-16.0	Pacific Crest	9/10/2014	15.0-16.0	<0.0013	<0.0013	0.015	<0.0013	0.02	<0.0013	0.021 ³	0.01	<0.0013	<0.0013	<0.0039
P-17	P17-091014-2.0-6.0	Pacific Crest	9/10/2014	2.0-6.0	0.05	0.0071	0.0035	<0.0011	<0.0011	<0.0011	<0.0056	<0.0011	<0.0011	<0.0011	<0.0033
	P17-091014-2.0-6.0 DUP	Pacific Crest	9/10/2014	2.0-6.0	0.037	0.0054	0.003	<0.0012	<0.0012	<0.0012	<0.0062	<0.0012	<0.0012	<0.0012	<0.0037
	P17-091014-13.5-16.0	Pacific Crest	9/10/2014	13.5-16.0	0.013	0.0046	47	0.99	0.075	0.022	0.063 ³	0.059	0.003	<0.0016	<0.0048
	P17-091014-13.5-16.0 DUP	Pacific Crest	9/10/2014	13.5-16.0	0.0046	0.0023	41	0.9	0.041	0.015	0.031 ³	0.037	0.002	<0.0013	<0.0038
P-18	P18-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	0.030	0.022	0.0018	<0.0013	<0.0013	<0.0013	<0.0064	<0.0013	<0.0013	<0.0013	<0.0039
	P18-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<0.0015	<0.0015	7.9	0.10	0.098	0.0018	0.012 ³	0.0061	<0.0015	<0.0015	<0.0045
P-19	P19-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	0.025	0.023	<0.0011	<0.0011	<0.0011	<0.0011	<0.0057	<0.0011	<0.0011	<0.0011	<0.0034
	P19-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<0.0014	<0.0014	0.24	0.0089	4.6	<0.0014	0.0079 ³	0.0062	<0.0014	<0.0014	<0.0042
P-20	P20-091014-2.0-4.0	Pacific Crest	9/10/2014	2.0-4.0	0.044	0.0083	0.0025	<0.0012	<0.0012	<0.0012	<0.0062	<0.0012	<0.0012	<0.0012	<0.0037
	P20-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	0.021	0.017	18	0.32	0.021	0.012	0.022 ³	0.021	<0.0015	<0.0015	<0.0045
P-21	P21-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	0.043	0.018	0.0054	<0.0012	<0.0012	<0.0012	<0.0059	<0.0012	<0.0012	<0.0012	<0.0036
	P21-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<0.0015	<0.0015	6.6	0.11	5.5	<0.0015	0.016 ³	0.012	<0.0015	<0.0015	<0.0044
Preliminary Screening Level					0.05	0.03	160	1,600	0.67	4,000	72,000	8,000	0.03	6	9
20x TCLP					14	10	--	--	4	--	--	--	--	--	--
Site Specific Cleanup Level					0.24	0.036	--	--	PQL	--	--	--	--	--	--

NOTES:

¹ Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260B/8260C

² Depth in feet below ground surface.

Bold = concentration exceeds applicable Preliminary Screening Level

Bold and yellow highlight = concentration exceeds applicable Draft FS Cleanup Level

Italics = practical quantitation limit higher than applicable Preliminary Screening Level

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

-- = not applicable

NA = not analyzed

VOCs = volatile organic compounds

EAI = Environmental Associates, Inc.

LSI = LSI Adapt

Pacific Crest = Pacific Crest Environmental, LLC

PQL = Practical quantitation limit

Table 3
Soil Analytical Results Summary - Metals
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth ²	Soil Analytical Results (mg/kg) ¹							
					Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Tin	Zinc
P-1	P1-090914-2.5-4.0	Pacific Crest	9/9/2014	2.5-4.0	<11	13	32	53	16	160	<5.4	120
	P1-090914-10.5-12.0	Pacific Crest	9/9/2014	10.5-12.0	<12	<0.12	15	9.6	<6.2	8.6	<6.2	22
P-2	P2-090914-4.0-5.5	Pacific Crest	9/9/2014	4.0-5.5	<11	<0.11	24	15	<5.5	8	<5.5	17
	P2-090914-8.0-9.5	Pacific Crest	9/9/2014	8.0-9.5	<12	0.15	130	9.1	<6.0	12	<6.0	21
P-3	P3-091014-4.5-6.0	Pacific Crest	9/10/2014	4.5-6.0	<11	17	27	21	<5.7	10	<5.7	19
	P3-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	<14	<0.14	160	24	<7.0	11	<7.0	29
P-4	P4-091014-3.5-5.0	Pacific Crest	9/10/2014	3.5-5.0	<10	<0.10	18	10	<5.2	10	<5.2	25
	P4-091014-15.0-16.0	Pacific Crest	9/10/2014	15.0-16.0	<12	<0.12	11	8.7	<6.0	10	<6.0	21
P-5	P5-090914-2.0-4.0	Pacific Crest	9/9/2014	2.0-4.0	<13	<0.13	17	10	<6.5	8.2	<6.5	22
	P5-090914-8.5-9.5	Pacific Crest	9/9/2014	8.5-9.5	<13	<0.13	15	110	<6.7	9.3	<6.7	24
P-6	P6-090914-2.5-4.0	Pacific Crest	9/9/2014	2.5-4.0	<12	<0.12	18	9.3	<5.9	9.1	6.5	29
	P6-090914-10.5-12.0	Pacific Crest	9/9/2014	10.5-12.0	<13	<0.13	15	13	<6.5	9.2	9.8	26
P-7	P7-090914-3.5-5.5	Pacific Crest	9/9/2014	3.5-5.5	<11	<0.11	18	9	<5.3	8.8	5.4	25
	P7-090914-12.0-14.0	Pacific Crest	9/9/2014	12.0-14.0	<12	<0.12	15	65	<6.2	10	18	25
P-8	P8-090914-4.0-6.0	Pacific Crest	9/9/2014	4.0-6.0	<10	<0.10	16	11	<5.2	8.4	<5.2	23
	P8-090914-14.0-16.0	Pacific Crest	9/9/2014	14.0-16.0	<14	<0.14	12	11	<6.9	8.1	<6.9	21
P-9	P9-090914-6.0-8.5	Pacific Crest	9/9/2014	6.0-8.5	<11	<0.11	12	10	<5.7	6.8	<5.7	20
	P9-090914-14.0-16.0	Pacific Crest	9/9/2014	14.0-16.0	<13	<0.13	13	12	<6.4	19	<6.4	22
P-10	P10-090914-3.0-4.0	Pacific Crest	9/9/2014	3.0-4.0	<11	<0.11	24	13	<5.5	33	<5.5	28
	P10-090914-10.0-12.0	Pacific Crest	9/9/2014	10.0-12.0	<12	99	17	180	<6.1	92	<6.1	25
P-11	P11-090914-3.8-5.0	Pacific Crest	9/9/2014	3.8-5.0	<11	<0.11	14	11	<5.5	8.6	<5.5	22
	P11-090914-14.5-16.0	Pacific Crest	9/9/2014	14.5-16.0	<13	<0.13	13	9.8	<6.3	9	<6.3	19
P-12	P12-090914-4.0-5.5	Pacific Crest	9/9/2014	4.0-5.5	<10	<0.10	13	10	<5.2	7.1	<5.2	20
	P12-090914-14.5-16.0	Pacific Crest	9/9/2014	14.0-16.0	<13	<0.13	12	10	<6.4	7.8	<6.4	19
P-13	P13-091014-2.5-4.0	Pacific Crest	9/10/2014	2.5-4.0	<10	<0.10	14	11	<5.2	7.7	<5.2	33
	P13-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	19	0.24	25	54	19	20	<8.4	67
P-14	P14-091014-2.5-4.0	Pacific Crest	9/10/2014	2.5-4.0	<10	<0.10	12	11	<5.2	7.8	<5.2	23
	P14-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	<14	<0.14	13	20	<6.9	9.2	<6.9	25
P-16	P16-091014-2.5-5.0	Pacific Crest	9/10/2014	2.5-5.0	<11	<0.11	11	9.7	<5.3	6.6	<5.3	21
	P16-091014-15.0-16.0	Pacific Crest	9/10/2014	15.0-16.0	<13	<0.13	9.4	10	<6.4	7	<6.4	18
P-17	P17-091014-2.0-6.0	Pacific Crest	9/10/2014	2.0-6.0	<10	<0.10	12	10	<5.2	7.4	<5.2	20
	P17-091014-2.0-6.0 DUP	Pacific Crest	9/10/2014	2.0-6.0	<10	<0.10	12	10	<5.2	7.4	<5.2	22
	P17-091014-13.5-16.0	Pacific Crest	9/10/2014	13.5-16.0	<15	<0.15	18	37	14	13	<7.4	49
	P17-091014-13.5-16.0 DUP	Pacific Crest	9/10/2014	13.6-16.0	<13	<0.13	9.1	9	<6.5	6.4	<6.5	19
P-18	P18-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	<10	<0.10	9.5	8.6	<5.2	6.0	<5.2	17
	P18-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<14	<0.14	9.4	12	<6.9	6.5	<6.9	18
P-19	P19-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	<10	<0.10	10	8.2	<5.2	6.3	<5.2	19
	P19-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<14	<0.14	9.7	10	<6.9	6.9	<6.9	19
P-20	P20-091014-2.0-4.0	Pacific Crest	9/10/2014	2.0-4.0	<10	<0.10	10	9.4	<5.1	7.0	<5.1	20
	P20-091014-14.5-16.0	Pacific Crest	9/10/2014	14.5-16.0	<13	<0.13	10	10	<6.4	7.0	<6.4	19
P-21	P21-091114-2.5-4.0	Pacific Crest	9/11/2014	2.5-4.0	<10	<0.10	12	9.6	<5.2	7.2	<5.2	20
	P21-091114-14.5-16.0	Pacific Crest	9/11/2014	14.5-16.0	<13	<0.13	11	11	<6.5	7.0	<6.5	21
Natural Background					7	1	48	36	24	48	NE	85
Preliminary Screening Level					7	1	48	36	24	48	48,000	85
20x TCLP					100	20	100	--	100	--	--	--
Site Specific Screening Level					20	3,500	2,000	140,000	1,000	70,000	--	1,050,000
Site Specific Cleanup Level					--	100	--	200	--	200	--	200

NOTES:

¹ Analyzed by U.S. Environmental Protection Agency (EPA) Method 6010C/6020A

² Depth in feet below ground surface

Bold = concentration exceeds Preliminary Screening Level

Bold and yellow highlight = concentration exceeds applicable Site Specific Cleanup Level

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

-- = not applicable

mg/kg = milligrams per kilogram

Pacific Crest = Pacific Crest Environmental, LLC

Table 4
Groundwater Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)						
				VOCs ¹						
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane
MW-1	MW-1	EAI	7/12/2004	4.1	<1.0	<1.0	<1.0	<1.0	NA	NA
	MW-1	EAI	1/24/2005	6.2	<1.0	<1.0	<1.0	<5.0	NA	NA
	MW-1	LSI	7/7/2005	13	0.69	<0.20	<0.20	<0.20	<0.20	<0.20
	MW-1	LSI	9/27/2005	6.6	0.48	<0.20	<0.20	<0.20	<0.20	<0.20
	MW1-020707	Pacific Crest	2/7/2007	37	1.2	<0.20	<0.20	<0.20	<0.20	<0.20
	MW1-112008	Pacific Crest	11/20/2008	11	2.1	0.35	<0.20	<0.20	<0.20	<0.20
	MW1-042512	Pacific Crest	4/25/2012	63	1.2	<0.50	<0.50	<0.50	NA	NA
MW1-090414	Pacific Crest	9/4/2014	11	0.53	<0.20	<0.20	<0.20	<0.20	<0.20	
MW-2	MW-2	EAI	7/12/2004	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	MW-2	EAI	1/24/2005	9.9	3.5	3.2	<1.0	<5.0	NA	NA
	MW-2	LSI	7/7/2005	29	4.5	1.3	0.26	<0.20	<0.20	<0.20
	MW-2	LSI	9/27/2005	23	4.2	2.4	0.58	<0.20	<0.20	<0.20
	MW2-020707	Pacific Crest	2/7/2007	72	4.4	0.75	<0.40	<0.40	<0.40	<0.40
	MW2-112008	Pacific Crest	11/20/2008	30	3.8	1.6	0.33	<0.20	<0.20	<0.20
	MW2-042512	Pacific Crest	4/25/2012	89	4.3	<0.50	<0.50	<0.50	NA	NA
MW2-090514	Pacific Crest	9/5/2014	21	3.4	6.1	0.27	<0.20	<0.20	<0.20	
MW-3	MW-3	EAI	7/12/2004	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	MW-3	EAI	1/24/2005	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA
	MW-3	LSI	7/7/2005	1.9	<0.20	<0.20	<0.20	<0.20	<0.20	0.35
	MW-3	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW3-020707	Pacific Crest	2/7/2007	2.2	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	MW3-112108	Pacific Crest	11/21/2008	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	0.45
	MW3-042512	Pacific Crest	4/25/2012	2.1	<0.50	<0.50	<0.50	<0.50	NA	NA
MW3-090814	Pacific Crest	9/8/2014	0.33	1	1.4	<0.20	<0.20	<0.20	<0.20	
MW-4	B25 (MW-4)	EAI	7/12/2004	1	<1.0	<1.0	<1.0	<1.0	NA	NA
	MW-4	EAI	1/24/2005	1.6	<1.0	<1.0	<1.0	<5.0	NA	NA
	MW-4	LSI	7/7/2005	2.7	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	MW-4	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW4-020707	Pacific Crest	2/7/2007	4.9	0.36	<0.20	<0.20	<0.20	<0.20	0.2
	MW4-112008	Pacific Crest	11/20/2008	0.84	1.2	<0.20	<0.20	<0.20	<0.20	<0.20
	MW4-042512	Pacific Crest	4/25/2012	3.4	2.6	0.58	<0.50	<0.50	NA	NA
MW4-090414	Pacific Crest	9/4/2014	1.2	0.52	0.6	<0.20	<0.20	<0.20	0.21	
MW-5	MW-5	EAI	1/27/2005	1.9	0.57	0.29	0.2	<0.20	<0.20	<0.20
	MW-5 ³	EMS	1/27/2005	1.8	<1.0	<1.0	<1.0	<0.2	<1.0	<1.0
	MW-5	LSI	7/7/2005	6	0.82	<0.20	<0.20	<0.20	<0.20	<0.20
	MW-5 ³	EMS	7/7/2005	5.9	1	<1.0	<1.0	<0.20	<1.0	<1.0
	MW-5	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW5-020707	Pacific Crest	2/7/2007	9.8	1.6	0.22	<0.20	<0.20	<0.20	<0.20
	MW5-112108	Pacific Crest	11/21/2008	3	0.46	<0.20	<0.20	<0.20	<0.20	<0.20
MW5-042512	Pacific Crest	4/25/2012	<0.50	6.1	6.7	<0.50	<0.50	NA	NA	
MW5-090414	Pacific Crest	9/4/2014	5.4	2.1	5.2	<0.20	<0.20	<0.20	<0.20	
MW-6	MW-6	EAI	1/27/2005	53	12	75	6.9	0.63	<0.40	<0.40
	MW-6	LSI	7/7/2005	11	2.3	91	9.1	1.3	<0.40	<0.40
	MW-6 ³	EMS	7/7/2005	9.7	2.8	64	5.7	0.48	<1.0	<1.0
	MW-6	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW6-020707	Pacific Crest	2/7/2007	67	7	110	7.5	6	<1.0	<1.0
	MW6-112108	Pacific Crest	11/21/2008	45	6.5	91	4.2	1.2	<0.40	<0.40
	MW6-042512	Pacific Crest	4/25/2012	100	9.6	13	<0.50	<0.50	NA	NA
MW6-090414	Pacific Crest	9/4/2014	40	13	76	4.7	1.8	<0.40	<0.40	

Table 4
Groundwater Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)						
				VOCs ¹						
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane
MW-7	MW-7	EAI	1/27/2005	3.3	0.93	3.8	0.95	<0.20	<0.20	<0.20
	MW-7 ³	EMS	1/27/2005	2.7	<1.0	2.8	<1.0	<0.2	<1.0	<1.0
	MW-7	LSI	7/7/2005	33	3.1	2.8	0.96	<0.20	<0.20	<0.20
	MW-7 ³	EMS	7/7/2005	27	3.1	2.3	<1.0	<0.2	<1.0	<1.0
	MW-7	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW7-020707	Pacific Crest	2/7/2007	140	12	3.3	<1.0	<1.0	<1.0	<1.0
	MW7-112008	Pacific Crest	11/20/2008	24	11	8.4	1.2	<0.20	<0.20	<0.20
	MW7-042512	Pacific Crest	4/25/2012	77	7	2.8	<0.50	<0.50	NA	NA
MW7-090414	Pacific Crest	9/4/2014	1.2	5.3	45	0.26	<0.20	<0.20	<0.20	
MW-8	MW-8	EAI	1/27/2005	21	3.9	15	1.8	<0.20	<0.20	<0.20
	MW-8	LSI	7/7/2005	100	6.6	10	1.4	<0.20	<0.40	<0.40
	MW-8 ³	EMS	7/7/2005	79	7.4	7.5	1.2	<0.2	<1.0	<1.0
	MW-8	LSI	9/27/2005	NA	NA	NA	NA	NA	NA	NA
	MW8-020607	Pacific Crest	2/6/2007	83	15	24	1.6	<0.40	<0.40	<0.40
	MW8-112408-B	Pacific Crest	11/24/2008	<0.20	0.3	24	2.1	<0.20	<0.20	<0.20
	MW8-042512	Pacific Crest	4/25/2012	<0.50	0.69	5.3	<0.50	<0.50	NA	NA
MW8-090414	Pacific Crest	9/4/2014	10	6.1	22	0.91	<0.20	<0.20	<0.20	
MW-9	MW-9	LSI	7/7/2005	13	0.69	<0.20	<0.20	<0.20	<0.20	<0.20
	MW-9	LSI	9/27/2005	0.56	0.24	<0.20	<0.20	<0.20	<0.20	<0.20
	MW9-112108	Pacific Crest	11/21/2008	0.91	0.31	<0.20	<0.20	<0.20	<0.20	<0.20
	MW9-042512	Pacific Crest	4/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA
	MW9-090514	Pacific Crest	9/5/2014	0.57	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
MW-10	MW-10	LSI	9/27/2005	6.2	0.46	<0.20	<0.20	<0.20	<0.20	<0.20
	MW10-020707	Pacific Crest	2/7/2007	26	2	19	0.23	3.3	<0.20	<0.20
	MW10-112108	Pacific Crest	11/21/2008	2.7	2.3	58	0.65	21	<0.40	<0.40
	MW10-042512	Pacific Crest	4/25/2012	23	1.3	2	<0.50	<0.50	NA	NA
	MW10-090814	Pacific Crest	9/8/2014	13	5.9	26	<1.0	120	<1.0	<1.0
MW-11	MW11-112108	Pacific Crest	11/21/2008	2,600	1,400	4,800	<30	<30	<30	<30
	MW11-042512	Pacific Crest	4/25/2012	470	160	400	4.7	<0.50	NA	NA
	MW11-090514	Pacific Crest	9/5/2014	250	180	720	16	6.9	<4.0	<4.0
	MW11-090514-Dup	Pacific Crest	9/5/2014	100	150	940	35	8	<4.0	<4.0
MW-12	MW12-031009	Pacific Crest	3/10/2009	<0.2	<0.2	<0.20	<0.20	<0.20	<0.20	<0.20
	MW12-042512	Pacific Crest	4/25/2012	<0.50	<0.50	<0.50	<0.50	<0.50	NA	NA
	MW12-090814	Pacific Crest	9/8/2014	<0.20	<0.20	<0.20	<0.20	0.58	<0.20	<0.20
MW-13	MW13-031009	Pacific Crest	3/10/2009	15	17	35	0.21	0.39	<0.20	<0.20
	MW13-042512	Pacific Crest	4/25/2012	2.8	3.2	6.2	<0.50	0.69	NA	NA
	MW13-090814	Pacific Crest	9/8/2014	2.2	4.4	15	<0.20	0.83	<0.20	<0.20
MW-14	MW14-031009	Pacific Crest	3/10/2009	9	6.5	20	0.54	28	<0.20	<0.20
	MW14-042512	Pacific Crest	4/25/2012	3.2	6.6	1.7	<0.50	<0.50	NA	NA
	MW14-090814	Pacific Crest	9/8/2014	10	8.5	25	0.93	27	<0.20	<0.20
MW-15	MW15-061710	Pacific Crest	6/17/2010	<10	<10	1,400	12	280	<10	<10
	MW15-042512	Pacific Crest	4/25/2012	<0.50	<0.50	1,300	14	290	NA	NA
	MW-15-110-001	Pacific Crest	10/5/2012	<4	<4	1,400	12	180	<10	<10
	MW-15-112712	Pacific Crest	11/27/2012	<10	<10	1,400	15	270	<10	<10
M15-090514	Pacific Crest	9/5/2014	<1.0	<1.0	150	5.7	51	<1.0	<1.0	
MW-16	MW16-090514	Pacific Crest	9/5/2014	76	19	1,200	13	<10	<10	<10

Table 4
Groundwater Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Groundwater Analytical Results (micrograms per liter)						
				VOCs ¹						
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane
MW-17	MW17-090912	Pacific Crest	9/9/2012	<4	<4	460	6.3	170	<4	<4
	MW-17-110-001	Pacific Crest	10/5/2012	<4	<4	600	7.1	180	<4	<4
	MW-17-112712	Pacific Crest	11/27/2012	<20	<4	670	6.5	130	<4	<4
	MW17-090912	Pacific Crest	9/5/2014	<10	<10	950	<10	170	<10	<10
Preliminary Screening Level				2.9	0.7	16	160	0.18	200	7.68
Site Specific Remediation Levels				--	--	--	--	1.3/92.3	--	--
Site Specific Cleanup Level				24.5	5.8	--	--	0.18	--	--

NOTES:

¹ Analyzed by United States Environmental Protection Agency (EPA) Method 8260B/8260C

Bold = concentration exceeds applicable Preliminary Screening Level

Bold and yellow highlight = concentration exceeds applicable Site Specific Cleanup Level

Italics = practical quantitation limit higher than applicable Preliminary Screening Level

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

-- = not applicable

NA = not analyzed

VOCs = volatile organic compounds

Pacific Crest = Pacific Crest Environmental, LLC

Table 5
 Groundwater Analytical Results Summary - Metals and Cyanide
 Sound Mattress and Felt Company
 1940 E. 11th Street
 Tacoma, Washington
 Pacific Crest No: 110-001

Location ID	Sample ID	Sampled by	Sample Date	Groundwater Analytical Results																			Cyanide (milligrams per liter)			
				Metals (micrograms per liter)																			Free ³	Weak Acid Dissociable ⁴		
				Arsenic ¹		Cadmium ¹		Chromium ¹		Cobalt ¹	Copper ¹		Lead ¹		Mercury ²		Nickel ¹		Selenium ¹	Silver ¹	Tin ¹				Zinc ¹	
Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered	Unfiltered	Filtered					
MW-1	MW1-090414	Pacific Crest	9/4/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	1.2	<1.0	<1.0	NA	<0.050	2.4	1.2	<1.0	<0.50	<0.50	NA	6.5	<2.5	<0.005	<0.005	
MW-2	MW2-090514	Pacific Crest	9/5/2014	<3.3	NA	3.5	<4.0	<11	NA	<5.6	7.5	1.3	<1.0	NA	<0.050	10	6	<1.0	<0.50	<0.50	NA	4.9	<2.5	<0.005	<0.005	
MW-3	MW3-090814	Pacific Crest	9/8/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	1.4	<0.50	<1.0	<0.50	<0.50	NA	5.9	5.4	<0.005	<0.005	
MW-4	MW4-090414	Pacific Crest	9/4/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	0.75	1	<1.0	<0.50	<0.50	NA	3.3	<2.5	<0.005	<0.005	
MW-5	MW5-090414	Pacific Crest	9/4/2014	5.9	<3.0	<4.4	NA	<11	NA	<5.6	26	<1.0	24	<1.0	<0.050	17	0.58	<1.0	<0.50	0.99	NA	220	5.6	<0.005	<0.005	
MW-6	MW6-090414	Pacific Crest	9/4/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	1.7	<1.0	<1.0	NA	<0.050	33	32	<1.0	<0.50	<0.50	NA	46	30	<0.005	<0.005	
MW-7	MW7-090414	Pacific Crest	9/4/2014	5.1	<3.0	14	<4.0	<11	NA	<5.6	15	<1.0	8.7	<1.0	<0.050	15	4.2	<1.0	<0.50	2	<0.5	140	12	0.007	<0.005	
MW-8	MW8-090414	Pacific Crest	9/4/2014	3.4	<3.0	<4.4	<4.0	16	<10.0	<5.6	31	<1.0	16	<1.0	<0.050	21	2.7	<1.0	<0.50	2.4	<0.5	340	31	<0.005	<0.005	
MW-9	MW9-090514	Pacific Crest	9/5/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	1.7	0.77	<1.0	<0.50	<0.50	NA	6.3	4	<0.005	<0.005	
MW-10	MW10-090814	Pacific Crest	9/8/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	2.2	1	<1.0	<0.50	<0.50	NA	12	7.9	<0.005	<0.005	
MW-11	MW11-090514	Pacific Crest	9/5/2014	<3.3	NA	170	18	<11	NA	<5.6	2.9	<1.0	<1.0	NA	<0.050	190	53	<1.0	<0.50	<0.50	NA	5.7	<2.5	<0.005	<0.005	
	MW11-090514-Dup	Pacific Crest	9/5/2014	<3.3	NA	110	21	<11	NA	<5.6	2.1	<1.0	<1.0	NA	<0.050	130	71	<1.0	<0.50	<0.50	NA	9.4	<2.5	<0.005	<0.005	
MW-12	MW12-090814	Pacific Crest	9/8/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	1.1	0.97	<1.0	<0.50	<0.50	NA	7.3	3.9	<0.005	<0.005	
MW-13	MW13-090814	Pacific Crest	9/8/2014	6.1	<3.0	<4.4	NA	<11	NA	<5.6	2.3	<1.0	<1.0	NA	<0.050	3.9	3.4	<2.5	<0.50	<0.50	NA	15	5.7	<0.005	<0.005	
MW-14	MW14-090814	Pacific Crest	9/8/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	0.94	0.58	<1.0	<0.50	<0.50	NA	3.6	9.4	<0.005	<0.005	
MW-15	MW15-090514	Pacific Crest	9/5/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	1.3	<1.0	<1.0	NA	<0.050	4.2	1.9	<5.0	<0.50	0.53	<0.50	7.0	3.8	<0.005	<0.005	
MW-16	MW16-090514	Pacific Crest	9/5/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	<1.0	NA	<1.0	NA	<0.050	1.3	1.4	<1.0	<0.50	<0.50	NA	5.5	4.4	<0.005	<0.005	
MW-17	MW17-090514	Pacific Crest	9/5/2014	<3.3	NA	<4.4	NA	<11	NA	<5.6	1.4	<1.0	<1.0	NA	<0.050	4.2	1.0	<2.5	<0.50	<0.50	NA	9.9	5.8	<0.005	<0.005	
Preliminary Screening Level				5		8.8		50		NE		3.1		8.1		2		8.2		1.9		9.600		81		0.001
Site Specific Screening Level				--		40.5		--		--		--		--		1.100		--		--		--		--		--

NOTES:
¹ Analyzed by United States Environmental Protection Agency (EPA) Method 200.8
² Analyzed by EPA Method 7470A
³ Analyzed by EPA Method 335.4
⁴ Analyzed by SM 4500 CN

Bold = concentration exceeds applicable Preliminary Screening Level
Bold and blue highlight = concentration exceeds applicable Site Specific Screening Level
 < = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit
 -- = not applicable
 NE = not established
 NA = not analyzed
 Pacific Crest = Pacific Crest Environmental, LLC

Table 6
Reconnaissance Groundwater Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Sample Depth ²	Reconnaissance Groundwater Analytical Results (micrograms per liter) ¹								
					Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	Chlorobenzene	1,4-Dichlorobenzene	1,2-Dichlorobenzene	
B2	B2	EAI	4/6/2004	9-12	5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B6	B6	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B7	B7	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B8	B8	EAI	4/6/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B13	B13	EAI	4/7/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B14	B14	EAI	4/7/2004	9-12	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
B21	B21	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B24	B24	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B25	B25	EAI	5/14/2004	9-12	1	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B26	B26	EAI	5/14/2004	9-12	<1.0	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B27	B27	EAI	5/14/2004	9-12	13	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B28	B28	EAI	5/14/2004	9-12	20	<1.0	<1.0	<1.0	<0.2]	NA	NA	NA	NA
B30	B30	EAI	7/12/2004	9-12	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	NA	NA
B-33	B-33	EAI	1/24/2005	7-11	5.9	<1.0	4	1.3	<5.0	NA	NA	NA	NA
B-34	B-34	EAI	1/24/2005	7-11	2.2	<1.0	<1.0	<1.0	<5.0	NA	NA	NA	NA
B-35	B-35	EAI	1/24/2005	7-11	4.6	<1.0	11	<1.0	<5.0	NA	NA	NA	NA
B-36	B-36	EAI	1/24/2005	7-11	19	2.3	17	2.6	<5.0	NA	NA	NA	NA
B-37	B-37	EAI	1/24/2005	7-11	<1.0	<1.0	<1.0	<1.0	<5.0	NA	NA	NA	NA
B-38	B-38	EAI	1/24/2005	7-11	1.1	<1.0	52	6.2	<5.0	NA	NA	NA	NA
B-39	B-39	EAI	1/24/2005	7-11	4.8	1.4	170	14	<5.0	NA	NA	NA	NA
B-40	B-40	EAI	1/24/2005	7-11	2.4	<1.0	43	2.9	<5.0	NA	NA	NA	NA
SC-1	SC1-W	LSI	9/27/2005	11-14	0.26	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
SC-2	SC2-W	LSI	9/27/2005	11-14	0.23	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
SC-3	SC3-W	LSI	9/27/2005	11-13	<0.2	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
SC-4	SC4-W	LSI	9/27/2005	10-13	0.26	<0.20	<0.20	<0.20	<0.20	<0.2	<0.2	<0.2	<0.2
B-1	B1-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-2	B2-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	5.8	0.43	1.3	
B-3	B3-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-4	B4-RGW-12	Pacific Crest	11/29/2007	12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-5	B5-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B5-26-052510	Pacific Crest	5/25/2010	22-26	<0.20	<0.20	0.35	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-6	B6-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B6-30-052510	Pacific Crest	5/25/2010	26-30	<0.20	<0.20	370	9.4	180	<0.20	<0.20	<0.20	<0.20
B-7	B7-12-052510	Pacific Crest	5/25/2010	8-12	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B7-30-052510	Pacific Crest	5/25/2010	26-30	<0.20	<0.20	<0.20	<0.20	6.7	<0.20	<0.20	<0.20	<0.20
B-8	B8-15-052610	Pacific Crest	5/26/2010	11-15	0.21	<0.20	20	2	<0.20	<0.20	<0.20	<0.20	<0.20
	B8-27-052610	Pacific Crest	5/26/2010	23-27	0.29	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-9	B9-15-052610	Pacific Crest	5/26/2010	11-15	870	1,200	15,000	110	<100	<100	<100	<100	<100
	B9-27-052610	Pacific Crest	5/26/2010	23-27	1.5	0.51	3.4	<2.0	<0.20	<0.20	<0.20	<0.20	<0.20
B-10	B10-16-052610	Pacific Crest	5/26/2010	12-16	<1.0	<1.0	1,100	15	<1.0	<1.0	<1.0	<1.0	<1.0
	B10-28-052610	Pacific Crest	5/26/2010	24-28	1.9	0.36	7.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-11	B11-16-052610	Pacific Crest	5/26/2010	12-16	<4.0	<4.0	87	15	490	<4.0	<4.0	<4.0	<4.0
	B11-28-052610	Pacific Crest	5/26/2010	24-28	0.55	<0.20	0.62	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
B-12	B12-10-061610	Pacific Crest	6/16/2010	7-10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
	B12-28-061610	Pacific Crest	6/16/2010	25-28	<0.20	<0.20	11	2.1	3	<0.20	<0.20	<0.20	<0.20
B-13	B13-28-061610	Pacific Crest	6/16/2010	25-28	3.3	2.5	5.7	<0.20	1.7	<0.20	<0.20	<0.20	<0.20
B-23	B23-8.0-12.0 RG	Pacific Crest	11/8/2012	8-12	12	12	600	12	300	<4.0	<4.0	<4.0	<4.0
	B23-28.0-30.0 RG	Pacific Crest	11/8/2012	28-30	0.3	<0.20	5.5	0.55	2.4	<0.20	<0.20	<0.20	<0.20
Preliminary Screening Level					2.9	0.7	16	160	0.18	50	70	300	
Site Specific Cleanup Level					24.5	5.8	--	--	0.18	--	--	--	--

NOTES:

¹ Analyzed by United States Environmental Protection Agency (EPA) Method 8260B/8260C

² Depth in feet below ground surface

Bold = concentration exceeds applicable Preliminary Screening Level

Bold and yellow highlight = concentration exceeds applicable Draft FS Cleanup Level

Italics = practical quantitation limit higher than applicable Preliminary Screening Level

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

-- = not applicable

NA = not analyzed

VOCs = volatile organic compounds

Pacific Crest = Pacific Crest Environmental, LLC

Table 7
Groundwater Quality Parameters Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Measured By	Sample Date	Groundwater Quality Parameters				
				Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)
MW-1	MW-1	LSI	7/7/2005	17.6	-	1.73	7.37	-21.4
	MW-1	LSI	9/27/2005	18.2	-	-	7.36	-33.9
	MW1-020707 ¹	Pacific Crest	2/7/2007	12.46	36.23	2.38	7.49	13.6
	MW1-112008 ²	Pacific Crest	11/20/2008	15.04	0.367	0.66	7.1	-151.2
	MW1-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW1-090414	Pacific Crest	9/4/2014	19.71	0.246	1.35	6.03	32.7
MW-2	MW-2	LSI	7/7/2005	17.8	-	1.5	7.19	-11.2
	MW-2	LSI	9/27/2005	18.5	-	-	7.19	-24.2
	MW2-020707 ¹	Pacific Crest	2/7/2007	12.4	29.09	2.52	7.25	53.9
	MW2-112008 ²	Pacific Crest	11/20/2008	14.88	0.287	0.99	6.82	-98.1
	MW2-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW2-090514	Pacific Crest	9/5/2014	19.46	0.238	1.13	6.16	29.2
MW-3	MW-3	LSI	7/7/2005	16.7	-	1.54	7.12	-7.8
	MW3-020707 ¹	Pacific Crest	2/7/2007	12.42	32.95	1.49	7.43	-40.6
	MW3-112108 ²	Pacific Crest	11/21/2008	15.25	0.341	0.17	7.25	-171.5
	MW3-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW3-090814	Pacific Crest	9/8/2014	17.11	0.220	0.11	6.41	40.3
MW-4	MW-4	LSI	7/7/2005	15	-	1.53	7.25	-13.8
	MW4-020707 ¹	Pacific Crest	2/7/2007	12.97	35.64	0.65	7.56	12.3
	MW4-112008 ²	Pacific Crest	11/20/2008	15.08	0.34	0.45	7.02	-153.2
	MW4-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW4-090414	Pacific Crest	9/4/2014	17.37	0.239	1.26	6.03	43.4
MW-5	MW-5	LSI	7/7/2005	17.3	-	1.51	7.5	-28.9
	MW-5 ³	EMS	7/7/2005	17.1	-	1.48	7.53	-30.7
	MW5-020707 ¹	Pacific Crest	2/7/2007	12.05	37.38	0.91	7.69	-71.4
	MW5-112108 ²	Pacific Crest	11/21/2008	14.38	0.391	5.43	7.88	-176.7
	MW5-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW5-090414	Pacific Crest	9/4/2014	19.83	0.195	4.00	6.37	28.9
MW-6	MW-6	LSI	7/7/2005	17.2	-	1.21	7.68	-39.8
	MW-6 ³	EMS	7/7/2005	17.2	-	1.21	7.68	-39.8
	MW6-020707 ¹	Pacific Crest	2/7/2007	12.09	33.79	0.51	7.77	-9.7
	MW6-112108 ²	Pacific Crest	11/21/2008	14.75	0.28	0.7	7.82	-138.4
	MW6-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW6-090414	Pacific Crest	9/4/2014	19.11	0.261	0.66	6.30	21.5
MW-7	MW-7	LSI	7/7/2005	17.3	-	1.22	7.8	-45.6
	MW-7 ³	EMS	7/7/2005	17.3	-	1.22	7.8	-45.6
	MW7-020707 ¹	Pacific Crest	2/7/2007	11.67	34.69	1.48	7.56	10.2
	MW7-112008 ²	Pacific Crest	11/20/2008	14.53	0.311	0.58	7.32	-121.3
	MW7-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW7-090414	Pacific Crest	9/4/2014	21.42	0.291	0.97	6.09	14.8
MW-8	MW-8	LSI	7/7/2005	16.9	-	1.1	7.12	-7.7
	MW-8 ³	EMS	7/7/2005	16.9	-	1.1	7.12	-7.7
	MW8-020607 ¹	Pacific Crest	2/6/2007	11.99	31.2	1.41	7.25	-89.8
	MW8-112408-B ²	Pacific Crest	11/24/2008	14	0.391	1.35	7.24	-64.2
	MW8-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW8-090414	Pacific Crest	9/4/2014	17.41	0.282	1.95	5.72	44.6

Table 7
Groundwater Quality Parameters Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Measured By	Sample Date	Groundwater Quality Parameters				
				Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)
MW-9	MW-9	LSI	9/27/2005	17.5	--	-	6.92	-9.6
	MW9-112108	Pacific Crest	11/21/2008	14.63	0.26	0.35	6.77	-159.7
	MW9-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW9-090514	Pacific Crest	9/5/2014	19.65	0.211	-0.26	6.06	29.9
MW-10	MW10-020707 ¹	Pacific Crest	2/7/2007	9.36	10.67	3.3	7.27	39.5
	MW10-112108 ²	Pacific Crest	11/21/2008	12.63	0.094	2.22	6.81	-69.1
	MW10-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW10-090814	Pacific Crest	9/8/2014	16.69	0.218	0.24	6.21	270
MW-11	MW11-112108 ²	Pacific Crest	11/21/2008	12.9	0.457	0.2	7.12	-121.7
	MW11-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW11-090514	Pacific Crest	9/5/2014	16.14	0.288	1.44	6.09	26.9
MW-12	MW12-031009 ²	Pacific Crest	3/10/2009	13.10	0.788	0.18	6.64	-75.3
	MW12-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW12-090514	Pacific Crest	9/8/2014	16.73	0.587	1.76	6.05	5.7
MW-13	MW13-031009 ²	Pacific Crest	3/10/2009	11.05	3.478	0.72	6.19	113.4
	MW13-090814	Pacific Crest	9/8/2014	18.40	3.211	1.34	5.98	31.9
MW-14	MW14-031009 ²	Pacific Crest	3/10/2009	8.50	0.750	3.46	7.44	36.9
	MW14-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	MW14-090814	Pacific Crest	9/8/2014	16.22	0.565	1.68	6.21	39.2
MW-15	MW15-0617102	Pacific Crest	6/17/2010	13.1	5.083	0.48	7.22	-172.3
	MW15-041012	Pacific Crest	4/10/2012	NA ⁴	NA ⁴	NA ⁴	NA ⁴	NA ⁴
	NA	Pacific Crest	9/17/2012	14.6	4.799	0.99	7.42	-122.2
	NA	Pacific Crest	9/21/2012	14.76	5.274	1.03	7.48	-129.8
	MW-15-110-001	Pacific Crest	10/4/2012	16.99	4.731	0.92	7.17	-117.4
	MW-15-112712	Pacific Crest	11/27/2012	13.3	5.135	0.9	7.37	-110.8
	MW15-090514	Pacific Crest	9/5/2014	15.42	8.213	2.01	7.05	-61.4
MW-16	MW16-090514	Pacific Crest	9/5/2014	15.99	0.460	1.92	6.89	45.5
MW-17	MW17	Pacific Crest	9/9/2012	17	4.773	1.06	6.9	-107.1
	NA	Pacific Crest	9/17/2012	18.15	11.677	1.62	7.59	-91.4
	NA	Pacific Crest	9/21/2012	14.79	10.680	1.47	7.61	-98.5
	MW-17-110-001	Pacific Crest	10/4/2012	15.28	12.907	1.06	7.51	-100
	MW-17-112712	Pacific Crest	11/27/2012	13.7	12.399	0.87	7.91	-121.7
	MW17-090514	Pacific Crest	9/5/2014	14.95	7.165	1.21	6.92	-100
B-5	B5-12-052510 ²	Pacific Crest	5/25/2010	14.45	38.345	0.57	7.24	-131.7
	B5-26-052510 ²	Pacific Crest	5/25/2010	14.24	24.411	0.35	7.78	-271.1
B-6	B6-12-052510 ²	Pacific Crest	5/25/2010	13.15	21.788	1.77	7.60	-56.4
	B6-30-052510 ²	Pacific Crest	5/25/2010	14.79	6.264	0.44	7.36	-200.0
B-7	B7-12-052510 ²	Pacific Crest	5/25/2010	13.51	4.676	0.66	7.35	26.8
	B7-30-052510 ²	Pacific Crest	5/25/2010	13.87	5.294	0.70	7.93	-105.6
B-8	B8-15-052610 ²	Pacific Crest	5/26/2010	13.30	0.343	0.59	8.14	-109.8
	B8-27-052610 ²	Pacific Crest	5/26/2010	13.83	1.951	0.46	8.16	-208.4

Table 7
Groundwater Quality Parameters Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Measured By	Sample Date	Groundwater Quality Parameters				
				Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)
B-9	B9-15-052610 ²	Pacific Crest	5/26/2010	13.60	0.561	0.40	7.47	-108.5
	B9-27-052610 ²	Pacific Crest	5/26/2010	13.85	2.381	0.39	8.27	-200.4
B-10	B10-16-052610 ²	Pacific Crest	5/26/2010	13.45	0.408	0.71	7.73	-77.5
	B10-28-052610 ²	Pacific Crest	5/26/2010	13.78	2.941	0.57	7.98	-190.2
B-11	B11-16-052610 ²	Pacific Crest	5/26/2010	13.98	0.548	0.58	8.08	-62.0
	B11-28-052610 ²	Pacific Crest	5/26/2010	14.29	2.898	0.54	7.88	-191.9
B-12	B12-10-061610 ²	Pacific Crest	6/16/2010	13.61	0.643	1.86	7.13	-7.4
	B12-28-061610 ²	Pacific Crest	6/16/2010	13.99	1.024	0.56	7.35	-134.2
B-13	B13-28-061610 ²	Pacific Crest	6/16/2010	14.85	3.148	0.44	8.26	-177.9

NOTES:

¹ Measurements by YSI 600 XL Water Analyzer

² Measurements by YSI 566 MPS

³ Split samples collected by EMS

⁴ Data unavailable (passive diffusion bags used)

C = celsius

mS/cm = millisiemen per centimeter

mg/L = milligrams per liter

mV = millivolts

- = not reported

NA = not available

EMS = Environmental Management Services

LSI = LSI Adapt

Pacific Crest = Pacific Crest Environmental, LLC

Table 8
Air Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Sample ID	Location	Sampled By	Sample Date	Air Analytical Results (micrograms per cubic meter)									
				Tetrachloroethene	Trichloroethene	cis-1,2-dichloroethene	trans-1,2-dichloroethene	Vinyl Chloride	1,1,1-trichloroethane	Benzene	Toluene	Ethylbenzene	Total Xylenes
BH6170901	Outside at SW-Side of Bldg	Port of Tacoma	6/17/2009	<0.16	<0.21	<0.16	<0.78	<0.050	<0.21	0.44	1.1	0.17	0.65
BH6170902	NW corner of office	Port of Tacoma	6/17/2009	6.2	0.56	0.16	<0.67	<0.43	3.8	0.51	2.7	0.42	1.67
BH6170903	SE Corner of Warehouse	Port of Tacoma	6/17/2009	25	1.2	<0.14	<0.69	<0.045	10	1.4	1.2	1.3	5.6
Preliminary Screening Level				9.6	0.37	--	27.4	0.28	2,290	13.7	2,290	457	45.7
Ecology-Approved RI Cleanup Level				6.57	1.55	122.72	--	0.99	--	--	--	--	--
Site Specific Cleanup Level				9.6	1.4	--	--	1.8	--	--	--	--	--

NOTES:

Bold = concentration exceeds applicable Preliminary Screening Level

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

-- = not applicable

VOCs = volatile organic compounds

Table 9
Surface Water Analytical Results Summary - VOCs
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Sampled By	Sample Date	Surface Water Analytical Results (micrograms per liter)						
				CVOCs ¹						
				Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane	1,1-Dichloroethene
SW-1	SW1-103014	Pacific Crest	10/30/2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SW-2	SW2-103014	Pacific Crest	10/30/2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
SW-3	SW3-103014	Pacific Crest	10/30/2014	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20

NOTES:

¹ Analyzed by U.S. Environmental Protection Agency (EPA) Method 8260C

< = result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

CVOCs = chlorinated volatile organic compounds

Pacific Crest = Pacific Crest Environmental, LLC

Table 10
Aerobic Bioremediation Pilot Test Results
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Location ID	Sample ID	Measured By	Sample Date	Depth to Water (ft. btoc)	Groundwater Quality Parameters ¹					Groundwater Analytical Results ² (micrograms per liter)				
					Temperature (°C)	Specific Conductivity (mS/cm)	Dissolved Oxygen (mg/L)	pH	Oxidation Reduction Potential (mV)	Chlorinated Volatile Organic Compounds				
										PCE	TCE	c-DCE	t-DCE	VC
MW-15	MW15-0617102	Pacific Crest	6/17/2010	10.11	13.1	5.083	0.48	7.22	-172.3	<10	<10	1400	12	280
	MW15-041012	Pacific Crest	4/10/2012	14.4	NA ³	NA ³	NA ³	NA ³	NA ³	<0.50	<0.50	1300	14	290
	NA	Pacific Crest	9/17/2012	7.35	14.6	4.799	0.99	7.42	-122.2	--	--	--	--	--
	NA	Pacific Crest	9/21/2012	9.88	14.76	5.274	1.03	7.48	-129.8	--	--	--	--	--
	MW-15-110-001	Pacific Crest	10/4/2012	9.95	16.99	4.731	0.92	7.17	-117.4	<4	<4	1400	12	180
	MW-15-112712	Pacific Crest	11/27/2012	6.84	13.3	5.135	0.9	7.37	-110.8	<10	<10	1400	15	270
MW-17	MW17	Pacific Crest	9/9/2012	--	17.00	4.773	1.06	6.9	-107.1	<20	<4	460	6.3	170
	NA	Pacific Crest	9/17/2012	8.02	18.15	11.677	1.62	7.59	-91.4	--	--	--	--	--
	NA	Pacific Crest	9/21/2012	9.06	14.79	10.68	1.47	7.61	-98.5	--	--	--	--	--
	MW-17-110-001	Pacific Crest	10/4/2012	8.19	15.28	12.907	1.06	7.51	-100	<4	<4	600	7.1	180
	MW-17-112712	Pacific Crest	11/27/2012	6.97	13.7	12.399	0.87	7.91	-121.7	<20	<4	670	6.5	130

NOTES:

¹ Measurements by YSI 566 MPS

² SW-846 Method 8260

³ Data Unavailable (Passive Diffusion Bags used)

C = celsius

mS/cm = millisiemen per centimeter

mg/L = milligrams per liter

mV = millivolts

- = not reported

Table 11
SVE/AS Pilot Test Operating Results
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Description	Date	Groundwater Zone	Duration Time (hr)	SVE					AS					Estimated Effective Radius Influence (ft)
				Extraction Well	Vacuum (in-H2O)		Flow Rate (cfm)		Sparging Well	Pressure (psi)		Flow Rate (cfm)		
					Beginning	End	Beginning	End		Beginning	End	Beginning	End	
SVE Step Test	12/19/2012	Shallow	3:00	SVE-1	10	60	131.27	85.06	N/A	N/A	N/A	N/A	N/A	--
SVE Test	12/20/2012	Shallow	3:00	SVE-1	40	30	100.26	107.99	N/A	N/A	N/A	N/A	N/A	38
SVE/AS Test	12/20/2012	Shallow	1:00	SVE-1	30	30	107.99	107.99	AS-1	10	20	4.75	7.50	--

NOTES:

SVE = Soil Vapor Extraction
AS = Air Sparging
in-H2O = Inches of Water
cfm = Cubic Feet per Minute
psi = Pounds Per Square Inch
hr = Hour
ft = Feet

Table 12
SVE/AS Pilot Test Analytical Results Summary - Effluent Vapor
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Extraction Well	Date Sampled	Sampled By	Sample ID	Vapor Analytical Results (µg/L)			
				PCE	TCE	cis-1,2-DCE	VC
SVE-1	12/20/2012	Pacific Crest	SVE1-1	230	3.1	<1.0	<1.0
SVE-1	12/20/2012	Pacific Crest	SVE1-2	130	2	<1.0	<1.0
SVE-1	12/20/2012	Pacific Crest	SVE1-3	120	1.8	<1.0	<1.0
SVE-1	12/20/2012	Pacific Crest	AS-1-1	120	2.3	<1.0	<1.0
SVE-1	12/20/2012	Pacific Crest	AS-1-2	81	1.6	<1.0	<1.0

NOTES:

< = Result is less than laboratory practical quantitation limit

µg/L = micrograms per Liter

PCE = Tetrachloroethene

TCE = Trichloroethene

cis-1,2-DCE = cis-1,2-Dichloroethene

VC = Vinyl Chloride

Pacific Crest = Pacific Crest Environmental, LLC

Table 13
PCE Mass Recovery - Pilot Test
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

SVE - Constant Rate

Date	Time	Elapsed Time	Extraction Point (SVE-1)			Soil Vapor Concentration	Mass per Measured Interval
			Applied Vacuum (in. H ₂ O)	Flowrate (cfm)	Air Volume (cubic meters)	PCE (µg/m ³)	PCE (µg)
12/20/2012	10:14	0:00	40	100.02	0.00	230,000	0
12/20/2012	10:19	0:05	30	109.71	15.52	215,714	3,348,893
12/20/2012	10:29	0:15	30	109.71	31.05	201,429	6,254,224
12/20/2012	10:44	0:30	30	109.71	46.57	187,143	8,715,994
12/20/2012	10:59	0:45	30	107.99	45.84	172,857	7,923,861
12/20/2012	11:14	1:00	30	107.99	45.84	158,571	7,268,996
12/20/2012	11:29	1:15	30	107.99	45.84	144,286	6,614,132
12/20/2012	11:44	1:30	30	107.99	45.84	130,000	5,959,267
12/20/2012	11:59	1:45	30	107.99	45.84	128,333	5,882,866
12/20/2012	12:14	2:00	30	109.71	46.57	126,667	5,899,375
12/20/2012	12:29	2:15	30	109.71	46.57	125,000	5,821,751
12/20/2012	12:44	2:30	30	107.99	45.84	123,333	5,653,664
12/20/2012	12:59	2:45	30	107.99	45.84	121,667	5,577,263
12/20/2012	13:14	3:00	30	109.71	46.57	120,000	5,588,881

SVE Subtotal = 80,509,168

Mass Removal Per Hour = 26,836,389

AS/SVE

Date	Time	Elapsed Time	Extraction Point (SVE-1)			Soil Vapor Concentration	Mass per Measured Interval
			Applied Vacuum (in. H ₂ O)	Flowrate (cfm)	Air Volume (cubic meters)	PCE (µg/m ³)	PCE (µg)
12/20/2012	13:56	0:00	30	102.63	0.00	120,000	0
12/20/2012	14:01	0:05	30	102.63	14.52	112,200	1,629,368
12/20/2012	14:11	0:15	30	104.45	29.56	104,400	3,085,865
12/20/2012	14:26	0:30	30	102.63	43.57	96,600	4,208,475
12/20/2012	14:41	0:45	30	102.63	43.57	88,800	3,868,661
12/20/2012	14:56	1:00	30	104.45	44.34	81,000	3,591,308

AS/SVE Subtotal = 16,383,678

Mass Removal Per Hour = 16,383,678

Total PCE Removal (µg) = 96,892,846

Table 14
Remediation Technology Screening
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Media	Technology	Description	Advantages	Disadvantages	Relative Cost	Selection Status
Soil Only	Excavation	Removal and off-site disposal of unsaturated soil using readily available construction equipment.	Highly effective and can be completed quickly relative to other technologies.	Due to shallow groundwater table at the site, excavation could reach approximately 10 feet below ground surface. Any excavation beyond the groundwater table would require groundwater management.	High	Retained
	Soil Vapor Extraction (SVE)	Mass removal technology for incremental remediation of soil by extraction of soil vapor.	Effective for remediation of volatile contaminants in permeable soil. Moderate capital equipment costs. Pilot testing indicates the technology is effective at the Site.	Less effective for remediation of low permeability silts and ineffective for contaminants located below groundwater. Does not affect concentrations of metals in soil.	Medium to High	Retained
Groundwater Only	Groundwater Extraction and Treatment	Conventional technology for hydraulic control consisting of pumping and treating affected groundwater to minimize the potential for off-site migration.	Controls potential for further migration.	Unlikely to result in significant reductions of COC concentrations. High capital cost requiring long-term operation, and only applicable to groundwater remediation. May require treatment of dissolved metals to meet discharge permit limits.	High	Retained
	Enhanced Aerobic Bioremediation (EAB)	Select bacteria that thrive in aerobic groundwater can metabolize VC, eventually transforming it into innocuous byproducts. The process is enhanced by the addition of nutrients and dissolved oxygen.	Conditions in the northwest portion of the Site may be more conducive to aerobic degradation than anaerobic degradation.	Requires multiple injection events and monitoring of geochemical conditions. Pilot testing indicates the technology is not highly effective at the Site.	Low to Medium	Rejected
	Enhanced Reductive Dechlorination (ERD) and Monitored Natural Attenuation (MNA)	Select bacteria that thrive in anaerobic groundwater can utilize all PCE, TCE, c-DCE and VC as an energy source and, eventually, transform the CVOCs into innocuous byproducts. The process is enhanced by the addition of nutrients and substrates to enhance the anaerobic conditions.	A cost effective innocuous compound capable of remediating both source area and down-gradient plume. Site data indicate reductive dechlorination is occurring naturally.	Degradation of PCE requires sequential breakdown into TCE, c-DCE, and VC before remediation is complete. Requires anaerobic conditions.	Low	Retained
	Air Sparging	Mass removal technology that consists of injecting air below the groundwater to partition contaminants from groundwater into air. Usually combined with SVE to recover contaminants.	Effective for permeable saturated media.	Ineffective for impermeable saturated media. Cannot be implemented for confined or semi-confined groundwater.	Low to Medium	Rejected
Soil and Groundwater	Electric Resistive Heating (ERH)	Mass removal technology that uses multiphase electricity to resistively heat soil and boil groundwater. The steam and contaminant vapor is collected from the subsurface by SVE and treated aboveground.	Very effective, permanent mass reduction and rapid cleanup. Effective for soil and groundwater remediation with a short time frame to achieve cleanup standards.	High capital costs associated with resistive heating equipment and well installation.	High	Rejected
	In-Situ Chemical Oxidation (ISCO)	In-situ chemical treatment of contaminants by the injection of oxidizing materials into the source zone and down-gradient plume. The oxidizing material reacts with the organic contaminant, resulting in the breakdown of that contaminant into carbon dioxide and water.	Highly effective if chemical oxidants can be brought into contact with CVOCs. May require less long-term monitoring than other cleanup alternatives.	Disrupts natural attenuation by changing geo- and biochemical conditions. May mobilize metals and alter fate and transport assumptions.	Medium	Rejected
	In-Situ Chemical Reduction (ISCR)	In-situ chemical treatment of contaminants by the injection of reducing materials into the source zone and down-gradient plume. The reducing materials destruct or degrade CVOCs into innocuous byproducts and immobilize metals by adsorption or precipitation.	Highly effective if chemical reductants can be brought into contact with COCs. May require less long-term monitoring than other cleanup alternatives. Effective for emplacement in a passive reaction barrier or by direct soil mixing.	More costly than ERD. May require multiple injections or reactive barrier wall replacement.	Medium	Retained
	Dual Phase Vapor Extraction (DPE)	Traditional treatment technology consisting of extraction of soil vapor and groundwater to reduce concentrations of CVOCs.	Moderate capital equipment costs which can be used without significant disruption of business operations, and effective for both soil and groundwater remediation.	High vacuum required to be effective. Long-term operation and maintenance required to achieve cleanup standards.	Medium to High	Rejected

**Table 15
Cleanup Action Alternative Summary
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001**

Cleanup Action Alternative	Description	General Performance Record	Site Specific Issues	Estimated Cost	Cost Range	
					-30%	+50%
Alternative No. 1 - Institutional controls and MNA	Alternative No. 1 does not include active remediation but consists of monitoring the natural reductions of COCs in Zone A or Zone B. Risk is controlled through the use of institutional controls and engineered barriers.	Decreasing concentrations of the COCs in groundwater due to reductive dechlorination are occurring and will likely continue to occur until the contaminants are completely degraded.	Can be implemented quickly but, without source reduction in Zone A, would require an extended time frame (50 to 100 years) to achieve cleanup standards.	\$2,805,633	\$1,963,943	\$4,208,450
Alternative No. 2 - Excavation and Groundwater Extraction & Treatment	Alternative No. 2 consists of: excavation of unsaturated soil in Zone A with concentrations of COCs above their respective ssCULs; GE&T to remediate affected saturated soil and groundwater in Zone A; GE&T to hydraulically control groundwater in Zone B; and implementation of MNA for remediation of recalcitrant contaminants.	Excavation and GE&T are mature technologies that can be implemented quickly. Pump-and-treat is effective for hydraulic control, but unlikely to be effective for significant mass reduction. MNA is effective at sites where the source area has been removed.	Disposal costs for waste characterized as hazardous are high. Iron fouling of GE&T system components is anticipated to present a significant operation and maintenance issue.	\$4,994,222	\$3,495,955	\$7,491,333
Alternative No. 3 - SVE, ERD, and MNA	Alternative No. 3 consists of SVE to remediate soil; ERD to address COCs in groundwater; and MNA to address recalcitrant compounds.	SVE pilot test results indicate a large radius of influence and mass recovery, and monitoring results indicate groundwater conditions are conducive to biologically mediated reductive dechlorination.	Low permeability silts in the Upper Fill may result in extended operation of the SVE system. ERD produces VC as a degradation product.	\$2,875,474	\$2,012,832	\$4,313,211
Alternative No. 4 - SVE, ISCR, and MNA	Alternative No. 3 consists of SVE to remediate soil; ISCR to address COCs in groundwater; and MNA to address recalcitrant compounds.	SVE pilot test results indicate a large radius of influence and mass recovery, and monitoring results indicate groundwater conditions are conducive to abiotic and biologically mediated reductive dechlorination.	Low permeability silts in the Upper Fill may result in extended operation of the SVE system.	\$2,680,449	\$1,876,314	\$4,020,673

Table 16
Cleanup Action Alternative Screening Matrix - Weighted Pair Ranking
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Cleanup Action Alternative	Protectiveness (30%)	Permanence (20%)	Long Term Effectiveness (20%)	Management of Short Term Risks (10%)	Public Concern (10%)	Implementability (10%)	Screening Result	Estimated Cost	Screening Result
Alternative No. 1 - Institutional controls and MNA	1	1	1	1	1	4	1.3	\$2,805,633.07	0.46
Alternative No. 2 - Excavation, Pump-and-Treat, and MNA	4	4	4	4	4	1	3.7	\$4,994,221.91	0.74
Alternative No. 3 - SVE, ERD, and MNA	2	2	2	2	2	2	2	\$2,875,474.28	0.70
Alternative No. 4 - SVE, ISCR, and MNA	3	3	3	3	3	3	3	\$2,680,448.50	1.12
Explanation	A2 is ranked highest because it removes the source area soil contamination faster than the remaining alternatives and controls groundwater migration. A1 is ranked lowest because it has the longest restoration time frame; relies on MNA for contaminant reduction; and relies on institutional controls and engineered barriers to the highest degree. A4 is ranked higher than A3 because ISCR minimizes the production of VC during implementation.					A1 is ranked highest because it requires the least amount of capital expense and permitting. A2 is ranked lowest because off-site disposal requires waste profiling and GE&T requires air and water discharge permits. A4 is ranked higher than A3 because ISCR minimizes the production of VC during implementation.	The alternative with the highest ranking is A2.		The costs of A2 are disproportionate. On the basis of the ranking, the preferred alternative is A4.

NOTE:

Higher number indicates a better ranking (e.g., a rank of "4" for Protectiveness for A6 indicates that, in a paired comparison, A6 is more protective than A3, A4, and A5)

APPENDIX A
POST REMEDIAL INVESTIGATION ACTIVITIES - METHODS

DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT

Sound Mattress Site
1940 East 11th Street
Tacoma, Washington

Pacific Crest PN: 110-001

APPENDIX A - Further Site Characterization and Cleanup Technology Pilot Testing

Pacific Crest conducted field activities as part of the FS in order to further characterize the nature and extent of contamination on the former Sound Mattress Property and to evaluate the applicability of EAB, SVE, and AS for cleanup of the Site. Field activities conducted between January of 2011 and December of 2012 are described in detail in the following sections.

1.1 SOIL BORINGS AND RECONNAISSANCE GROUNDWATER SAMPLES

In 2011 and 2012, Pacific Crest conducted further Site characterization on the former Sound Mattress Property to assess the concentrations of CVOCs in shallow soil near the suspected source area and to assess concentrations of CVOCs in soil and groundwater at a location near the north side of the Former Building. In 2014, Pacific Crest conducted further Site characterization to assess CVOCs and metals in soil. The purpose of the additional characterization was to obtain more detailed data in the area of the Former Building to facilitate the evaluation of soil and groundwater cleanup alternatives. The boring locations are illustrated on Figure 2.

On January 14, 2011, eight soil borings (borings B-15 through B-22) were advanced by Environmental Services Network Northwest (ESN) under the direction of a Pacific Crest geologist using direct-push hydraulic sampling methods. All borings were advanced inside the Former Building on the former Sound Mattress Property to a depth of approximately 4 feet below the Former Building slab.

On November 8, 2012, two soil borings (borings B-23 and B-24) were advanced by ESN under the direction of a Pacific Crest geologist using direct-push hydraulic sampling methods. The borings were advanced inside the Former Building on the former Sound Mattress Property near the northern wall to provide data regarding the extent of CVOCs in soil and deeper groundwater to the northwest of the known extent of soil contamination.

Between September 9, 2014, and September 11, 2014, ESN advanced 20 soil borings at the Site using a truck-mounted direct-push hydraulic probe rig as follows: two soil borings (P-1 and P-2) within the alleyway to the southeast of the Building to total depths of 12 to 16 feet bgs; and 18 soil borings (P-3 through P-14; and P-16 through P-21) inside the Building to total depths of 12 to 16 feet below top of concrete. Proposed boring P-15 was not advanced due to access limitations. Duplicate soil samples were collected from boring P-17 to assess data quality.

During both subsurface investigations, soil samples were collected using a four foot Geoprobe™ macro-core piston-type sampler. Samples collected from the borings were described in accordance with the Unified Soils Classification System (USCS), and inspected for visual and olfactory evidence of contamination. Soil vapor headspace analysis was conducted to field screen the samples for total volatile organic compound (TVOC) concentration using a photoionization detector (PID). The soil vapor headspace analysis was performed by placing a portion of soil from each sample interval into a re-sealable plastic bag, allowing the sample to warm for several minutes, and recording the highest TVOC concentration inside the bag measured over a 30-second span using the PID. The USCS descriptions, observations of contamination, and field screening data were recorded on boring logs.

Pacific Crest collected soil samples from between 1 and 4 feet below the slab of the Former Building in borings B-15 through B-22; and from between 0 and 2 feet and 4 and 6 feet below the

slab of the Former Building in boring B-24 for submittal to an analytical laboratory. Soil samples for laboratory analysis were not collected from boring B-23. Samples collected for laboratory analysis were prepared using SW-846 Method 5035A. The soil samples were submitted to OnSite Environmental, Inc. (OnSite) of Redmond, Washington, for analysis of CVOCs by SW-846 Method 8260B/8260C.

During the advancement of Borings P-1 through P-14; and P-16 through P-21, Pacific Crest collected two soil samples from each boring and prepared the samples for potential laboratory analysis as followed:

- Borings P-1, P-2, P-5, and P-10 through P-21:
 - One shallow soil sample (approximately 3-4 feet bgs)
 - One soil sample of Upper Silt near sand/silt interface (typically encountered at approximately 15 feet below top of concrete/ground surface)
- Borings P-3, P-4, P-6, P-7, P-8, and P-9:
 - One shallow soil sample immediately below gravel fill
 - One soil sample of Upper Silt near sand/silt interface

Upon collection, the soil samples were appropriately labeled, placed into a cooler on ice, and transported under standard chain-of-custody protocols to OnSite under standard turnaround time. OnSite analyzed the soil samples for VOCs by SW-846 Method 8260C (all samples); grain size by PSEP/ASTM D422 (select soil samples from borings P-13, P-14, P-15, P-20, and P-21); and total organic carbon (select soil samples from borings P-13, P-14, P-15, P-20, and P-21) by EPA Method 9060. The soil samples were also analyzed for those metals detected in groundwater (i.e., arsenic, cadmium, chromium, copper, lead, nickel, tin, and zinc) by SW-846 Methods 6010C, 6020A, 200.7, 200.8, 7470A, 7471B, and 245.1.

Reconnaissance groundwater samples were collected from boring B-23 at a depth immediately below first encountered groundwater (approximately 7.5 to 10 feet below the slab of the Former Building), and from the maximum depth of the boring (28 to 30 feet below the slab of the Former Building). Samples were collected through the screened section of a Geoprobe™ ScreenPoint 15 Water Sampler using a peristaltic pump and dedicated tubing. Prior to collecting each sample, approximately one gallon of groundwater was purged from the boring using a peristaltic pump and 0.25-inch dedicated polyethylene tubing. Groundwater samples were transferred directly from the tubing into laboratory-prepared 40-milliliter sample vials preserved with hydrochloric acid. The vials were filled completely with water to eliminate potential loss of volatiles to headspace and were checked to ensure that no air bubbles were present in the sample. Following collection, groundwater samples were labeled, placed in a cooler on ice, and transported to OnSite under standard chain-of-custody protocols. The samples were analyzed for CVOCs by SW-846 Method 8260C on a standard turnaround time.

All non-dedicated field sampling equipment was cleaned and decontaminated between each use and prior to leaving the Site using an aqueous solution of Alconox and deionized water; and/or a 10% nitric acid solution. All investigation derived waste (soil and water) was sampled to determine the proper disposal method, and transported offsite for treatment and/or disposal following waste profiling.

1.2 GROUNDWATER MONITORING AND SAMPLING

In April 2012 and September 2014, Pacific Crest conducted groundwater monitoring in the existing monitoring wells. The monitoring event included measuring water levels and collecting groundwater samples for laboratory analysis.

Groundwater elevation monitoring was conducted at the Site by removing the monument and well cap from each of the existing wells and permitting the water level in each well to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to collecting groundwater level data. Groundwater levels were measured relative to a surveyed mark located on the north side of each well casing to an accuracy of 0.01-foot using an electronic water level indicator.

1.2.1 April 2012 Groundwater Sampling and Analysis

Groundwater samples were collected using passive diffusion bag (PDB) samplers manufactured by Columbia Analytical Services (CAS). PDB samplers are long cylindrical tubes constructed of low density polyethylene (LDPE) that are filled with analyte-free distilled water and sealed to prevent cross-contamination. When the PDB samplers are installed in a well, the dissolved volatile organic compounds (VOCs) in groundwater diffuse through the membrane into the water in the sealed PDB sampler. Upon retrieval, usually 14 days after deployment, the PDB samplers are opened and water inside the PDB sampler is transferred into laboratory provided sample containers for submittal to an independent laboratory for analysis.

Pacific Crest installed PDB samplers in monitoring wells MW-1 through MW-15 on April 10, 2012. A PDB sampler was lowered into each well using a dedicated length of string sufficient to lower the PDB sampler into the well until the entire sampler was submerged. After each PDB sampler was lowered into the well, the line was secured and the well head locked. On April 25, 2012, Pacific Crest retrieved the PDB samplers from the wells and collected samples for laboratory analysis. The PDB samplers were cut open and water from inside the samplers was transferred directly into laboratory prepared 40-milliliter sample vials preserved with hydrochloric acid. Each vial was checked to ensure that there were no air bubbles present in the sample, labeled, placed on ice in a cooler, and transported to CAS under standard chain-of-custody protocols on a standard turnaround time. CAS analyzed the groundwater sample for CVOCs by SW-846 Method 8260C.

All non-dedicated field sampling equipment was cleaned and decontaminated between each use and prior to leaving the Site using an aqueous solution of Alconox and deionized water. All investigation derived waste (soil and water) was sampled to determine the proper disposal method, and transported offsite for treatment and/or disposal following waste profiling.

1.2.2 September 2014 Groundwater Sampling and Analysis

On September 4, 5, and 8, 2014, Pacific Crest conducted a groundwater monitoring event of the 17 existing groundwater monitoring wells (MW-1 through MW-17) at the Site. The water level in each well was allowed to equilibrate with atmospheric pressure for a minimum of 15 minutes prior to collecting groundwater level data. The depth to groundwater below the top of casing was measured relative to the north side of each well casing to an accuracy of 0.01-foot using an electronic water level indicator. An effort was made to measure water levels and sample wells that are tidally influenced during low tide.

Each well was purged using a peristaltic pump and dedicated polyethylene tubing at a flow rate of approximately 100 to 300 milliliters per minute (0.026 gallons per minute [gpm] to 0.079 gpm). During purging, groundwater geochemical parameters, including temperature, specific conductivity, pH, dissolved oxygen (DO), and oxidation/reduction potential (ORP), were recorded approximately every three minutes using a YSI 556 multi-parameter water quality meter equipped with a flow-through cell. Groundwater samples were collected from upstream of the flow-through cell upon stabilization of the geochemical parameters. Groundwater samples were transferred directly from the dedicated tubing into laboratory-prepared sample containers. The sampling

procedures were performed in accordance with the U.S. Environmental Protection Agency's (EPA's) Low-Flow (Minimal Drawdown) Ground-water Sampling Procedures (Puls and Barcelona 1996) and Pacific Crest's SOPs. Duplicate groundwater samples were collected from well MW-11 to assess data quality. Groundwater samples that were collected for analysis of dissolved metals were filtered in the field using disposable 0.45 micron filters prior to being placed in laboratory-prepared sample containers.

Upon collection, the groundwater samples were appropriately labeled, placed into a cooler on ice, and transported under standard chain-of-custody protocols to OnSite Environmental Inc. (OnSite), located in Redmond, Washington, on a standard turnaround time. OnSite analyzed the groundwater samples for VOCs by SW-846 Method 8260C, and total and dissolved metals (arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc) by SW-846 Methods 6010C, 6020A, 200.7/200.8, 7470A, 7471B, and 245.1; and prepared a report documenting the results. OnSite subcontracted analysis of the groundwater samples for cyanide (free and WAD) by SW-846 Method 9012B/Standard Method (SM) 4500-CN to AmTest Laboratories (AmTest) located in Kirkland, Washington. Copies of the laboratory reports are provided in Appendix B.

All non-dedicated field sampling equipment was cleaned and decontaminated between each use and prior to leaving the Site using an aqueous solution of Alconox; deionized water; and/or a 10% nitric acid solution. All investigation derived waste (soil and water) was sampled to determine the proper disposal method, and transported offsite for treatment and/or disposal following waste profiling.

1.3 GROUNDWATER/SURFACE WATER INTERFACE ASSESSMENT

The original scope of work included the collection of co-located pore-water and surface water samples at six locations near the groundwater/surface water interface within the Sitcum Waterway. However, information provided later by the Port indicated that the submerged slope of the Sitcum Waterway consisted of riprap, which would inhibit the collection of pore-water samples at the proposed sampling locations. Based on discussions with the Port and the Port's consultants, the scope of work was modified as summarized below.

Surface water samples (SW-1 through SW-3) were collected in October 2014 at three locations near the groundwater/surface water interface within the Sitcum Waterway (Figure 2). The surface water samples were collected using passive diffusion bag (PDB) sampling devices, which generally require the deployment of the samplers for a minimum of 14 days prior to sample collection. The PDB sampling devices were deployed on October 16, 2014, and retrieved on October 30, 2014. The sampling procedures, conducted in general accordance with the manufacturer's specifications, are summarized below:

- Pacific Crest personnel mobilized to each sampling location aboard a vessel operated by Gravity Environmental Consulting, LLC (Gravity Environmental) of Fall City, Washington.
- The PDB samplers were secured to a pre-measured length of nylon line sufficient to suspend the sampler immediately above the riprap, at a depth of approximately 15 to 20 feet below mean lower low water (MLLW). The nylon line was then secured to a floating device (i.e., buoy) to facilitate retrieval.
- An anchor was secured to the opposite end of the PDB samplers, and the PDB samplers were lowered to the desired location.
- The PDB samplers were retrieved from each location 14 days following deployment.

- Upon retrieval, appropriate laboratory supplied sample containers were filled directly from the PDB sampler, with care taken to minimize turbulence and possible contaminant volatilization. Sample containers were filled completely to eliminate headspace, the lid secured, and the absence of air bubbles verified.
- Each sample vial was appropriately labeled, placed on ice in a cooler, and transported to OnSite under standard chain-of-custody protocols for analysis for CVOCs by SW-846 Method 8260C on a standard turnaround time.

1.4 VAULT LOCATION AND INSPECTION

On September 10, 2014, APS attempted to locate and inspect three underground vaults/septic tanks that were identified by the Port near the northeastern boundary of the former Sound Mattress Property adjacent to the Thorne Road right-of-way. Vault inspection was conducted using a closed-circuit video camera to inspect the current condition of the underground vaults and associated conveyance piping.

1.5 SLUG TESTS

On September 11, 2014, Pacific Crest personnel conducted rising and falling head slug tests in existing monitoring wells MW-7, MW-11, and MW-16, and on October 30, 2014, Pacific Crest personnel conducted rising and falling head slug tests in existing monitoring wells MW-6, MW-13, and MW-14. A slug test could not be conducted in well MW-5 as originally proposed in the SAP because the static water level in that well was 18 inches from the surface, and accurate water level measurements during slug insertion would not have been feasible. Prior to the start of the slug tests, depth to water in each well was measured with an electronic water level indicator to an accuracy of within 0.01-foot. For the falling head portion of the slug tests, the water level in the test well was displaced by rapidly submersing a PVC “slug” of known volume below the static water level in the well. Following displacement, water level recovery in the well was monitored using a water level indicator. Water level data was recorded at progressively increasing time intervals between 15 and 60 seconds until the water level in the well recovered to within 5% of the maximum displacement (as measured from the static water level). The rising head slug test was conducted immediately after the falling head portion by rapidly removing the “slug” from the well, and monitoring and recording the data in a similar manner to that described for the falling head portion of the test.

The slug test data was analyzed using a Microsoft Excel spreadsheet solution developed by the U.S. Geologic Survey (USGS) (Halford and Kuniandy 2004), which performed quantitative analysis of the slug test data using the Bouwer and Rice Method. The Bouwer and Rice Method is applicable to the assessment of hydraulic conductivities of unconfined aquifers using either completely or partially penetrating wells. The proprietary program plots the data on a semi-logarithmic graph. Displacement (feet of water) is plotted on the logarithmic scale (y-axis), and elapsed time (minutes) is plotted on the arithmetic scale (x-axis). A best-fit line is matched to the data, and the slope and intercept of the line are used to calculate aquifer hydraulic conductivity in the vicinity of the well. The slug test data and software output are provided in Appendix C.

1.6 FEASIBILITY STUDY PILOT TESTS

1.6.1 EAB Pilot Test

Between September and December 2012, Pacific Crest conducted an extended EAB pilot test. The purpose of the EAB pilot test was to assess the feasibility of enhancing aerobic

bioremediation of VC in groundwater by increasing the concentrations of dissolved oxygen (DO) in groundwater. Oxygen Release Compound (ORC[®]) is a proprietary formulation of magnesium peroxide manufactured by Regenesis, Inc. (Regenesis) that releases oxygen when hydrated. The technology to increase DO in groundwater and facilitate EAB of VC consisted of injecting a slurry of ORC[®] and water through soil borings advanced into the saturated zone of the Lower Sand adjacent to the Sitcum Waterway. The EAB pilot test activities consisted of injecting 500 pounds (lbs) of ORC[®] into the subsurface through soil borings and monitoring changes in groundwater geochemistry and concentrations of CVOCs over time.

On September 8 and September 9, 2012, under the direction of Pacific Crest, ESN completed eleven soil borings, IP-1 through IP-11, in two rows (five borings in the first row and six in the second) (Figure 2) and advanced one boring (MW-17) which was completed as a monitoring well (MW-17). Prior to the initiating subgrade work, a public One-Call locating service and a private utility locate contractor were used to assess the proposed drilling locations for conductible utilities.

During the advancement of borings IP-1 through IP-11, a slurry of approximately 50 lbs of ORC[®] and 15 gallons of water was injected into the subsurface at depths between 30 and 20 feet bgs (Lower Sand) at each location. The slurry was injected into the Lower Sand saturated zone through direct push drilling rods using a high-pressure grout pump. Upon completion, each boring was filled to within six inches of surface grade with bentonite pellets which were hydrated with clean water and sealed with asphalt patching material.

In order to assess the effectiveness of EAB, Pacific Crest monitored the concentrations of DO and the concentrations of CVOCs in groundwater in two wells (MW-15 and MW-17) located on either side of the series of ORC[®] injection borings. Well MW-15 was an existing well in the Site monitoring network, and well MW-17 was installed in September 2012 as part of the EAB pilot test. On September 9, 2012, ESN advanced boring MW-17 up-gradient of IP-1 through IP-11 and completed the boring as monitoring well MW-17. The well boring was advanced to approximately 30 feet bgs using a hollow stem auger drilling rig. MW-17 was constructed in the annulus of the boring in accordance with the *Minimum Standards for Construction and Maintenance of Wells*, WAC 173-160, using 2-inch inner diameter (ID) Schedule 40 polyvinyl chloride (PVC) blank casing, flush-threaded to 10 feet of 2-inch ID Schedule 40, 0.010-inch slotted PVC well screen. The annulus of the well was filled with 2/12 silica sand pack from the total depth to a height of approximately one foot above the top of the screened interval, followed by a bentonite seal installed above the silica sand to within six inches of surface grade with a concrete surface seal, and completed at the surface with a flush-mount, traffic-rated monument set in a concrete pad. The casing was capped with a locking, compression-fit well cap. Due to the proximity of nearby wells and borings, soil samples were not collected for laboratory analysis from MW-17. Following installation, the monitoring well was developed by purging approximately 15 gallons of water, at which point the water was visually clear to the unaided eye.

Following completion and development of well MW-17, Pacific Crest collected a baseline groundwater sample for laboratory analysis. Groundwater sampling was performed using EPA low-flow (minimal drawdown) groundwater sampling procedures (EPA 1996). Prior to groundwater sample collection, the well was purged using a peristaltic pump and dedicated polyethylene tubing at a flow rate of approximately 300 milliliters per minute. During purging, groundwater geochemical parameters including temperature, specific conductivity, pH, DO, and oxidation/reduction potential (ORP) were measured and recorded approximately every three minutes using a YSI 556 multi-parameter water quality meter equipped with a flow-through cell. The groundwater sample was collected from upstream of the flow-through cell upon stabilization of the geochemical parameters.

The groundwater sample was transferred directly from dedicated tubing on the peristaltic pump into laboratory-prepared 40-milliliter sample vials preserved with hydrochloric acid. The vials were filled completely with water to minimize potential loss of volatiles to headspace and were checked to ensure that no air bubbles were present in the sample. Following collection, the groundwater sample was labeled, placed in a cooler on ice, and transported to OnSite under standard chain-of-custody protocols. The sample was analyzed for CVOCs by SW-846 Method 8260C on a standard turnaround time.

Following the injection of ORC[®] and the installation of well MW-17, performance groundwater monitoring and samples were collected from wells MW-15 and MW-17 to assess the effectiveness of the oxygen infusion to enhance aerobic oxidation of CVOCs in groundwater. On September 17 and 21, October 4, and November 27, 2012, Pacific Crest measured groundwater geochemical parameters including temperature, specific conductivity, pH, DO, and ORP using a YSI 556 multi-parameter water quality meter equipped with a flow-through cell. On October 4 and November 27, 2012, groundwater samples were collected from wells MW-15 and MW-17 for laboratory analysis. The groundwater samples were transferred directly from dedicated tubing on the peristaltic pump into laboratory-prepared 40-milliliter sample vials preserved with hydrochloric acid. The vials were filled completely with water to minimize potential loss of volatiles to headspace and were checked to ensure that no air bubbles were present in the sample. Following collection, groundwater samples were labeled, placed into a cooler on ice and transported to OnSite for laboratory analysis of CVOCs by SW-846 Method 8260C under standard chain-of-custody protocol with a standard turn-around-time.

All non-dedicated field sampling equipment was cleaned and decontaminated between each use and prior to leaving the Site using an aqueous solution of Alconox; deionized water; and/or a 10% nitric acid solution. All investigation derived waste (soil and water) was sampled to determine the proper disposal method, and transported offsite for treatment and/or disposal following waste profiling.

1.6.2 Soil Vapor Extraction and Air Sparging

In November and December 2012, Pacific Crest conducted pilot test activities to assess the effectiveness of SVE and AS for remediation of soil and groundwater at the Site. During the pilot test activities, Pacific Crest monitored the vacuum response in the unsaturated vadose zone to an induced vacuum and measured the mass of recovered contaminants. The equipment used to conduct the pilot tests consisted of a Gast Model 2567 oil-less rotary vane compressor, a Gast Model EN656 regenerative blower, a 55-gallon moisture knock-out tank, magnehelic vacuum gauges, and appropriate manifolds and hoses. The scope of work for the pilot test activities consisted of: installing five wells (SVE-1, AS-1, VMW-1, VMW-2, and MW-16); conducting one SVE step test; one constant rate SVE pilot test; one AS/SVE pilot test; and evaluating the pilot test data.

On November 6, 2012, five soil borings (SVE-1, AS-1, VMW-1, VMW-2, and MW-16) were advanced by ESN under the direction of a Pacific Crest geologist using direct-push hydraulic sampling methods. The borings were advanced inside the Former Building on the former Sound Mattress Property. Wells SVE-1 and AS-1 were located near the suspected source area. The locations of wells VMW-1, VMW-2, and MW-16 were selected to facilitate the completion of SVE and AS pilot test activities. The borings for wells SVE-1, AS-1, VMW-1, VMW-2, and MW-16 were advanced to between 8 and 15 feet below the Former Building slab. Each well was constructed in accordance with the *Minimum Standards for Construction and Maintenance of Wells*, WAC 173-160, using 2-inch ID Schedule 40 PVC blank casing, flush-threaded to Schedule 40, 0.010-

inch slotted 2-inch ID PVC well screen. The annulus of the well was filled with 2/12 silica sand pack from the total depth to a height of approximately one foot above the top of the screened interval, followed by a bentonite seal installed above the silica sand to 1-foot below the Former Building slab and completed at the surface with a flush-mount, traffic-rated monument set in a concrete pad. The casing was capped with a locking, compression-fit well cap. Due to the proximity of nearby wells and borings, soil samples were not collected for laboratory analysis. The well locations are illustrated on Figure 2.

On December 19 and 20, 2012, Pacific Crest conducted one SVE step test, one constant rate SVE pilot test, and one AS/SVE pilot test to collect the data necessary to assess the effectiveness of SVE and AS at the Site. The SVE step test was performed over a 3-hour period using a regenerative blower to apply incrementally increasing vacuums to well SVE-1 in order to induce air flow through the vadose zone. The constant rate SVE test was performed using the same regenerative blower to apply a constant vacuum to well SVE-1 in order to induce air flow through the vadose zone. The AS/SVE pilot test was performed using a rotary vane compressor to inject compressed air below the groundwater table in well AS-1 and a regenerative blower to extract air with from well SVE-1. The data collected during the SVE pilot tests included: air flow rates from the test well; CVOC concentrations of effluent vapors; and vacuum/pressure conditions in MW-6, MW-11, VMW-1, VMW-2, and MW-16. Air effluent samples were collected during the constant rate SVE pilot test and AS/SVE pilot test in Tedlar® bags and analyzed by OnSite for CVOCs by SW-846 Method 8260C. The SVE data was collected in time intervals ranging from 5 to 15 minutes. The SVE data was then evaluated to assess the radius of influence (ROI) established from the applied vacuum; the air flow rate established at the applied vacuum; and the concentrations of CVOCs in the effluent air discharge.

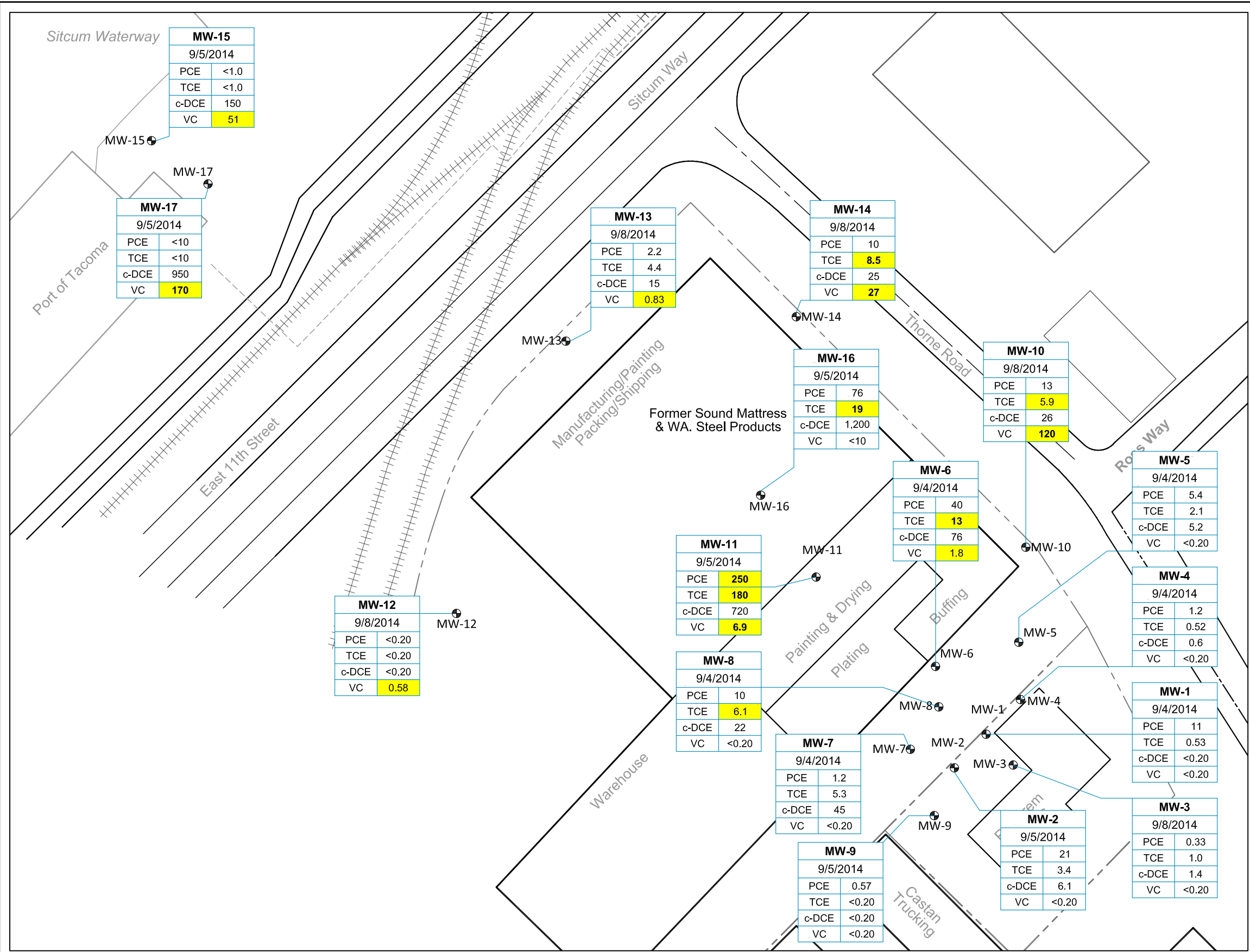
APPENDIX B
POST REMEDIAL INVESTIGATION ACTIVITIES - FIGURES

DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT

Sound Mattress Site
1940 East 11th Street
Tacoma, Washington

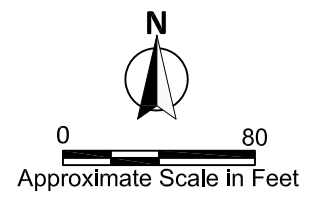
Pacific Crest PN: 110-001

2/28/2017 110-001-054.dwg FIG B-1 GW HVOCs



Legend

- MW-16 Groundwater Monitoring Well
- | Well ID | |
|---------|-----------|
| Date | |
| PCE | 24.5 µg/L |
| TCE | 5.8µg/L |
| c-DCE | - |
| VC | 0.18 µg/L |
- Site Specific Cleanup Level
- BOLD** Concentration exceeds applicable Site Specific Cleanup Level
 - µg/L micrograms per liter
 - PCE tetrachloroethene
 - TCE trichloroethene
 - cis-DCE cis -1,2-dichloroethene
 - VC vinyl chloride
 - HVOCs halogenated volatile organic compounds
 - < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit
- Road
 - Building
 - - - Property Boundary
 - Pre-1965 Operations
 - +++++ Railroad Tracks



Notes:

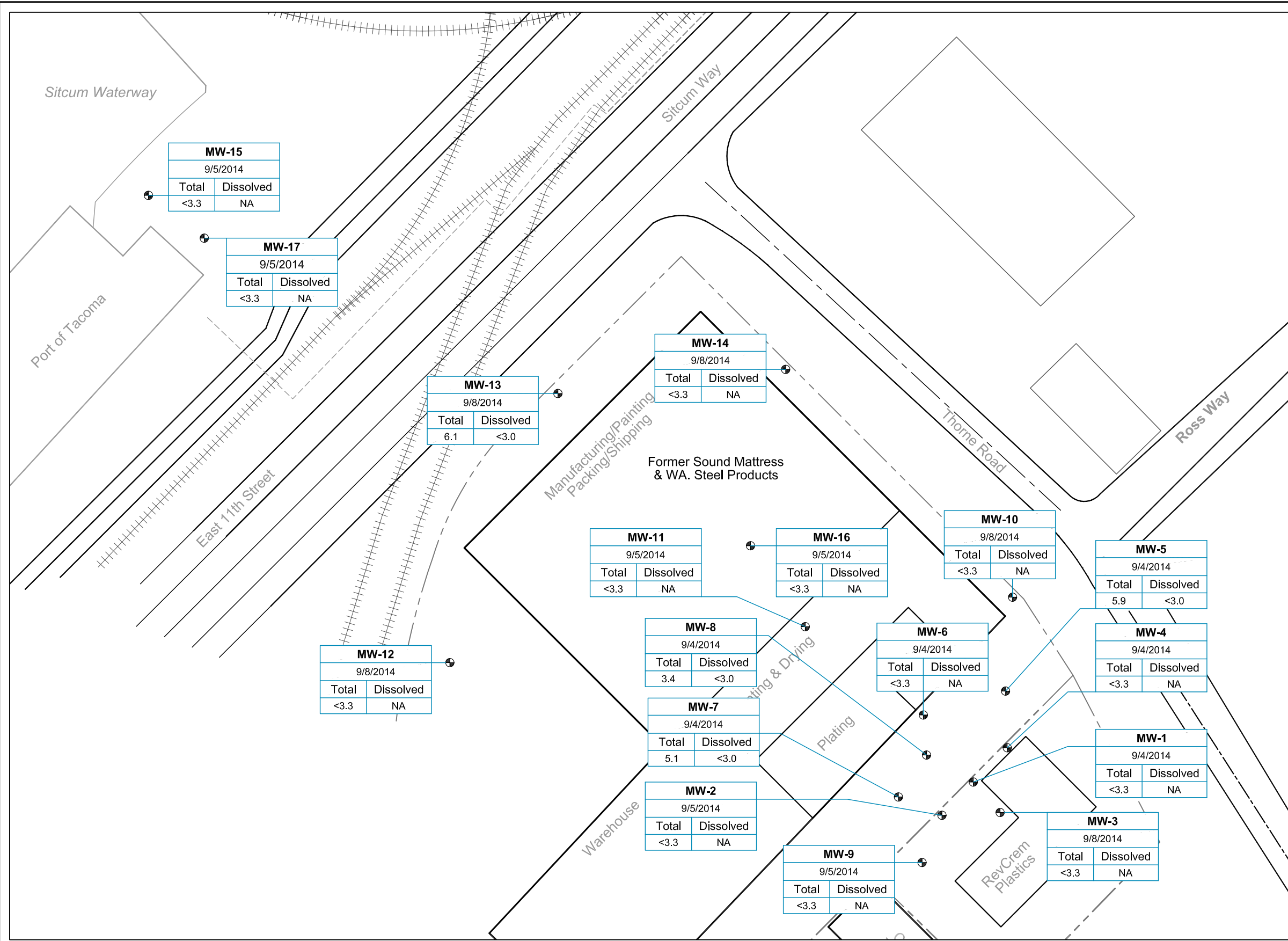
1. Preliminary Screening Level for PCE, TCE, & VC in groundwater wells on and up-gradient of the former Sound Mattress Property.
2. Preliminary Screening Level for PCE, TCE, & VC in groundwater wells on and down-gradient of the former Sound Mattress Property (MW-15 & MW-17).



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PN: 110-001

Figure B-1
Groundwater Analytical Results - HVOCs

2/28/2017 110-001-055.dwg FIG B-2 GW AS



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Arsenic

Preliminary Screening Level

5 µg/L

Site Specific Cleanup Level

-- µg/L

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



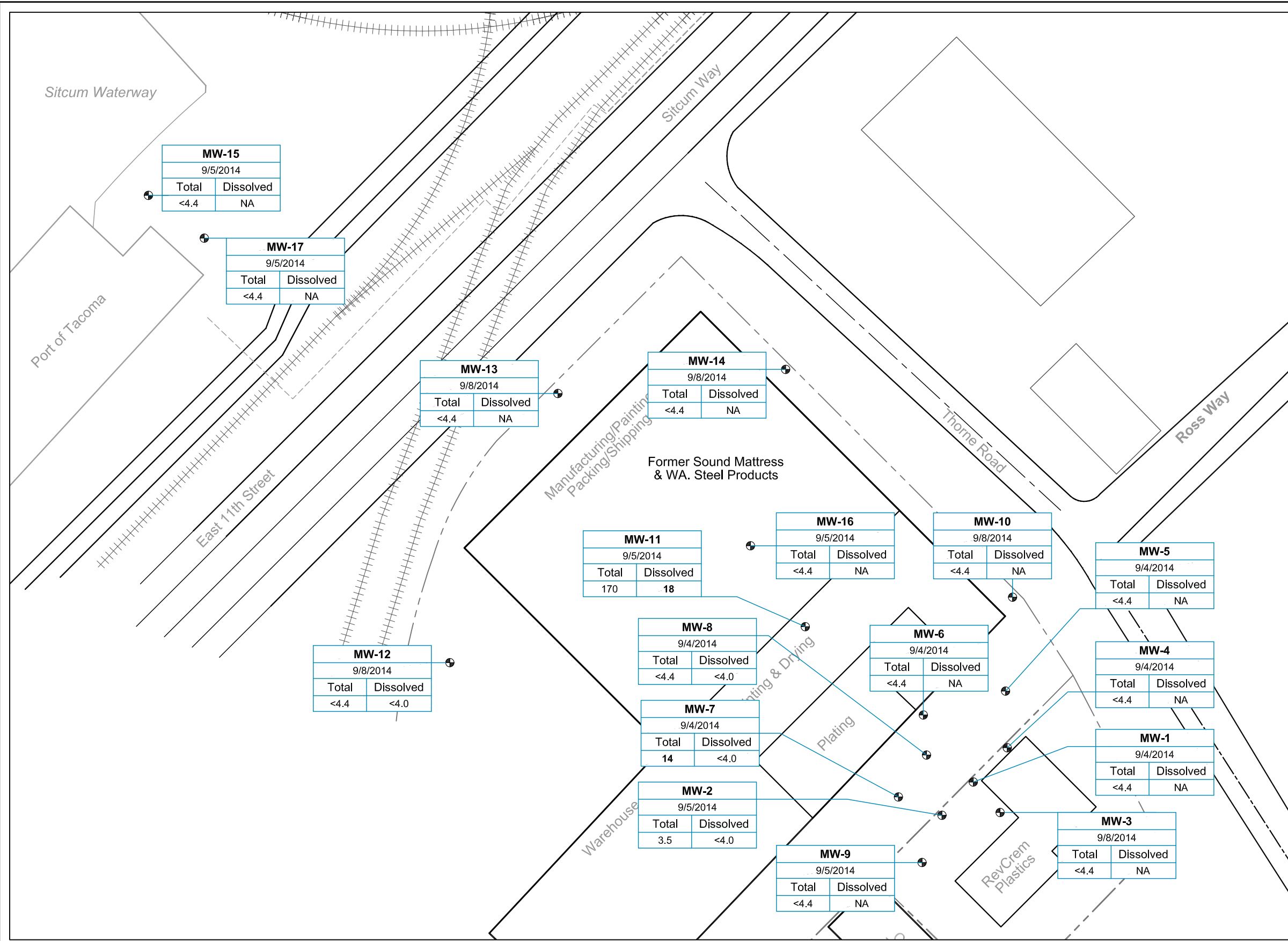
0 80
Approximate Scale in Feet



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Tacoma, Washington
PN: 110-001

Figure B-2
Groundwater Analytical Results - Total and Dissolved Arsenic

2/28/2017 110-001-056.dwg FIG B-3 GW Cd



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

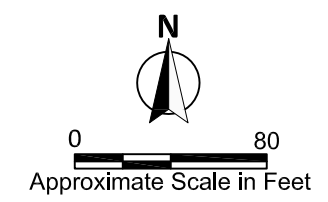
Dissolved Cadmium
 Preliminary Screening Level
 8.8 µg/L
 Site Specific Cleanup Level
 40.5 µg/L

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

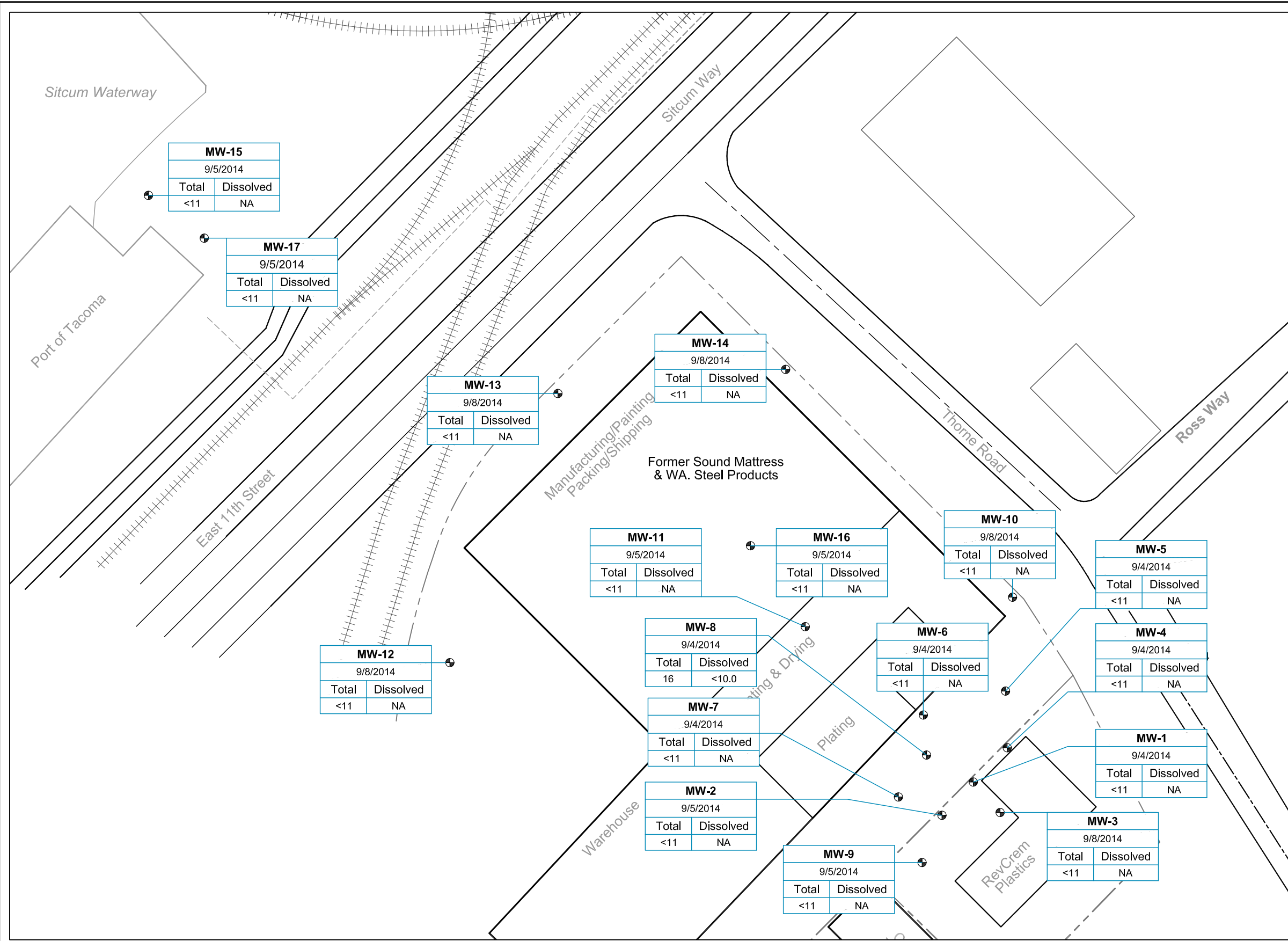
- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



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 PN: 110-001

Figure B-3
 Groundwater Analytical Results - Total and Dissolved Cadmium

2/28/2017 110-001-057.dwg FIG B-4 GW Cr



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Chromium

Preliminary Screening Level

50 µg/L

Site Specific Cleanup Level

-- µg/L

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



0 80
Approximate Scale in Feet

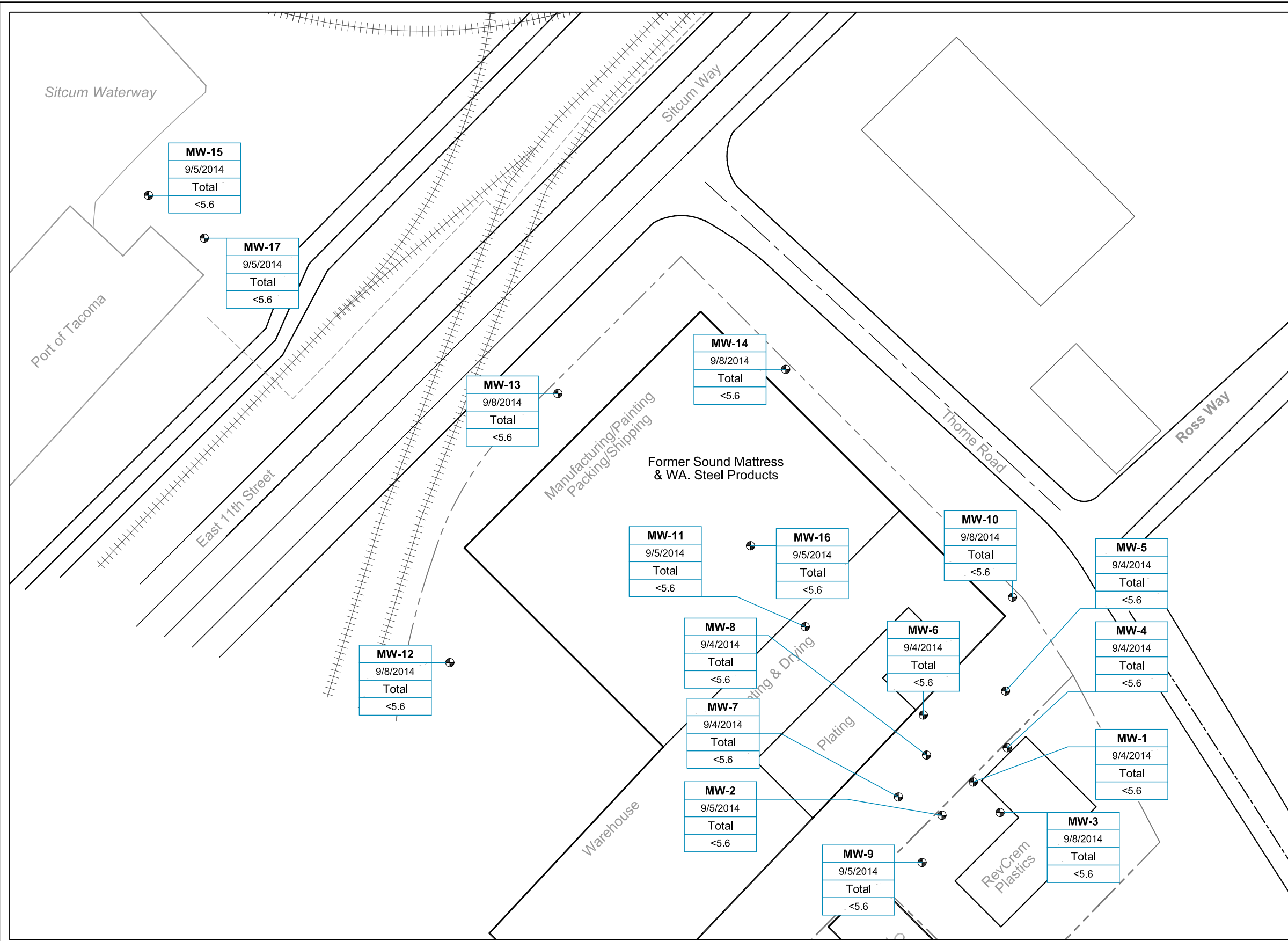


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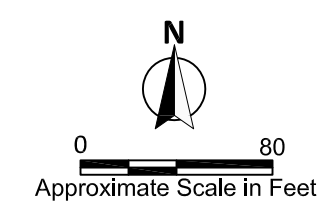
Figure B-4
Groundwater Analytical Results - Total and Dissolved Chromium

2/28/2017 110-001-058.dwg FIG B-5 GW Co



Legend

- MW-1 Groundwater Monitoring Well
- | Well ID |
|--------------|
| Date |
| Total (µg/L) |
- Cobalt**
- Preliminary Screening Level
NE
 - Site Specific Cleanup Level
-- µg/L
- µg/L micrograms per liter
- NA not analyzed
 - NE not established
 - < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit
- Road
 - Building
 - Property Boundary
 - Pre-1965 Operations
 - Railroad Tracks

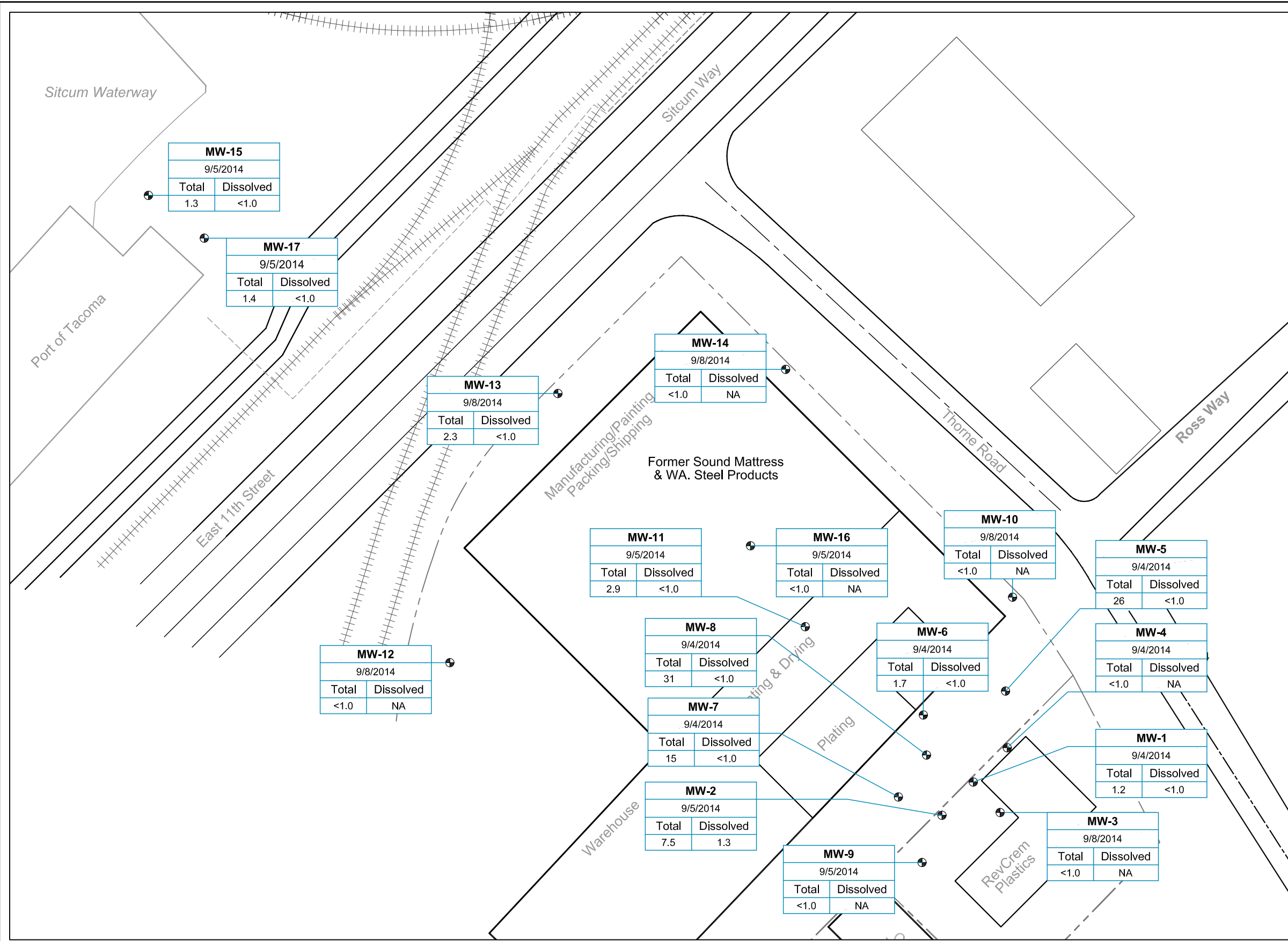


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Figure B-5
Groundwater Analytical Results - Total Cobalt

2/28/2017 110-001-059.dwg FIG B-6 GW Cu



Legend

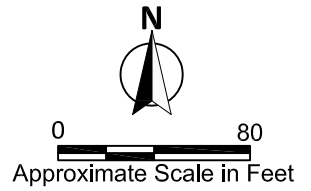
MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Dissolved Copper
Preliminary Screening Level
 3.1 µg/L
Site Specific Cleanup Level
 --

µg/L micrograms per liter
 NA not analyzed
 < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



MW-15	
9/5/2014	
Total	Dissolved
1.3	<1.0

MW-17	
9/5/2014	
Total	Dissolved
1.4	<1.0

MW-13	
9/8/2014	
Total	Dissolved
2.3	<1.0

MW-14	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-11	
9/5/2014	
Total	Dissolved
2.9	<1.0

MW-16	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-10	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-5	
9/4/2014	
Total	Dissolved
26	<1.0

MW-12	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-8	
9/4/2014	
Total	Dissolved
31	<1.0

MW-6	
9/4/2014	
Total	Dissolved
1.7	<1.0

MW-4	
9/4/2014	
Total	Dissolved
<1.0	NA

MW-7	
9/4/2014	
Total	Dissolved
15	<1.0

MW-1	
9/4/2014	
Total	Dissolved
1.2	<1.0

MW-2	
9/5/2014	
Total	Dissolved
7.5	1.3

MW-9	
9/5/2014	
Total	Dissolved
<1.0	NA

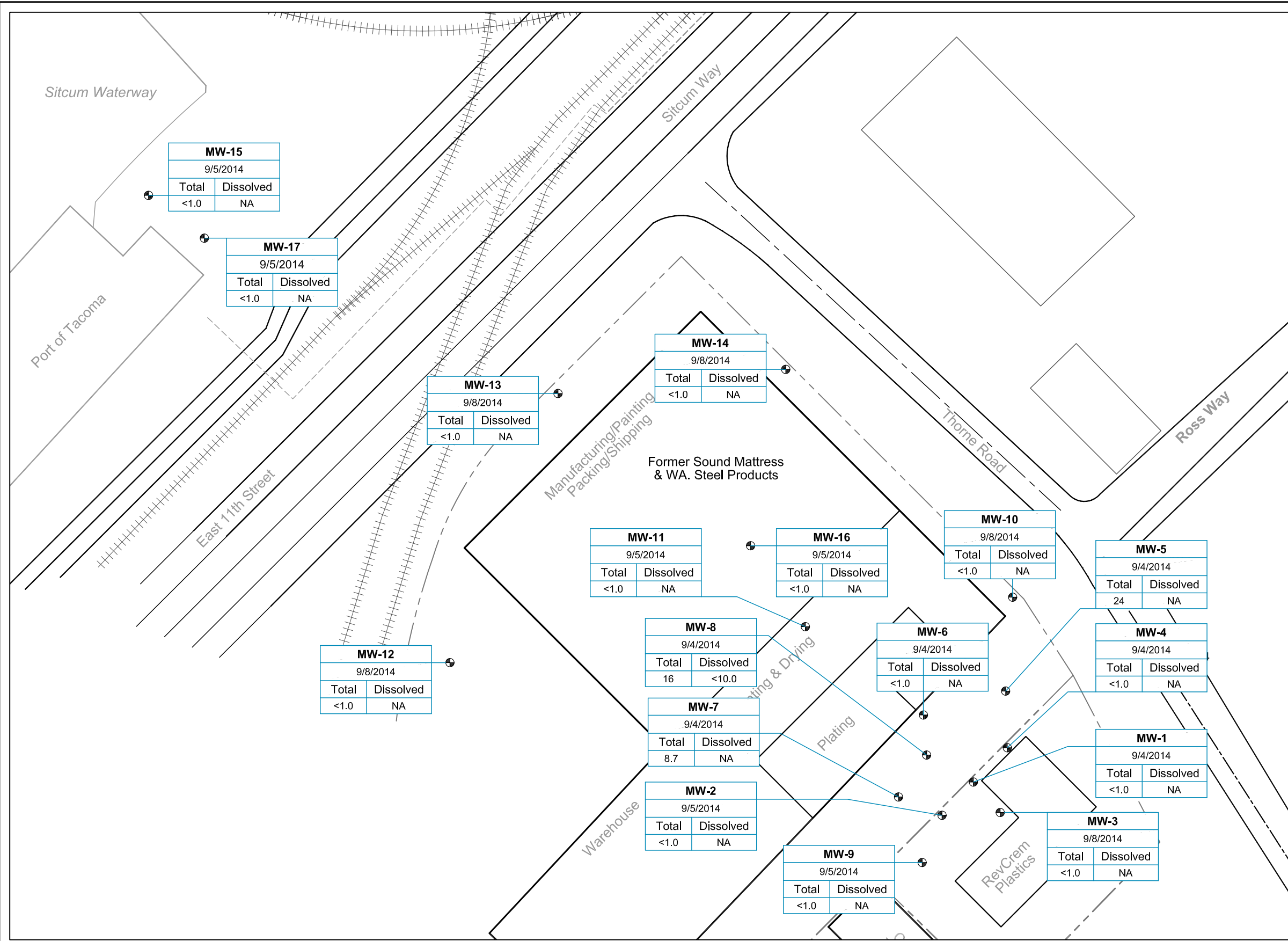
MW-3	
9/8/2014	
Total	Dissolved
<1.0	NA



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Figure B-6
 Groundwater Analytical Results - Total and Dissolved Copper

2/28/2017 110-001-060.dwg FIG B-7 GW Pb



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Lead

Preliminary Screening Level

8.1 µg/L

Site Specific Cleanup Level

--

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



0 80
Approximate Scale in Feet

MW-15	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-17	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-13	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-14	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-11	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-16	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-10	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-5	
9/4/2014	
Total	Dissolved
24	NA

MW-12	
9/8/2014	
Total	Dissolved
<1.0	NA

MW-8	
9/4/2014	
Total	Dissolved
16	<10.0

MW-6	
9/4/2014	
Total	Dissolved
<1.0	NA

MW-4	
9/4/2014	
Total	Dissolved
<1.0	NA

MW-7	
9/4/2014	
Total	Dissolved
8.7	NA

MW-1	
9/4/2014	
Total	Dissolved
<1.0	NA

MW-2	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-9	
9/5/2014	
Total	Dissolved
<1.0	NA

MW-3	
9/8/2014	
Total	Dissolved
<1.0	NA



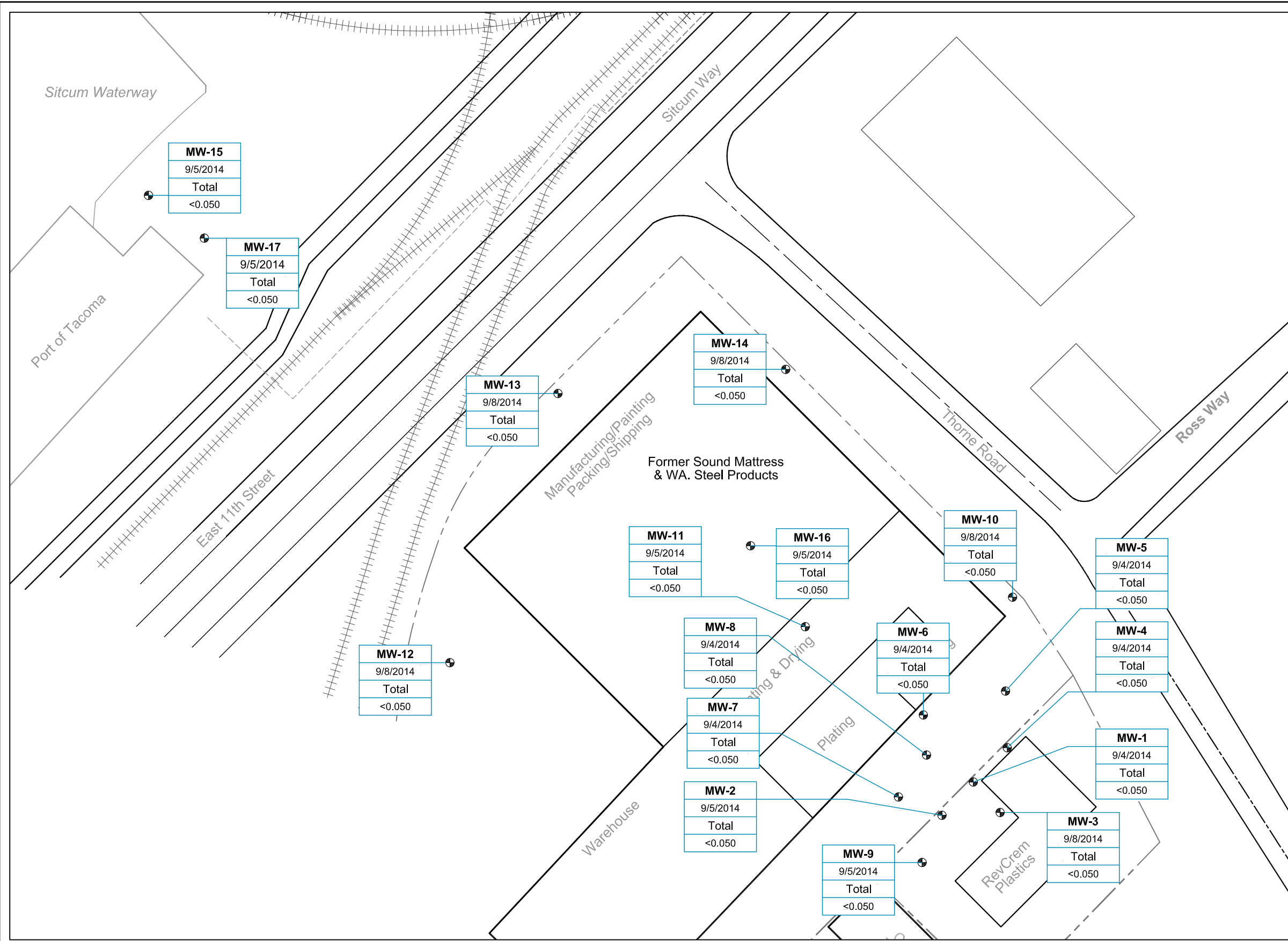
Former Sound Mattress & Felt Company
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Figure B-7

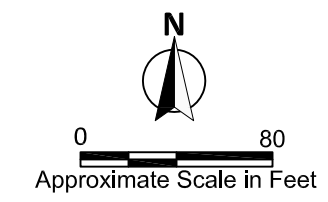
Groundwater Analytical Results - Total and Dissolved Lead

2/28/2017 110-001-061.dwg FIG B-8 GW Hg



Legend

- MW-1 Groundwater Monitoring Well
- | Well ID |
|--------------|
| Date |
| Total (µg/L) |
- Lead**
- Preliminary Screening Level
2 µg/L
 - Site Specific Cleanup Level
--
- µg/L micrograms per liter
- NA not analyzed
- < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit
- Road
 - Building
 - Property Boundary
 - Pre-1965 Operations
 - Railroad Tracks

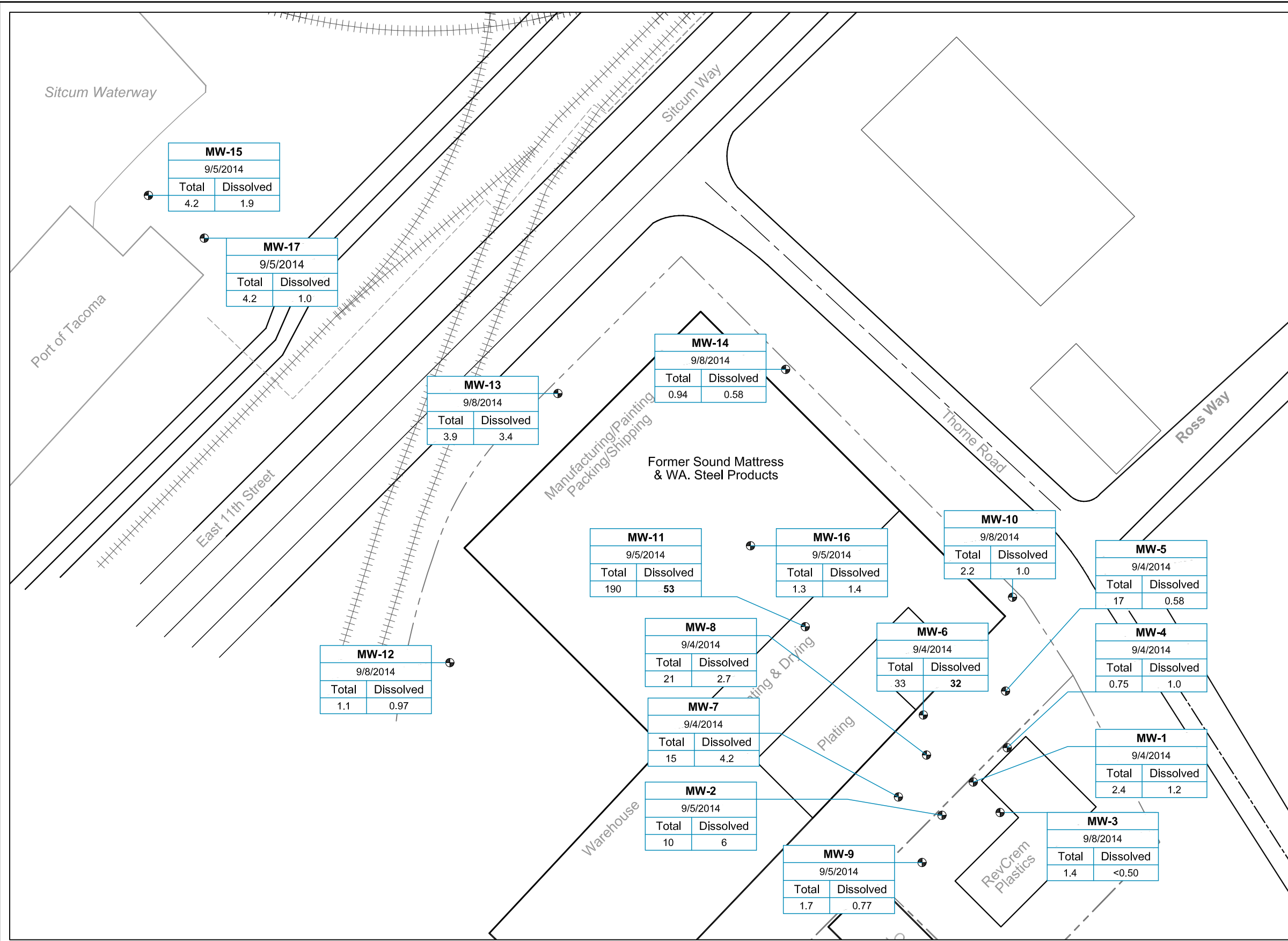


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Figure B-8
Groundwater Analytical Results - Total Mercury

2/28/2017 11:00:01-062.dwg FIG B-9 GW Ni



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Nickel

Preliminary Screening Level
8.2 µg/L

Site Specific Cleanup Level
1,100 µg/L

BOLD Concentration exceeds applicable Site Specific Cleanup Level

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

— Road

— Building

- - - Property Boundary

- - - Pre-1965 Operations

+++++ Railroad Tracks

0 80
Approximate Scale in Feet



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Figure B-9
Groundwater Analytical Results - Total and Dissolved Nickel

MW-15
9/5/2014

Total	Dissolved
4.2	1.9

MW-17
9/5/2014

Total	Dissolved
4.2	1.0

MW-13
9/8/2014

Total	Dissolved
3.9	3.4

MW-14
9/8/2014

Total	Dissolved
0.94	0.58

MW-11
9/5/2014

Total	Dissolved
190	53

MW-16
9/5/2014

Total	Dissolved
1.3	1.4

MW-10
9/8/2014

Total	Dissolved
2.2	1.0

MW-5
9/4/2014

Total	Dissolved
17	0.58

MW-12
9/8/2014

Total	Dissolved
1.1	0.97

MW-8
9/4/2014

Total	Dissolved
21	2.7

MW-6
9/4/2014

Total	Dissolved
33	32

MW-4
9/4/2014

Total	Dissolved
0.75	1.0

MW-7
9/4/2014

Total	Dissolved
15	4.2

MW-1
9/4/2014

Total	Dissolved
2.4	1.2

MW-2
9/5/2014

Total	Dissolved
10	6

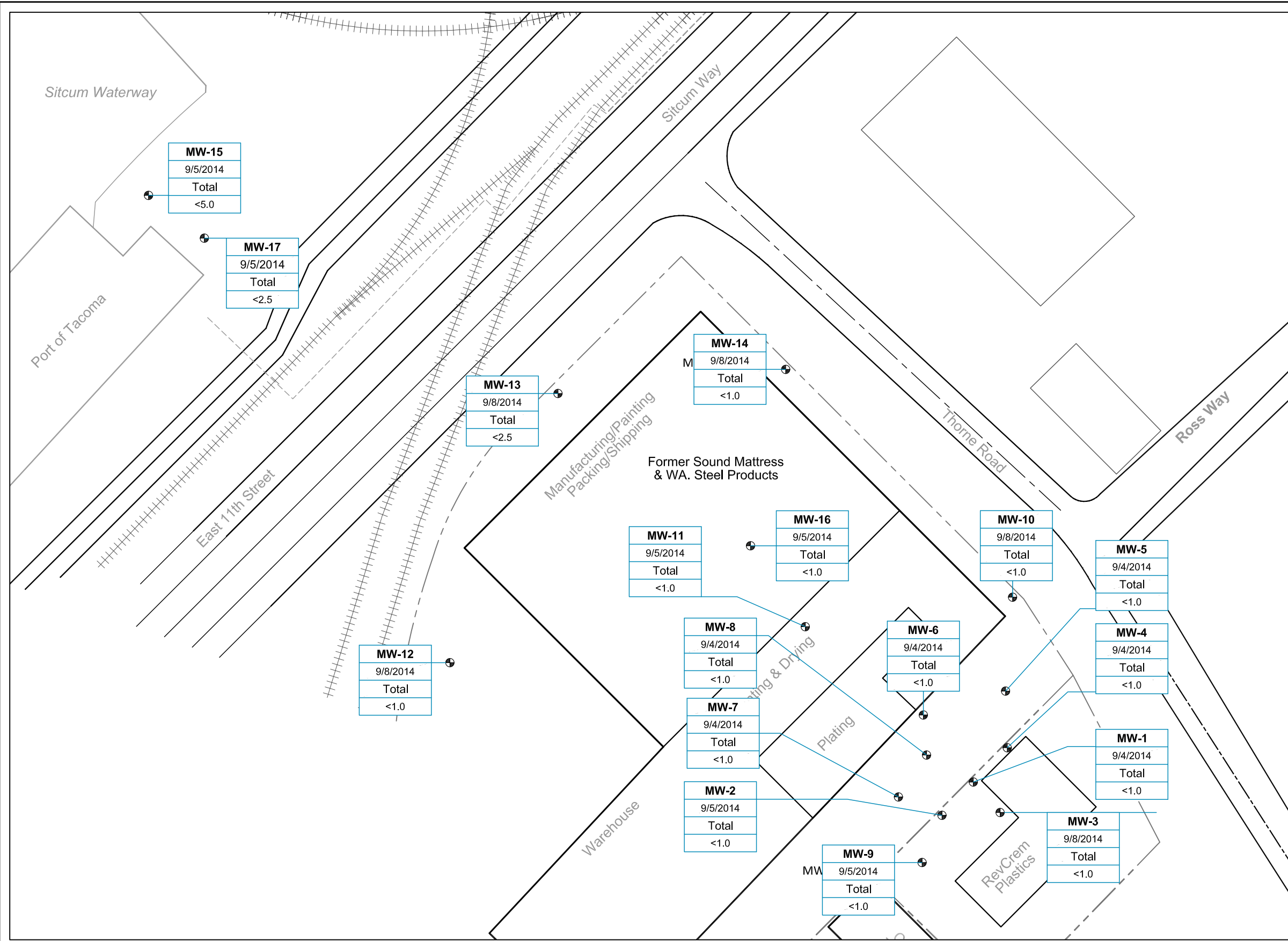
MW-9
9/5/2014

Total	Dissolved
1.7	0.77

MW-3
9/8/2014

Total	Dissolved
1.4	<0.50

2/28/2017 110-001-063.dwg FIG B-10 GW Se



Legend

MW-1 Groundwater Monitoring Well

Well ID
Date
Total (µg/L)

Selenium

Preliminary Screening Level

25 µg/L

Site Specific Cleanup Level

--

µg/L micrograms per liter

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



0 80
Approximate Scale in Feet



Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure B-10

Groundwater Analytical Results - Total Selenium

MW-15
9/5/2014
Total
<5.0

MW-17
9/5/2014
Total
<2.5

MW-13
9/8/2014
Total
<2.5

MW-14
9/8/2014
Total
<1.0

MW-11
9/5/2014
Total
<1.0

MW-16
9/5/2014
Total
<1.0

MW-10
9/8/2014
Total
<1.0

MW-5
9/4/2014
Total
<1.0

MW-12
9/8/2014
Total
<1.0

MW-8
9/4/2014
Total
<1.0

MW-6
9/4/2014
Total
<1.0

MW-4
9/4/2014
Total
<1.0

MW-7
9/4/2014
Total
<1.0

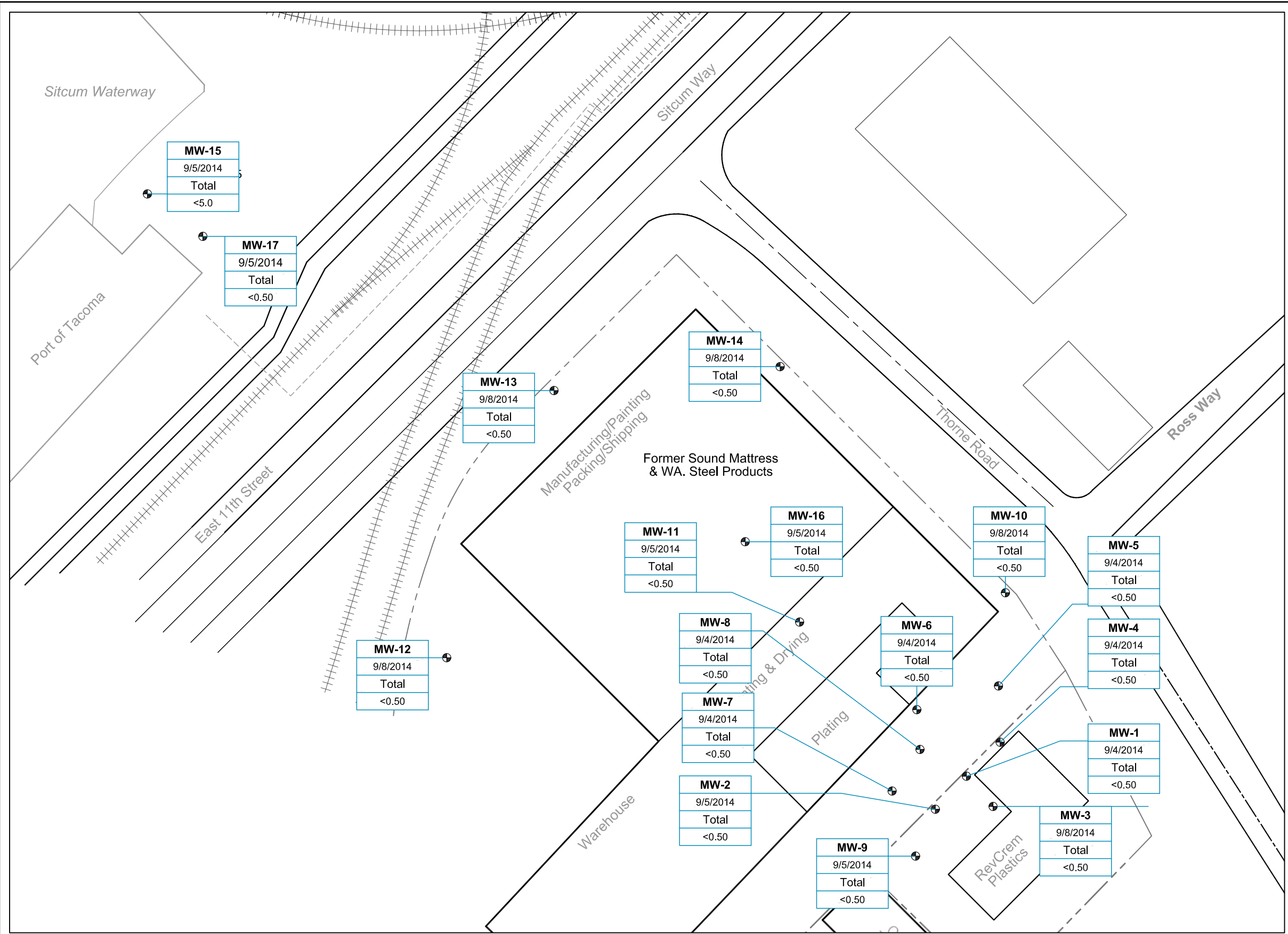
MW-1
9/4/2014
Total
<1.0

MW-2
9/5/2014
Total
<1.0

MW-3
9/8/2014
Total
<1.0

MW-9
9/5/2014
Total
<1.0

2/28/2017 110-001-064.dwg FIG B-11 GW Ag



Legend

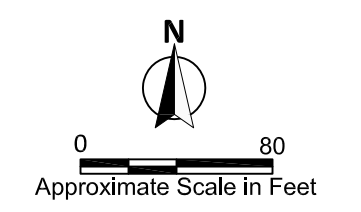
MW-1 Groundwater Monitoring Well

Well ID
Date
Total (µg/L)

Silver
 Preliminary Screening Level
 1.9 µg/L
 Site Specific Cleanup Level
 -

µg/L micrograms per liter
 < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

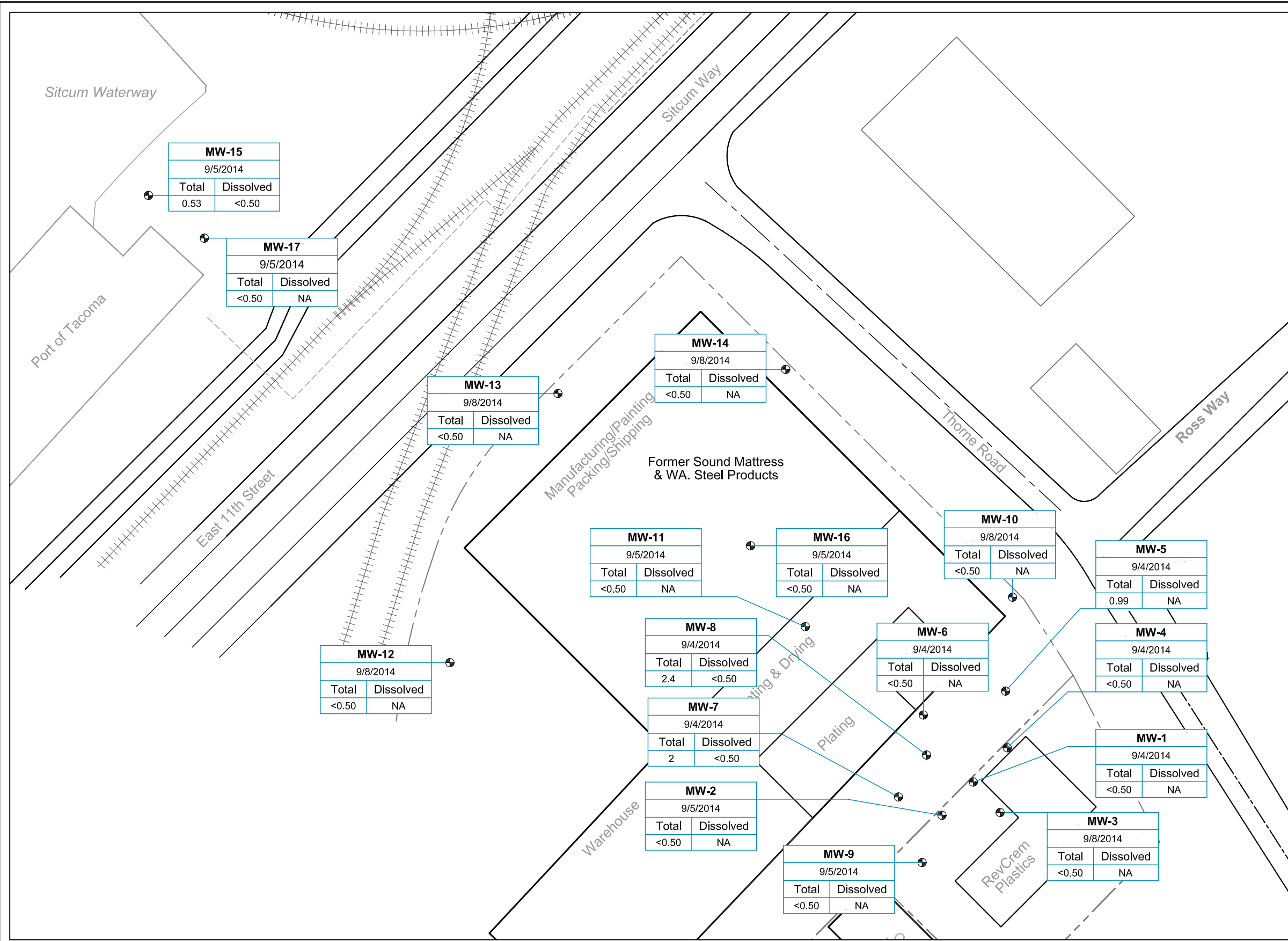
- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



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 1940 East 11th Street
 Tacoma, Washington
 PN: 110-001

Figure B-11
 Groundwater Analytical Results - Total Silver

2/28/2017 110-001-065.dwg FIG B-12 GW Sn



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Tin

Preliminary Screening Level
9,600 µg/L

Site Specific Cleanup Level
-

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- Property Boundary
- Pre-1965 Operations
- Railroad Tracks



0 80
Approximate Scale in Feet

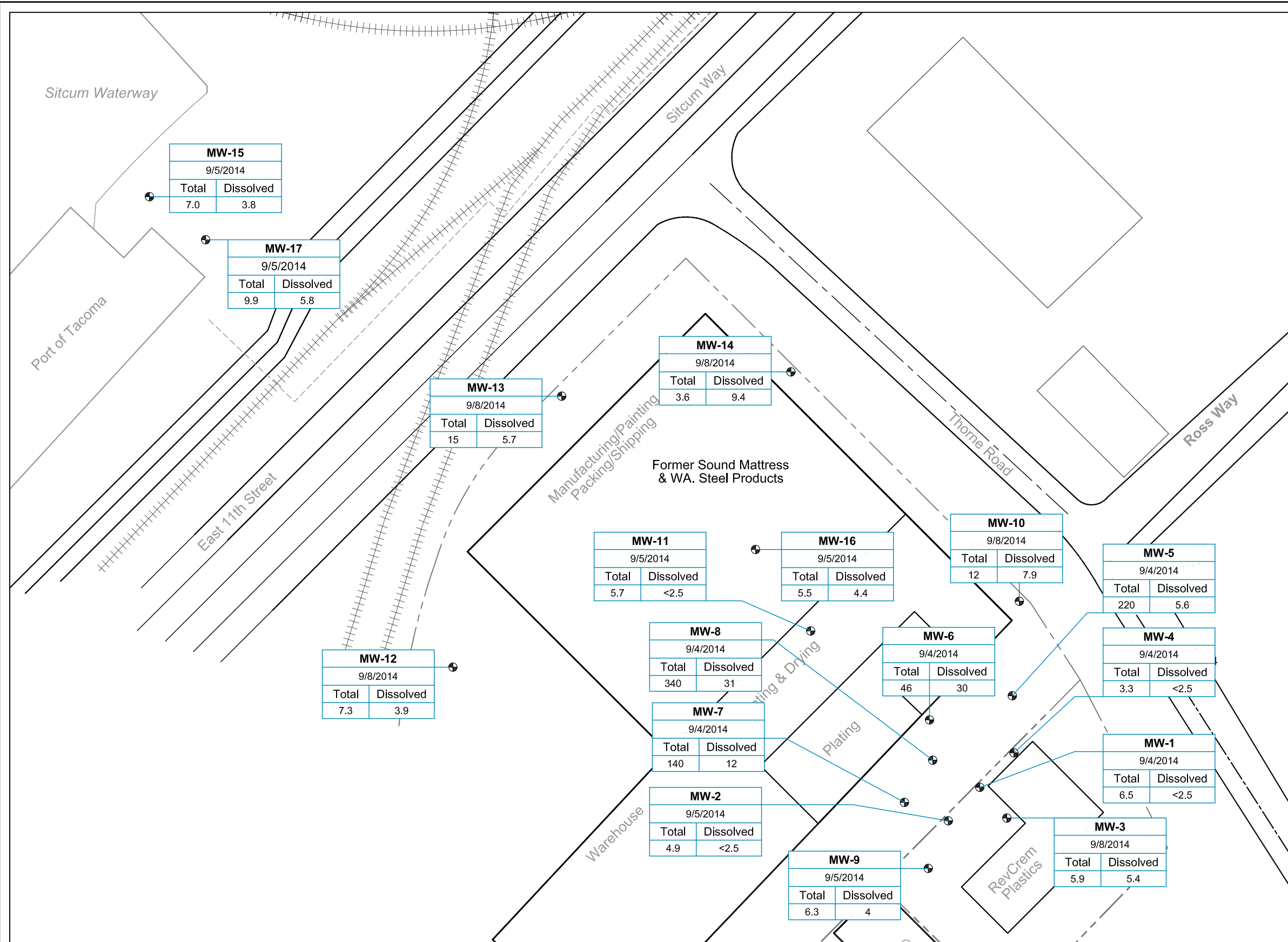


Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington
PN: 110-001

Figure B-12
Groundwater Analytical Results - Total and Dissolved Tin

PACIFIC CREST ENVIRONMENTAL
WWW.PCENV.COM 425-888-4990

2/28/2017 110-001-066.dwg FIG B-13 GW Zn



Legend

MW-1 Groundwater Monitoring Well

Well ID	
Date	
Total (µg/L)	Dissolved (µg/L)

Dissolved Zinc

Preliminary Screening Level
81 µg/L

Site Specific Cleanup Level
--

µg/L micrograms per liter

NA not analyzed

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

— Road

▭ Building

- - - Property Boundary

--- Pre-1965 Operations

+ + + + + Railroad Tracks

N

0 80
Approximate Scale in Feet

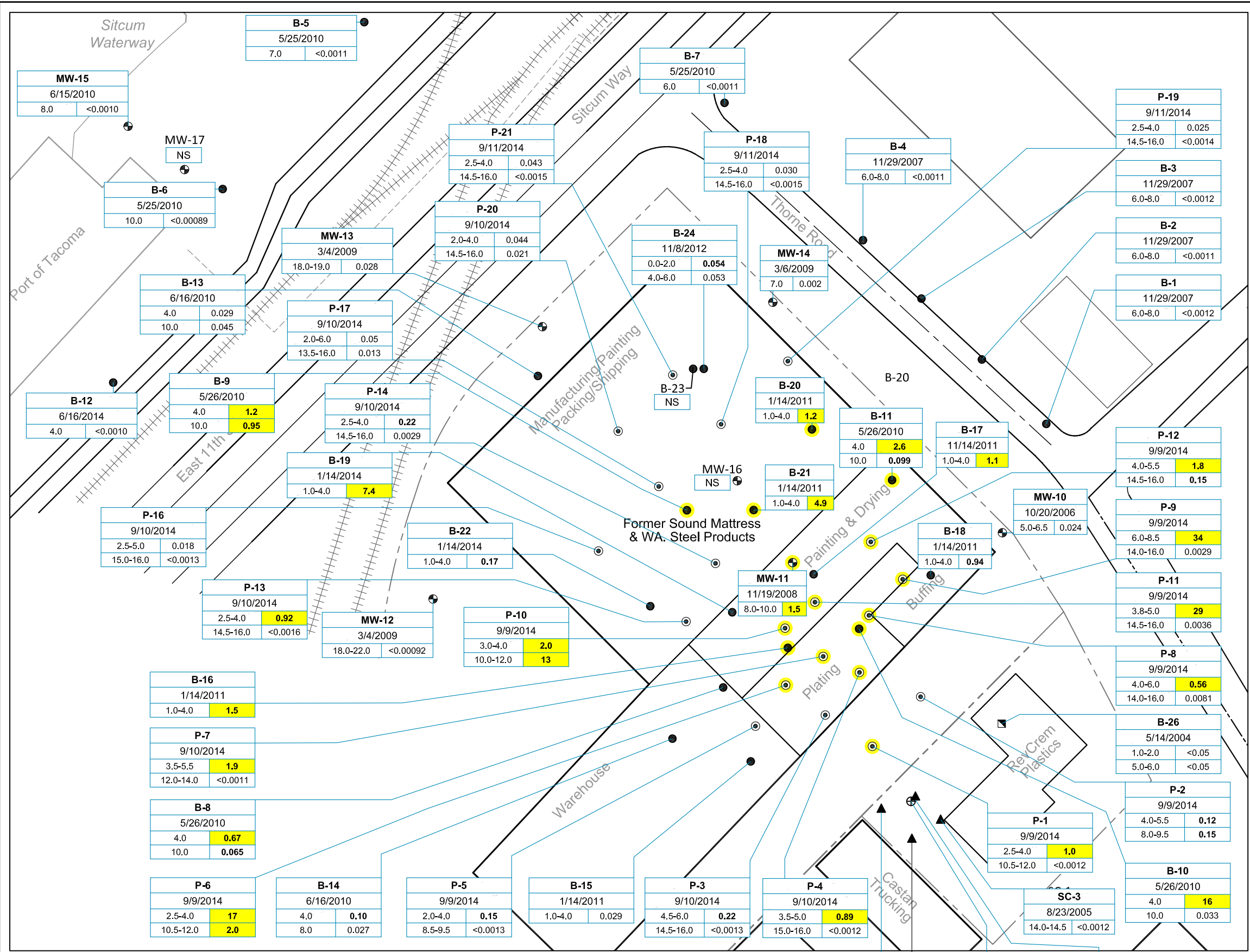


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Figure B-13
Groundwater Analytical Results - Total and Dissolved Zinc

2/28/2017 110-001-053.dwg FIG B-14 Soil PCE



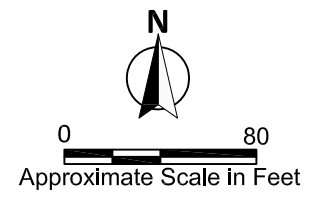
- Legend**
- Boring Location (Pacific Crest, 2006-2014)
 - ▲ Boring Location (LSI, 2005)
 - ⊕ Monitoring Well (Pacific Crest, 2006-2010)
 - ⊕ Monitoring Well (LSI, 2005)
 - Boring Location (Environmental Associates, Inc., 2004)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

PCE
 Preliminary Screening Level
 0.05 mg/kg
 Site Specific Cleanup Level
 0.24 mg/kg

- BOLD** Concentration exceeds applicable Preliminary Screening Level
- BOLD** Concentration exceeds applicable Site Specific Cleanup Level
- mg/kg milligrams per kilogram
- PCE tetrachloroethene
- bgs below ground surface
- NS not sampled
- < result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

- Road
- Building
- - - Property Boundary
- Pre-1965 Operations
- +++++ Railroad Tracks

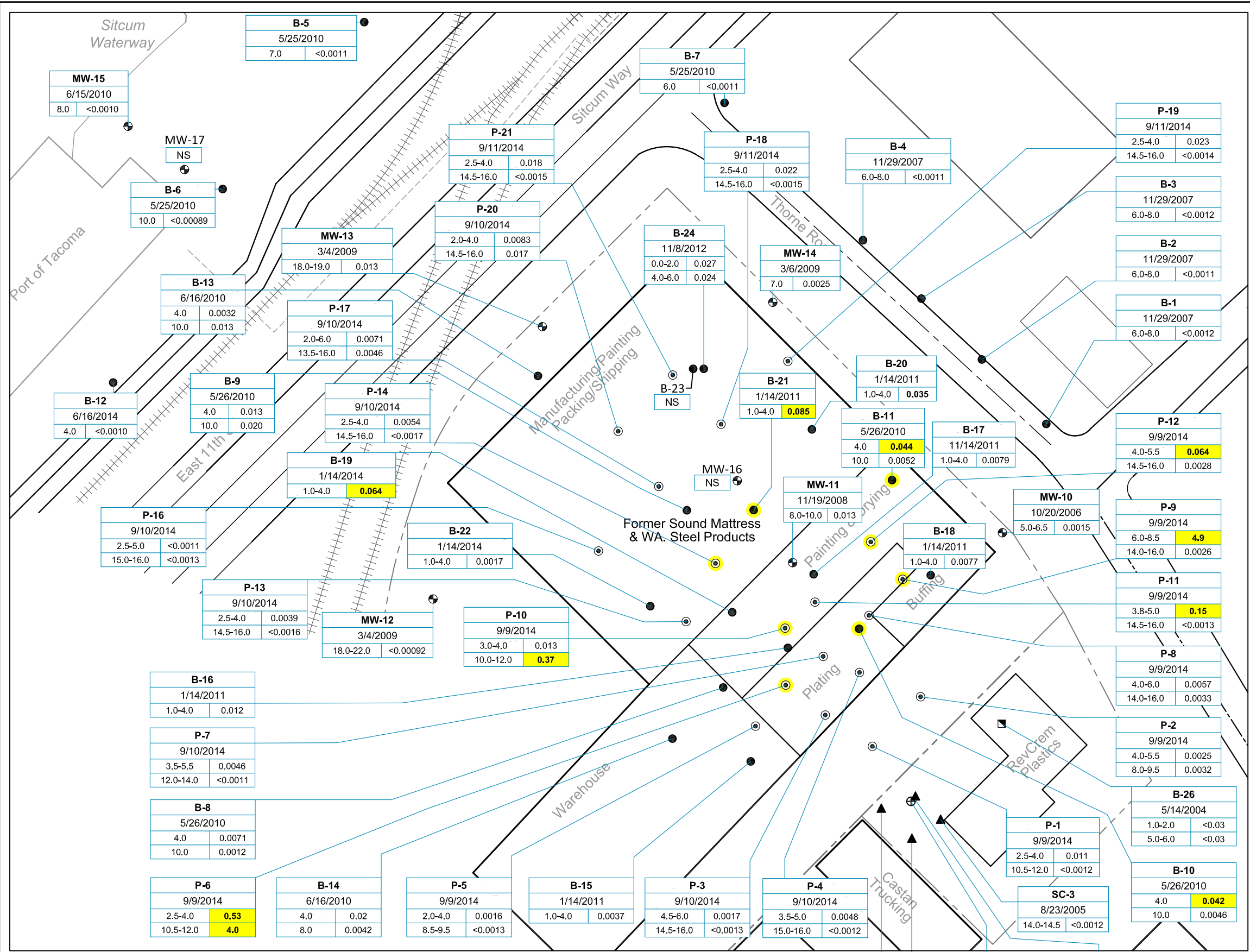


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SC-2 8/23/2005 14.0-14.5 <0.0011	SC-4 8/23/2005 14.0-14.5 <0.0014	MW-9 9/21/2005 14.0-14.5 <0.0012	SC-1 8/23/2005 14.0-14.5 <0.0012
---	---	---	---

Figure B-14
 Soil Analytical Results - PCE

2/28/2017 110-001-053.dwg FIG B-15 Soil TCE



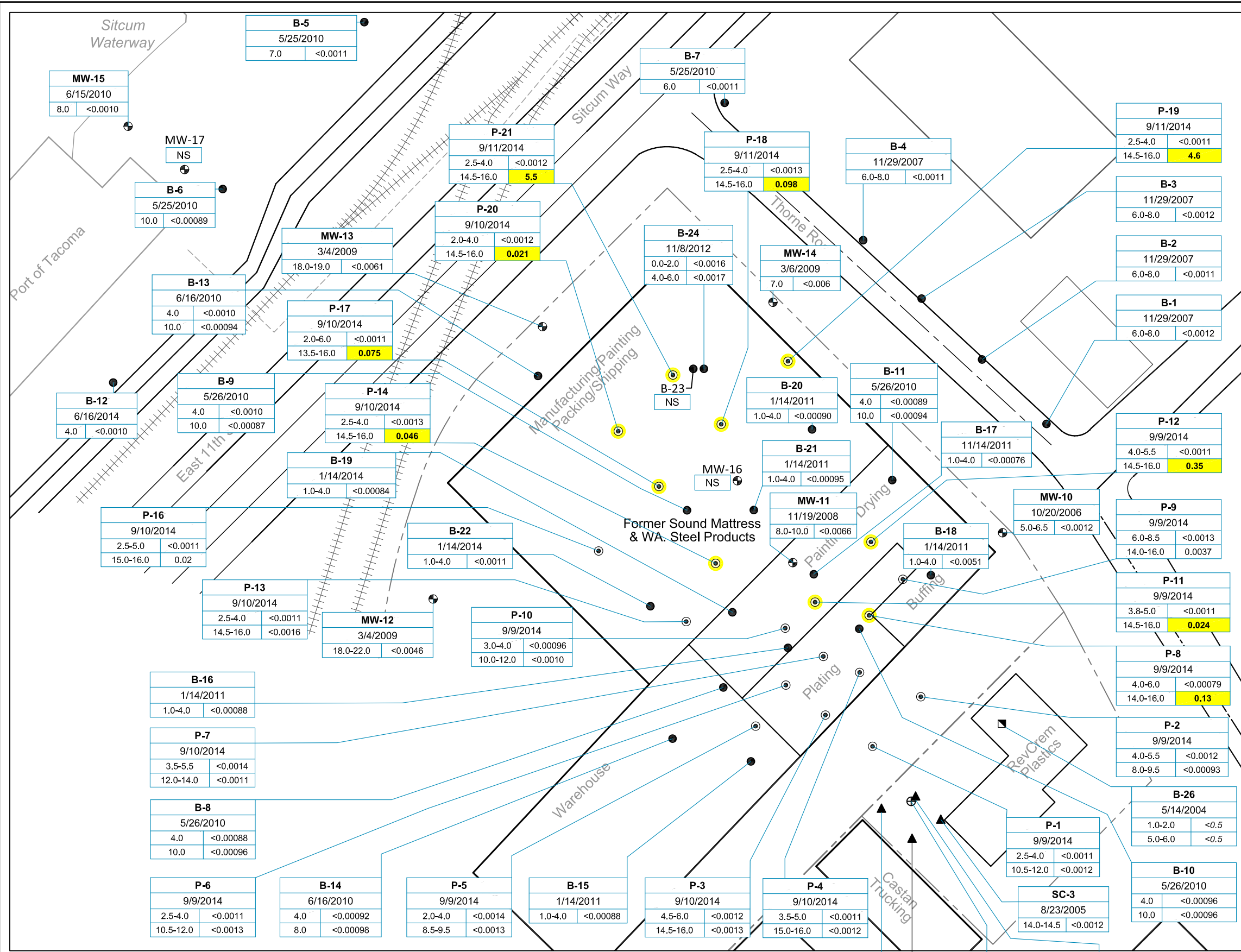
Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

SC-2 8/23/2005 14.0-14.5 <0.0011	SC-4 8/23/2005 14.0-14.5 <0.0014	MW-9 9/21/2005 14.0-14.5 <0.0012	SC-1 8/23/2005 14.0-14.5 <0.0012
---	---	---	---

Figure B-15
Soil Analytical Results - TCE

2/28/2017 1:10-001-053.dwg FIG B-16 Soil VC



Legend

- Boring Location (Pacific Crest, 2006-2014)
- ▲ Boring Location (LSI, 2005)
- ⊕ Monitoring Well (Pacific Crest, 2006-2010)
- ⊕ Monitoring Well (LSI, 2005)
- Boring Location (Environmental Associates, Inc., 2004)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg
Vinyl Chloride	
Preliminary Screening Level	
0.67 mg/kg	
Site Specific Cleanup Level	
PQL	

BOLD Concentration exceeds applicable Preliminary Screening Level and Cleanup Level

italics Practical quantitation limit higher than applicable Preliminary Screening Level

mg/kg milligrams per kilogram

VC vinyl chloride

PQL practical quantitation limit

bgs below ground surface

NS not sampled

< result is less than laboratory practical quantitation limit listed or analyte not detected at or above the reporting limit

— Road

— Building

- - - Property Boundary

— Pre-1965 Operations

+ + + + + Railroad Tracks

0 80
Approximate Scale in Feet



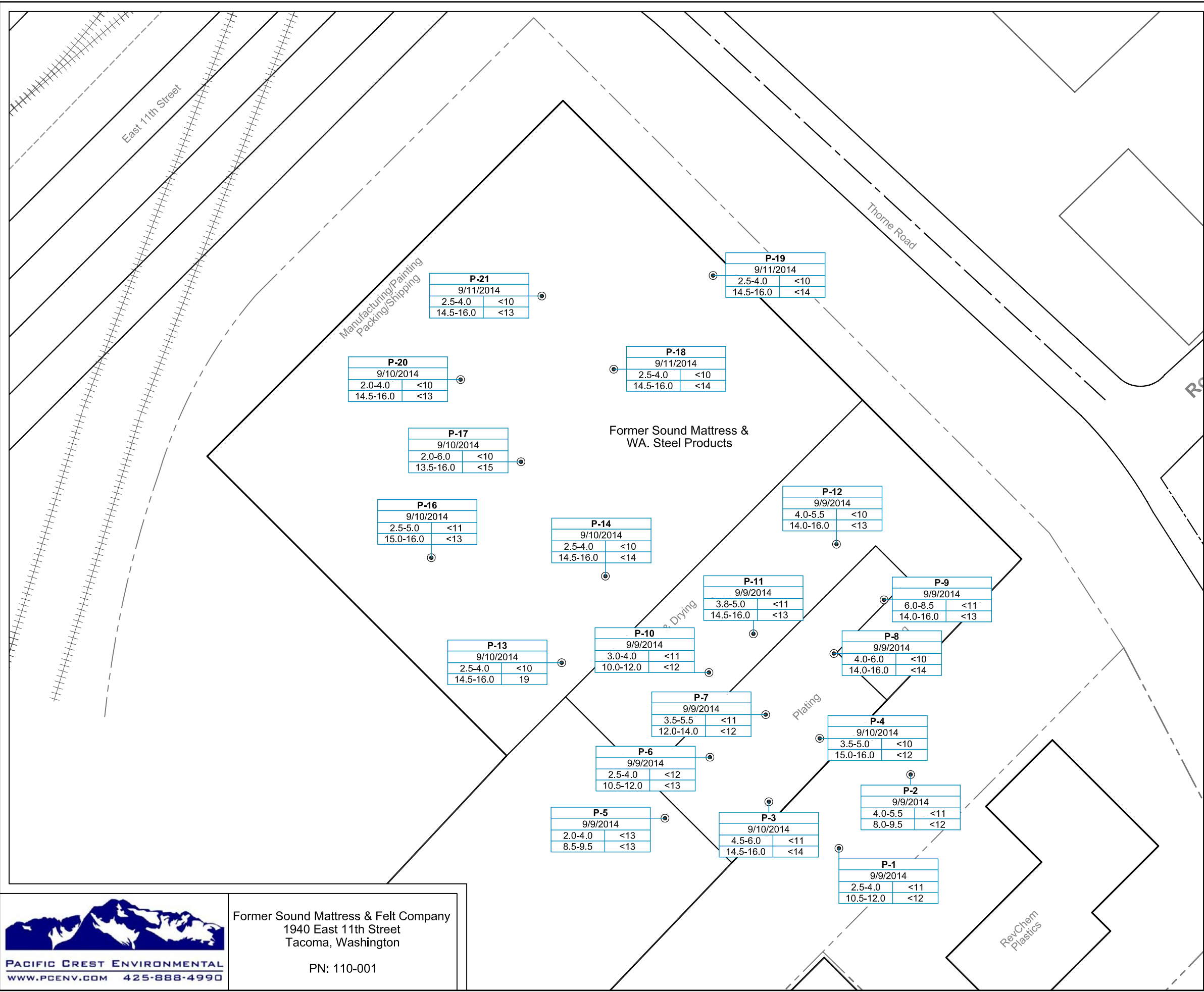
Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

SC-2 8/23/2005 14.0-14.5 <0.0011	SC-4 8/23/2005 14.0-14.5 <0.0014	MW-9 9/21/2005 14.0-14.5 <0.0012	SC-1 8/23/2005 14.0-14.5 <0.0012
---	---	---	---

Figure B-16
Soil Analytical Results - VC

2/28/2017 110-001-067.dwg FIG B-17 Soil AS



Legend

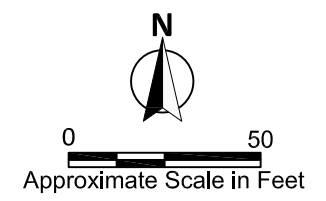
P-1⊙ Soil Boring (approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Arsenic
 Preliminary Screening Level
 7 mg/kg
 Site Specific Screening Level
 20 mg/kg

mg/kg milligrams per kilogram
 bgs below ground surface

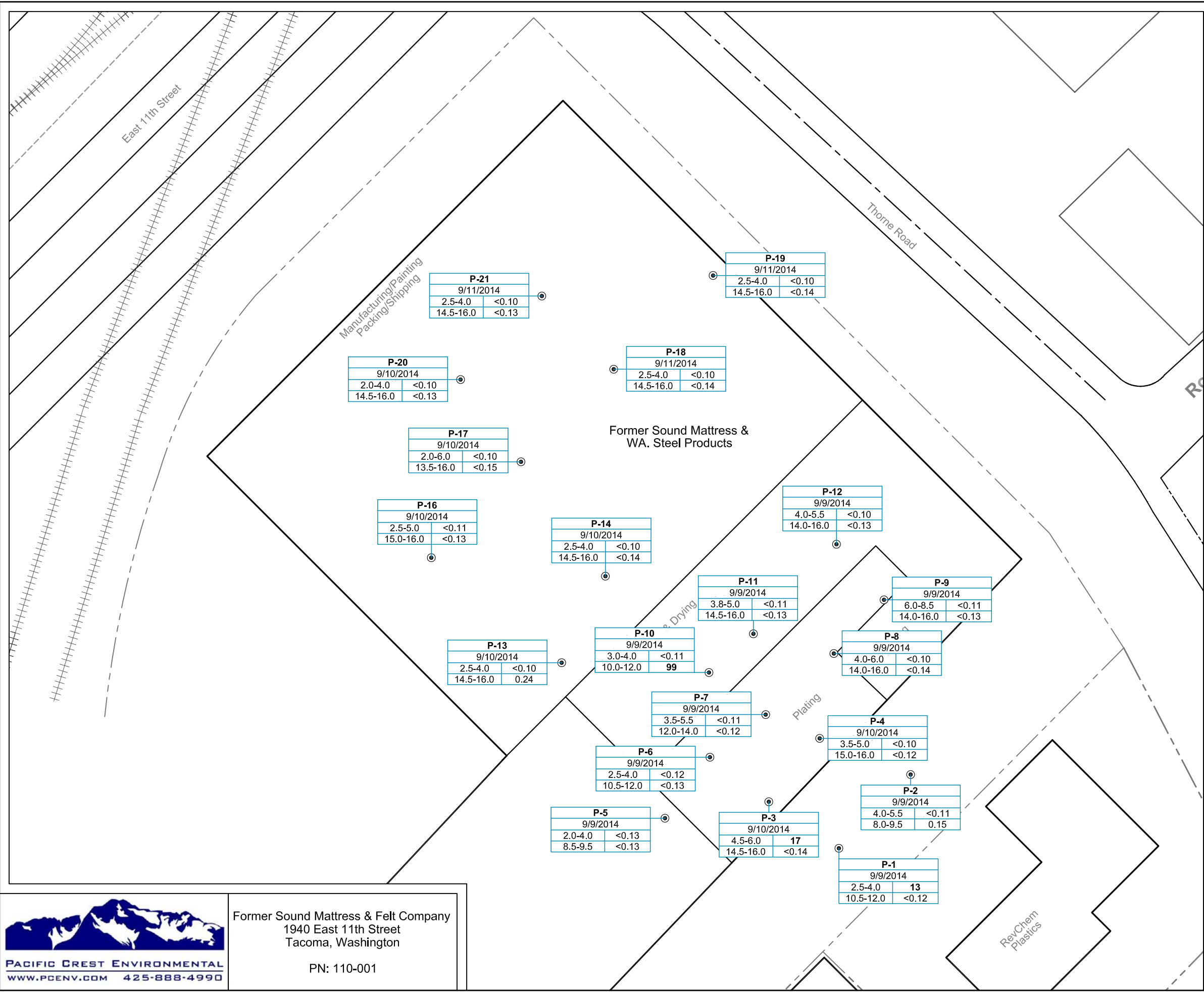
- Road
- Building
- - - Property Boundary
- Pre-1965 Operations
- +++++ Railroad Tracks



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 Tacoma, Washington
 PN: 110-001

Figure B-17
 Soil Analytical Results - Arsenic

2/28/2017 110-001-067.dwg FIG B-18 Soil Cd



Legend

P-1 Soil Boring (approximately 12 feet bgs)

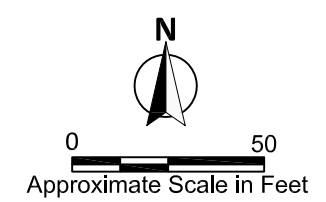
Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Cadmium
 Preliminary Screening Level
 1 mg/kg
 Site Specific Cleanup Level
 100 mg/kg

BOLD Concentration exceeds applicable Preliminary Screening Level and Cleanup Level

mg/kg milligrams per kilogram
 bgs below ground surface

- Road
- Building
- - - Property Boundary
- - - Pre-1965 Operations
- ++++ Railroad Tracks



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 PN: 110-001

Figure B-18
 Soil Analytical Results - Cadmium

P-21	
9/11/2014	
2.5-4.0	<0.10
14.5-16.0	<0.13

P-19	
9/11/2014	
2.5-4.0	<0.10
14.5-16.0	<0.14

P-20	
9/10/2014	
2.0-4.0	<0.10
14.5-16.0	<0.13

P-18	
9/11/2014	
2.5-4.0	<0.10
14.5-16.0	<0.14

P-17	
9/10/2014	
2.0-6.0	<0.10
13.5-16.0	<0.15

P-16	
9/10/2014	
2.5-5.0	<0.11
15.0-16.0	<0.13

P-14	
9/10/2014	
2.5-4.0	<0.10
14.5-16.0	<0.14

P-12	
9/9/2014	
4.0-5.5	<0.10
14.0-16.0	<0.13

P-11	
9/9/2014	
3.8-5.0	<0.11
14.5-16.0	<0.13

P-9	
9/9/2014	
6.0-8.5	<0.11
14.0-16.0	<0.13

P-13	
9/10/2014	
2.5-4.0	<0.10
14.5-16.0	0.24

P-10	
9/9/2014	
3.0-4.0	<0.11
10.0-12.0	99

P-8	
9/9/2014	
4.0-6.0	<0.10
14.0-16.0	<0.14

P-7	
9/9/2014	
3.5-5.5	<0.11
12.0-14.0	<0.12

P-4	
9/10/2014	
3.5-5.0	<0.10
15.0-16.0	<0.12

P-6	
9/9/2014	
2.5-4.0	<0.12
10.5-12.0	<0.13

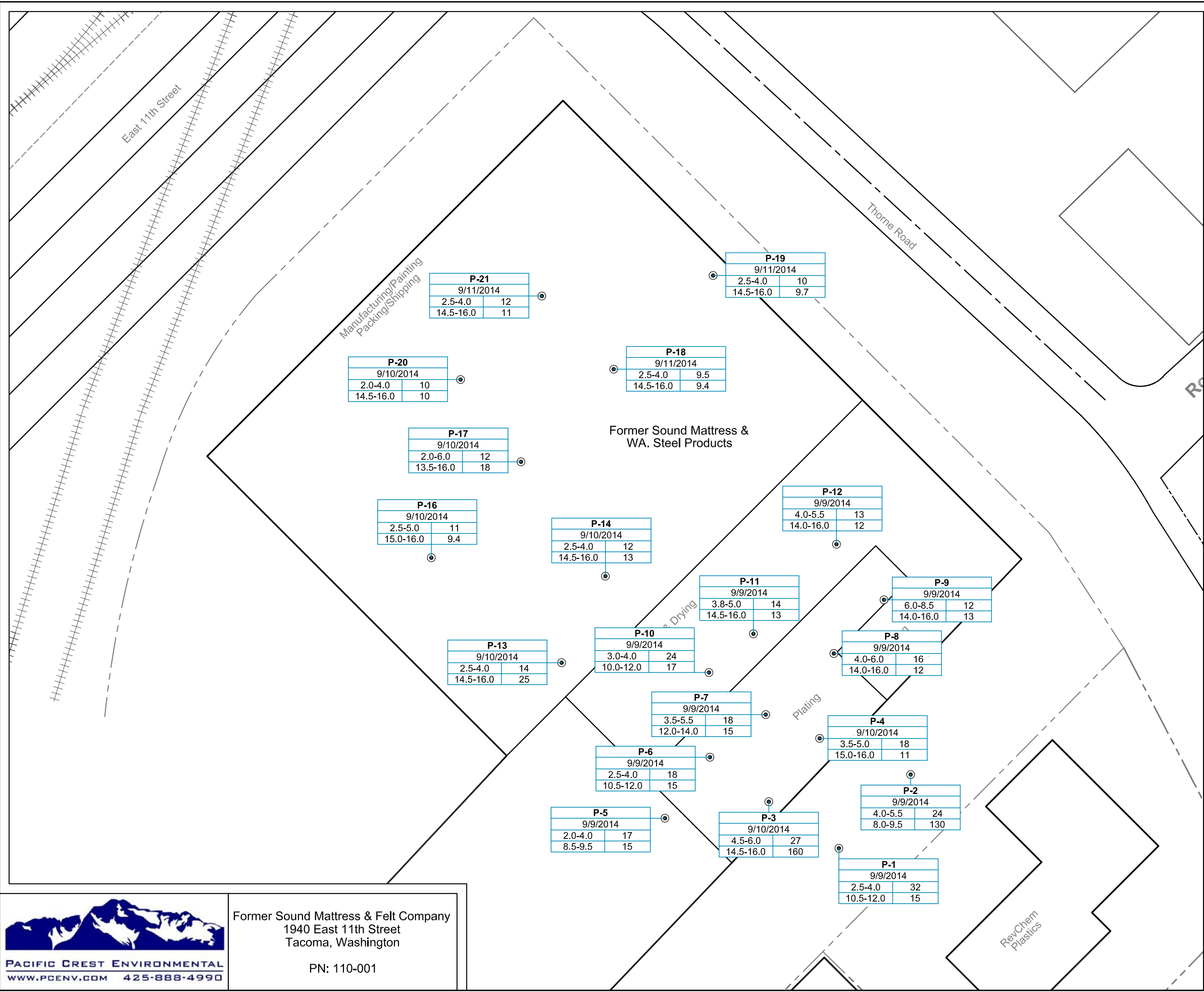
P-2	
9/9/2014	
4.0-5.5	<0.11
8.0-9.5	0.15

P-5	
9/9/2014	
2.0-4.0	<0.13
8.5-9.5	<0.13

P-3	
9/10/2014	
4.5-6.0	17
14.5-16.0	<0.14

P-1	
9/9/2014	
2.5-4.0	13
10.5-12.0	<0.12

2/28/2017 110-001-067.dwg FIG B-19 Soil Cr



Legend

P-1⊙ Soil Boring
(approximately 12 feet bgs)

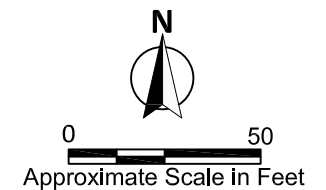
Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Chromium
Preliminary Screening Level
 48 mg/kg
Site Specific Screening Level
 2,000 mg/kg

mg/kg milligrams per kilogram

bgs below ground surface

- Road
- Building
- - - Property Boundary
- Pre-1965 Operations
- + + + + + Railroad Tracks



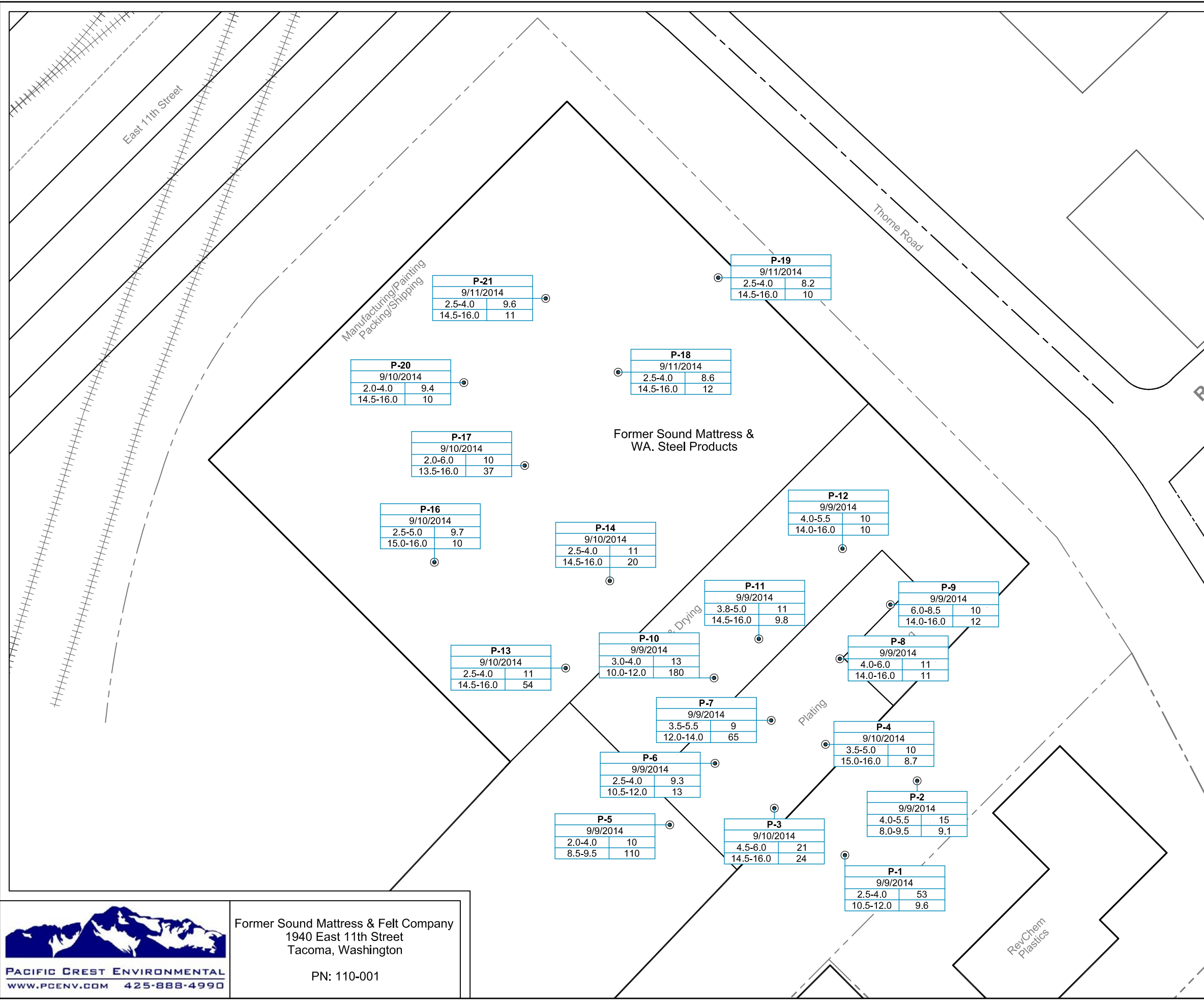
Former Sound Mattress & Felt Company
 1940 East 11th Street
 Tacoma, Washington

PN: 110-001

Figure B-19

Soil Analytical Results - Chromium

2/28/2017 110-001-067.dwg FIG B-20 Soil Cu



Legend

P-1⊙ Soil Boring (approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Copper

Preliminary Screening Level

36 mg/kg

Site Specific Cleanup Level

200 mg/kg

mg/kg milligrams per kilogram

bgs below ground surface

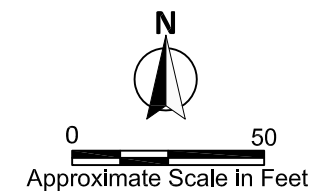
— Road

— Building

- - - Property Boundary

— Pre-1965 Operations

+ + + + + Railroad Tracks



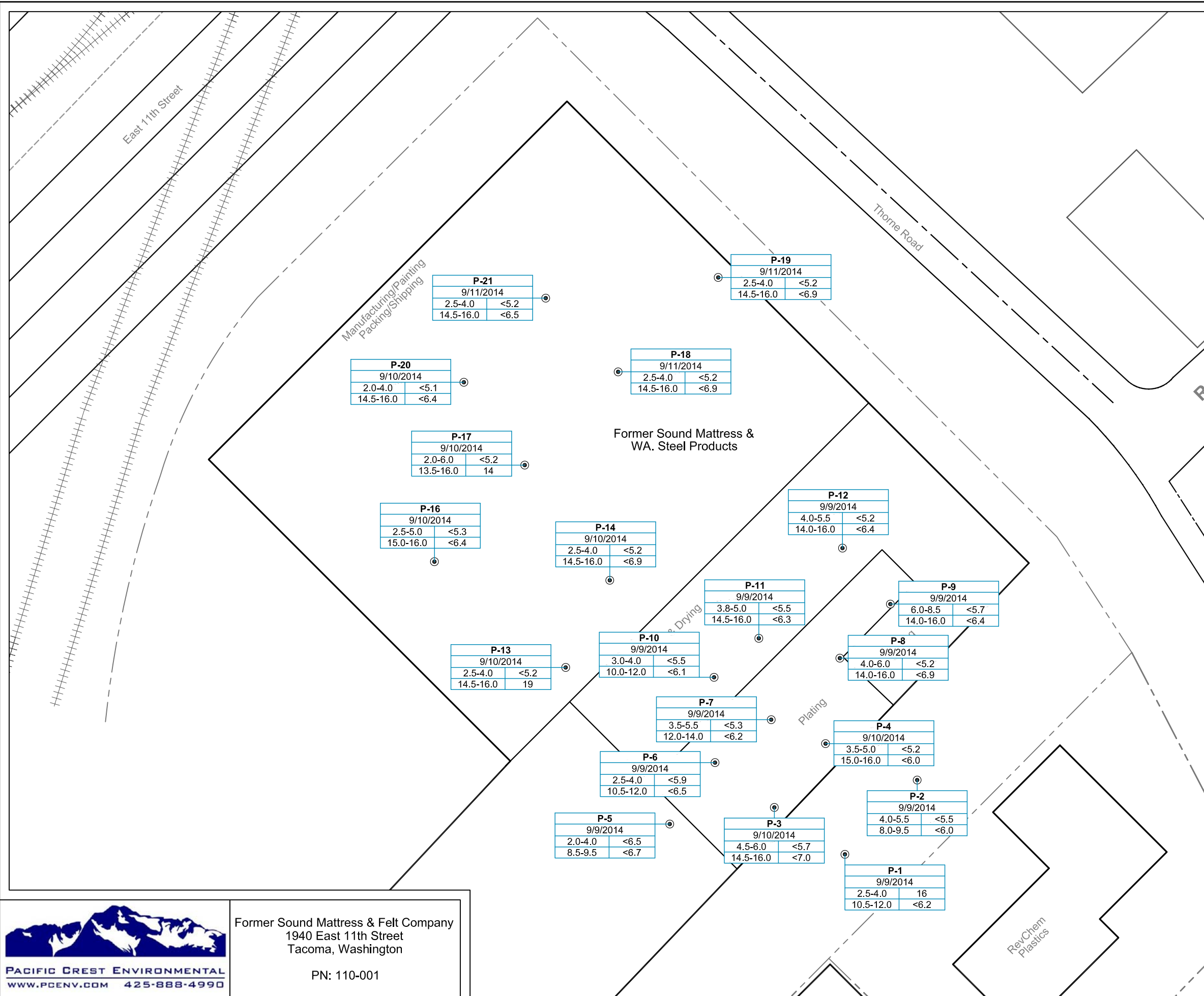
Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure B-20

Soil Analytical Results - Copper

2/28/2017 110-001-067.dwg FIG B-21 Soil Pb



Legend

P-1⊙ Soil Boring
(approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Lead

Preliminary Screening Level

24 mg/kg

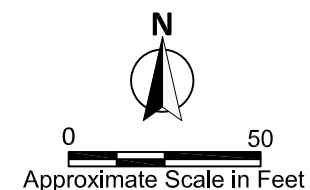
Site Specific Screening Level

1,000 mg/kg

mg/kg milligrams per kilogram

bgs below ground surface

- Road
- Building
- - - Property Boundary
- Pre-1965 Operations
- + + + + + Railroad Tracks



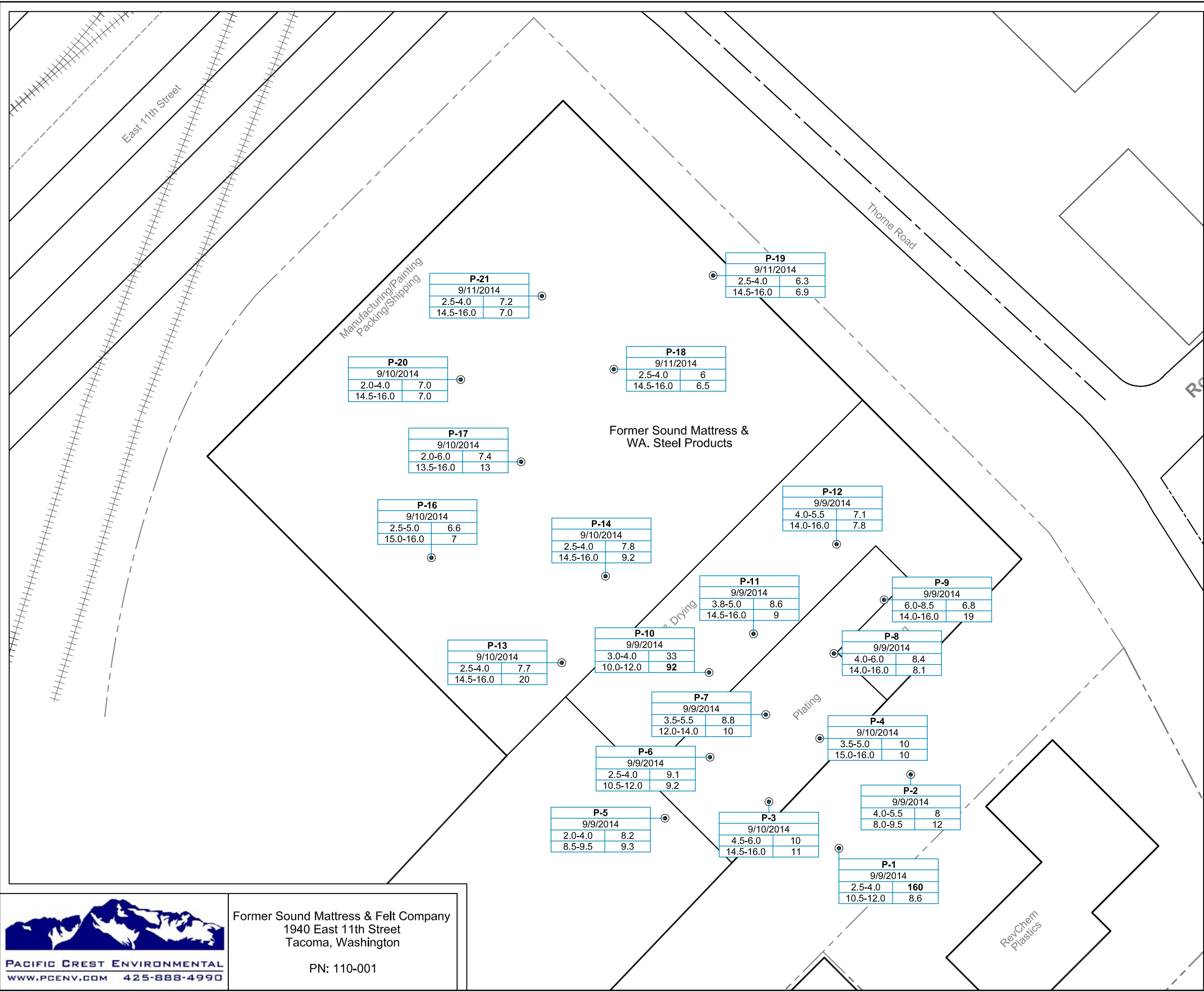
Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure B-21

Soil Analytical Results - Lead

2/28/2017 110-001-067.dwg FIG B-22 Soil Ni



Legend

P-1 Soil Boring (approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Nickel

Preliminary Screening Level
48 mg/kg

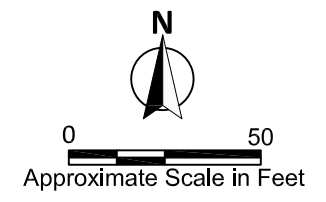
Site Specific Cleanup Level
200 mg/kg

BOLD Concentration exceeds applicable Preliminary Screening Level and Cleanup Level

mg/kg milligrams per kilogram

bgs below ground surface

- Road
- Building
- - - Property Boundary
- - - Pre-1965 Operations
- + + + + + Railroad Tracks

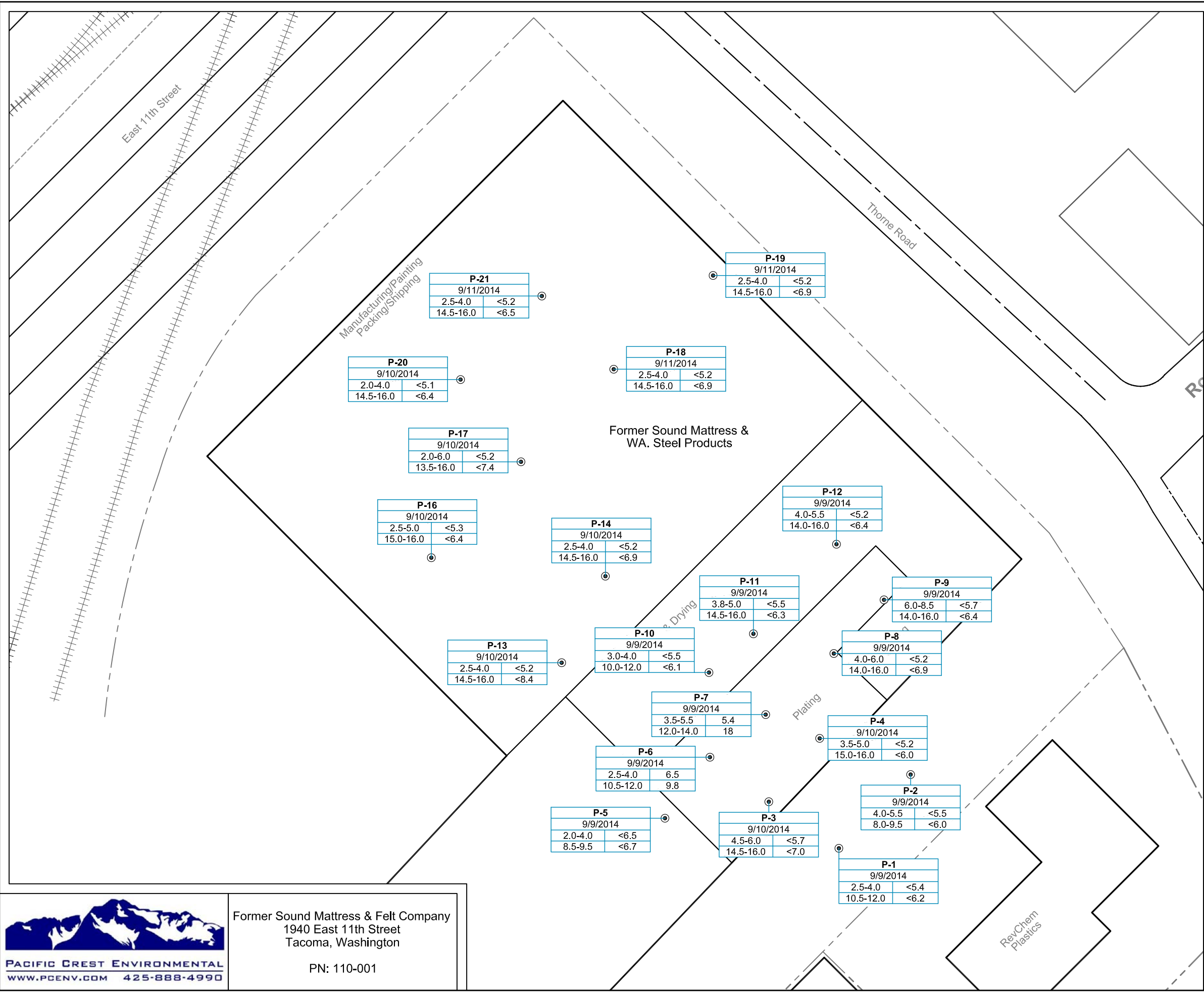


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1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure B-22
Soil Analytical Results - Nickel

2/28/2017 110-001-067.dwg FIG B-23 Soil Sn



Legend

P-1⊙ Soil Boring (approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

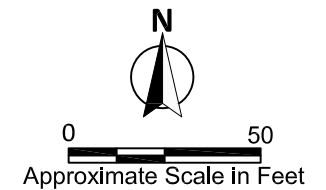
Tin

Preliminary Screening Level
48,000 mg/kg
Site Specific Screening Level
--

mg/kg milligrams per kilogram

bgs below ground surface

- Road
- Building
- - - Property Boundary
- Pre-1965 Operations
- + + + + + Railroad Tracks



P-21	
9/11/2014	
2.5-4.0	<5.2
14.5-16.0	<6.5

P-19	
9/11/2014	
2.5-4.0	<5.2
14.5-16.0	<6.9

P-20	
9/10/2014	
2.0-4.0	<5.1
14.5-16.0	<6.4

P-18	
9/11/2014	
2.5-4.0	<5.2
14.5-16.0	<6.9

P-17	
9/10/2014	
2.0-6.0	<5.2
13.5-16.0	<7.4

P-16	
9/10/2014	
2.5-5.0	<5.3
15.0-16.0	<6.4

P-14	
9/10/2014	
2.5-4.0	<5.2
14.5-16.0	<6.9

P-12	
9/9/2014	
4.0-5.5	<5.2
14.0-16.0	<6.4

P-11	
9/9/2014	
3.8-5.0	<5.5
14.5-16.0	<6.3

P-9	
9/9/2014	
6.0-8.5	<5.7
14.0-16.0	<6.4

P-13	
9/10/2014	
2.5-4.0	<5.2
14.5-16.0	<8.4

P-10	
9/9/2014	
3.0-4.0	<5.5
10.0-12.0	<6.1

P-8	
9/9/2014	
4.0-6.0	<5.2
14.0-16.0	<6.9

P-7	
9/9/2014	
3.5-5.5	5.4
12.0-14.0	18

P-4	
9/10/2014	
3.5-5.0	<5.2
15.0-16.0	<6.0

P-6	
9/9/2014	
2.5-4.0	6.5
10.5-12.0	9.8

P-2	
9/9/2014	
4.0-5.5	<5.5
8.0-9.5	<6.0

P-5	
9/9/2014	
2.0-4.0	<6.5
8.5-9.5	<6.7

P-3	
9/10/2014	
4.5-6.0	<5.7
14.5-16.0	<7.0

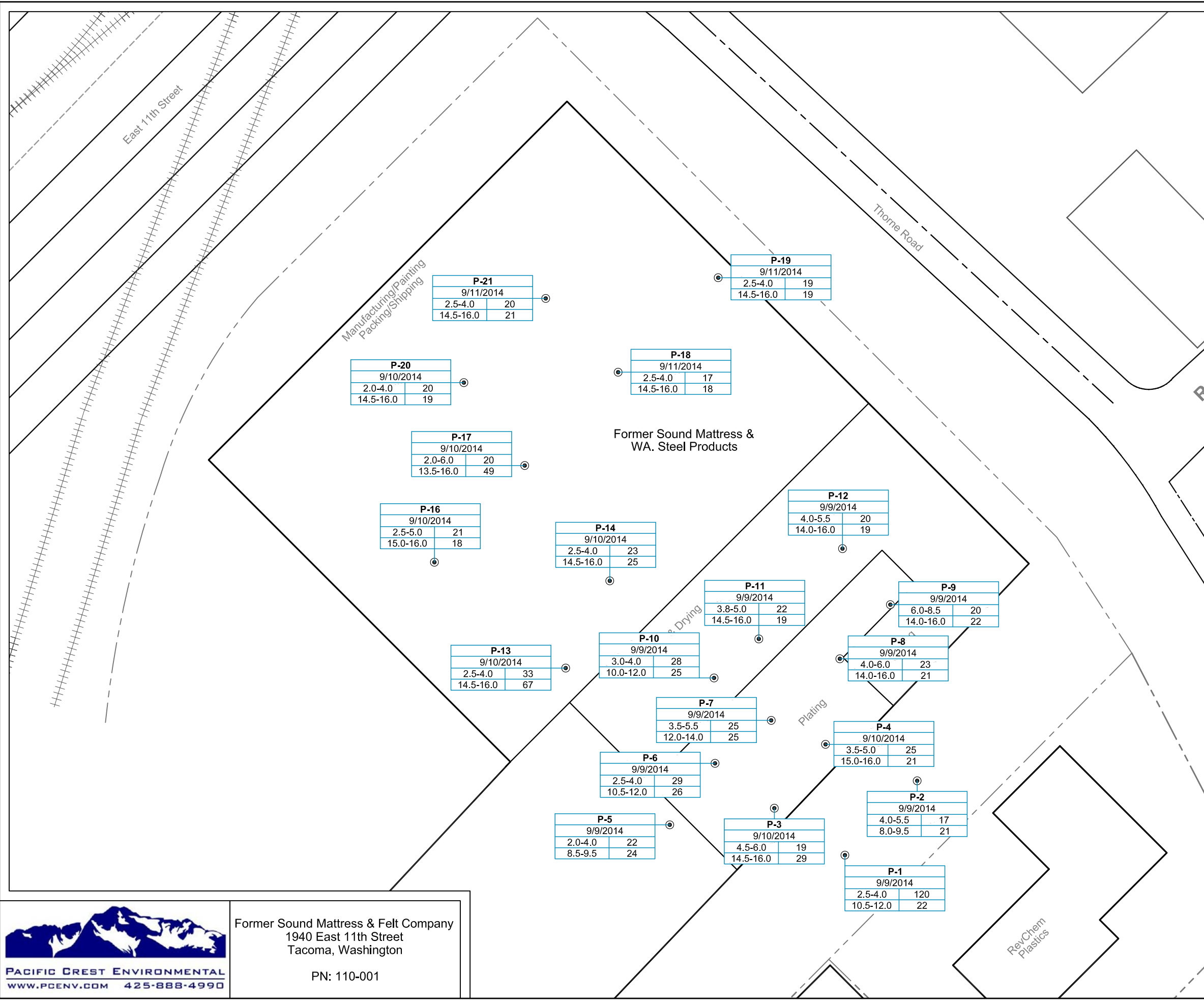
P-1	
9/9/2014	
2.5-4.0	<5.4
10.5-12.0	<6.2



Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington
PN: 110-001

Figure B-23
Soil Analytical Results - Tin

2/28/2017 110-001-067.dwg FIG B-24 Soil Zn



Legend

P-1⊙ Soil Boring (approximately 12 feet bgs)

Well/Boring ID	
Date	
Depth (bgs)	mg/kg

Zinc

Preliminary Screening Level

85 mg/kg

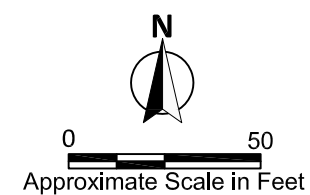
Site Specific Cleanup Level

200 mg/kg

mg/kg milligrams per kilogram

bgs below ground surface

- Road
- Building
- - - Property Boundary
- - - Pre-1965 Operations
- + + + + + Railroad Tracks



Former Sound Mattress & Felt Company
1940 East 11th Street
Tacoma, Washington

PN: 110-001

Figure B-24

Soil Analytical Results - Zinc

P-21	
9/11/2014	
2.5-4.0	20
14.5-16.0	21

P-19	
9/11/2014	
2.5-4.0	19
14.5-16.0	19

P-20	
9/10/2014	
2.0-4.0	20
14.5-16.0	19

P-18	
9/11/2014	
2.5-4.0	17
14.5-16.0	18

P-17	
9/10/2014	
2.0-6.0	20
13.5-16.0	49

Former Sound Mattress & WA. Steel Products

P-16	
9/10/2014	
2.5-5.0	21
15.0-16.0	18

P-14	
9/10/2014	
2.5-4.0	23
14.5-16.0	25

P-12	
9/9/2014	
4.0-5.5	20
14.0-16.0	19

P-11	
9/9/2014	
3.8-5.0	22
14.5-16.0	19

P-9	
9/9/2014	
6.0-8.5	20
14.0-16.0	22

P-13	
9/10/2014	
2.5-4.0	33
14.5-16.0	67

P-10	
9/9/2014	
3.0-4.0	28
10.0-12.0	25

P-8	
9/9/2014	
4.0-6.0	23
14.0-16.0	21

P-7	
9/9/2014	
3.5-5.5	25
12.0-14.0	25

P-4	
9/10/2014	
3.5-5.0	25
15.0-16.0	21

P-6	
9/9/2014	
2.5-4.0	29
10.5-12.0	26

P-2	
9/9/2014	
4.0-5.5	17
8.0-9.5	21

P-5	
9/9/2014	
2.0-4.0	22
8.5-9.5	24

P-3	
9/10/2014	
4.5-6.0	19
14.5-16.0	29

P-1	
9/9/2014	
2.5-4.0	120
10.5-12.0	22

**APPENDIX C
POST REMEDIAL INVESTIGATION ACTIVITIES –
LABORATORY ANALYTICAL REPORTS**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 24, 2011

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1101-111

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on January 14, 2011.

The standard policy of OnSite Environmental Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: January 24, 2011
Samples Submitted: January 14, 2011
Laboratory Reference: 1101-111
Project: 110-001

Case Narrative

Samples were collected on January 14, 2011 and received by the laboratory on January 14, 2011. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260B Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Surrogate Standard Dibromofluoromethane is outside control limits for sample B15-4.0 due to sample matrix effects. The sample was re-analyzed with similar results.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260B

page 1 of 2

Date Extracted: 1-17-11
 Date Analyzed: 1-17-11
 Matrix: Soil
 Units: mg/kg (ppm)
 Lab ID: 01-111-01
 Client ID: B15-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00088
Chloromethane	ND		0.0044
Vinyl Chloride	ND		0.00088
Bromomethane	ND		0.00088
Chloroethane	ND		0.0044
Trichlorofluoromethane	0.0014		0.00088
1,1-Dichloroethene	ND		0.00088
Iodomethane	ND		0.0044
Methylene Chloride	ND		0.0044
(trans) 1,2-Dichloroethene	ND		0.00088
1,1-Dichloroethane	ND		0.00088
2,2-Dichloropropane	ND		0.00088
(cis) 1,2-Dichloroethene	ND		0.00088
Bromochloromethane	ND		0.00088
Chloroform	ND		0.00088
1,1,1-Trichloroethane	ND		0.00088
Carbon Tetrachloride	ND		0.00088
1,1-Dichloropropene	ND		0.00088
1,2-Dichloroethane	ND		0.00088
Trichloroethene	0.0037		0.00088
1,2-Dichloropropane	ND		0.00088
Dibromomethane	ND		0.00088
Bromodichloromethane	ND		0.00088
2-Chloroethyl Vinyl Ether	ND		0.0044
(cis) 1,3-Dichloropropene	ND		0.00088
(trans) 1,3-Dichloropropene	ND		0.00088

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Lab ID: 01-111-01
 Client ID: B15-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00088
Tetrachloroethene	0.029		0.00088
1,3-Dichloropropane	ND		0.00088
Dibromochloromethane	ND		0.00088
1,2-Dibromoethane	ND		0.00088
Chlorobenzene	ND		0.00088
1,1,1,2-Tetrachloroethane	ND		0.00088
Bromoform	ND		0.00088
Bromobenzene	ND		0.00088
1,1,2,2-Tetrachloroethane	ND		0.00088
1,2,3-Trichloropropane	ND		0.00088
2-Chlorotoluene	ND		0.00088
4-Chlorotoluene	ND		0.00088
1,3-Dichlorobenzene	ND		0.00088
1,4-Dichlorobenzene	ND		0.00088
1,2-Dichlorobenzene	ND		0.00088
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.00088
Hexachlorobutadiene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.00088

Surrogate	Percent Recovery	Flags	Control Limits
Dibromofluoromethane	45	Q	66-128
Toluene-d8	103		68-126
4-Bromofluorobenzene	93		53-134

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Date Extracted: 1-17&21-11
 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-02
Client ID: B16-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00088
Chloromethane	ND		0.0044
Vinyl Chloride	ND		0.00088
Bromomethane	ND		0.00088
Chloroethane	ND		0.0044
Trichlorofluoromethane	ND		0.00088
1,1-Dichloroethene	ND		0.00088
Iodomethane	ND		0.0044
Methylene Chloride	ND		0.0044
(trans) 1,2-Dichloroethene	ND		0.00088
1,1-Dichloroethane	ND		0.00088
2,2-Dichloropropane	ND		0.00088
(cis) 1,2-Dichloroethene	ND		0.00088
Bromochloromethane	ND		0.00088
Chloroform	ND		0.00088
1,1,1-Trichloroethane	ND		0.00088
Carbon Tetrachloride	ND		0.00088
1,1-Dichloropropene	ND		0.00088
1,2-Dichloroethane	ND		0.00088
Trichloroethene	0.012		0.00088
1,2-Dichloropropane	ND		0.00088
Dibromomethane	ND		0.00088
Bromodichloromethane	ND		0.00088
2-Chloroethyl Vinyl Ether	ND		0.0044
(cis) 1,3-Dichloropropene	ND		0.00088
(trans) 1,3-Dichloropropene	ND		0.00088

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Lab ID: 01-111-02
 Client ID: B16-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00088
Tetrachloroethene	1.5		0.092
1,3-Dichloropropane	ND		0.00088
Dibromochloromethane	ND		0.00088
1,2-Dibromoethane	ND		0.00088
Chlorobenzene	ND		0.00088
1,1,1,2-Tetrachloroethane	ND		0.00088
Bromoform	ND		0.00088
Bromobenzene	ND		0.00088
1,1,2,2-Tetrachloroethane	ND		0.00088
1,2,3-Trichloropropane	ND		0.00088
2-Chlorotoluene	ND		0.00088
4-Chlorotoluene	ND		0.00088
1,3-Dichlorobenzene	ND		0.00088
1,4-Dichlorobenzene	ND		0.00088
1,2-Dichlorobenzene	ND		0.00088
1,2-Dibromo-3-chloropropane	ND		0.0044
1,2,4-Trichlorobenzene	ND		0.00088
Hexachlorobutadiene	ND		0.0044
1,2,3-Trichlorobenzene	ND		0.00088

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	91	66-128
Toluene-d8	105	68-126
4-Bromofluorobenzene	99	53-134

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Date Extracted: 1-17&21-11
 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-03
 Client ID: B17-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00076
Chloromethane	ND		0.0038
Vinyl Chloride	ND		0.00076
Bromomethane	ND		0.00076
Chloroethane	ND		0.0038
Trichlorofluoromethane	ND		0.00076
1,1-Dichloroethene	ND		0.00076
Iodomethane	ND		0.0038
Methylene Chloride	ND		0.0038
(trans) 1,2-Dichloroethene	ND		0.00076
1,1-Dichloroethane	ND		0.00076
2,2-Dichloropropane	ND		0.00076
(cis) 1,2-Dichloroethene	ND		0.00076
Bromochloromethane	ND		0.00076
Chloroform	ND		0.00076
1,1,1-Trichloroethane	ND		0.00076
Carbon Tetrachloride	ND		0.00076
1,1-Dichloropropene	ND		0.00076
1,2-Dichloroethane	ND		0.00076
Trichloroethene	0.0079		0.00076
1,2-Dichloropropane	ND		0.00076
Dibromomethane	ND		0.00076
Bromodichloromethane	ND		0.00076
2-Chloroethyl Vinyl Ether	ND		0.0038
(cis) 1,3-Dichloropropene	ND		0.00076
(trans) 1,3-Dichloropropene	ND		0.00076

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Lab ID: 01-111-03
 Client ID: B17-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00076
Tetrachloroethene	1.1		0.048
1,3-Dichloropropane	ND		0.00076
Dibromochloromethane	ND		0.00076
1,2-Dibromoethane	ND		0.00076
Chlorobenzene	ND		0.00076
1,1,1,2-Tetrachloroethane	ND		0.00076
Bromoform	ND		0.00076
Bromobenzene	ND		0.00076
1,1,2,2-Tetrachloroethane	ND		0.00076
1,2,3-Trichloropropane	ND		0.00076
2-Chlorotoluene	ND		0.00076
4-Chlorotoluene	ND		0.00076
1,3-Dichlorobenzene	ND		0.00076
1,4-Dichlorobenzene	ND		0.00076
1,2-Dichlorobenzene	ND		0.00076
1,2-Dibromo-3-chloropropane	ND		0.0038
1,2,4-Trichlorobenzene	ND		0.00076
Hexachlorobutadiene	ND		0.0038
1,2,3-Trichlorobenzene	ND		0.00076

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	82	66-128
Toluene-d8	94	68-126
4-Bromofluorobenzene	86	53-134

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 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-04
 Client ID: B18-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0051
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0051
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0051
Methylene Chloride	ND		0.0051
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	0.0077		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0051
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

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Lab ID: 01-111-04
 Client ID: B18-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	0.94		0.052
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0051
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0051
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	66-128
Toluene-d8	98	68-126
4-Bromofluorobenzene	92	53-134

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Date Extracted: 1-17&21-11
 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-05
 Client ID: B19-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00084
Chloromethane	ND		0.0042
Vinyl Chloride	ND		0.00084
Bromomethane	ND		0.00084
Chloroethane	ND		0.0042
Trichlorofluoromethane	ND		0.00084
1,1-Dichloroethene	ND		0.00084
Iodomethane	ND		0.0042
Methylene Chloride	ND		0.0042
(trans) 1,2-Dichloroethene	ND		0.00084
1,1-Dichloroethane	ND		0.00084
2,2-Dichloropropane	ND		0.00084
(cis) 1,2-Dichloroethene	ND		0.00084
Bromochloromethane	ND		0.00084
Chloroform	ND		0.00084
1,1,1-Trichloroethane	ND		0.00084
Carbon Tetrachloride	ND		0.00084
1,1-Dichloropropene	ND		0.00084
1,2-Dichloroethane	ND		0.00084
Trichloroethene	0.064		0.00084
1,2-Dichloropropane	ND		0.00084
Dibromomethane	ND		0.00084
Bromodichloromethane	ND		0.00084
2-Chloroethyl Vinyl Ether	ND		0.0042
(cis) 1,3-Dichloropropene	ND		0.00084
(trans) 1,3-Dichloropropene	ND		0.00084

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Lab ID: 01-111-05
 Client ID: B19-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00084
Tetrachloroethene	7.4		0.091
1,3-Dichloropropane	ND		0.00084
Dibromochloromethane	ND		0.00084
1,2-Dibromoethane	ND		0.00084
Chlorobenzene	ND		0.00084
1,1,1,2-Tetrachloroethane	ND		0.00084
Bromoform	ND		0.00084
Bromobenzene	ND		0.00084
1,1,2,2-Tetrachloroethane	ND		0.00084
1,2,3-Trichloropropane	ND		0.00084
2-Chlorotoluene	ND		0.00084
4-Chlorotoluene	ND		0.00084
1,3-Dichlorobenzene	ND		0.00084
1,4-Dichlorobenzene	ND		0.00084
1,2-Dichlorobenzene	ND		0.00084
1,2-Dibromo-3-chloropropane	ND		0.0042
1,2,4-Trichlorobenzene	ND		0.00084
Hexachlorobutadiene	ND		0.0042
1,2,3-Trichlorobenzene	ND		0.00084

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	86	66-128
Toluene-d8	103	68-126
4-Bromofluorobenzene	85	53-134

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Date Extracted: 1-17&21-11
 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-06
Client ID: B20-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00090
Chloromethane	ND		0.0045
Vinyl Chloride	ND		0.00090
Bromomethane	ND		0.00090
Chloroethane	ND		0.0045
Trichlorofluoromethane	ND		0.00090
1,1-Dichloroethene	ND		0.00090
Iodomethane	ND		0.0045
Methylene Chloride	ND		0.0045
(trans) 1,2-Dichloroethene	ND		0.00090
1,1-Dichloroethane	ND		0.00090
2,2-Dichloropropane	ND		0.00090
(cis) 1,2-Dichloroethene	ND		0.00090
Bromochloromethane	ND		0.00090
Chloroform	0.0028		0.00090
1,1,1-Trichloroethane	ND		0.00090
Carbon Tetrachloride	ND		0.00090
1,1-Dichloropropene	ND		0.00090
1,2-Dichloroethane	ND		0.00090
Trichloroethene	0.035		0.00090
1,2-Dichloropropane	ND		0.00090
Dibromomethane	ND		0.00090
Bromodichloromethane	ND		0.00090
2-Chloroethyl Vinyl Ether	ND		0.0045
(cis) 1,3-Dichloropropene	ND		0.00090
(trans) 1,3-Dichloropropene	ND		0.00090

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Lab ID: 01-111-06
 Client ID: B20-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00090
Tetrachloroethene	1.2		0.053
1,3-Dichloropropane	ND		0.00090
Dibromochloromethane	ND		0.00090
1,2-Dibromoethane	ND		0.00090
Chlorobenzene	ND		0.00090
1,1,1,2-Tetrachloroethane	ND		0.00090
Bromoform	ND		0.00090
Bromobenzene	ND		0.00090
1,1,2,2-Tetrachloroethane	ND		0.00090
1,2,3-Trichloropropane	ND		0.00090
2-Chlorotoluene	ND		0.00090
4-Chlorotoluene	ND		0.00090
1,3-Dichlorobenzene	ND		0.00090
1,4-Dichlorobenzene	ND		0.00090
1,2-Dichlorobenzene	ND		0.00090
1,2-Dibromo-3-chloropropane	ND		0.0045
1,2,4-Trichlorobenzene	ND		0.00090
Hexachlorobutadiene	ND		0.0045
1,2,3-Trichlorobenzene	ND		0.00090

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	82	66-128
Toluene-d8	89	68-126
4-Bromofluorobenzene	80	53-134

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Date Extracted: 1-17&21-11
 Date Analyzed: 1-17&21-11

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 01-111-07
Client ID: B21-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.00095
Chloromethane	ND		0.0048
Vinyl Chloride	ND		0.00095
Bromomethane	ND		0.00095
Chloroethane	ND		0.0048
Trichlorofluoromethane	0.0015		0.00095
1,1-Dichloroethene	ND		0.00095
Iodomethane	ND		0.0048
Methylene Chloride	ND		0.0048
(trans) 1,2-Dichloroethene	ND		0.00095
1,1-Dichloroethane	ND		0.00095
2,2-Dichloropropane	ND		0.00095
(cis) 1,2-Dichloroethene	0.0023		0.00095
Bromochloromethane	ND		0.00095
Chloroform	ND		0.00095
1,1,1-Trichloroethane	ND		0.00095
Carbon Tetrachloride	ND		0.00095
1,1-Dichloropropene	ND		0.00095
1,2-Dichloroethane	ND		0.00095
Trichloroethene	0.085		0.00095
1,2-Dichloropropane	ND		0.00095
Dibromomethane	ND		0.00095
Bromodichloromethane	ND		0.00095
2-Chloroethyl Vinyl Ether	ND		0.0048
(cis) 1,3-Dichloropropene	ND		0.00095
(trans) 1,3-Dichloropropene	ND		0.00095

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Lab ID: 01-111-07
 Client ID: B21-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.00095
Tetrachloroethene	4.9		0.049
1,3-Dichloropropane	ND		0.00095
Dibromochloromethane	ND		0.00095
1,2-Dibromoethane	ND		0.00095
Chlorobenzene	ND		0.00095
1,1,1,2-Tetrachloroethane	ND		0.00095
Bromoform	ND		0.00095
Bromobenzene	ND		0.00095
1,1,2,2-Tetrachloroethane	ND		0.00095
1,2,3-Trichloropropane	ND		0.00095
2-Chlorotoluene	ND		0.00095
4-Chlorotoluene	ND		0.00095
1,3-Dichlorobenzene	ND		0.00095
1,4-Dichlorobenzene	ND		0.00095
1,2-Dichlorobenzene	ND		0.00095
1,2-Dibromo-3-chloropropane	ND		0.0048
1,2,4-Trichlorobenzene	ND		0.00095
Hexachlorobutadiene	ND		0.0048
1,2,3-Trichlorobenzene	ND		0.00095

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	88	66-128
Toluene-d8	99	68-126
4-Bromofluorobenzene	84	53-134

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Date Extracted: 1-17-11
 Date Analyzed: 1-17-11
 Matrix: Soil
 Units: mg/kg (ppm)
 Lab ID: 01-111-08
 Client ID: B22-4.0

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0011
Chloromethane	ND		0.0053
Vinyl Chloride	ND		0.0011
Bromomethane	ND		0.0011
Chloroethane	ND		0.0053
Trichlorofluoromethane	ND		0.0011
1,1-Dichloroethene	ND		0.0011
Iodomethane	ND		0.0053
Methylene Chloride	ND		0.0053
(trans) 1,2-Dichloroethene	ND		0.0011
1,1-Dichloroethane	ND		0.0011
2,2-Dichloropropane	ND		0.0011
(cis) 1,2-Dichloroethene	ND		0.0011
Bromochloromethane	ND		0.0011
Chloroform	ND		0.0011
1,1,1-Trichloroethane	ND		0.0011
Carbon Tetrachloride	ND		0.0011
1,1-Dichloropropene	ND		0.0011
1,2-Dichloroethane	ND		0.0011
Trichloroethene	0.0017		0.0011
1,2-Dichloropropane	ND		0.0011
Dibromomethane	ND		0.0011
Bromodichloromethane	ND		0.0011
2-Chloroethyl Vinyl Ether	ND		0.0053
(cis) 1,3-Dichloropropene	ND		0.0011
(trans) 1,3-Dichloropropene	ND		0.0011

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Lab ID: 01-111-08
 Client ID: B22-4.0

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0011
Tetrachloroethene	0.17		0.0011
1,3-Dichloropropane	ND		0.0011
Dibromochloromethane	ND		0.0011
1,2-Dibromoethane	ND		0.0011
Chlorobenzene	ND		0.0011
1,1,1,2-Tetrachloroethane	ND		0.0011
Bromoform	ND		0.0011
Bromobenzene	ND		0.0011
1,1,2,2-Tetrachloroethane	ND		0.0011
1,2,3-Trichloropropane	ND		0.0011
2-Chlorotoluene	ND		0.0011
4-Chlorotoluene	ND		0.0011
1,3-Dichlorobenzene	ND		0.0011
1,4-Dichlorobenzene	ND		0.0011
1,2-Dichlorobenzene	ND		0.0011
1,2-Dibromo-3-chloropropane	ND		0.0053
1,2,4-Trichlorobenzene	ND		0.0011
Hexachlorobutadiene	ND		0.0053
1,2,3-Trichlorobenzene	ND		0.0011

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	86	66-128
Toluene-d8	96	68-126
4-Bromofluorobenzene	92	53-134

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Date Extracted: 1-17-11
 Date Analyzed: 1-17-11

 Matrix: Soil
 Units: mg/kg (ppm)

 Lab ID: MB0117S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Lab ID: MB0117S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	105	66-128
Toluene-d8	94	68-126
4-Bromofluorobenzene	90	53-134

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Date Extracted: 1-21-11
 Date Analyzed: 1-21-11

 Matrix: Soil
 Units: mg/kg (ppm)

 Lab ID: MB0121S1

Compound	Results	Flags	PQL
Dichlorodifluoromethane	ND		0.0010
Chloromethane	ND		0.0050
Vinyl Chloride	ND		0.0010
Bromomethane	ND		0.0010
Chloroethane	ND		0.0050
Trichlorofluoromethane	ND		0.0010
1,1-Dichloroethene	ND		0.0010
Iodomethane	ND		0.0050
Methylene Chloride	ND		0.0050
(trans) 1,2-Dichloroethene	ND		0.0010
1,1-Dichloroethane	ND		0.0010
2,2-Dichloropropane	ND		0.0010
(cis) 1,2-Dichloroethene	ND		0.0010
Bromochloromethane	ND		0.0010
Chloroform	ND		0.0010
1,1,1-Trichloroethane	ND		0.0010
Carbon Tetrachloride	ND		0.0010
1,1-Dichloropropene	ND		0.0010
1,2-Dichloroethane	ND		0.0010
Trichloroethene	ND		0.0010
1,2-Dichloropropane	ND		0.0010
Dibromomethane	ND		0.0010
Bromodichloromethane	ND		0.0010
2-Chloroethyl Vinyl Ether	ND		0.0050
(cis) 1,3-Dichloropropene	ND		0.0010
(trans) 1,3-Dichloropropene	ND		0.0010

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Lab ID: MB0121S1

Compound	Results	Flags	PQL
1,1,2-Trichloroethane	ND		0.0010
Tetrachloroethene	ND		0.0010
1,3-Dichloropropane	ND		0.0010
Dibromochloromethane	ND		0.0010
1,2-Dibromoethane	ND		0.0010
Chlorobenzene	ND		0.0010
1,1,1,2-Tetrachloroethane	ND		0.0010
Bromoform	ND		0.0010
Bromobenzene	ND		0.0010
1,1,2,2-Tetrachloroethane	ND		0.0010
1,2,3-Trichloropropane	ND		0.0010
2-Chlorotoluene	ND		0.0010
4-Chlorotoluene	ND		0.0010
1,3-Dichlorobenzene	ND		0.0010
1,4-Dichlorobenzene	ND		0.0010
1,2-Dichlorobenzene	ND		0.0010
1,2-Dibromo-3-chloropropane	ND		0.0050
1,2,4-Trichlorobenzene	ND		0.0010
Hexachlorobutadiene	ND		0.0050
1,2,3-Trichlorobenzene	ND		0.0010

Surrogate	Percent Recovery	Control Limits
Dibromofluoromethane	90	66-128
Toluene-d8	93	68-126
4-Bromofluorobenzene	94	53-134

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 SB/SBD QUALITY CONTROL**

Date Extracted: 1-17-11
 Date Analyzed: 1-17-11
 Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: SB0117S2

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0361	72	0.0350	70	70-130	
Benzene	0.0500	0.0394	79	0.0428	86	70-121	
Trichloroethene	0.0500	0.0522	104	0.0540	108	70-124	
Toluene	0.0500	0.0444	89	0.0460	92	70-123	
Chlorobenzene	0.0500	0.0470	94	0.0466	93	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	3	14	
Benzene	8	10	
Trichloroethene	3	12	
Toluene	3	12	
Chlorobenzene	1	9	

Date of Report: January 24, 2011
 Samples Submitted: January 14, 2011
 Laboratory Reference: 1101-111
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 SB/SBD QUALITY CONTROL**

Date Extracted: 1-21-11
 Date Analyzed: 1-21-11
 Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: SB0121S1

Compound	Spike Amount	SB	Percent Recovery	SBD	Percent Recovery	Recovery Limits	Flags
1,1-Dichloroethene	0.0500	0.0563	113	0.0560	112	70-130	
Benzene	0.0500	0.0504	101	0.0506	101	70-121	
Trichloroethene	0.0500	0.0502	100	0.0488	98	70-124	
Toluene	0.0500	0.0506	101	0.0499	100	70-123	
Chlorobenzene	0.0500	0.0504	101	0.0504	101	71-119	

	RPD	RPD Limit	Flags
1,1-Dichloroethene	1	14	
Benzene	0	10	
Trichloroethene	3	12	
Toluene	1	12	
Chlorobenzene	0	9	

Date of Report: January 24, 2011
Samples Submitted: January 14, 2011
Laboratory Reference: 1101-111
Project: 110-001

% MOISTURE

Date Analyzed: 1-17-11

Client ID	Lab ID	% Moisture
B15-4.0	01-111-01	7
B16-4.0	01-111-02	10
B17-4.0	01-111-03	10
B18-4.0	01-111-04	5
B19-4.0	01-111-05	8
B20-4.0	01-111-06	6
B21-4.0	01-111-07	6
B22-4.0	01-111-08	4



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



OnSite Environmental Inc.
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-9881 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Laboratory Number:

01-111

(Check One)

Requested Analysis

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Sound Mattress and Felty
 Project Manager: Bill Conroy
 Sampled by: Monty Busbee

- Same Day
- 1 Day
- 2 Day
- 3 Day
- Standard (7 working days)
- (TPH analysis 5 working days)
- (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.
1	B15-4.0	4/14/11	0855	soil	4
2	B16-4.0		1125		
3	B17-4.0		1200		
4	B18-4.0		1237		
5	B19-4.0		1320		
6	B20-4.0		1410		
7	B21-4.0		1450		
8	B22-4.0		1505		

Requested Analysis	Result
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Dx	
Volatiles by 8260B	
Halogenated Volatiles by 8260B	X
Semivolatiles by 8270D / SIM	X
PAHs by 8270D / SIM	X
PCBs by 8082	
Pesticides by 8081A	
Herbicides by 8151A	
Total RCRA Metals (8)	
TCLP Metals	
HEM by 1664	

% Moisture

Signature	Company	Date	Time	Comments/Special Instructions:
	Pacific Crest	4/14/11	1700	EBS to Anarise@pcenv.com
Received by				
Relinquished by				
Received by				
Relinquished by				
Received by				
Reviewed by/Date				Chromatograms with final report <input type="checkbox"/>



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 13, 2012

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1211-076

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on November 9, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: November 13, 2012
Samples Submitted: November 9, 2012
Laboratory Reference: 1211-076
Project: 110-001

Case Narrative

Samples were collected on November 8, 2012 and received by the laboratory on November 9, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles (soil) EPA 8260C Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B24-0.0-2.0					
Laboratory ID:	11-076-01					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	0.0093	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	ND	0.0016	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	0.0014	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	0.027	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B24-0.0-2.0					
Laboratory ID:	11-076-01					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	0.054	0.0012	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>65-129</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>52-125</i>				

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B24-4.0-6.0					
Laboratory ID:	11-076-02					
Dichlorodifluoromethane	ND	0.0018	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	0.0094	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	ND	0.0017	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	0.0014	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	0.024	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B24-4.0-6.0					
Laboratory ID:	11-076-02					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	0.053	0.0012	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	0.0059	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>65-129</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>52-125</i>				

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1109S1					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	0.0080	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	ND	0.0014	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	

Date of Report: November 13, 2012
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**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1109S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>63-127</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>65-129</i>				
<i>4-Bromofluorobenzene</i>	<i>112</i>	<i>52-125</i>				

Date of Report: November 13, 2012
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 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB1109S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0457	0.0452	0.0500	0.0500	91	90	65-141	1	15	
Benzene	0.0376	0.0371	0.0500	0.0500	75	74	69-121	1	15	
Trichloroethene	0.0480	0.0471	0.0500	0.0500	96	94	75-120	2	15	
Toluene	0.0439	0.0436	0.0500	0.0500	88	87	75-120	1	15	
Chlorobenzene	0.0529	0.0530	0.0500	0.0500	106	106	75-120	0	15	
<i>Surrogate:</i>										
Dibromofluoromethane					93	95	63-127			
Toluene-d8					92	93	65-129			
4-Bromofluorobenzene					99	102	52-125			

Date of Report: November 13, 2012
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 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B23-8.0-12.0 RG					
Laboratory ID:	11-076-03					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	20	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	300	4.0	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	20	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	20	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	20	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	12	4.0	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	600	4.0	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	12	4.0	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	11-9-12	11-9-12	

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HALOGENATED VOLATILES by EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B23-8.0-12.0 RG					
Laboratory ID:	11-076-03					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	12	4.0	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	20	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>63-120</i>				

Date of Report: November 13, 2012
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HALOGENATED VOLATILES by EPA 8260C
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B23-28.0-30.0 RG					
Laboratory ID:	11-076-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	2.4	0.20	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	1.0	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	0.55	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	5.5	0.20	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	

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HALOGENATED VOLATILES by EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	B23-28.0-30.0 RG					
Laboratory ID:	11-076-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	0.30	0.20	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>63-120</i>				

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**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1109W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloromethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Vinyl Chloride	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromomethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloroethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Iodomethane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Methylene Chloride	ND	1.0	EPA 8260C	11-9-12	11-9-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromochloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chloroform	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Trichloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Dibromomethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromodichloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-9-12	11-9-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-9-12	11-9-12	

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**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1109W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Tetrachloroethene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Dibromochloromethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Chlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Bromoform	ND	1.0	EPA 8260C	11-9-12	11-9-12	
Bromobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-9-12	11-9-12	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-9-12	11-9-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-9-12	11-9-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>63-120</i>				

Date of Report: November 13, 2012
 Samples Submitted: November 9, 2012
 Laboratory Reference: 1211-076
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1109W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.4	12.1	10.0	10.0	114	121	65-141	6	15	
Benzene	9.76	9.75	10.0	10.0	98	98	77-125	0	15	
Trichloroethene	10.4	9.66	10.0	10.0	104	97	80-125	7	15	
Toluene	10.0	9.67	10.0	10.0	100	97	80-125	3	15	
Chlorobenzene	10.9	10.8	10.0	10.0	109	108	80-140	1	15	
<i>Surrogate:</i>										
Dibromofluoromethane					95	106	66-120			
Toluene-d8					101	105	70-120			
4-Bromofluorobenzene					101	109	63-120			

Date of Report: November 13, 2012
Samples Submitted: November 9, 2012
Laboratory Reference: 1211-076
Project: 110-001

% MOISTURE

Date Analyzed: 11-9-12

Client ID	Lab ID	% Moisture
B24-0.0-2.0	11-076-01	4
B24-4.0-6.0	11-076-02	4



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

11-076

Company: **Pacific Crest**
 Project Number: **110-001**
 Project Name: **SOUND MATPRESS**
 Project Manager: **Bill Carroll**
 Sampled by: **A. Wiebenga/M. DeCaro**

Turnaround Request
 (in working days)

(Check One)

Same Day 1 Day
 2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA / MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664	
1	B24-0.0-2.0	11/8/12	1350	Soil	4					X											
2	B24-4.0-6.0	11/8/12	1352	Soil						X											
3	B23-8.0-12.0 R.G	11/8/12	1120	H ₂ O						X											
4	B23-28.0-30.0 R.G	11/8/12	1230	H ₂ O						X											
5	B23-25.0	11/8/12	1145	soil	* See																
6	B23-30.0	11/8/12	1210	soil	* See																

Data Package: Level III Level IV Electronic Data Deliverables (EDDs)

Reviewed/Date _____
 Reviewed/Date _____
 Reviewed/Date _____

Signature: **Mark DeCaro** Company: **Pacific Crest** Date: **11/9/12** Time: **0941**
 Signature: **Slacey Dura** Company: **OnSite Env.** Date: **11/9/12** Time: **0941**

Comments/Special Instructions
 Lab ID # 5-6: Please hold samples.

X X % Moisture

May 15, 2012

Analytical Report for Service Request No: K1203897

Bill Carroll
Pacific Crest Environmental, LLC
1531 Bendigo Blvd.
North Bend, WA 98045

RE: Sand Mattress/110-001

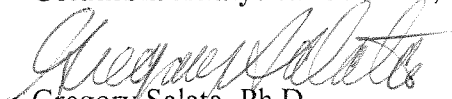
Dear Bill:

Enclosed are the results of the samples submitted to our laboratory on April 26, 2012. For your reference, these analyses have been assigned our service request number K1203897.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.caslab.com. All results are intended to be considered in their entirety, and Columbia Analytical Services, Inc. (CAS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please call if you have any questions. My extension is 3376. You may also contact me via Email at Gregory.Salata@alsglobal.com.

Respectfully submitted,

Columbia Analytical Services, Inc.
Gregory Salata, Ph.D.
Project Chemist

GS/ln

Page 1 of 33

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Inorganic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- E The result is an estimate amount because the value exceeded the instrument calibration range.
- J The result is an estimated value.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.
- H The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

- # The control limit criteria is not applicable. See case narrative.
- J The result is an estimated value.
- E The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
- M The duplicate injection precision was not met.
- N The Matrix Spike sample recovery is not within control limits. See case narrative.
- S The reported value was determined by the Method of Standard Additions (MSA).
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
- W The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
 - i The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
- X See case narrative.
- + The correlation coefficient for the MSA is less than 0.995.
- Q See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

- * The result is an outlier. See case narrative.
- # The control limit criteria is not applicable. See case narrative.
- A A tentatively identified compound, a suspected aldol-condensation product.
- B The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
- C The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
- D The reported result is from a dilution.
- E The result is an estimated value.
- J The result is an estimated value.
- N The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
- P The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
- U The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL.
DOD-QSM 4.2 definition: Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
 - i The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
- X See case narrative.
- Q See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

- F The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
- L The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
- H The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
- O The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
- Y The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
- Z The chromatographic fingerprint does not resemble a petroleum product.

**Columbia Analytical Services, Inc. - Kelso
State Certifications, Accreditations, and Licenses**

Agency	Web Site	Number
Alaska DEC UST	http://dec.alaska.gov/applications/eh/ehllabreports/USTLabs.aspx	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2286
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L12-28
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Georgia DNR	http://www.gaepd.org/Documents/techguide_pcb.html#cel	881
Hawaii DOH	Not available	-
Idaho DHW	http://www.healthandwelfare.idaho.gov/Health/Labs/CertificationDrinkingWaterLabs/tabid/1833/Default.aspx	-
Indiana DOH	http://www.in.gov/isdh/24859.htm	C-WA-01
ISO 17025	http://www.pjllabs.com/	L12-27
Louisiana DEQ	http://www.deq.louisiana.gov/portal/DIVISIONS/PublicParticipationandPermitSupport/LouisianaLaboratoryAccreditationProgram.aspx	3016
Louisiana DHH	Not available	LA110003
Maine DHS	Not available	WA0035
Michigan DEQ	http://www.michigan.gov/deq/0,1607,7-135-3307_4131_4156---,00.html	9949
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-368
Montana DPHHS	http://www.dphhs.mt.gov/publichealth/	CERT0047
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA35
New Jersey DEP	http://www.nj.gov/dep/oqa/	WA005
New Mexico ED	http://www.nmenv.state.nm.us/dwb/Index.htm	-
North Carolina DWQ	http://www.dwqlab.org/	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA200001
South Carolina DHEC	http://www.scdhec.gov/environment/envserv/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	704427-08-TX
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C1203
Wisconsin DNR	http://dnr.wi.gov/	998386840
Wyoming (EPA Region 8)	http://www.epa.gov/region8/water/dwhome/wyomingdi.html	-
Kelso Laboratory Website	www.caslab.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.caslab.com or at the accreditation bodies web site

Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/analyte is offered by that state.

COLUMBIA ANALYTICAL SERVICES, INC.

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request No.: K1203897
Date Received: 04/26/12

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of Columbia Analytical Services, Inc. (CAS). This report contains analytical results for samples designated for Tier IV validation deliverables including summary forms and all of the associated raw data for each of the analyses. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Fifteen water samples were received for analysis at Columbia Analytical Services on 04/26/12. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator at 4°C upon receipt at the laboratory.

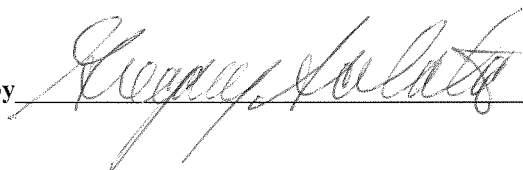
Volatile Organic Compounds by EPA Method 8260

Elevated Detection Limits:

Sample MW15-042512 required dilution due to the presence of elevated levels of target analyte. The reporting limits were adjusted to reflect the dilution.

No other anomalies associated with the analysis of these samples were observed.

Approved by



Date

05/15/12

Chain of Custody

Laboratory Number:

Turnaround Request (in working days)

Company: Pacific Crest
 Project Number: 110-001
 Project Name: Sound Mattress
 Project Manager: William Carroll
 Sampled by: April Niebenga

(Check One)
 Same Day
 1 Day
 2 Days
 Standard (7 Days) (TPH analysis 5 Days)
 _____ (other)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCAs Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
1	MW11-042512	4/25/12	1445	Soil	3				X	X												
2	MW12-042512		1255						X	X												
3	MW13-042512		1505						X	X												
4	MW14-042512		1520						X	X												
5	MW15-042512		1530						X	X												
6	MW16-042512		1545						X	X												
7	MW17-042512		1345						X	X												
8	MW18-042512		1220						X	X												
9	MW19-042512		1410						X	X												
10	MW20-042512		1235						X	X												

Signature	Company	Date	Time	Comments/Special Instructions
<u>Apri Niebenga</u>	Pacific Crest	4-25-12	7:30 pm	* Limited volume for MW-7 (7 40 mL VOA)
<u>William Carroll</u>	ALS	4/24/12	0900	



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 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

K1208897

Page 2 of 2

Company: Pacific Crest
 Project Number: 110-001
 Project Name: Sand Mattress
 Project Manager: William Carroll
 Sampled by: April Wiebenga

Turnaround Request (in working days)

(Check One)
 Same Day
 1 Day
 2 Days
 3 Days
 Standard (7 Days) (TPH analysis 5 Days)
 _____ (other)

Laboratory Number:

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
11	MNW6-042512	4/25/12	1400	water	3						X												
12	MNW1-042512		1205								X												
13	MNW4-042512		1145								X												
14	MNW10-042512		1600								X												
15	MNW7-042512		1605		1						X												

Comments/Special Instructions

Date: 4/25/12 Time: 4:30 PM
 Company: Pacific Crest
 Signature: [Signature]
 *** Limited volume for MNW7-042512 (140 mL UOA)

Signature	Date	Reviewed/Date
Challen	4/25/12	
Relinquished		
Received		
Relinquished		
Received		
Relinquished		
Received		
Reviewed/Date		

Chromatograms with final report

**Columbia Analytical Services, Inc.
Cooler Receipt and Preservation Form**

PC FD/12/12
u 4/27/12

Client / Project: OnSite Env. Service Request K12 03897
 Received: 4/26/12 Opened: 4/26/12 By: SMU Unloaded: 4/26/12 By: SMU

1. Samples were received via? *Mail* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? *NA* *Y* *N* If yes, how many and where? _____
 If present, were custody seals intact? *Y* *N* If present, were they signed and dated? *Y* *N*

Cooler Temp °C	Temp Blank °C	Thermometer ID	Cooler/COC ID	Tracking Number	NA	Filed
0,0	—	269	NA	(9612417) 468 3887-15166971		

7. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
8. Were custody papers properly filled out (ink, signed, etc.)? *NA* *Y* *N*
9. Did all bottles arrive in good condition (unbroken)? *Indicate in the table below.* *NA* *Y* *N*
10. Were all sample labels complete (i.e analysis, preservation, etc.)? *NA* *Y* *N*
11. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* *NA* *Y* *N*
12. Were appropriate bottles/containers and volumes received for the tests indicated? *NA* *Y* *N*
13. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* *NA* *Y* *N*
14. Were VOA vials received without headspace? *Indicate in the table below.* *NA* *Y* *N*
15. Was C12/Res negative? *NA* *Y* *N*

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head- space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW11-042512
Lab Code: K1203897-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
trans-1,2-Dichloroethene	4.7		0.50	1	05/07/12	05/07/12	KWG1204657	
cis-1,2-Dichloroethene	400	D	10	20	05/07/12	05/07/12	KWG1204657	
Trichloroethene (TCE)	160	D	10	20	05/07/12	05/07/12	KWG1204657	
Tetrachloroethene (PCE)	470	D	10	20	05/07/12	05/07/12	KWG1204657	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	73-122	05/07/12	Acceptable
Toluene-d8	101	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	97	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW9-042512
Lab Code: K1203897-002
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
Trichloroethene (TCE)	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	73-122	05/08/12	Acceptable
Toluene-d8	92	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	76	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW13-042512
Lab Code: K1203897-003
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	0.69		0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	6.2		0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	3.2		0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	2.8		0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	05/07/12	Acceptable
Toluene-d8	91	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	76	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW12-042512
Lab Code: K1203897-004
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	90	73-122	05/07/12	Acceptable
Toluene-d8	91	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	75	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW14-042512
Lab Code: K1203897-005
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	1.7		0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	6.6		0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	3.2		0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	91	73-122	05/07/12	Acceptable
Toluene-d8	91	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	73	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW15-042512
Lab Code: K1203897-006
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	290	D	25	50	05/07/12	05/07/12	KWG1204657	
trans-1,2-Dichloroethene	14	D	2.5	5	05/07/12	05/07/12	KWG1204657	
cis-1,2-Dichloroethene	1300	D	25	50	05/07/12	05/07/12	KWG1204657	
Trichloroethene (TCE)	ND	U	2.5	5	05/07/12	05/07/12	KWG1204657	
Tetrachloroethene (PCE)	ND	U	2.5	5	05/07/12	05/07/12	KWG1204657	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	73-122	05/07/12	Acceptable
Toluene-d8	101	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	99	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW5-042512
Lab Code: K1203897-007
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	6.7		0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	6.1		0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	94	73-122	05/07/12	Acceptable
Toluene-d8	91	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	75	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW2-042512
Lab Code: K1203897-008
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
Trichloroethene (TCE)	4.3		0.50	1	05/07/12	05/07/12	KWG1204657	
Tetrachloroethene (PCE)	89	D	5.0	10	05/07/12	05/07/12	KWG1204657	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	97	73-122	05/07/12	Acceptable
Toluene-d8	101	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	95	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW8-042512
Lab Code: K1203897-009
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	5.3		0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	0.69		0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	05/07/12	Acceptable
Toluene-d8	90	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	75	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW3-042512
Lab Code: K1203897-010
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
Trichloroethene (TCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
Tetrachloroethene (PCE)	2.1		0.50	1	05/07/12	05/07/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	107	73-122	05/07/12	Acceptable
Toluene-d8	110	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	102	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW6-042512
Lab Code: K1203897-011
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
cis-1,2-Dichloroethene	13		0.50	1	05/08/12	05/08/12	KWG1204688	
Trichloroethene (TCE)	9.6		0.50	1	05/08/12	05/08/12	KWG1204688	
Tetrachloroethene (PCE)	100	D	2.5	5	05/08/12	05/08/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	98	73-122	05/08/12	Acceptable
Toluene-d8	100	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	102	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW1-042512
Lab Code: K1203897-012
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
Trichloroethene (TCE)	1.2		0.50	1	05/08/12	05/08/12	KWG1204688	
Tetrachloroethene (PCE)	63		0.50	1	05/08/12	05/08/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	05/08/12	Acceptable
Toluene-d8	108	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	100	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW4-042512
Lab Code: K1203897-013
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
cis-1,2-Dichloroethene	0.58		0.50	1	05/08/12	05/08/12	KWG1204688	
Trichloroethene (TCE)	2.6		0.50	1	05/08/12	05/08/12	KWG1204688	
Tetrachloroethene (PCE)	3.4		0.50	1	05/08/12	05/08/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	105	73-122	05/08/12	Acceptable
Toluene-d8	110	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	91	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW10-042512
Lab Code: K1203897-014
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204688	
cis-1,2-Dichloroethene	2.0		0.50	1	05/08/12	05/08/12	KWG1204688	
Trichloroethene (TCE)	1.3		0.50	1	05/08/12	05/08/12	KWG1204688	
Tetrachloroethene (PCE)	23		0.50	1	05/08/12	05/08/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	05/08/12	Acceptable
Toluene-d8	107	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	102	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: 04/25/2012
Date Received: 04/26/2012

Volatile Organic Compounds

Sample Name: MW7-042512
Lab Code: K1203897-015
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
cis-1,2-Dichloroethene	2.8		0.50	1	05/08/12	05/08/12	KWG1204710	
Trichloroethene (TCE)	7.0		0.50	1	05/08/12	05/08/12	KWG1204710	
Tetrachloroethene (PCE)	77	D	5.0	10	05/08/12	05/08/12	KWG1204710	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	92	73-122	05/08/12	Acceptable
Toluene-d8	92	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	74	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1204641-4
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
Trichloroethene (TCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204641	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	86	73-122	05/07/12	Acceptable
Toluene-d8	91	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	79	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1204657-4
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
Trichloroethene (TCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204657	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	96	73-122	05/07/12	Acceptable
Toluene-d8	101	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	96	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1204688-4
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
Trichloroethene (TCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/07/12	05/07/12	KWG1204688	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	99	73-122	05/07/12	Acceptable
Toluene-d8	110	65-144	05/07/12	Acceptable
4-Bromofluorobenzene	99	68-117	05/07/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

Analytical Results

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Collected: NA
Date Received: NA

Volatile Organic Compounds

Sample Name: Method Blank
Lab Code: KWG1204710-4
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low

Analyte Name	Result	Q	MRL	Dilution Factor	Date Extracted	Date Analyzed	Extraction Lot	Note
Vinyl Chloride	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
trans-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
cis-1,2-Dichloroethene	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
Trichloroethene (TCE)	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	
Tetrachloroethene (PCE)	ND	U	0.50	1	05/08/12	05/08/12	KWG1204710	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Note
Dibromofluoromethane	89	73-122	05/08/12	Acceptable
Toluene-d8	91	65-144	05/08/12	Acceptable
4-Bromofluorobenzene	75	68-117	05/08/12	Acceptable

Comments: _____

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897

**Surrogate Recovery Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: PERCENT
Level: Low

<u>Sample Name</u>	<u>Lab Code</u>	<u>Sur1</u>	<u>Sur2</u>	<u>Sur3</u>
MW11-042512	K1203897-001	97	101	97
MW9-042512	K1203897-002	90	92	76
MW13-042512	K1203897-003	91	91	76
MW12-042512	K1203897-004	90	91	75
MW14-042512	K1203897-005	91	91	73
MW15-042512	K1203897-006	98	101	99
MW5-042512	K1203897-007	94	91	75
MW2-042512	K1203897-008	97	101	95
MW8-042512	K1203897-009	92	90	75
MW3-042512	K1203897-010	107	110	102
MW6-042512	K1203897-011	98	100	102
MW1-042512	K1203897-012	96	108	100
MW4-042512	K1203897-013	105	110	91
MW10-042512	K1203897-014	96	107	102
MW7-042512	K1203897-015	92	92	74
Method Blank	KWG1204641-4	86	91	79
Method Blank	KWG1204657-4	96	101	96
Method Blank	KWG1204688-4	99	110	99
Method Blank	KWG1204710-4	89	91	75
MW11-042512MS	KWG1204657-1	99	104	97
MW11-042512DMS	KWG1204657-2	99	104	97
Lab Control Sample	KWG1204641-3	90	96	82
Lab Control Sample	KWG1204657-3	95	104	98
Lab Control Sample	KWG1204688-3	100	111	101
Lab Control Sample	KWG1204710-3	91	97	86

Surrogate Recovery Control Limits (%)

Sur1 = Dibromofluoromethane	73-122
Sur2 = Toluene-d8	65-144
Sur3 = 4-Bromofluorobenzene	68-117

Results flagged with an asterisk (*) indicate values outside control criteria.
 Results flagged with a pound (#) indicate the control criteria is not applicable.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Extracted: 05/07/2012
Date Analyzed: 05/07/2012

**Matrix Spike/Duplicate Matrix Spike Summary
 Volatile Organic Compounds**

Sample Name: MW11-042512
Lab Code: K1203897-001
Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1204657

Analyte Name	Sample Result	MW11-042512MS KWG1204657-1 Matrix Spike			MW11-042512DMS KWG1204657-2 Duplicate Matrix Spike			%Rec Limits	RPD	RPD Limit
		Result	Expected	%Rec	Result	Expected	%Rec			
Vinyl Chloride	ND	209	200	104	199	200	99	49-136	5	30
trans-1,2-Dichloroethene	4.7	222	200	109	218	200	107	65-143	2	30
cis-1,2-Dichloroethene	400	571	200	87	571	200	87	61-139	0	30
Trichloroethene (TCE)	160	347	200	96	339	200	92	53-139	3	30
Tetrachloroethene (PCE)	470	631	200	80	619	200	74	61-131	2	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Extracted: 05/07/2012
Date Analyzed: 05/07/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1204641

Analyte Name	Lab Control Sample KWG1204641-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Vinyl Chloride	9.47	10.0	95	55-123
trans-1,2-Dichloroethene	10.0	10.0	100	67-125
cis-1,2-Dichloroethene	10.7	10.0	107	71-118
Trichloroethene (TCE)	10.2	10.0	102	67-128
Tetrachloroethene (PCE)	10.1	10.0	101	62-126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Extracted: 05/07/2012
Date Analyzed: 05/07/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1204657

Analyte Name	Lab Control Sample KWG1204657-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Vinyl Chloride	7.86	10.0	79	55-123
trans-1,2-Dichloroethene	8.65	10.0	87	67-125
cis-1,2-Dichloroethene	9.03	10.0	90	71-118
Trichloroethene (TCE)	8.13	10.0	81	67-128
Tetrachloroethene (PCE)	7.98	10.0	80	62-126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Extracted: 05/07/2012
Date Analyzed: 05/07/2012

Lab Control Spike Summary
Volatile Organic Compounds

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1204688

Lab Control Sample
KWG1204688-3
Lab Control Spike

Analyte Name	Result	Expected	%Rec	%Rec Limits
Vinyl Chloride	9.33	10.0	93	55-123
trans-1,2-Dichloroethene	10.0	10.0	100	67-125
cis-1,2-Dichloroethene	10.1	10.0	101	71-118
Trichloroethene (TCE)	9.76	10.0	98	67-128
Tetrachloroethene (PCE)	9.01	10.0	90	62-126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

COLUMBIA ANALYTICAL SERVICES, INC.

Now part of the ALS Group

QA/QC Report

Client: Pacific Crest Environmental, LLC
Project: Sand Mattress/110-001
Sample Matrix: Water

Service Request: K1203897
Date Extracted: 05/08/2012
Date Analyzed: 05/08/2012

**Lab Control Spike Summary
 Volatile Organic Compounds**

Extraction Method: EPA 5030B
Analysis Method: 8260C

Units: ug/L
Basis: NA
Level: Low
Extraction Lot: KWG1204710

Analyte Name	Lab Control Sample KWG1204710-3 Lab Control Spike			%Rec Limits
	Result	Expected	%Rec	
Vinyl Chloride	9.15	10.0	92	55-123
trans-1,2-Dichloroethene	10.1	10.0	101	67-125
cis-1,2-Dichloroethene	10.3	10.0	103	71-118
Trichloroethene (TCE)	9.51	10.0	95	67-128
Tetrachloroethene (PCE)	10.4	10.0	104	62-126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 17, 2012

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1209-064

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 11, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: September 17, 2012
Samples Submitted: September 11, 2012
Laboratory Reference: 1209-064
Project: 110-001

Case Narrative

Samples were collected on September 9, 2012 and received by the laboratory on September 11, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 17, 2012
 Samples Submitted: September 11, 2012
 Laboratory Reference: 1209-064
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW17-090912					
Laboratory ID:	09-064-01					
Dichlorodifluoromethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Chloromethane	ND	20	EPA 8260	9-14-12	9-14-12	
Vinyl Chloride	170	4.0	EPA 8260	9-14-12	9-14-12	
Bromomethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Chloroethane	ND	20	EPA 8260	9-14-12	9-14-12	
Trichlorofluoromethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,1-Dichloroethene	ND	4.0	EPA 8260	9-14-12	9-14-12	
Iodomethane	ND	20	EPA 8260	9-14-12	9-14-12	
Methylene Chloride	ND	20	EPA 8260	9-14-12	9-14-12	
(trans) 1,2-Dichloroethene	6.3	4.0	EPA 8260	9-14-12	9-14-12	
1,1-Dichloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
2,2-Dichloropropane	ND	4.0	EPA 8260	9-14-12	9-14-12	
(cis) 1,2-Dichloroethene	460	4.0	EPA 8260	9-14-12	9-14-12	
Bromochloromethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Chloroform	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,1,1-Trichloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Carbon Tetrachloride	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,1-Dichloropropene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2-Dichloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Trichloroethene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2-Dichloropropane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Dibromomethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Bromodichloromethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260	9-14-12	9-14-12	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260	9-14-12	9-14-12	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260	9-14-12	9-14-12	

Date of Report: September 17, 2012
 Samples Submitted: September 11, 2012
 Laboratory Reference: 1209-064
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260B
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW17-090912					
Laboratory ID:	09-064-01					
1,1,2-Trichloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Tetrachloroethene	ND	20	EPA 8260	9-14-12	9-14-12	
1,3-Dichloropropane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Dibromochloromethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2-Dibromoethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Chlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
Bromoform	ND	20	EPA 8260	9-14-12	9-14-12	
Bromobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2,3-Trichloropropane	ND	4.0	EPA 8260	9-14-12	9-14-12	
2-Chlorotoluene	ND	4.0	EPA 8260	9-14-12	9-14-12	
4-Chlorotoluene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,3-Dichlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,4-Dichlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2-Dichlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260	9-14-12	9-14-12	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
Hexachlorobutadiene	ND	4.0	EPA 8260	9-14-12	9-14-12	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260	9-14-12	9-14-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>84</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>85</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>85</i>	<i>63-120</i>				

Date of Report: September 17, 2012
 Samples Submitted: September 11, 2012
 Laboratory Reference: 1209-064
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0914W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Chloromethane	ND	1.0	EPA 8260	9-14-12	9-14-12	
Vinyl Chloride	ND	0.20	EPA 8260	9-14-12	9-14-12	
Bromomethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Chloroethane	ND	1.0	EPA 8260	9-14-12	9-14-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	9-14-12	9-14-12	
Iodomethane	ND	1.0	EPA 8260	9-14-12	9-14-12	
Methylene Chloride	ND	1.0	EPA 8260	9-14-12	9-14-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	9-14-12	9-14-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	9-14-12	9-14-12	
Bromochloromethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Chloroform	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Trichloroethene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Dibromomethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Bromodichloromethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	9-14-12	9-14-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-14-12	9-14-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	9-14-12	9-14-12	

Date of Report: September 17, 2012
 Samples Submitted: September 11, 2012
 Laboratory Reference: 1209-064
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0914W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Tetrachloroethene	ND	1.0	EPA 8260	9-14-12	9-14-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Dibromochloromethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Chlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
Bromoform	ND	1.0	EPA 8260	9-14-12	9-14-12	
Bromobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	9-14-12	9-14-12	
2-Chlorotoluene	ND	0.20	EPA 8260	9-14-12	9-14-12	
4-Chlorotoluene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	9-14-12	9-14-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	9-14-12	9-14-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	9-14-12	9-14-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>79</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>82</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>82</i>	<i>63-120</i>				

Date of Report: September 17, 2012
 Samples Submitted: September 11, 2012
 Laboratory Reference: 1209-064
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260B
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0914W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	11.1	10.7	10.0	10.0	111	107	65-141	4	15	
Benzene	10.4	10.1	10.0	10.0	104	101	77-120	3	15	
Trichloroethene	10.5	9.94	10.0	10.0	105	99	80-120	5	15	
Toluene	10.1	10.0	10.0	10.0	101	100	80-120	1	15	
Chlorobenzene	11.0	10.5	10.0	10.0	110	105	80-120	5	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					77	84	66-120			
<i>Toluene-d8</i>					84	89	70-120			
<i>4-Bromofluorobenzene</i>					81	89	63-120			



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



OnSite Environmental Inc.

14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-9881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)
(Check One)

Same Day 1 Day

2 Day 3 Day

Standard (7 working days)
(TPH analysis 5 working days)

(other)

Laboratory Number:

09-064

Requested Analysis

NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Dx	
Volatiles by 8260B	
Halogenated Volatiles by 8260B	<input checked="" type="checkbox"/>
Semivolatiles by 8270D / SIM	
PAHs by 8270D / SIM	
PCBs by 8082	
Pesticides by 8081A	
Herbicides by 8151A	
Total RCRA Metals (8)	
TCLP Metals	
HEM by 1664	

% Moisture

Company: **Pacific Crest**
 Project Number: **110-001**
 Project Name: **Sand Mattress + Felt**
 Project Manager: **Bill Carroll**
 Sampled by: **Ammica Nord**

Lab ID: **1 NW17-090912**
2 NW17-VAD

Date Sampled: **7/9/12**
 Time Sampled: **1329**
 Matrix: **AzO**
 # of Cont.: **3**

1330 Soil
5

Signature	Company	Date	Time	Comments/Special Instructions:
	Pacific Crest	7/11/12	900	
	Spoley	9/11/12	900	
	Spoley	9/11/12	1000	
	Spoley	9/11/12	1000	
Reviewed by/Date				Chromatograms with final report <input type="checkbox"/>



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October 10, 2012

Lauren Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1210-058

Dear Lauren:

Enclosed are the analytical results and associated quality control data for samples submitted on October 5, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: October 10, 2012
Samples Submitted: October 5, 2012
Laboratory Reference: 1210-058
Project: 110-001

Case Narrative

Samples were collected on October 4, 2012 and received by the laboratory on October 5, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-17-110-001					
Laboratory ID:	10-058-01					
Dichlorodifluoromethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Chloromethane	ND	20	EPA 8260	10-8-12	10-8-12	
Vinyl Chloride	180	4.0	EPA 8260	10-8-12	10-8-12	
Bromomethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Chloroethane	ND	20	EPA 8260	10-8-12	10-8-12	
Trichlorofluoromethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethene	ND	4.0	EPA 8260	10-8-12	10-8-12	
Iodomethane	ND	20	EPA 8260	10-8-12	10-8-12	
Methylene Chloride	ND	20	EPA 8260	10-8-12	10-8-12	
(trans) 1,2-Dichloroethene	7.1	4.0	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
2,2-Dichloropropane	ND	4.0	EPA 8260	10-8-12	10-8-12	
(cis) 1,2-Dichloroethene	600	4.0	EPA 8260	10-8-12	10-8-12	
Bromochloromethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Chloroform	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,1,1-Trichloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Carbon Tetrachloride	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,1-Dichloropropene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2-Dichloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Trichloroethene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2-Dichloropropane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Dibromomethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Bromodichloromethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260	10-8-12	10-8-12	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260	10-8-12	10-8-12	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260	10-8-12	10-8-12	

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-17-110-001					
Laboratory ID:	10-058-01					
1,1,2-Trichloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Tetrachloroethene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,3-Dichloropropane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Dibromochloromethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2-Dibromoethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Chlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
Bromoform	ND	20	EPA 8260	10-8-12	10-8-12	
Bromobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichloropropane	ND	4.0	EPA 8260	10-8-12	10-8-12	
2-Chlorotoluene	ND	4.0	EPA 8260	10-8-12	10-8-12	
4-Chlorotoluene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,3-Dichlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,4-Dichlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2-Dichlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260	10-8-12	10-8-12	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
Hexachlorobutadiene	ND	4.0	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260	10-8-12	10-8-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>100</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>63-120</i>				

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-15-110-001					
Laboratory ID:	10-058-02					
Dichlorodifluoromethane	ND	10	EPA 8260	10-8-12	10-8-12	
Chloromethane	ND	50	EPA 8260	10-8-12	10-8-12	
Vinyl Chloride	180	10	EPA 8260	10-8-12	10-8-12	
Bromomethane	ND	10	EPA 8260	10-8-12	10-8-12	
Chloroethane	ND	50	EPA 8260	10-8-12	10-8-12	
Trichlorofluoromethane	ND	10	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethene	ND	10	EPA 8260	10-8-12	10-8-12	
Iodomethane	ND	50	EPA 8260	10-8-12	10-8-12	
Methylene Chloride	ND	50	EPA 8260	10-8-12	10-8-12	
(trans) 1,2-Dichloroethene	12	10	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
2,2-Dichloropropane	ND	10	EPA 8260	10-8-12	10-8-12	
(cis) 1,2-Dichloroethene	1400	10	EPA 8260	10-8-12	10-8-12	
Bromochloromethane	ND	10	EPA 8260	10-8-12	10-8-12	
Chloroform	ND	10	EPA 8260	10-8-12	10-8-12	
1,1,1-Trichloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
Carbon Tetrachloride	ND	10	EPA 8260	10-8-12	10-8-12	
1,1-Dichloropropene	ND	10	EPA 8260	10-8-12	10-8-12	
1,2-Dichloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
Trichloroethene	ND	10	EPA 8260	10-8-12	10-8-12	
1,2-Dichloropropane	ND	10	EPA 8260	10-8-12	10-8-12	
Dibromomethane	ND	10	EPA 8260	10-8-12	10-8-12	
Bromodichloromethane	ND	10	EPA 8260	10-8-12	10-8-12	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260	10-8-12	10-8-12	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260	10-8-12	10-8-12	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260	10-8-12	10-8-12	

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-15-110-001					
Laboratory ID:	10-058-02					
1,1,2-Trichloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
Tetrachloroethene	ND	10	EPA 8260	10-8-12	10-8-12	
1,3-Dichloropropane	ND	10	EPA 8260	10-8-12	10-8-12	
Dibromochloromethane	ND	10	EPA 8260	10-8-12	10-8-12	
1,2-Dibromoethane	ND	10	EPA 8260	10-8-12	10-8-12	
Chlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
Bromoform	ND	50	EPA 8260	10-8-12	10-8-12	
Bromobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichloropropane	ND	10	EPA 8260	10-8-12	10-8-12	
2-Chlorotoluene	ND	10	EPA 8260	10-8-12	10-8-12	
4-Chlorotoluene	ND	10	EPA 8260	10-8-12	10-8-12	
1,3-Dichlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
1,4-Dichlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
1,2-Dichlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260	10-8-12	10-8-12	
1,2,4-Trichlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
Hexachlorobutadiene	ND	10	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichlorobenzene	ND	10	EPA 8260	10-8-12	10-8-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>98</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>63-120</i>				

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1008W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Chloromethane	ND	1.0	EPA 8260	10-8-12	10-8-12	
Vinyl Chloride	ND	0.20	EPA 8260	10-8-12	10-8-12	
Bromomethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Chloroethane	ND	1.0	EPA 8260	10-8-12	10-8-12	
Trichlorofluoromethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethene	ND	0.20	EPA 8260	10-8-12	10-8-12	
Iodomethane	ND	1.0	EPA 8260	10-8-12	10-8-12	
Methylene Chloride	ND	1.0	EPA 8260	10-8-12	10-8-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1-Dichloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
2,2-Dichloropropane	ND	0.20	EPA 8260	10-8-12	10-8-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260	10-8-12	10-8-12	
Bromochloromethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Chloroform	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Carbon Tetrachloride	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1-Dichloropropene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2-Dichloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Trichloroethene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2-Dichloropropane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Dibromomethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Bromodichloromethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260	10-8-12	10-8-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260	10-8-12	10-8-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260	10-8-12	10-8-12	

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1008W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Tetrachloroethene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,3-Dichloropropane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Dibromochloromethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2-Dibromoethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Chlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
Bromoform	ND	1.0	EPA 8260	10-8-12	10-8-12	
Bromobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260	10-8-12	10-8-12	
2-Chlorotoluene	ND	0.20	EPA 8260	10-8-12	10-8-12	
4-Chlorotoluene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260	10-8-12	10-8-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
Hexachlorobutadiene	ND	0.20	EPA 8260	10-8-12	10-8-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260	10-8-12	10-8-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>63-120</i>				

Date of Report: October 10, 2012
 Samples Submitted: October 5, 2012
 Laboratory Reference: 1210-058
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Limit	Flags
					Recovery	Limits	RPD				
SPIKE BLANKS											
Laboratory ID:	SB1008W1										
	SB	SBD	SB	SBD	SB	SBD					
1,1-Dichloroethene	9.51	8.98	10.0	10.0	95	90	65-141	6	15		
Benzene	9.91	9.64	10.0	10.0	99	96	77-125	3	15		
Trichloroethene	9.17	8.48	10.0	10.0	92	85	80-125	8	15		
Toluene	9.91	9.50	10.0	10.0	99	95	80-125	4	15		
Chlorobenzene	11.0	10.1	10.0	10.0	110	101	80-130	9	15		
<i>Surrogate:</i>											
Dibromofluoromethane					101	105	66-120				
Toluene-d8					100	99	70-120				
4-Bromofluorobenzene					97	94	63-120				



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
- B - The analyte indicated was also found in the blank sample.
- C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
- E - The value reported exceeds the quantitation range and is an estimate.
- F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
- H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
- I - Compound recovery is outside of the control limits.
- J - The value reported was below the practical quantitation limit. The value is an estimate.
- K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
- L - The RPD is outside of the control limits.
- M - Hydrocarbons in the gasoline range are impacting the diesel range result.
- M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
- N - Hydrocarbons in the lube oil range are impacting the diesel range result.
- N1 - Hydrocarbons in diesel range are impacting lube oil range results.
- O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
- P - The RPD of the detected concentrations between the two columns is greater than 40.
- Q - Surrogate recovery is outside of the control limits.
- S - Surrogate recovery data is not available due to the necessary dilution of the sample.
- T - The sample chromatogram is not similar to a typical _____.
- U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- U1 - The practical quantitation limit is elevated due to interferences present in the sample.
- V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
- W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
- X - Sample extract treated with a mercury cleanup procedure.
- Y - Sample extract treated with an acid/silica gel cleanup procedure.
- Z -
- ND - Not Detected at PQL
- PQL - Practical Quantitation Limit
- RPD - Relative Percent Difference



Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)

Laboratory Number:

10-058

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days) (TPH analysis 5 Days)

_____ (other)

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Sound Mattress
 Project Manager: Lauren Carroll
 Sampled by: Garry Bond

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	Parameters
1	MW-17-110-001	10-4-12	1234	H ₂ O	3	NWTPH-HCID NWTPH-Gx/BTEX NWTPH-Gx NWTPH-Dx Volatiles 8260B Halogenated Volatiles 8260B Semivolatiles 8270D/SIM (with low-level PAHs) PAHs 8270D/SIM (low-level) PCBs 8082 Organochlorine Pesticides 8081A Organophosphorus Pesticides 8270D/SIM Chlorinated Acid Herbicides 8151A Total RCRA Metals Total MTCA Metals TCLP Metals HEM (oil and grease) 1664
2	MW-15-110-001	10-4-12	1347	H ₂ O	3	% Moisture

Garry Bond

10-4-12

Signature	Company	Date	Time	Comments/Special Instructions
<i>Garry Bond</i>	Pacific Crest Env	10-5-12	1721	
<i>Lauren Carroll</i>	Air/PA/SPEEDY	10-5-12	1721	
<i>Michael</i>	SPEEDY	10-5-12	7:00	
<i>Onsite Env</i>	Onsite Env	10-5-12	1700	

Relinquished	Received	Relinquished	Received	Relinquished	Received	Reviewed/Date



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

December 4, 2012

Lauren Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1211-232

Dear Lauren:

Enclosed are the analytical results and associated quality control data for samples submitted on November 30, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

David Baumeister
Project Manager

Enclosures

Date of Report: December 4, 2012
Samples Submitted: November 30, 2012
Laboratory Reference: 1211-232
Project: 110-001

Case Narrative

Samples were collected on November 27, 2012 and received by the laboratory on November 30, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-17-112712					
Laboratory ID:	11-232-01					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Chloromethane	ND	20	EPA 8260C	12-3-12	12-3-12	
Vinyl Chloride	130	4.0	EPA 8260C	12-3-12	12-3-12	
Bromomethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Chloroethane	ND	20	EPA 8260C	12-3-12	12-3-12	
Trichlorofluoromethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Iodomethane	ND	20	EPA 8260C	12-3-12	12-3-12	
Methylene Chloride	ND	20	EPA 8260C	12-3-12	12-3-12	
(trans) 1,2-Dichloroethene	6.5	4.0	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
2,2-Dichloropropane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
(cis) 1,2-Dichloroethene	670	4.0	EPA 8260C	12-3-12	12-3-12	
Bromochloromethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Chloroform	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Carbon Tetrachloride	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloropropene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Trichloroethene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloropropane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Dibromomethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Bromodichloromethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260C	12-3-12	12-3-12	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	12-3-12	12-3-12	

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-17-112712					
Laboratory ID:	11-232-01					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Tetrachloroethene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,3-Dichloropropane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Dibromochloromethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromoethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Chlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Bromoform	ND	20	EPA 8260C	12-3-12	12-3-12	
Bromobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	12-3-12	12-3-12	
2-Chlorotoluene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
4-Chlorotoluene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	12-3-12	12-3-12	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
Hexachlorobutadiene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	12-3-12	12-3-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>63-120</i>				

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-15-112712					
Laboratory ID:	11-232-02					
Dichlorodifluoromethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Chloromethane	ND	50	EPA 8260C	12-3-12	12-3-12	
Vinyl Chloride	270	10	EPA 8260C	12-3-12	12-3-12	
Bromomethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Chloroethane	ND	50	EPA 8260C	12-3-12	12-3-12	
Trichlorofluoromethane	ND	10	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethene	ND	10	EPA 8260C	12-3-12	12-3-12	
Iodomethane	ND	50	EPA 8260C	12-3-12	12-3-12	
Methylene Chloride	ND	50	EPA 8260C	12-3-12	12-3-12	
(trans) 1,2-Dichloroethene	15	10	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
2,2-Dichloropropane	ND	10	EPA 8260C	12-3-12	12-3-12	
(cis) 1,2-Dichloroethene	1400	10	EPA 8260C	12-3-12	12-3-12	
Bromochloromethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Chloroform	ND	10	EPA 8260C	12-3-12	12-3-12	
1,1,1-Trichloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Carbon Tetrachloride	ND	10	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloropropene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Trichloroethene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloropropane	ND	10	EPA 8260C	12-3-12	12-3-12	
Dibromomethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Bromodichloromethane	ND	10	EPA 8260C	12-3-12	12-3-12	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	12-3-12	12-3-12	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	12-3-12	12-3-12	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	12-3-12	12-3-12	

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW-15-112712					
Laboratory ID:	11-232-02					
1,1,2-Trichloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Tetrachloroethene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,3-Dichloropropane	ND	10	EPA 8260C	12-3-12	12-3-12	
Dibromochloromethane	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromoethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Chlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
Bromoform	ND	50	EPA 8260C	12-3-12	12-3-12	
Bromobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichloropropane	ND	10	EPA 8260C	12-3-12	12-3-12	
2-Chlorotoluene	ND	10	EPA 8260C	12-3-12	12-3-12	
4-Chlorotoluene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,3-Dichlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,4-Dichlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2-Dichlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260C	12-3-12	12-3-12	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
Hexachlorobutadiene	ND	10	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	12-3-12	12-3-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>111</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>63-120</i>				

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1203W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Chloromethane	ND	1.0	EPA 8260C	12-3-12	12-3-12	
Vinyl Chloride	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Bromomethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Chloroethane	ND	1.0	EPA 8260C	12-3-12	12-3-12	
Trichlorofluoromethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Iodomethane	ND	1.0	EPA 8260C	12-3-12	12-3-12	
Methylene Chloride	ND	1.0	EPA 8260C	12-3-12	12-3-12	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
2,2-Dichloropropane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Bromochloromethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Chloroform	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Carbon Tetrachloride	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1-Dichloropropene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Trichloroethene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2-Dichloropropane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Dibromomethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Bromodichloromethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	12-3-12	12-3-12	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	12-3-12	12-3-12	

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1203W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Tetrachloroethene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,3-Dichloropropane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Dibromochloromethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromoethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Chlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Bromoform	ND	1.0	EPA 8260C	12-3-12	12-3-12	
Bromobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	12-3-12	12-3-12	
2-Chlorotoluene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
4-Chlorotoluene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	12-3-12	12-3-12	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
Hexachlorobutadiene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	12-3-12	12-3-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>63-120</i>				

Date of Report: December 4, 2012
 Samples Submitted: November 30, 2012
 Laboratory Reference: 1211-232
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1203W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	12.3	11.9	10.0	10.0	123	119	65-141	3	15	
Benzene	11.0	11.1	10.0	10.0	110	111	77-125	1	15	
Trichloroethene	10.2	10.0	10.0	10.0	102	100	80-125	2	15	
Toluene	10.0	10.1	10.0	10.0	100	101	80-125	1	15	
Chlorobenzene	10.5	10.8	10.0	10.0	105	108	80-140	3	15	
<i>Surrogate:</i>										
Dibromofluoromethane					107	105	66-120			
Toluene-d8					96	99	70-120			
4-Bromofluorobenzene					93	96	63-120			



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(In working days)

Laboratory Number:

11-232

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days) (TPH analysis 5 Days)

_____ (other)

Company: **Pacific Crest Environmental**
 Project Number: **110-001**
 Project Name: **Sound Mattress**
 Project Manager: **Lauren Carroll**
 Sampled by: **Gary Bond**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	No. of Cont.	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260B	Halogenated Volatiles 8260B	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082	Organochlorine Pesticides 8081A	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664	% Moisture	
1	MW-17-112712	11-27-12	1326	H2O	3																		
2	MW-15-112712	↓	1432	H2O	3						X												

Handwritten notes:
 Gary Bond
 11-27-12

Relinquished	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	Pacific Crest	11/30/12	1551	
Received	<i>[Signature]</i>	<i>[Signature]</i>	11/30/12	1551	
Relinquished					
Received					
Relinquished					
Received					
Reviewed/Date					Chromatograms with final report <input type="checkbox"/>



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

January 3, 2013

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1212-150

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on December 20, 2012.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: January 3, 2013
Samples Submitted: December 20, 2012
Laboratory Reference: 1212-150
Project: 110-001

Case Narrative

Samples were collected on December 20, 2012 and received by the laboratory on December 20, 2012. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

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Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-1					
Laboratory ID:	12-150-01					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	3.1	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-1					
Laboratory ID:	12-150-01					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	230	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>63-120</i>				

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Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-2					
Laboratory ID:	12-150-02					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	2.0	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-2					
Laboratory ID:	12-150-02					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	130	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>63-120</i>				

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Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-3					
Laboratory ID:	12-150-03					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	1.8	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SVE1-3					
Laboratory ID:	12-150-03					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	120	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>63-120</i>				

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Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	AS-1-1					
Laboratory ID:	12-150-04					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	2.3	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	AS-1-1					
Laboratory ID:	12-150-04					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	120	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>63-120</i>				

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Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	AS-1-2					
Laboratory ID:	12-150-05					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	1.6	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	AS-1-2					
Laboratory ID:	12-150-05					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	81	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>113</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>63-120</i>				

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Air
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1222A1					
Dichlorodifluoromethane	ND	1.5	EPA 8260C	12-22-12	12-22-12	
Chloromethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Vinyl Chloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Trichlorofluoromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Iodomethane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Methylene Chloride	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,2-Dichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chloroform	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Carbon Tetrachloride	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Trichloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromomethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromodichloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	12-22-12	12-22-12	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	12-22-12	12-22-12	

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

**HALOGENATED VOLATILES by EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1222A1					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Tetrachloroethene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Dibromochloromethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromoethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Chlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Bromoform	ND	5.0	EPA 8260C	12-22-12	12-22-12	
Bromobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	12-22-12	12-22-12	
2-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
4-Chlorotoluene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	12-22-12	12-22-12	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
Hexachlorobutadiene	ND	1.0	EPA 8260C	12-22-12	12-22-12	
1,2,3-Trichlorobenzene	ND	1.3	EPA 8260C	12-22-12	12-22-12	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>66-120</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>98</i>	<i>63-120</i>				

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
DUPLICATE QUALITY CONTROL
 page 1 of 2

Matrix: Air
 Units: ug/L

Analyte	Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE						
Laboratory ID:	12-150-05					
	ORIG	DUP				
Dichlorodifluoromethane	ND	ND		NA	30	
Chloromethane	ND	ND		NA	30	
Vinyl Chloride	ND	ND		NA	30	
Bromomethane	ND	ND		NA	30	
Chloroethane	ND	ND		NA	30	
Trichlorofluoromethane	ND	ND		NA	30	
1,1-Dichloroethene	ND	ND		NA	30	
Iodomethane	ND	ND		NA	30	
Methylene Chloride	ND	ND		NA	30	
(trans) 1,2-Dichloroethene	ND	ND		NA	30	
1,1-Dichloroethane	ND	ND		NA	30	
2,2-Dichloropropane	ND	ND		NA	30	
(cis) 1,2-Dichloroethene	ND	ND		NA	30	
Bromochloromethane	ND	ND		NA	30	
Chloroform	ND	ND		NA	30	
1,1,1-Trichloroethane	ND	ND		NA	30	
Carbon Tetrachloride	ND	ND		NA	30	
1,1-Dichloropropene	ND	ND		NA	30	
1,2-Dichloroethane	ND	ND		NA	30	
Trichloroethene	1.60	1.31		20	30	
1,2-Dichloropropane	ND	ND		NA	30	
Dibromomethane	ND	ND		NA	30	
Bromodichloromethane	ND	ND		NA	30	
2-Chloroethyl Vinyl Ether	ND	ND		NA	30	
(cis) 1,3-Dichloropropene	ND	ND		NA	30	
(trans) 1,3-Dichloropropene	ND	ND		NA	30	

Date of Report: January 3, 2013
 Samples Submitted: December 20, 2012
 Laboratory Reference: 1212-150
 Project: 110-001

HALOGENATED VOLATILES by EPA 8260C
DUPLICATE QUALITY CONTROL
 page 2 of 2

Analyte	Result		Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE							
Laboratory ID:	12-150-05						
	ORIG	DUP					
1,1,2-Trichloroethane	ND	ND			NA	30	
Tetrachloroethene	80.9	86.2			6	30	
1,3-Dichloropropane	ND	ND			NA	30	
Dibromochloromethane	ND	ND			NA	30	
1,2-Dibromoethane	ND	ND			NA	30	
Chlorobenzene	ND	ND			NA	30	
1,1,1,2-Tetrachloroethane	ND	ND			NA	30	
Bromoform	ND	ND			NA	30	
Bromobenzene	ND	ND			NA	30	
1,1,2,2-Tetrachloroethane	ND	ND			NA	30	
1,2,3-Trichloropropane	ND	ND			NA	30	
2-Chlorotoluene	ND	ND			NA	30	
4-Chlorotoluene	ND	ND			NA	30	
1,3-Dichlorobenzene	ND	ND			NA	30	
1,4-Dichlorobenzene	ND	ND			NA	30	
1,2-Dichlorobenzene	ND	ND			NA	30	
1,2-Dibromo-3-chloropropane	ND	ND			NA	30	
1,2,4-Trichlorobenzene	ND	ND			NA	30	
Hexachlorobutadiene	ND	ND			NA	30	
1,2,3-Trichlorobenzene	ND	ND			NA	30	
<i>Surrogate:</i>							
<i>Dibromofluoromethane</i>			113	116	66-120		
<i>Toluene-d8</i>			107	107	70-120		
<i>4-Bromofluorobenzene</i>			99	100	63-120		



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
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Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number: **12-150**

Company: **PACIFIC CREST**
 Project Number: **110-001**
 Project Name: **SOUND MATRESS**
 Project Manager: **BILL CARROLL**
 Sampled By: **RYAN LEDOUX**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	SVE1-1	12/20	1014	AIR
2	SVE1-2		1150	
3	SVE1-3		1311	
4	AS-1-1		1358	
5	AS-1-2		1504	

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx	
Volatiles 8260C	
Halogenated Volatiles 8260C	X
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals/ MTCA Metals (circle one)	
TCLP Metals	
HEM (oil and grease) 1664A	
% Moisture	

Signature	Company	Date	Time	Comments/Special Instructions
	PACIFIC CREST	12/20	17:44	
	Onsite	12-20-12	17:44	
Received				
Relinquished				
Received				
Relinquished				
Received				
Relinquished				
Reviewed/Date				Chromatograms with final report <input type="checkbox"/>



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October 29, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-074C

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 9, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 29, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074C
Project: 110-001

Case Narrative

Samples were collected on September 8, 2014 and received by the laboratory on September 9, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 29, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074C
Project: 110-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-074-05					
Client ID:	MW13-090814					
Arsenic	ND	3.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Nickel	3.4	0.50	200.8		9-29-14	
Zinc	5.7	2.5	200.8		9-27-14	

Date of Report: October 29, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074C
Project: 110-001

**DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 9-27&29-14
Matrix: Water
Units: ug/L (ppb)
Lab ID: MB0927D1&MB0929D1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Copper	200.8	ND	1.0
Nickel	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 29, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074C
Project: 110-001

**DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Copper	ND	ND	NA	1.0	
Nickel	1.45	1.35	8	0.50	
Zinc	ND	ND	NA	2.5	

Date of Report: October 29, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074C
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	80	76.2	95	74.6	93	2	
Copper	80	73.4	92	72.3	90	2	
Nickel	80	81.0	99	79.0	97	3	
Zinc	80	68.6	86	69.2	87	1	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

Turnaround Request
(in working days)
(Check One)

Laboratory Number:

09-074

Company: **Pacific Crest Environmental**

Project Number: **110-001**

Project Name:

Former Sound Mattress + Felt Co.

Project Manager:

Bill Carroll

Sampled by: **Brian Lund**

Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 (TPH analysis 5 Days)

(other)

Lab ID

Date Sampled

Time Sampled

Matrix

Number of Containers

NWTPH-HCID

NWTPH-Gx/BTEX

NWTPH-Gx

NWTPH-Dx

Volatiles 8260C

Halogenated Volatiles 8260C

Semivolatiles 8270D/SIM
(with low-level PAHs)

PAHs 8270D/SIM (low-level)

PCBs 8082A

Organochlorine Pesticides 8081B

Organophosphorus Pesticides 8270D/SIM

Chlorinated Acid Herbicides 8151A

Total Metals/ ~~_____~~

TCLP Metals

HEM (oil and grease) 1664A

Free & WAD Cyanide

Dissolved Ni, Zn

Dissolved As, Cu, Ni, Zn

% Moisture

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total Metals/ _____	TCLP Metals	HEM (oil and grease) 1664A	Free & WAD Cyanide	Dissolved Ni, Zn	Dissolved As, Cu, Ni, Zn	% Moisture	
1	MW10-090814	9/9/14	0723	Water	7					X									X			X			
2	MW3-090814		0831							X									X			X			
3	MW14-090814		0941							X									X			X			
4	MW12-090814		1103							X									X			X			
5	MW13-090814		1140							X									X			X			
6	QAQC-090814	9/9/14	1600	Water	3					X									X			X			

Signature

Company

Date

Time

Comments/Special Instructions

Relinquished		Pacific Crest	9/9/14	9:00	* Analyze for: As, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Sn, Zn
Received		SPUR	9/9/14	9:00	
Relinquished		QRE	9/9/14	12:50	
Received					
Relinquished					
Received					
Reviewed/Date					

Data Package: Level III Level IV

Electronic Data Deliverables (EDDs)

Chromatograms with final report

Applied 9/23/14
 Applied 9/28/14
 Applied 9/28/14 (574)



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

November 10, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1410-371

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on October 31, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: November 10, 2014
Samples Submitted: October 31, 2014
Laboratory Reference: 1410-371
Project: 110-001

Case Narrative

Samples were collected on October 30, 2014 and received by the laboratory on October 31, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Halogenated Volatiles EPA 8260C Analysis

Surrogate Standard Dibromofluoromethane is outside of control limits on the high end for sample SW1-103014. Because the sample is non-detect, no further action was taken.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

HALOGENATED VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW1-103014					
Laboratory ID:	10-371-01					
Dichlorodifluoromethane	ND	0.50	EPA 8260C	11-5-14	11-5-14	
Chloromethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Vinyl Chloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Iodomethane	ND	1.5	EPA 8260C	11-5-14	11-5-14	
Methylene Chloride	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroform	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Trichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromodichloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

HALOGENATED VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW1-103014					
Laboratory ID:	10-371-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Tetrachloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromoform	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Bromobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>127</i>	<i>79-122</i>				<i>Q</i>
<i>Toluene-d8</i>	<i>114</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-120</i>				

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

HALOGENATED VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW2-103014					
Laboratory ID:	10-371-02					
Dichlorodifluoromethane	ND	0.50	EPA 8260C	11-5-14	11-5-14	
Chloromethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Vinyl Chloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Iodomethane	ND	1.5	EPA 8260C	11-5-14	11-5-14	
Methylene Chloride	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroform	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Trichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromodichloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
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 Project: 110-001

HALOGENATED VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW2-103014					
Laboratory ID:	10-371-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Tetrachloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromoform	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Bromobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>79-122</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>80-120</i>				

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

HALOGENATED VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW3-103014					
Laboratory ID:	10-371-03					
Dichlorodifluoromethane	ND	0.50	EPA 8260C	11-5-14	11-5-14	
Chloromethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Vinyl Chloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Iodomethane	ND	1.5	EPA 8260C	11-5-14	11-5-14	
Methylene Chloride	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroform	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Trichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromodichloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
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HALOGENATED VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	SW3-103014					
Laboratory ID:	10-371-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Tetrachloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromoform	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Bromobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>79-122</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>80-120</i>				

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

**HALOGENATED VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

Page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1105W1					
Dichlorodifluoromethane	ND	0.50	EPA 8260C	11-5-14	11-5-14	
Chloromethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Vinyl Chloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroethane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Iodomethane	ND	1.5	EPA 8260C	11-5-14	11-5-14	
Methylene Chloride	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chloroform	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Trichloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromomethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromodichloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	11-5-14	11-5-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	11-5-14	11-5-14	

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

**HALOGENATED VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB1105W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Tetrachloroethene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Dibromochloromethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Chlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Bromoform	ND	1.0	EPA 8260C	11-5-14	11-5-14	
Bromobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	11-5-14	11-5-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	11-5-14	11-5-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	11-5-14	11-5-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>79-122</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>80-120</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>80-120</i>				

Date of Report: November 10, 2014
 Samples Submitted: October 31, 2014
 Laboratory Reference: 1410-371
 Project: 110-001

**HALOGENATED VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB1105W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	10.1	10.0	10.0	10.0	101	100	64-138	1	16	
Benzene	12.0	11.2	10.0	10.0	120	112	76-125	7	14	
Trichloroethene	10.3	10.0	10.0	10.0	103	100	75-125	3	16	
Toluene	12.0	11.6	10.0	10.0	120	116	75-125	3	15	
Chlorobenzene	9.64	9.42	10.0	10.0	96	94	80-140	2	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>117</i>	<i>109</i>	<i>79-122</i>			
<i>Toluene-d8</i>					<i>110</i>	<i>112</i>	<i>80-120</i>			
<i>4-Bromofluorobenzene</i>					<i>102</i>	<i>103</i>	<i>80-120</i>			



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number:

10-371

Company: **Pacific Crest**
 Project Number: **110-001**
 Project Name: **Former Sound Mattress**
 Project Manager: **B. CARROLL**
 Sampled by: **M. DECARO**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	SW1-103014	10/30	1345	H2O 3
2	SW2-103014	10/30	1355	H2O 3
3	SW3-103014	10/30	1405	H2O 3

Number of Containers	
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx	
Volatiles 8260C	
Halogenated Volatiles 8260C	X
Semivolatiles 8270D/SIM (with low-level PAHs)	X
PAHs 8270D/SIM (low-level)	X
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals/ MTCA Metals (circle one)	
TCLP Metals	
HEM (oil and grease) 1664A	
% Moisture	

Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	Pacific Crest Env	10/31/14	9:30	
Received	<i>[Signature]</i>	Sperry	10/31/14	9:30	
Relinquished	<i>[Signature]</i>		10/31/14	1300	
Received	<i>[Signature]</i>				
Relinquished					
Received					
Relinquished					
Reviewed/Date					



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October 16, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-060B

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 6, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 16, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060B
Project: 110-001

Case Narrative

Samples were collected on September 4 and 5, 2014 and received by the laboratory on September 6, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 16, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060B
 Project: 110-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-12					
Client ID:	MW15-090514					
Copper	ND	1.0	200.8		10-14-14	
Nickel	1.9	1.3	200.8		10-14-14	
Tin	ND	0.50	200.8		9-29-14	
Zinc	3.8	2.5	200.8		10-14-14	

Lab ID:	09-060-13					
Client ID:	MW17-090514					
Copper	ND	1.0	200.8		10-14-14	
Nickel	1.0	1.0	200.8		10-14-14	
Zinc	5.8	2.5	200.8		10-14-14	

Date of Report: October 16, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060B
Project: 110-001

**DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 9-29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0929D1

Analyte	Method	Result	PQL
Copper	200.8	ND	1.0
Nickel	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 16, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060B
Project: 110-001

**DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Analyzed: 9-29-14
Matrix: Water
Units: ug/L (ppb)
Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Copper	ND	ND	NA	1.0	
Nickel	1.45	1.35	8	0.50	
Tin	ND	ND	NA	0.50	
Zinc	4.14	ND	NA	2.5	

Date of Report: October 16, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060B
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Analyzed: 9-29-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Copper	80.0	72.8	91	72.2	90	1	
Nickel	80.0	81.0	99	79.0	97	3	
Tin	80.0	80.6	101	78.6	98	3	
Zinc	80.0	76.6	91	77.2	91	1	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

Turnaround Request
(in working days)
(Check One)

- Same Day 1 Day
 2 Days 3 Days

Standard (7 Days)
(T/PH analysis 5 Days)

(other)

Laboratory Number:

09-060

Company: **Pacific Crest Environmental**
Project Number: **110-001**
Project Name: **Former Sound Mattress & Felt Co.**
Project Manager: **Bill Carroll**
Sampled by: **Brian Lund**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MW8-090414-10.5	9/4/14	1107	water
2	MW4-090414-11.5		1310	
3	MW1-090414-11.5		1436	
4	MW7-090414-10.5		1539	
5	MW6-090414-10.5		1645	
6	MW5-090414-10.5		1757	
7	MW6-090514-11.0	9/5/14	1855	
8	MW1-090514-11.5		1345	
9	MW1-090514-11.5 Dup		1402	
10	MW2-090514-11.0		1452	

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8137A	Total Metals	Total MTCA Metals	POLP Metals	HEM (oil and grease) 1667A	Free & WAD Cyanide	Dis Cu	Dis Pb	Dis Ni	Dis Sn	% Moisture	Dis Zn
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	
7					X								X	X	X	X	X	X	X	X	X	X	

Signature	Company	Date	Time	Comments/Special Instructions
	PC ENV	9/16/14	1100	* See attached As, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Sn, Zn
	PC ENV	9/16/14	1100	Added 9/23/14 DB (STA)
				Added 10/7/14 DB (STA)

Relinquished
Received
Relinquished
Received
Relinquished
Received
Reviewed/Date

Reviewed/Date

Data Package: Standard Level III Level IV

Electronic Data Deliverables (EDDs)

Chromatograms with final report



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Chain of Custody

Turnaround Request (in working days)
(Check One)

- Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days) (TPH analysis 5 Days)

_____ (other)

Laboratory Number:

09-060

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Former Sound Mattress & Felt Co.
Project Manager: Bill Carroll
Sampled by: Brian Lund & Matt DeCaro

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Date	Time	Comments/Special Instructions
11	MW9-090514-H.O-33	9/5/14	1537	water	NWTPH-HCID NWTPH-Gx/BTEX NWTPH-Gx NWTPH-Dx Volatiles 8260C Halogenated Volatiles 8260C Semivolatiles 8270D/SIM (with low-level PAHs) PAHs 8270D/SIM (low-level) PCBs 8082A Organochlorine Pesticides 8081B Organophosphorus Pesticides 8270D/SIM Chlorinated Acid Herbicides 8151A Total HCHA Metals/ MICA Metals (circle one) * TCLP Metals HEM (oil and grease) 1664A Free & WAD Dis Cr Dis As Dis Cd Dis. Ni Dis. Cu Dis. Zn	9/16/14	1100	Note: MW-15 & MW-17 samples need to be analyzed using Reductive precipitation methods * See attached list.
12	MW15-090514-85.0		0830			9/16/14	1100	
13	MW17-090514-24.0		0930					

Received
Relinquished
Received
Relinquished
Received
Relinquished
Reviewed/Date

Signature

Company

Reviewed/Date

Data Package: Level III Level IV

Electronic Data Deliverables (EDDs)

Chromatograms with final report

Added 9/23/14 - DB (STA)

DATA



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October 3, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-074B

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 9, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal flourish extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

Case Narrative

Samples were collected on September 8, 2014 and received by the laboratory on September 9, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 3, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074B
 Project: 110-001

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-074-05					
Client ID:	MW13-090814					
Arsenic	6.1	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	2.3	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-10-14	9-10-14	
Nickel	3.9	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	2.5	200.8	9-11-14	9-28-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	15	2.5	200.8	9-11-14	9-17-14	

Date of Report: October 3, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074B
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.3
Cadmium	200.8	ND	4.4
Chromium	200.8	ND	11
Cobalt	200.8	ND	5.6
Copper	200.8	ND	1.0
Lead	200.8	ND	1.0
Nickel	200.8	ND	0.50
Selenium	200.8	ND	1.0
Silver	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**TOTAL MERCURY
EPA 7470A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-10-14
Date Analyzed: 9-10-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0910W1

Analyte	Method	Result	PQL
Mercury	7470A	ND	0.050

Date of Report: October 3, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074B
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.3	
Cadmium	ND	ND	NA	4.4	
Chromium	ND	ND	NA	11	
Cobalt	ND	ND	NA	5.6	
Copper	6.58	6.33	4	1	
Lead	ND	ND	NA	1	
Nickel	2.16	2.20	2	0.5	
Selenium	ND	ND	NA	1	
Silver	ND	ND	NA	0.5	
Tin	ND	ND	NA	0.5	
Zinc	12.0	11.0	9	2.5	

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**TOTAL MERCURY
EPA 7470A
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-10-14
Date Analyzed: 9-10-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-074-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.050	

Date of Report: October 3, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074B
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	119	107	120	108	1	
Cadmium	111	118	106	117	105	1	
Chromium	111	117	105	118	106	1	
Cobalt	111	115	103	115	104	0	
Copper	111	118	100	118	101	0	
Lead	111	113	102	112	101	1	
Nickel	111	116	103	116	102	0	
Selenium	111	107	97	115	104	7	
Silver	111	110	99	114	102	4	
Tin	111	121	109	122	110	1	
Zinc	111	130	106	127	104	2	

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**TOTAL MERCURY
EPA 7470A
MS/MSD QUALITY CONTROL**

Date Extracted: 9-10-14

Date Analyzed: 9-10-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-074-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	6.25	5.65	90	5.98	96	6	

Date of Report: October 3, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074B
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
<hr/>						
Lab ID:	09-074-01					
Client ID:	MW10-090814					
Nickel	1.0	0.50	200.8		9-29-14	
Zinc	7.9	2.5	200.8		9-27-14	
<hr/>						
Lab ID:	09-074-02					
Client ID:	MW3-090814					
Nickel	ND	0.50	200.8		9-29-14	
Zinc	5.4	2.5	200.8		9-27-14	
<hr/>						
Lab ID:	09-074-03					
Client ID:	MW14-090814					
Nickel	0.58	0.50	200.8		9-29-14	
Zinc	9.4	2.5	200.8		9-27-14	
<hr/>						
Lab ID:	09-074-04					
Client ID:	MW12-090814					
Nickel	0.97	0.50	200.8		9-29-14	
Zinc	3.9	2.5	200.8		10-3-14	
<hr/>						

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED METALS
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0927D1&MB0929D1

Analyte	Method	Result	PQL
Nickel	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED NICKEL
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Analyzed: 9-29-14
Matrix: Water
Units: ug/L (ppb)
Lab ID: MB0929D1

Analyte	Method	Result	PQL
Nickel	200.8	ND	0.50

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED METALS
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Nickel	1.08	0.896	19	0.50	
Zinc	ND	ND	NA	2.5	

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED NICKEL
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Analyzed: 9-29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Nickel	1.45	1.35	8	0.50	

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED METALS
EPA 200.8
MS/MSD QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Nickel	80.0	81.6	101	79.6	98	3	
Zinc	80.0	68.6	86	69.2	87	1	

Date of Report: October 3, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074B
Project: 110-001

**DISSOLVED NICKEL
EPA 200.8
MS/MSD QUALITY CONTROL**

Date Analyzed: 9-29-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Nickel	80.0	81.0	99	79.0	97	3	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



OnSite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request (in working days)

(Check One)

- Same Day 1 Day
- 2 Days 3 Days
- Standard (7 Days) (TPH analysis 5 Days)
- (other) _____

Laboratory Number:

09-074

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Former Sound Mattress & Felt Co.
 Project Manager: Bill Carroll
 Sampled by: Brian Lund

Lab ID Sample Identification

Lab ID	Sample Identification
1	MW10-090814
2	MW3-090814
3	MW14-090814
4	MW12-090814
5	MW13-090814
6	QAQC-090814

Date Sampled Time Sampled Matrix

Date Sampled	Time Sampled	Matrix
9/9/14	0723	water
	0831	
	0941	
	1103	
	1140	
9/9/14	1600	water

Number of Containers

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total Metals/TPH (see page)	TCLP Metals	HEM (oil and grease) 1664A
7					X								X	X	
					X								X	X	
					X								X	X	
					X								X	X	
					X								X	X	
3					X								X	X	

Free & WAD Cyanide
Dissolved Ni, Zn

% Moisture

Signature Company Date Time Comments/Special Instructions

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9/9/14	9:00	* Analyze for: As, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Sn, Zn Please place hold on total metals analysis for MW13-090814. If analyzed reductive precipitation methods need to be used. Added 9/23/14 [Signature]
<i>[Signature]</i>	Sperry	9/9/14	9:00	
<i>[Signature]</i>	QRE	9/9/14	12:50	



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 3, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-060

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 6, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

Case Narrative

Samples were collected on September 4 and 5, 2014 and received by the laboratory on September 6, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW8-090414					
Laboratory ID:	09-060-01					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	0.91	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	22	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	6.1	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW8-090414					
Laboratory ID:	09-060-01					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	10	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-120</i>				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-090414					
Laboratory ID:	09-060-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	0.21	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	0.60	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	0.52	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW4-090414					
Laboratory ID:	09-060-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	1.2	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>71-120</i>				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-090414					
Laboratory ID:	09-060-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	0.53	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW1-090414					
Laboratory ID:	09-060-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	11	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>71-120</i>				

Date of Report: October 3, 2014
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW7-090414					
Laboratory ID:	09-060-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.26	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	45	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	5.3	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW7-090414					
Laboratory ID:	09-060-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	1.2	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	95	62-122				
<i>Toluene-d8</i>	98	70-120				
<i>4-Bromofluorobenzene</i>	87	71-120				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-090414					
Laboratory ID:	09-060-05					
Dichlorodifluoromethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	1.8	0.40	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	10	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	4.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	4.7	0.40	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	2.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	76	0.40	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	13	0.40	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.40	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW6-090414					
Laboratory ID:	09-060-05					
1,1,2-Trichloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	40	0.40	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.80	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.40	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	2.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	2.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>118</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>99</i>	<i>71-120</i>				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW5-090414					
Laboratory ID:	09-060-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	5.2	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	2.1	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

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 Samples Submitted: September 6, 2014
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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW5-090414					
Laboratory ID:	09-060-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	5.4	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-120</i>				

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 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW16-090514					
Laboratory ID:	09-060-07					
Dichlorodifluoromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	10	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	250	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	10	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	100	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	13	10	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	50	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	1200	10	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	250	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	19	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	100	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	50	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW16-090514					
Laboratory ID:	09-060-07					
1,1,2-Trichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	76	10	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	100	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	20	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	10	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	50	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	10	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	50	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>71-120</i>				

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-090514					
Laboratory ID:	09-060-08					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	6.9	4.0	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	100	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	40	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	16	4.0	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	20	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	720	4.0	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	100	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	180	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	40	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	20	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	

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 Samples Submitted: September 6, 2014
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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-090514					
Laboratory ID:	09-060-08					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	250	4.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	40	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	8.0	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	20	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>71-120</i>				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-090514-Dup					
Laboratory ID:	09-060-09					
Dichlorodifluoromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	8.0	4.0	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	100	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	20	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	40	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	35	4.0	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	20	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	940	10	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	100	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	150	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	40	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	20	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	4.0	EPA 8260C	9-10-14	9-10-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW11-090514-Dup					
Laboratory ID:	09-060-09					
1,1,2-Trichloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	100	4.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	40	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	8.0	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	20	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	4.0	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	4.0	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>118</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>71-120</i>				

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW2-090514					
Laboratory ID:	09-060-10					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	0.27	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	6.1	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	3.4	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW2-090514					
Laboratory ID:	09-060-10					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	21	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>71-120</i>				

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 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW9-090514					
Laboratory ID:	09-060-11					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW9-090514					
Laboratory ID:	09-060-11					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	0.57	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-120</i>				

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW15-090514					
Laboratory ID:	09-060-12					
Dichlorodifluoromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	51	1.0	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	25	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	10	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	5.7	1.0	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	5.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	150	1.0	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	25	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	10	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	5.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-10-14	9-10-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW15-090514					
Laboratory ID:	09-060-12					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	10	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	2.0	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	5.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>71-120</i>				

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW17-090514					
Laboratory ID:	09-060-13					
Dichlorodifluoromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	170	10	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	10	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	250	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	50	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	10	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	100	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	10	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	50	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	950	10	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	250	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	50	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	100	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	50	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	10	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW17-090514					
Laboratory ID:	09-060-13					
1,1,2-Trichloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	100	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	20	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	10	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	50	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	10	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	50	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	10	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	50	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	10	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-120</i>				

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 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0910W2					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloromethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Acetone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Iodomethane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-10-14	9-10-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Butanone	ND	5.0	EPA 8260C	9-10-14	9-10-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chloroform	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Benzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Trichloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Dibromomethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Toluene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-10-14	9-10-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0910W2				
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Tetrachloroethene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Hexanone	ND	2.0	EPA 8260C	9-10-14	9-10-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-10-14	9-10-14	
o-Xylene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Styrene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromoform	ND	1.0	EPA 8260C	9-10-14	9-10-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Bromobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
Naphthalene	ND	1.0	EPA 8260C	9-10-14	9-10-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-10-14	9-10-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-120</i>				

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 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

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METHOD BLANK QUALITY CONTROL
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	2.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>71-120</i>				

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**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0910W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	8.62	9.61	10.0	10.0	86	96	63-142	11	17	
Benzene	9.36	9.19	10.0	10.0	94	92	78-125	2	15	
Trichloroethene	7.89	7.77	10.0	10.0	79	78	74-125	2	15	
Toluene	9.01	8.73	10.0	10.0	90	87	80-125	3	15	
Chlorobenzene	8.95	8.91	10.0	10.0	90	89	80-140	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					111	108	62-122			
<i>Toluene-d8</i>					103	102	70-120			
<i>4-Bromofluorobenzene</i>					91	89	71-120			

Date of Report: October 3, 2014
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**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0911W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.46	10.0	10.0	10.0	95	100	63-142	6	17	
Benzene	9.90	10.5	10.0	10.0	99	105	78-125	6	15	
Trichloroethene	8.83	8.87	10.0	10.0	88	89	74-125	0	15	
Toluene	9.82	10.1	10.0	10.0	98	101	80-125	3	15	
Chlorobenzene	9.23	9.43	10.0	10.0	92	94	80-140	2	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					96	97	62-122			
<i>Toluene-d8</i>					99	98	70-120			
<i>4-Bromofluorobenzene</i>					93	91	71-120			

Date of Report: October 3, 2014
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 Project: 110-001

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-01					
Client ID:	MW8-090414					
Arsenic	3.4	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	16	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	31	1.0	200.8	9-11-14	9-16-14	
Lead	16	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	21	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	2.4	0.50	200.8	9-11-14	9-17-14	
Zinc	340	6.2	200.8	9-11-14	9-16-14	

Lab ID:	09-060-02					
Client ID:	MW4-090414					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	0.75	0.50	200.8	9-11-14	9-19-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	3.3	2.5	200.8	9-11-14	9-17-14	

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**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-03					
Client ID:	MW1-090414					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	1.2	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	2.4	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	6.5	2.5	200.8	9-11-14	9-16-14	

Lab ID:	09-060-04					
Client ID:	MW7-090414					
Arsenic	5.1	3.3	200.8	9-11-14	9-16-14	
Cadmium	14	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	15	1.0	200.8	9-11-14	9-16-14	
Lead	8.7	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	15	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	2	0.50	200.8	9-11-14	9-17-14	
Zinc	140	2.5	200.8	9-11-14	9-16-14	

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**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-05					
Client ID:	MW6-090414					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	1.7	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	33	0.50	200.8	9-11-14	9-19-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	46	2.5	200.8	9-11-14	9-16-14	

Lab ID:	09-060-06					
Client ID:	MW5-090414					
Arsenic	5.9	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	26	1.0	200.8	9-11-14	9-16-14	
Lead	24	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	17	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	0.99	0.50	200.8	9-11-14	9-17-14	
Zinc	220	2.5	200.8	9-11-14	9-17-14	

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**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-07					
Client ID:	MW16-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	1.3	0.50	200.8	9-11-14	9-19-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	5.5	2.5	200.8	9-11-14	9-16-14	

Lab ID:	09-060-08					
Client ID:	MW11-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	170	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	2.9	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	190	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	5.7	2.5	200.8	9-11-14	9-16-14	

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**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-09					
Client ID:	MW11-090514-Dup					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	110	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	2.1	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	130	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	9.4	2.5	200.8	9-11-14	9-16-14	

Lab ID:	09-060-10					
Client ID:	MW2-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	7.5	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	10	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	4.9	2.5	200.8	9-11-14	9-16-14	

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**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-11					
Client ID:	MW9-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	1.7	0.50	200.8	9-11-14	9-19-14	
Selenium	ND	1.0	200.8	9-11-14	9-16-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	6.3	2.5	200.8	9-11-14	9-16-14	

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**TOTAL METALS
 EPA 200.8
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16&17-14

 Matrix: Water
 Units: ug/L (ppb)

 Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.3
Cadmium	200.8	ND	4.4
Chromium	200.8	ND	11
Cobalt	200.8	ND	5.6
Copper	200.8	ND	1.0
Lead	200.8	ND	1.0
Nickel	200.8	ND	0.50
Selenium	200.8	ND	1.0
Silver	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-9-14
Date Analyzed: 9-9-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0909W1

Analyte	Method	Result	PQL
Mercury	7470A	ND	0.050

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL NICKEL
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
Date Analyzed: 9-19-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Nickel	200.8	ND	0.50

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16&17-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.3	
Cadmium	ND	ND	NA	4.4	
Chromium	ND	ND	NA	11	
Cobalt	ND	ND	NA	5.6	
Copper	6.58	6.33	4	1.0	
Lead	ND	ND	NA	1.0	
Nickel	2.16	2.20	2	0.50	
Selenium	ND	ND	NA	1.0	
Silver	ND	ND	NA	0.50	
Tin	ND	ND	NA	0.50	
Zinc	12.0	11.0	9	2.5	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-9-14

Date Analyzed: 9-9-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.050	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL NICKEL
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14

Date Analyzed: 9-19-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Nickel	1.22	1.12	9	0.50	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16&17-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	119	107	120	108	1	
Cadmium	111	118	106	117	105	1	
Chromium	111	117	105	118	106	1	
Cobalt	111	115	103	115	104	0	
Copper	111	118	100	118	101	0	
Lead	111	113	102	112	101	1	
Nickel	111	116	103	116	102	0	
Selenium	111	114	103	113	102	1	
Silver	111	110	99	114	102	4	
Tin	111	121	109	122	110	1	
Zinc	111	130	106	127	104	2	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
MS/MSD QUALITY CONTROL**

Date Extracted: 9-9-14

Date Analyzed: 9-9-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	6.25	6.00	96	6.23	100	4	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL NICKEL
EPA 200.8
MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14

Date Analyzed: 9-19-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Nickel	111	112	100	118	105	5	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-12					
Client ID:	MW15-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	1.3	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	4.2	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	5.0	200.8	9-11-14	9-28-14	
Silver	ND	0.50	200.8	9-11-14	9-30-14	
Tin	0.53	0.50	200.8	9-11-14	9-17-14	
Zinc	7.0	2.5	200.8	9-11-14	9-17-14	

Lab ID:	09-060-13					
Client ID:	MW17-090514					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	1.4	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-9-14	9-9-14	
Nickel	4.2	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	2.5	200.8	9-11-14	9-28-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	9.9	2.5	200.8	9-11-14	9-17-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.3
Cadmium	200.8	ND	4.4
Chromium	200.8	ND	11
Cobalt	200.8	ND	5.6
Copper	200.8	ND	1.0
Lead	200.8	ND	1.0
Nickel	200.8	ND	0.50
Selenium	200.8	ND	1.0
Silver	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-9-14
Date Analyzed: 9-9-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0909W1

Analyte	Method	Result	PQL
Mercury	7470A	ND	0.050

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.3	
Cadmium	ND	ND	NA	4.4	
Chromium	ND	ND	NA	11	
Cobalt	ND	ND	NA	5.6	
Copper	6.58	6.33	4	1.0	
Lead	ND	ND	NA	1.0	
Nickel	2.16	2.20	2	0.50	
Selenium	ND	ND	NA	1.0	
Silver	ND	ND	NA	0.50	
Tin	ND	ND	NA	0.50	
Zinc	12.0	11.0	9	2.5	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-9-14

Date Analyzed: 9-9-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.050	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	119	107	120	108	1	
Cadmium	111	118	106	117	105	1	
Chromium	111	117	105	118	106	1	
Cobalt	111	115	103	115	104	0	
Copper	111	118	100	118	101	0	
Lead	111	113	102	112	101	1	
Nickel	111	116	103	116	102	0	
Selenium	111	107	97	115	104	7	
Silver	111	110	99	114	102	4	
Tin	111	121	109	122	110	1	
Zinc	111	130	106	127	104	2	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

**TOTAL MERCURY
EPA 7470A
MS/MSD QUALITY CONTROL**

Date Extracted: 9-9-14

Date Analyzed: 9-9-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	6.25	6.00	96	6.23	100	4	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-01					
Client ID:	MW8-090414					
Arsenic	ND	3.0	200.8		9-27-14	
Cadmium	ND	4.0	200.8		9-27-14	
Chromium	ND	10	200.8		9-27-14	
Cobalt	ND	5.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Lead	ND	1.0	200.8		9-27-14	
Nickel	2.7	0.50	200.8		9-29-14	
Tin	ND	0.50	200.8		9-29-14	
Zinc	31	2.5	200.8		9-27-14	

Lab ID:	09-060-02					
Client ID:	MW4-090414					
Nickel	1.0	0.50	200.8		9-29-14	
Zinc	ND	2.5	200.8		9-27-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-03					
Client ID:	MW1-090414					
Copper	ND	1.0	200.8		9-29-14	
Nickel	1.2	0.50	200.8		9-29-14	
Zinc	ND	2.5	200.8		9-27-14	

Lab ID:	09-060-04					
Client ID:	MW7-090414					
Arsenic	ND	3.0	200.8		9-27-14	
Cadmium	ND	4.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Lead	ND	1.0	200.8		9-27-14	
Nickel	4.2	0.50	200.8		9-29-14	
Tin	ND	0.50	200.8		9-29-14	
Zinc	12	2.5	200.8		9-27-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-05					
Client ID:	MW6-090414					
Copper	ND	1.0	200.8		9-29-14	
Nickel	32	0.50	200.8		9-29-14	
Zinc	30	2.5	200.8		9-27-14	

Lab ID: 09-060-06
Client ID: MW5-090414

Arsenic	ND	3.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Lead	ND	1.0	200.8		9-27-14	
Nickel	0.59	0.50	200.8		9-29-14	
Tin	ND	0.50	200.8		9-29-14	
Zinc	5.6	2.5	200.8		9-27-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-07					
Client ID:	MW16-090514					
Nickel	1.4	0.50	200.8		9-29-14	
Zinc	4.4	2.5	200.8		9-27-14	

Lab ID:	09-060-08					
Client ID:	MW11-090514					
Cadmium	18	4.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Nickel	53	0.50	200.8		9-29-14	
Zinc	ND	2.5	200.8		9-27-14	

Lab ID:	09-060-09					
Client ID:	MW11-090514-Dup					
Cadmium	21	4.0	200.8		9-27-14	
Copper	ND	1.0	200.8		9-29-14	
Nickel	71	0.50	200.8		9-29-14	
Zinc	ND	2.5	200.8		9-27-14	

Lab ID:	09-060-10					
Client ID:	MW2-090514					
Cadmium	ND	4.0	200.8		9-27-14	
Copper	1.3	1.0	200.8		9-29-14	
Nickel	6.0	0.50	200.8		9-29-14	
Zinc	ND	2.5	200.8		9-27-14	

Date of Report: October 3, 2014
Samples Submitted: September 6, 2014
Laboratory Reference: 1409-060
Project: 110-001

DISSOLVED METALS
EPA 200.8

Matrix: Water
Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-060-11					
Client ID:	MW9-090514					
Nickel	0.77	0.50	200.8		9-29-14	
Zinc	4.0	2.5	200.8		9-27-14	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8
 METHOD BLANK QUALITY CONTROL**

Date Analyzed: 9-27&29-14
 Matrix: Water
 Units: ug/L (ppb)
 Lab ID: MB0927D1&MB0929D1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.0
Cadmium	200.8	ND	4.0
Chromium	200.8	ND	10
Cobalt	200.8	ND	5.0
Copper	200.8	ND	1.0
Lead	200.8	ND	1.0
Nickel	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.0	
Cadmium	ND	ND	NA	4.0	
Chromium	ND	ND	NA	10	
Cobalt	ND	ND	NA	1.0	
Copper	ND	ND	NA	1.0	
Lead	ND	ND	NA	1.0	
Nickel	1.08	0.896	19	0.50	
Tin	ND	ND	NA	0.50	
Zinc	ND	ND	NA	2.5	

Date of Report: October 3, 2014
 Samples Submitted: September 6, 2014
 Laboratory Reference: 1409-060
 Project: 110-001

**DISSOLVED METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Analyzed: 9-27&29-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-060-02

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	80	76.2	95	74.6	93	2	
Cadmium	80	74.6	93	74.8	94	0	
Chromium	80	80.6	101	80.8	101	0	
Cobalt	80	82.4	103	80.4	101	3	
Copper	80	73.4	92	72.8	91	1	
Lead	80	77.4	97	77.6	97	0	
Nickel	80	78.0	96	81.6	101	5	
Tin	80	76.8	96	80.0	100	4	
Zinc	80	68.6	86	69.2	87	1	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
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Services

Sep 24 2014
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW8-090414	Water	14-A014353	CONV
MW4-090414	Water	14-A014354	CONV
MW1-090414	Water	14-A014355	CONV
MW7-090414	Water	14-A014356	CONV
MW6-090414	Water	14-A014357	CONV
MW5-090414	Water	14-A014358	CONV
MW16-090514	Water	14-A014359	CONV
MW11-090514	Water	14-A014360	CONV
MW11-090514-DUP	Water	14-A014361	CONV
MW2-090514	Water	14-A014362	CONV

Your samples were received on Wednesday, September 10, 2014. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Laboratory Manager

Project #: 110-001

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



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ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 110-001
All results reported on an as received basis.

Date Received: 09/10/14
Date Reported: 9/24/14

AMTEST Identification Number 14-A014353
Client Identification MW8-090414
Sampling Date 09/04/14, 11:07

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014354
Client Identification MW4-090414
Sampling Date 09/04/14, 13:10

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014355
Client Identification MW1-090414
Sampling Date 09/04/14, 14:36

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014356
Client Identification MW7-090414
Sampling Date 09/04/14, 15:39

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	0.007	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014357
Client Identification MW6-090414
Sampling Date 09/04/14, 16:45

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014358
Client Identification MW5-090414
Sampling Date 09/04/14, 17:57

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014359
Client Identification MW16-090514
Sampling Date 09/05/14, 12:55

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014360
Client Identification MW11-090514
Sampling Date 09/05/14, 13:45

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014361
Client Identification MW11-090514-DUP
Sampling Date 09/05/14, 14:02

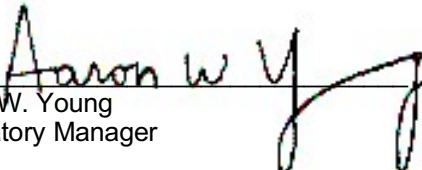
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014362
Client Identification MW2-090514
Sampling Date 09/05/14, 14:52

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14



Aaron W. Young
Laboratory Manager

QC Summary for sample numbers: 14-A014353 to 14-A014362

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
14-A014354	Free Cyanide	mg/l	< 0.005	0.18	0.20	90.00 %
14-A014354	Free Cyanide	mg/l	< 0.005	0.17	0.20	85.00 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.16	0.20	80.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Free Cyanide	mg/l	0.18	0.17	5.7
Spike	Free Cyanide	mg/l	0.14	0.14	0.00
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.16	6.5
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.15	0.00

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Free Cyanide	mg/l	0.20	0.20	100. %
Free Cyanide	mg/l	0.20	0.19	95.0 %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.21	105. %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.20	100. %

BLANKS

ANALYTE	UNITS	RESULT
Free Cyanide	mg/l	< 0.005
Free Cyanide	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005



14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Subcontract Laboratory: Amtest

Attention: _____

Address: _____

Phone Number: _____

Date/Time: _____

Turnaround Request:

1 Day 2 Day 3 Day

Standard

Other: _____

Laboratory Reference #: 09-060

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 110-061

Project Name: _____

136.9 °C

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysis
MW8-090414- DS		9/14/14	1107	W	2	Free + WAD Cyanide 14353
MW4-090414- DS			1310			354
MW1-090414- DS			1436			355
MW7-090414- DS			1539			356
MW6-090414- DS			1645			357
MW5-090414- DS			1757			358
MW16-090514- DS		9/15/14	1255			359
MW11-090514- DS			1345			360
MW11-090514- DS	Dup		1402			361
MW2-090514- DS			1452			362
Relinquished by: <u>[Signature]</u> Company: <u>Amtest</u> Date: <u>9/18/14</u> Time: <u>1447</u>						
Received by: <u>[Signature]</u> Company: <u>Amtest</u> Date: <u>9/19/14</u> Time: <u>1447</u>						
Relinquished by: _____						
Received by: _____						
Relinquished by: _____						
Received by: _____						

EIM



**Professional
Analytical
Services**

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Sep 24 2014
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your 09-060 project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW9-090514	Water	14-A014345	CONV
MW15-090514	Water	14-A014346	CONV
MW17-090514	Water	14-A014347	CONV

Your samples were received on Wednesday, September 10, 2014. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,


Aaron W. Young
Laboratory Manager

Project #: 110-001

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project Name: 09-060
Project #: 110-001
All results reported on an as received basis.

Date Received: 09/10/14
Date Reported: 9/24/14

AMTEST Identification Number 14-A014345
Client Identification MW9-090514
Sampling Date 09/05/14, 15:27

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014346
Client Identification MW15-090514
Sampling Date 09/05/14, 08:30

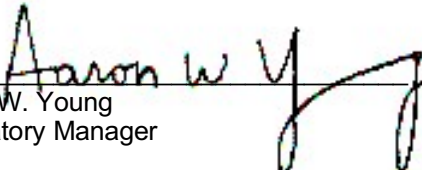
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014347
Client Identification MW17-090514
Sampling Date 09/05/14, 09:30

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14



Aaron W. Young
Laboratory Manager

QC Summary for sample numbers: 14-A014345 to 14-A014347

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
14-A014354	Free Cyanide	mg/l	< 0.005	0.18	0.20	90.00 %
14-A014354	Free Cyanide	mg/l	< 0.005	0.17	0.20	85.00 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.16	0.20	80.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Free Cyanide	mg/l	0.18	0.17	5.7
Spike	Free Cyanide	mg/l	0.14	0.14	0.00
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.16	6.5
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.15	0.00

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Free Cyanide	mg/l	0.20	0.20	100. %
Free Cyanide	mg/l	0.20	0.19	95.0 %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.21	105. %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.20	100. %

BLANKS

ANALYTE	UNITS	RESULT
Free Cyanide	mg/l	< 0.005
Free Cyanide	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005

Onsite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

Subcontract Laboratory: **Amlyx**

Attention: _____

Address: _____

Phone Number: _____

Date/Time: _____

Turnaround Request:

1 Day 2 Day 3 Day



Other: _____

Laboratory Reference #: 09-060

Project Manager: David Baummeister

email: dbaummeister@onsite-env.com

Project Number: 110-001

Project Name: _____

T = 6.01 °C

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Time	Requested Analysis
H 345	MW9-090514- 100	9/14	1527	W	2	2:11	Free + WAD Cyanide
H 346	MW15-090514- 100	↓	0830	↓	↓		↓
H 347	MW17-090514- 100	↓	0930	↓	↓		↓

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Onsite Env	9/14/14	1447	
<i>[Signature]</i>	Amlyx	9/11/14	1447	

Received by: _____

Relinquished by: _____

Received by: _____

Relinquished by: _____

EIM



Onsite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Laboratory Number: **09-060**

09-060

Turnaround Request (in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days) (TPH analysis 5 Days)

(other)

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Former Sound Mattress & Felt Co.
 Project Manager: Bill Carroll
 Sampled by: Brian Lund

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MW8-090414-10.5 ⁹⁷	9/4/14	1107	Water
2	MW4-090414-11.5		1310	
3	MW1-090414-11.5		1436	
4	MW7-090414-10.5		1539	
5	MW6-090414-10.5		1645	
6	MW5-090414-10.5		1757	
7	MW6-090514-11.0	9/5/14	1255	
8	MW11-090514-11.5		1345	
9	MW11-090514-11.5 Dup		1402	
10	MW2-090514-11.0		1452	

Number of Containers

Number of Containers	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8131A	Total Metals	Total MTCA Metals	LOLP Metals	HEM (oil and grease) 1664A	Free & WAD Cyanide	Dis Cu	Dis Pb	Dis Ni	Dis Sn	Dis Zn
NWTPH-HCID																		
NWTPH-Gx/BTEX																		
NWTPH-Gx																		
NWTPH-Dx																		
Volatiles 8260C	X																	
Halogenated Volatiles 8260C		X																
Semivolatiles 8270D/SIM (with low-level PAHs)			X															
PAHs 8270D/SIM (low-level)				X														
PCBs 8082A					X													
Organochlorine Pesticides 8081B						X												
Organophosphorus Pesticides 8270D/SIM							X											
Chlorinated Acid Herbicides 8131A								X										
Total Metals									X									
Total MTCA Metals										X								
LOLP Metals											X							
HEM (oil and grease) 1664A												X						
Free & WAD Cyanide													X					
Dis Cu														X				
Dis Pb															X			
Dis Ni																X		
Dis Sn																	X	
Dis Zn																		X

Signature	Company	Date	Time	Comments/Special Instructions
	PC ENV	9/4/14	1100	* See attached AS, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Sn, Zn @ Added 9/23/14 - D3 (STA)

Relinquished	Received	Relinquished	Received	Reviewed/Date



OnSite Environmental Inc.
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Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

(other)

Laboratory Number:

09-060

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Former Sound Mattress & Felt Co.
Project Manager: Bill Carroll
Sampled by: Brian Lund & Matt DeCaro

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers																					
					NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total PCBs Metals/ MICA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Free & WAD Cyanide	Dis Ni	Dis Zn				
11	MW09-090514-H.O-33	9/5/14	1537	Water					X															X	X	
12	MW15-090514-85.D		0830						X																X	
13	MW17-090514-24.D		0930						X																X	

Signature	Company	Date	Time	Comments/Special Instructions
	PC ENV	9/16/14	1100	Note: MW-15 & MW-17 samples need to be analyzed using Reductive Precipitation methods * See attached list.
				X HOLD PEND. NG OTHER METALS
				Chromatograms with final report <input type="checkbox"/>



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 22, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-074

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 9, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read 'DB', with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

Case Narrative

Samples were collected on September 8, 2014 and received by the laboratory on September 9, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW10-090814					
Laboratory ID:	09-074-01					
Dichlorodifluoromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	120	1.0	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	25	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	7.0	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	5.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	5.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	26	1.0	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	25	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	5.9	1.0	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	5.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	10	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	5.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	1.0	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES EPA 8260C
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW10-090814					
Laboratory ID:	09-074-01					
1,1,2-Trichloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	13	1.0	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	10	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	2.0	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	5.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	5.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>98</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>88</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-090814					
Laboratory ID:	09-074-02					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	1.4	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	1.0	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW3-090814					
Laboratory ID:	09-074-02					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.33	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>94</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>95</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>86</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW14-090814					
Laboratory ID:	09-074-03					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	27	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.93	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	25	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	8.5	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW14-090814					
Laboratory ID:	09-074-03					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	10	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>101</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW12-090814					
Laboratory ID:	09-074-04					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	0.58	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW12-090814					
Laboratory ID:	09-074-04					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>101</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW13-090814					
Laboratory ID:	09-074-05					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	0.83	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	15	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	4.4	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	MW13-090814					
Laboratory ID:	09-074-05					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	2.2	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>96</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES EPA 8260C
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	QAQC-090814					
Laboratory ID:	09-074-06					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
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 Project: 110-001

VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	QAQC-090814					
Laboratory ID:	09-074-06					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>100</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Water
 Units: ug/L

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911W1					
Dichlorodifluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	1.4	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	1.0	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	5.0	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.20	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911W1					
1,1,2-Trichloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	2.0	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.40	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	1.0	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,1,1,2,2-Tetrachloroethane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	1.0	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.20	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>97</i>	<i>62-122</i>				
<i>Toluene-d8</i>	<i>99</i>	<i>70-120</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>71-120</i>				

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Water
 Units: ug/L

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD		Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0911W1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	9.46	10.0	10.0	10.0	95	100	63-142	6	17	
Benzene	9.90	10.5	10.0	10.0	99	105	78-125	6	15	
Trichloroethene	8.83	8.87	10.0	10.0	88	89	74-125	0	15	
Toluene	9.82	10.1	10.0	10.0	98	101	80-125	3	15	
Chlorobenzene	9.23	9.43	10.0	10.0	92	94	80-140	2	15	
<i>Surrogate:</i>										
Dibromofluoromethane					96	97	62-122			
Toluene-d8					99	98	70-120			
4-Bromofluorobenzene					93	91	71-120			

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-074-01					
Client ID:	MW10-090814					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-10-14	9-10-14	
Nickel	2.2	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-19-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	12	2.5	200.8	9-11-14	9-17-14	

Lab ID:	09-074-02					
Client ID:	MW3-090814					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-10-14	9-10-14	
Nickel	1.4	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-19-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	5.9	2.5	200.8	9-11-14	9-17-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**TOTAL METALS
 EPA 200.8/7470A**

Matrix: Water
 Units: ug/L (ppb)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-074-03					
Client ID:	MW14-090814					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-10-14	9-10-14	
Nickel	0.94	0.50	200.8	9-11-14	9-19-14	
Selenium	ND	1.0	200.8	9-11-14	9-19-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	3.6	2.5	200.8	9-11-14	9-17-14	

Lab ID:	09-074-04					
Client ID:	MW12-090814					
Arsenic	ND	3.3	200.8	9-11-14	9-16-14	
Cadmium	ND	4.4	200.8	9-11-14	9-16-14	
Chromium	ND	11	200.8	9-11-14	9-16-14	
Cobalt	ND	5.6	200.8	9-11-14	9-16-14	
Copper	ND	1.0	200.8	9-11-14	9-16-14	
Lead	ND	1.0	200.8	9-11-14	9-16-14	
Mercury	ND	0.050	7470A	9-10-14	9-10-14	
Nickel	1.1	0.50	200.8	9-11-14	9-16-14	
Selenium	ND	1.0	200.8	9-11-14	9-19-14	
Silver	ND	0.50	200.8	9-11-14	9-16-14	
Tin	ND	0.50	200.8	9-11-14	9-17-14	
Zinc	7.3	2.5	200.8	9-11-14	9-17-14	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

 Matrix: Water
 Units: ug/L (ppb)

 Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Arsenic	200.8	ND	3.3
Cadmium	200.8	ND	4.4
Chromium	200.8	ND	11
Cobalt	200.8	ND	5.6
Copper	200.8	ND	1.0
Lead	200.8	ND	1.0
Nickel	200.8	ND	0.50
Selenium	200.8	ND	1.0
Silver	200.8	ND	0.50
Tin	200.8	ND	0.50
Zinc	200.8	ND	2.5

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL MERCURY
EPA 7470A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-10-14
Date Analyzed: 9-10-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0910W1

Analyte	Method	Result	PQL
Mercury	7470A	ND	0.050

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL NICKEL
EPA 200.8
METHOD BLANK QUALITY CONTROL**

Date Extracted: 9-11-14
Date Analyzed: 9-19-14

Matrix: Water
Units: ug/L (ppb)

Lab ID: MB0911WM1

Analyte	Method	Result	PQL
Nickel	200.8	ND	0.50

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	3.3	
Cadmium	ND	ND	NA	4.4	
Chromium	ND	ND	NA	11	
Cobalt	ND	ND	NA	5.6	
Copper	6.58	6.33	4	1	
Lead	ND	ND	NA	1	
Nickel	2.16	2.20	2	0.5	
Selenium	ND	ND	NA	1	
Silver	ND	ND	NA	0.5	
Tin	ND	ND	NA	0.5	
Zinc	12.0	11.0	9	2.5	

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL MERCURY
EPA 7470A
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-10-14

Date Analyzed: 9-10-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-074-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Mercury	ND	ND	NA	0.050	

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL NICKEL
EPA 200.8
DUPLICATE QUALITY CONTROL**

Date Extracted: 9-11-14

Date Analyzed: 9-19-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Nickel	1.22	1.12	9	0.50	

Date of Report: September 22, 2014
 Samples Submitted: September 9, 2014
 Laboratory Reference: 1409-074
 Project: 110-001

**TOTAL METALS
 EPA 200.8
 MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14
 Date Analyzed: 9-16,17&19-14

Matrix: Water
 Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	111	119	107	120	108	1	
Cadmium	111	118	106	117	105	1	
Chromium	111	117	105	118	106	1	
Cobalt	111	115	103	115	104	0	
Copper	111	118	100	118	101	0	
Lead	111	113	102	112	101	1	
Nickel	111	116	103	116	102	0	
Selenium	111	107	97	115	104	7	
Silver	111	110	99	114	102	4	
Tin	111	121	109	122	110	1	
Zinc	111	130	106	127	104	2	

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL MERCURY
EPA 7470A
MS/MSD QUALITY CONTROL**

Date Extracted: 9-10-14

Date Analyzed: 9-10-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-074-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Mercury	6.25	5.65	90	5.98	96	6	

Date of Report: September 22, 2014
Samples Submitted: September 9, 2014
Laboratory Reference: 1409-074
Project: 110-001

**TOTAL NICKEL
EPA 200.8
MS/MSD QUALITY CONTROL**

Date Extracted: 9-11-14

Date Analyzed: 9-19-14

Matrix: Water

Units: ug/L (ppb)

Lab ID: 09-045-04

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Nickel	111	112	100	118	105	5	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

*Professional
Analytical
Services*

Sep 22 2014
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
MW10-090814	Water	14-A014348	CONV
MW3-090814	Water	14-A014349	CONV
MW14-090814	Water	14-A014350	CONV
MW12-090814	Water	14-A014351	CONV
MW13-090814	Water	14-A014352	CONV

Your samples were received on Wednesday, September 10, 2014. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

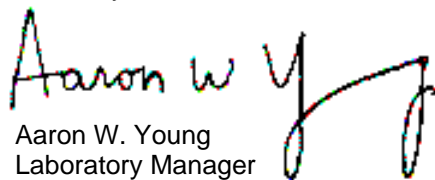
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Laboratory Manager

Project #: 110-001

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 110-001
All results reported on an as received basis.

Date Received: 09/10/14
Date Reported: 9/22/14

AMTEST Identification Number 14-A014348
Client Identification MW10-090814
Sampling Date 09/08/14, 07:23

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014349
Client Identification MW3-090814
Sampling Date 09/08/14, 08:31

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014350
Client Identification MW14-090814
Sampling Date 09/08/14, 09:41

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014351
Client Identification MW12-090814
Sampling Date 09/08/14, 11:03

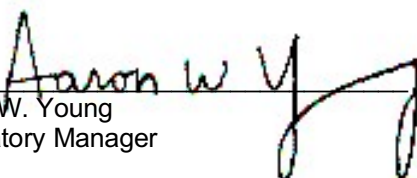
Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14

AMTEST Identification Number 14-A014352
Client Identification MW13-090814
Sampling Date 09/08/14, 11:40

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Free Cyanide	< 0.005	mg/l		0.005	EPA 335.4	MR	09/11/14
Cyanide(Weak&Dissociable)	< 0.005	mg/l		0.005	SM 4500 CN	MR	09/11/14


Aaron W. Young
Laboratory Manager

QC Summary for sample numbers: 14-A014348 to 14-A014352

MATRIX SPIKES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	SMPL+ SPK	SPK AMT	RECOVERY
14-A014354	Free Cyanide	mg/l	< 0.005	0.18	0.20	90.00 %
14-A014354	Free Cyanide	mg/l	< 0.005	0.17	0.20	85.00 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014420	Free Cyanide	mg/l	0.019	0.14	0.20	60.50 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014354	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.16	0.20	80.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %
14-A014362	Cyanide(Weak&Dissociable)	mg/l	< 0.005	0.15	0.20	75.00 %

MATRIX SPIKE DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE + SPK	MSD VALUE	RPD
Spike	Free Cyanide	mg/l	0.18	0.17	5.7
Spike	Free Cyanide	mg/l	0.14	0.14	0.00
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.16	6.5
Spike	Cyanide(Weak&Dissociable)	mg/l	0.15	0.15	0.00

STANDARD REFERENCE MATERIALS

ANALYTE	UNITS	TRUE VALUE	MEASURED VALUE	RECOVERY
Free Cyanide	mg/l	0.20	0.20	100. %
Free Cyanide	mg/l	0.20	0.19	95.0 %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.21	105. %
Cyanide(Weak&Dissociable)	mg/l	0.20	0.20	100. %

BLANKS

ANALYTE	UNITS	RESULT
Free Cyanide	mg/l	< 0.005
Free Cyanide	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005
Cyanide(Weak&Dissociable)	mg/l	< 0.005

M. onSite Environmental Inc.

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

Subcontract Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th Pl Kirkland, WA 98034

Phone Number: (425) 885-1664

Date/Time: _____

Laboratory Reference #:

09-074

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: **110-001**

Project Name: _____

T=6.9

Page 1 of 1

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysis
MW10-090814		9/8/14	0723	W	2	Free + WAD Cyanide
MW3-090814			0831			
MW14-090814			0941			
MW12-090814			1103			
MW13-090814			1140			
Relinquished by: <i>[Signature]</i> Company: AmTest Date: 9/9/14 Time: 14:47 Comments/Special Instructions:						
EIM						
Received by: _____						
Relinquished by: _____						
Received by: _____						
Relinquished by: _____						



OnSite Environmental Inc.
Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
(in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

(other) _____

Laboratory Number: **09-074**

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Former Sound Mattress & Felt Co.
Project Manager: Bill Carroll
Sampled by: Bryan Lund

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	MW10-090814	9/9/14	0723	Water
2	MW13-090814		0831	
3	MW14-090814		0941	
4	MW12-090814		1103	
5	MW13-090814		1140	
6	QAQC-090814	9/9/14	1600	Water

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total Metals/ (TPH analysis 5 Days)	TCLP Metals	HEM (oil and grease) 1664A	Free & WAD Cyanide	% Moisture
7					X								X				
					X								X				
					X								X				
					X								X				
					X								X				
					X								X				

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9/9/14	9:00	* Analyze for: As, Cd, Cr, Co, Cu, Pb, Hg, Ni, Se, Ag, Sn, Zn Please place hold on total metals analysis for MW13-090814. IP analyzed reductive precipitation methods need to be used.
<i>[Signature]</i>	SPRY	9/9/14	9:00	
<i>[Signature]</i>	Q87E	9/9/14	12:50	

Received _____
Relinquished _____
Received _____
Relinquished _____
Received _____
Relinquished _____
Reviewed/Date _____

Reviewed/Date _____

Data Package: Level III Level IV

Electronic Data Deliverables (EDDs)

Chromatograms with final report



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

October 13, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-101B

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 10, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 13, 2014
Samples Submitted: September 10, 2014
Laboratory Reference: 1409-101B
Project: 110-001

Case Narrative

Samples were collected on September 9 and 10, 2014 and received by the laboratory on September 10, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 13, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-01					
Client ID:	P5-090914-2.0-4.0					
Arsenic	ND	13	6010C	10-7-14	10-7-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	17	0.65	6010C	10-7-14	10-7-14	
Copper	10	1.3	6010C	10-7-14	10-7-14	
Lead	ND	6.5	6010C	10-7-14	10-7-14	
Nickel	8.2	3.3	6010C	10-7-14	10-7-14	
Tin	ND	6.5	6010C	10-7-14	10-7-14	
Zinc	22	3.3	6010C	10-7-14	10-7-14	

Lab ID:	09-101-02					
Client ID:	P5-090914-8.5-9.5					
Arsenic	ND	13	6010C	10-7-14	10-7-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	15	0.67	6010C	10-7-14	10-7-14	
Copper	110	1.3	6010C	10-7-14	10-7-14	
Lead	ND	6.7	6010C	10-7-14	10-7-14	
Nickel	9.3	3.4	6010C	10-7-14	10-7-14	
Tin	ND	6.7	6010C	10-7-14	10-7-14	
Zinc	24	3.4	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-03					
Client ID:	P10-090914-3.0-4.0					
Arsenic	ND	11	6010C	10-7-14	10-7-14	
Cadmium	ND	0.11	6020A	10-10-14	10-10-14	
Chromium	24	0.55	6010C	10-7-14	10-7-14	
Copper	13	1.1	6010C	10-7-14	10-7-14	
Lead	ND	5.5	6010C	10-7-14	10-7-14	
Nickel	33	2.7	6010C	10-7-14	10-7-14	
Tin	ND	5.5	6010C	10-7-14	10-7-14	
Zinc	28	2.7	6010C	10-7-14	10-7-14	

Lab ID:	09-101-04					
Client ID:	P10-090914-10.0-12.0					
Arsenic	ND	12	6010C	10-7-14	10-7-14	
Cadmium	99	1.2	6020A	10-10-14	10-10-14	
Chromium	17	0.61	6010C	10-7-14	10-7-14	
Copper	180	1.2	6010C	10-7-14	10-7-14	
Lead	ND	6.1	6010C	10-7-14	10-7-14	
Nickel	92	3.0	6010C	10-7-14	10-7-14	
Tin	ND	6.1	6010C	10-7-14	10-7-14	
Zinc	25	3.0	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-05					
Client ID:	P9-090914-6.0-8.5					
Arsenic	ND	11	6010C	10-7-14	10-7-14	
Cadmium	ND	0.11	6020A	10-10-14	10-10-14	
Chromium	12	0.57	6010C	10-7-14	10-7-14	
Copper	10	1.1	6010C	10-7-14	10-7-14	
Lead	ND	5.7	6010C	10-7-14	10-7-14	
Nickel	6.8	2.8	6010C	10-7-14	10-7-14	
Tin	ND	5.7	6010C	10-7-14	10-7-14	
Zinc	20	2.8	6010C	10-7-14	10-7-14	

Lab ID:	09-101-06					
Client ID:	P9-090914-14.0-16.0					
Arsenic	ND	13	6010C	10-7-14	10-7-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	13	0.64	6010C	10-7-14	10-7-14	
Copper	12	1.3	6010C	10-7-14	10-7-14	
Lead	ND	6.4	6010C	10-7-14	10-7-14	
Nickel	19	3.2	6010C	10-7-14	10-7-14	
Tin	ND	6.4	6010C	10-7-14	10-7-14	
Zinc	22	3.2	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-07					
Client ID:	P8-090914-4.0-6.0					
Arsenic	ND	10	6010C	10-7-14	10-7-14	
Cadmium	ND	0.10	6020A	10-10-14	10-10-14	
Chromium	16	0.52	6010C	10-7-14	10-7-14	
Copper	11	1.0	6010C	10-7-14	10-7-14	
Lead	ND	5.2	6010C	10-7-14	10-7-14	
Nickel	8.4	2.6	6010C	10-7-14	10-7-14	
Tin	ND	5.2	6010C	10-7-14	10-7-14	
Zinc	23	2.6	6010C	10-7-14	10-7-14	

Lab ID:	09-101-08					
Client ID:	P8-090914-14.0-16.0					
Arsenic	ND	14	6010C	10-7-14	10-7-14	
Cadmium	ND	0.14	6020A	10-10-14	10-10-14	
Chromium	12	0.69	6010C	10-7-14	10-7-14	
Copper	11	1.4	6010C	10-7-14	10-7-14	
Lead	ND	6.9	6010C	10-7-14	10-7-14	
Nickel	8.1	3.4	6010C	10-7-14	10-7-14	
Tin	ND	6.9	6010C	10-7-14	10-7-14	
Zinc	21	3.4	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-09					
Client ID:	P12-090914-4.0-5.5					
Arsenic	ND	10	6010C	10-7-14	10-7-14	
Cadmium	ND	0.10	6020A	10-10-14	10-10-14	
Chromium	13	0.52	6010C	10-7-14	10-7-14	
Copper	10	1.0	6010C	10-7-14	10-7-14	
Lead	ND	5.2	6010C	10-7-14	10-7-14	
Nickel	7.1	2.6	6010C	10-7-14	10-7-14	
Tin	ND	5.2	6010C	10-7-14	10-7-14	
Zinc	20	2.6	6010C	10-7-14	10-7-14	

Lab ID:	09-101-10					
Client ID:	P12-090914-14.5-16.0					
Arsenic	ND	13	6010C	10-7-14	10-7-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	12	0.64	6010C	10-7-14	10-7-14	
Copper	10	1.3	6010C	10-7-14	10-7-14	
Lead	ND	6.4	6010C	10-7-14	10-7-14	
Nickel	7.8	3.2	6010C	10-7-14	10-7-14	
Tin	ND	6.4	6010C	10-7-14	10-7-14	
Zinc	19	3.2	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-11					
Client ID:	P11-090914-3.8-5.0					
Arsenic	ND	11	6010C	10-7-14	10-7-14	
Cadmium	ND	0.11	6020A	10-10-14	10-10-14	
Chromium	14	0.55	6010C	10-7-14	10-7-14	
Copper	11	1.1	6010C	10-7-14	10-7-14	
Lead	ND	5.5	6010C	10-7-14	10-7-14	
Nickel	8.6	2.8	6010C	10-7-14	10-7-14	
Tin	ND	5.5	6010C	10-7-14	10-7-14	
Zinc	22	2.8	6010C	10-7-14	10-7-14	

Lab ID:	09-101-12					
Client ID:	P11-090914-14.5-16.0					
Arsenic	ND	13	6010C	10-7-14	10-7-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	13	0.63	6010C	10-7-14	10-7-14	
Copper	9.8	1.3	6010C	10-7-14	10-7-14	
Lead	ND	6.3	6010C	10-7-14	10-7-14	
Nickel	9	3.2	6010C	10-7-14	10-7-14	
Tin	ND	6.3	6010C	10-7-14	10-7-14	
Zinc	19	3.2	6010C	10-7-14	10-7-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-13					
Client ID:	P2-090914-4.0-5.5					
Arsenic	ND	11	6010C	10-7-14	10-7-14	
Cadmium	ND	0.11	6020A	10-10-14	10-10-14	
Chromium	24	0.55	6010C	10-7-14	10-7-14	
Copper	15	1.1	6010C	10-7-14	10-7-14	
Lead	ND	5.5	6010C	10-7-14	10-7-14	
Nickel	8	2.7	6010C	10-7-14	10-7-14	
Tin	ND	5.5	6010C	10-7-14	10-7-14	
Zinc	17	2.7	6010C	10-7-14	10-7-14	

Lab ID:	09-101-14					
Client ID:	P2-090914-8.0-9.5					
Arsenic	ND	12	6010C	10-7-14	10-8-14	
Cadmium	0.15	0.12	6020A	10-10-14	10-10-14	
Chromium	130	0.60	6010C	10-7-14	10-8-14	
Copper	9.1	1.2	6010C	10-7-14	10-8-14	
Lead	ND	6.0	6010C	10-7-14	10-8-14	
Nickel	12	3.0	6010C	10-7-14	10-8-14	
Tin	ND	6.0	6010C	10-7-14	10-8-14	
Zinc	21	3.0	6010C	10-7-14	10-8-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-15					
Client ID:	P1-090914-2.5-4.0					
Arsenic	ND	11	6010C	10-7-14	10-8-14	
Cadmium	13	0.11	6020A	10-10-14	10-10-14	
Chromium	32	0.54	6010C	10-7-14	10-8-14	
Copper	53	1.1	6010C	10-7-14	10-8-14	
Lead	16	5.4	6010C	10-7-14	10-8-14	
Nickel	160	2.7	6010C	10-7-14	10-8-14	
Tin	ND	5.4	6010C	10-7-14	10-8-14	
Zinc	120	2.7	6010C	10-7-14	10-8-14	

Lab ID:	09-101-16					
Client ID:	P1-090914-10.5-12.0					
Arsenic	ND	12	6010C	10-7-14	10-8-14	
Cadmium	ND	0.12	6020A	10-10-14	10-10-14	
Chromium	15	0.62	6010C	10-7-14	10-8-14	
Copper	9.6	1.2	6010C	10-7-14	10-8-14	
Lead	ND	6.2	6010C	10-7-14	10-8-14	
Nickel	8.6	3.1	6010C	10-7-14	10-8-14	
Tin	ND	6.2	6010C	10-7-14	10-8-14	
Zinc	22	3.1	6010C	10-7-14	10-8-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-17					
Client ID:	P6-090914-2.5-4.0					
Arsenic	ND	12	6010C	10-7-14	10-8-14	
Cadmium	ND	0.12	6020A	10-10-14	10-10-14	
Chromium	18	0.59	6010C	10-7-14	10-8-14	
Copper	9.3	1.2	6010C	10-7-14	10-8-14	
Lead	ND	5.9	6010C	10-7-14	10-8-14	
Nickel	9.1	2.9	6010C	10-7-14	10-8-14	
Tin	6.5	5.9	6010C	10-7-14	10-8-14	
Zinc	29	2.9	6010C	10-7-14	10-8-14	

Lab ID:	09-101-18					
Client ID:	P6-090914-10.5-12.0					
Arsenic	ND	13	6010C	10-7-14	10-8-14	
Cadmium	ND	0.13	6020A	10-10-14	10-10-14	
Chromium	15	0.65	6010C	10-7-14	10-8-14	
Copper	13	1.3	6010C	10-7-14	10-8-14	
Lead	ND	6.5	6010C	10-7-14	10-8-14	
Nickel	9.2	3.2	6010C	10-7-14	10-8-14	
Tin	9.8	6.5	6010C	10-7-14	10-8-14	
Zinc	26	3.2	6010C	10-7-14	10-8-14	

Date of Report: October 13, 2014
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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-19					
Client ID:	P7-091014-3.5-5.5					
Arsenic	ND	11	6010C	10-7-14	10-8-14	
Cadmium	ND	0.11	6020A	10-10-14	10-10-14	
Chromium	18	0.53	6010C	10-7-14	10-8-14	
Copper	9.0	1.1	6010C	10-7-14	10-8-14	
Lead	ND	5.3	6010C	10-7-14	10-8-14	
Nickel	8.8	2.6	6010C	10-7-14	10-8-14	
Tin	5.4	5.3	6010C	10-7-14	10-8-14	
Zinc	25	2.6	6010C	10-7-14	10-8-14	

Lab ID:	09-101-20					
Client ID:	P7-091014-12.0-14.0					
Arsenic	ND	12	6010C	10-7-14	10-8-14	
Cadmium	ND	0.12	6020A	10-10-14	10-10-14	
Chromium	15	0.62	6010C	10-7-14	10-8-14	
Copper	65	1.2	6010C	10-7-14	10-8-14	
Lead	ND	6.2	6010C	10-7-14	10-8-14	
Nickel	10	3.1	6010C	10-7-14	10-8-14	
Tin	18	6.2	6010C	10-7-14	10-8-14	
Zinc	25	3.1	6010C	10-7-14	10-8-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-21					
Client ID:	P4-091014-3.5-5.0					
Arsenic	ND	10	6010C	10-7-14	10-8-14	
Cadmium	ND	0.10	6020A	10-10-14	10-10-14	
Chromium	18	0.52	6010C	10-7-14	10-8-14	
Copper	10	1.0	6010C	10-7-14	10-8-14	
Lead	ND	5.2	6010C	10-7-14	10-8-14	
Nickel	10	2.6	6010C	10-7-14	10-8-14	
Tin	ND	5.2	6010C	10-7-14	10-8-14	
Zinc	25	2.6	6010C	10-7-14	10-8-14	

Lab ID:	09-101-22					
Client ID:	P4-091014-15.0-16.0					
Arsenic	ND	12	6010C	10-7-14	10-8-14	
Cadmium	ND	0.12	6020A	10-10-14	10-10-14	
Chromium	11	0.60	6010C	10-7-14	10-8-14	
Copper	8.7	1.2	6010C	10-7-14	10-8-14	
Lead	ND	6.0	6010C	10-7-14	10-8-14	
Nickel	10	3.0	6010C	10-7-14	10-8-14	
Tin	ND	6.0	6010C	10-7-14	10-8-14	
Zinc	21	3.0	6010C	10-7-14	10-8-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-23					
Client ID:	P3-091014-4.5-6.0					
Arsenic	ND	11	6010C	10-7-14	10-8-14	
Cadmium	17	0.11	6020A	10-10-14	10-10-14	
Chromium	27	0.57	6010C	10-7-14	10-8-14	
Copper	21	1.1	6010C	10-7-14	10-8-14	
Lead	ND	5.7	6010C	10-7-14	10-8-14	
Nickel	10	2.8	6010C	10-7-14	10-8-14	
Tin	ND	5.7	6010C	10-7-14	10-8-14	
Zinc	19	2.8	6010C	10-7-14	10-8-14	

Lab ID:	09-101-24					
Client ID:	P3-091014-14.5-16.0					
Arsenic	ND	14	6010C	10-7-14	10-8-14	
Cadmium	ND	0.14	6020A	10-10-14	10-10-14	
Chromium	160	0.70	6010C	10-7-14	10-8-14	
Copper	24	1.4	6010C	10-7-14	10-8-14	
Lead	ND	7.0	6010C	10-7-14	10-8-14	
Nickel	11	3.5	6010C	10-7-14	10-8-14	
Tin	ND	7.0	6010C	10-7-14	10-8-14	
Zinc	29	3.5	6010C	10-7-14	10-8-14	

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**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-101-25					
Client ID:	P13-091014-2.5-4.0					
Arsenic	ND	10	6010C	10-7-14	10-8-14	
Cadmium	ND	0.10	6020A	10-10-14	10-10-14	
Chromium	14	0.52	6010C	10-7-14	10-8-14	
Copper	11	1.0	6010C	10-7-14	10-8-14	
Lead	ND	5.2	6010C	10-7-14	10-8-14	
Nickel	7.7	2.6	6010C	10-7-14	10-8-14	
Tin	ND	5.2	6010C	10-7-14	10-8-14	
Zinc	33	2.6	6010C	10-7-14	10-8-14	

Lab ID:	09-101-27					
Client ID:	P13-091014-14.5-16.0					
Arsenic	19	17	6010C	10-7-14	10-8-14	
Cadmium	0.24	0.17	6020A	10-10-14	10-10-14	
Chromium	25	0.84	6010C	10-7-14	10-8-14	
Copper	54	1.7	6010C	10-7-14	10-8-14	
Lead	19	8.4	6010C	10-7-14	10-8-14	
Nickel	20	4.2	6010C	10-7-14	10-8-14	
Tin	ND	8.4	6010C	10-7-14	10-8-14	
Zinc	67	4.2	6010C	10-7-14	10-8-14	

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Project: 110-001

**TOTAL METALS
EPA 6010C/6020A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-7&10-14
Date Analyzed: 10-7&10-14

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB1007SH1&MB1010SM1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Cadmium	6020A	ND	0.10
Chromium	6010C	ND	0.50
Copper	6010C	ND	1.0
Lead	6010C	ND	5.0
Nickel	6010C	ND	2.5
Tin	6010C	ND	5.0
Zinc	6010C	ND	2.5

Date of Report: October 13, 2014
Samples Submitted: September 10, 2014
Laboratory Reference: 1409-101B
Project: 110-001

**TOTAL METALS
EPA 6010C/6020A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-7&10-14
Date Analyzed: 10-8&10-14

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB1007SH2&MB1010SM1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Cadmium	6020A	ND	0.10
Chromium	6010C	ND	0.50
Copper	6010C	ND	1.0
Lead	6010C	ND	5.0
Nickel	6010C	ND	2.5
Tin	6010C	ND	5.0
Zinc	6010C	ND	2.5

Date of Report: October 13, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-7&10-14

Date Analyzed: 10-7&10-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-101-05

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10.0	
Cadmium	ND	ND	NA	0.10	
Chromium	10.7	13.1	20	0.50	
Copper	9.00	9.70	8	1.0	
Lead	ND	ND	NA	5.0	
Nickel	6.05	6.75	11	2.5	
Tin	ND	ND	NA	5.0	
Zinc	17.4	18.8	8	2.5	

Date of Report: October 13, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-7&10-14

Date Analyzed: 10-8&10-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-101-21

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10.0	
Cadmium	ND	ND	NA	0.10	
Chromium	17.0	13.8	20	0.50	
Copper	9.70	9.15	6	1.0	
Lead	ND	ND	NA	5.0	
Nickel	9.90	8.35	17	2.5	
Tin	ND	ND	NA	5.0	
Zinc	24.2	22.7	7	2.5	

Date of Report: October 13, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-7&10-14

Date Analyzed: 10-7&10-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-101-05

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	101	101	101	101	#NUM!	
Cadmium	50.0	46.2	92	42.5	85	8	
Chromium	100	111	100	110	99	1	
Copper	50.0	63.1	108	62.8	108	0	
Lead	250	243	97	244	98	0	
Nickel	100	107	101	108	102	1	
Tin	50.0	47.0	94	47.9	96	2	
Zinc	100	123	106	123	105	0	

Date of Report: October 13, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-7&10-14

Date Analyzed: 10-8&10-14

Matrix: Soil

Units: mg/kg (ppm)

Lab ID: 09-101-21

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	100	100	102	102	2	
Cadmium	50.0	47.1	94	48.7	97	3	
Chromium	100	115	98	116	99	1	
Copper	50.0	59.7	100	60.6	102	1	
Lead	250	243	97	245	98	1	
Nickel	100	109	99	110	100	1	
Tin	50.0	49.0	98	49.1	98	0	
Zinc	100	127	103	129	105	2	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

Page 7 of 3

Laboratory Number: **09-101**

Turnaround Request (in working days)
 (Check One)
 Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 (TPH analysis 5 Days)
 (other) _____

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Sand Mattress
 Project Manager: William (Bill) Council
 Sampled by: Matt DeGaulh N. Seafield

Lab ID	Sample Identification	Date		Matrix	Number of Containers	Laboratory Analysis																			
		Sampled	Time Sampled			NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8200C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	As, Cd, Cr, Cu, Pb, Ni, Sn, Zn	% Moisture		
1	P5-090914-2.0-4.0	9/9/14	0858	Soil	5	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2	P5-090914-8.5-9.5		0915			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3	P10-090914-30-4.0		0947			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4	P10-090914-10.0-12.0		1008			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5	P9-090914-6.0-8.5		1120			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6	P9-090914-14.0-16.0		1135			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
7	P8-090914-4.0-6.0		1153			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
8	P8-090914-14.0-16.0		1206			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
9	P12-090914-4.0-5.5		1250			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
10	P12-090914-14.5-16.0		1300			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
<i>Matt DeGaulh</i>	Pacific Crest	9-10-14	1400	*Hold all samples for cyanide analysis
<i>Speedy</i>	Speedy	9-10-14	1400	D Hold for analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc
<i>Speedy</i>	Speedy	9-10-14	1235	
<i>Speedy</i>	Speedy	9-10-14	1735	
				Chromatograms with final report <input checked="" type="checkbox"/> Added 9/24/14 DB (STA) (574)



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Chain of Custody

Laboratory Number: **09-101**

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days) (TPH analysis 5 Days)

_____ (other)

Company: *Pacific Crest*
 Project Number: *10-001*
 Project Name: *Sandy Matthews*
 Project Manager: *William (Bill) Camorel*
 Sampled by: *M. Deacid / M. Seefeld*

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
11	P11-090914-3.8-5.0	9/9/14	1345	soil
12	P11-090914-14.5-16.0			
13	P2-090914-4.0-5.5			
14	P2-090914-8.0-9.5			
15	P1-090914-2.5-4.0			
16	P1-090914-10.5-12.0			
17	P6-090914-2.5-4.0			
18	P6-090914-10.5-12.0			
19	P7-091014-3.5-5.5			
20	P7-091014-12.0-14.0			

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	As, Cd, Cr, Cu, Pb, Ni, Sn, Zn	% Moisture
5					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X
					X													X

Comments/Special Instructions: ** hold for analysis*

hold for analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc

Signature: *[Signature]*
 Company: *Pacific Crest*
 Date: *9-10-14*
 Time: *1400*

Received: *[Signature]*
 Company: *Speedy*
 Date: *9-10-14*
 Time: *1400*

Received: *[Signature]*
 Company: *Speedy*
 Date: *9-10-14*
 Time: *1735*

Received: *[Signature]*
 Company: *OSHE Inc*
 Date: *9/10/14*
 Time: *1735*

Reviewed/Date: _____



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Chain of Custody

Page 3 of 3

Laboratory Number: **09-101**

Turnaround Request
(In working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

(other) _____

Company: **Pacific Crest**
 Project Number: **110-001**
 Project Name: **Sand Matthews**
 Project Manager: **William/Bill Cawell**
 Sampled by: **N. Deane/N. Scofield**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
21	P4 - 091014-3.5-5.0	9/10/14	0935	Soil
22	P4 - 091014-3.5-5.0	9/10/14	0945	Soil
23	P3 - 091014-4.5-6.0	9/10/14	1010	Soil
24	P3 - 091014-14.5-16.0	9/10/14	1025	Soil
25	P3 - 091014-2.5-4.0	9/10/14	1105	Soil
26	P3 - 091014-10.0-11.0	9/10/14	1110	Soil
27	P3 - 091014-14.5-16.0	9/10/14	1130	Soil

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MFGA Metals As, Cd, Cr, Cu, Pb, Ni, Zn, Sn	TCLP Metals	HEM (oil and grease) 1664A	Cyanide*	Metals (various) Δ	Grain Size - Sieve + hydrometer	Total Organic Carbon	% Moisture
5					X																X
5					X																X
6					X																X
6					X																X
5					X																X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9-10-14	1400	* please hold for cyanide analysis
<i>[Signature]</i>	Speedy	9-10-14	1420	Δ please hold for potential analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc.
<i>[Signature]</i>	Speedy	9-10-14	1735	
<i>[Signature]</i>	OKS & Co Inc	9/10/14	1735	
				Chromatograms with final report <input type="checkbox"/>

Company: Pacific Crest
 Project Number: 110-001
 Project Name: Sand Matthews
 Project Manager: William/Bill Cawell
 Sampled by: N. Deane/N. Scofield

Turnaround Request (In working days): Standard (7 Days) (TPH analysis 5 Days)

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
21	P4 - 091014-3.5-5.0	9/10/14	0935	Soil
22	P4 - 091014-3.5-5.0	9/10/14	0945	Soil
23	P3 - 091014-4.5-6.0	9/10/14	1010	Soil
24	P3 - 091014-14.5-16.0	9/10/14	1025	Soil
25	P3 - 091014-2.5-4.0	9/10/14	1105	Soil
26	P3 - 091014-10.0-11.0	9/10/14	1110	Soil
27	P3 - 091014-14.5-16.0	9/10/14	1130	Soil

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9-10-14	1400	* please hold for cyanide analysis
<i>[Signature]</i>	Speedy	9-10-14	1420	Δ please hold for potential analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc.
<i>[Signature]</i>	Speedy	9-10-14	1735	
<i>[Signature]</i>	OKS & Co Inc	9/10/14	1735	

Chromatograms with final report



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October 13, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-128B

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 12, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal stroke extending to the right.

David Baumeister
Project Manager

Enclosures

Date of Report: October 13, 2014
Samples Submitted: September 12, 2014
Laboratory Reference: 1409-128B
Project: 110-001

Case Narrative

Samples were collected on September 10 and 11, 2014 and received by the laboratory on September 12, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-01					
Client ID:	P14-091014-2.5-4.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	12	0.52	6010C	10-6-14	10-7-14	
Copper	11	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	7.8	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	23	2.6	6010C	10-6-14	10-7-14	

Lab ID:	09-128-03					
Client ID:	P14-091014-14.5-16.0					
Arsenic	ND	14	6010C	10-6-14	10-7-14	
Cadmium	ND	0.14	6020A	10-9-14	10-10-14	
Chromium	13	0.69	6010C	10-6-14	10-7-14	
Copper	20	1.4	6010C	10-6-14	10-7-14	
Lead	ND	6.9	6010C	10-6-14	10-7-14	
Nickel	9.2	3.4	6010C	10-6-14	10-7-14	
Tin	ND	6.9	6010C	10-6-14	10-7-14	
Zinc	25	3.4	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-04					
Client ID:	P16-091014-2.5-5.0					
Arsenic	ND	11	6010C	10-6-14	10-7-14	
Cadmium	ND	0.11	6020A	10-9-14	10-10-14	
Chromium	11	0.53	6010C	10-6-14	10-7-14	
Copper	9.7	1.1	6010C	10-6-14	10-7-14	
Lead	ND	5.3	6010C	10-6-14	10-7-14	
Nickel	6.6	2.7	6010C	10-6-14	10-7-14	
Tin	ND	5.3	6010C	10-6-14	10-7-14	
Zinc	21	2.7	6010C	10-6-14	10-7-14	

Lab ID:	09-128-05					
Client ID:	P16-091014-15.0-16.0					
Arsenic	ND	13	6010C	10-6-14	10-7-14	
Cadmium	ND	0.13	6020A	10-9-14	10-10-14	
Chromium	9.4	0.64	6010C	10-6-14	10-7-14	
Copper	10	1.3	6010C	10-6-14	10-7-14	
Lead	ND	6.4	6010C	10-6-14	10-7-14	
Nickel	7.0	3.2	6010C	10-6-14	10-7-14	
Tin	ND	6.4	6010C	10-6-14	10-7-14	
Zinc	18	3.2	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-06					
Client ID:	P17-091014-2.0-6.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	12	0.52	6010C	10-6-14	10-7-14	
Copper	10	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	7.4	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	20	2.6	6010C	10-6-14	10-7-14	

Lab ID: 09-128-07
Client ID: P17-091014-2.0-6.0 DUP

Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	12	0.52	6010C	10-6-14	10-7-14	
Copper	10	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	7.4	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	22	2.6	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-08					
Client ID:	P17-091014-13.5-16.0					
Arsenic	ND	15	6010C	10-6-14	10-7-14	
Cadmium	ND	0.15	6020A	10-9-14	10-10-14	
Chromium	18	0.74	6010C	10-6-14	10-7-14	
Copper	37	1.5	6010C	10-6-14	10-7-14	
Lead	14	7.4	6010C	10-6-14	10-7-14	
Nickel	13	3.7	6010C	10-6-14	10-7-14	
Tin	ND	7.4	6010C	10-6-14	10-7-14	
Zinc	49	3.7	6010C	10-6-14	10-7-14	

Lab ID:	09-128-09					
Client ID:	P17-091014-13.5-16.0 DUP					
Arsenic	ND	13	6010C	10-6-14	10-7-14	
Cadmium	ND	0.13	6020A	10-9-14	10-10-14	
Chromium	9.1	0.65	6010C	10-6-14	10-7-14	
Copper	9.0	1.3	6010C	10-6-14	10-7-14	
Lead	ND	6.5	6010C	10-6-14	10-7-14	
Nickel	6.4	3.2	6010C	10-6-14	10-7-14	
Tin	ND	6.5	6010C	10-6-14	10-7-14	
Zinc	19	3.2	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-10					
Client ID:	P20-091014-2.0-4.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	10	0.51	6010C	10-6-14	10-7-14	
Copper	9.4	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.1	6010C	10-6-14	10-7-14	
Nickel	7.0	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.1	6010C	10-6-14	10-7-14	
Zinc	20	2.6	6010C	10-6-14	10-7-14	

Lab ID:	09-128-11					
Client ID:	P20-091014-14.5-16.0					
Arsenic	ND	13	6010C	10-6-14	10-7-14	
Cadmium	ND	0.13	6020A	10-9-14	10-10-14	
Chromium	10	0.64	6010C	10-6-14	10-7-14	
Copper	10	1.3	6010C	10-6-14	10-7-14	
Lead	ND	6.4	6010C	10-6-14	10-7-14	
Nickel	7.0	3.2	6010C	10-6-14	10-7-14	
Tin	ND	6.4	6010C	10-6-14	10-7-14	
Zinc	19	3.2	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-13					
Client ID:	P21-091114-2.5-4.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	12	0.52	6010C	10-6-14	10-7-14	
Copper	9.6	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	7.2	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	20	2.6	6010C	10-6-14	10-7-14	

Lab ID:	09-128-14					
Client ID:	P21-091114-14.5-16.0					
Arsenic	ND	13	6010C	10-6-14	10-7-14	
Cadmium	ND	0.13	6020A	10-9-14	10-10-14	
Chromium	11	0.65	6010C	10-6-14	10-7-14	
Copper	11	1.3	6010C	10-6-14	10-7-14	
Lead	ND	6.5	6010C	10-6-14	10-7-14	
Nickel	7.0	3.3	6010C	10-6-14	10-7-14	
Tin	ND	6.5	6010C	10-6-14	10-7-14	
Zinc	21	3.3	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-16					
Client ID:	P19-091114-2.5-4.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	10	0.52	6010C	10-6-14	10-7-14	
Copper	8.2	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	6.3	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	19	2.6	6010C	10-6-14	10-7-14	

Lab ID:	09-128-17					
Client ID:	P19-091114-14.5-16.0					
Arsenic	ND	14	6010C	10-6-14	10-7-14	
Cadmium	ND	0.14	6020A	10-9-14	10-10-14	
Chromium	9.7	0.69	6010C	10-6-14	10-7-14	
Copper	10	1.4	6010C	10-6-14	10-7-14	
Lead	ND	6.9	6010C	10-6-14	10-7-14	
Nickel	6.9	3.4	6010C	10-6-14	10-7-14	
Tin	ND	6.9	6010C	10-6-14	10-7-14	
Zinc	19	3.4	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A**

Matrix: Soil
 Units: mg/kg (ppm)

Analyte	Result	PQL	EPA Method	Date Prepared	Date Analyzed	Flags
Lab ID:	09-128-18					
Client ID:	P18-091114-2.5-4.0					
Arsenic	ND	10	6010C	10-6-14	10-7-14	
Cadmium	ND	0.10	6020A	10-9-14	10-10-14	
Chromium	9.5	0.52	6010C	10-6-14	10-7-14	
Copper	8.6	1.0	6010C	10-6-14	10-7-14	
Lead	ND	5.2	6010C	10-6-14	10-7-14	
Nickel	6.0	2.6	6010C	10-6-14	10-7-14	
Tin	ND	5.2	6010C	10-6-14	10-7-14	
Zinc	17	2.6	6010C	10-6-14	10-7-14	

Lab ID:	09-128-19					
Client ID:	P18-091114-14.5-16.0					
Arsenic	ND	14	6010C	10-6-14	10-7-14	
Cadmium	ND	0.14	6020A	10-9-14	10-10-14	
Chromium	9.4	0.69	6010C	10-6-14	10-7-14	
Copper	12	1.4	6010C	10-6-14	10-7-14	
Lead	ND	6.9	6010C	10-6-14	10-7-14	
Nickel	6.5	3.4	6010C	10-6-14	10-7-14	
Tin	ND	6.9	6010C	10-6-14	10-7-14	
Zinc	18	3.4	6010C	10-6-14	10-7-14	

Date of Report: October 13, 2014
Samples Submitted: September 12, 2014
Laboratory Reference: 1409-128B
Project: 110-001

**TOTAL METALS
EPA 6010C/6020A
METHOD BLANK QUALITY CONTROL**

Date Extracted: 10-6&9-14
Date Analyzed: 10-7&10-14

Matrix: Soil
Units: mg/kg (ppm)

Lab ID: MB1006SH2&MB1009SM1

Analyte	Method	Result	PQL
Arsenic	6010C	ND	10
Cadmium	6020A	ND	0.10
Chromium	6010C	ND	0.50
Copper	6010C	ND	1.0
Lead	6010C	ND	5.0
Nickel	6010C	ND	2.5
Tin	6010C	ND	5.0
Zinc	6010C	ND	2.5

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 DUPLICATE QUALITY CONTROL**

Date Extracted: 10-6&9-14
 Date Analyzed: 10-7&10-14

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 09-128-01

Analyte	Sample Result	Duplicate Result	RPD	PQL	Flags
Arsenic	ND	ND	NA	10.0	
Cadmium	ND	ND	NA	0.10	
Chromium	11.8	11.3	4	0.50	
Copper	10.2	9.95	2	1.0	
Lead	ND	ND	NA	5.0	
Nickel	7.50	7.55	1	2.5	
Tin	ND	ND	NA	5.0	
Zinc	22.6	22.3	1	2.5	

Date of Report: October 13, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128B
 Project: 110-001

**TOTAL METALS
 EPA 6010C/6020A
 MS/MSD QUALITY CONTROL**

Date Extracted: 10-6&9-14
 Date Analyzed: 10-7&10-14

Matrix: Soil
 Units: mg/kg (ppm)

Lab ID: 09-128-01

Analyte	Spike Level	MS	Percent Recovery	MSD	Percent Recovery	RPD	Flags
Arsenic	100	96.4	96	96.6	97	0	
Cadmium	50.0	51.3	103	51.5	103	0	
Chromium	100	106	94	105	93	1	
Copper	50.0	61.8	103	61.1	102	1	
Lead	250	239	96	234	94	2	
Nickel	100	104	97	103	95	2	
Tin	100.0	87.4	87	86.2	86	1	
Zinc	100	123	101	122	100	1	



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



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Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
 (TPH analysis 5 Days)

_____ (other)

Laboratory Number: **09-128**

Company: Pacific Crest Environmental
 Project Number: 110-001
 Project Name: Sound Matters
 Project Manager: William (Bill) Camwell
 Sampled by: A. Weibenga / M. Scofield

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Cupride	metals (various)	Grain Size - sieve/hydrometry	Total Organic Carbon	As, Cd, Cr, Cu, Pb, Ni, Sn, Zn	% Moisture	
1	P14-091014-2.5-4.0	9/10/14	1150	Soil	5					X												X	X	X	X	X	X
2	P14-091014-10.0-10.5	9/10/14	1205	Soil	1																						
3	P14-091014-14.5-16.0	9/10/14	1210	Soil	5					X												X	X	X	X	X	X
4	P16-091014-2.5-5.0	9/10/14	1240	Soil	5					X												X	X	X	X	X	X
5	P16-091014-15.0-16.0	9/10/14	1300	Soil	5					X												X	X	X	X	X	X
6	P17-091014-2.0-6.0	9/10/14	1345	Soil	5					X												X	X	X	X	X	X
7	P17-091014-2.0-6.0 DUP	9/10/14	1350	Soil	5					X												X	X	X	X	X	X
8	P17-091014-13.5-16.0	9/10/14	1415	Soil	5					X												X	X	X	X	X	X
9	P17-091014-13.5-16.0 DUP	9/10/14	1420	Soil	5					X												X	X	X	X	X	X
10	P20-091014-2.0-4.0	9/10/14	1450	Soil	5					X												X	X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9/12/14	910	* please hold for cupride analysis
<i>[Signature]</i>	SPB	11	910	
<i>[Signature]</i>	OSF	9/12/14	1005	Δ please hold for analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin and/or zinc
				Δ please hold for grain size
				Chromatograms with final report <input checked="" type="checkbox"/> added 9/25/14. DS (S+H)



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Chain of Custody

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

(other) _____

Laboratory Number: **09-128**

Company: Pacific Crest
Project Number: 110-001
Project Name: Sound Hatters
Project Manager: William (Bill) Scamell
Sampled by: A. Wiebenga / M. Seefeld

Lab ID Sample Identification

Number of Containers

NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx	
Volatiles 8260C	X
Halogenated Volatiles 8260C	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
cyanide & metals (various) Δ	X
grain size - sieve + hydrometer	X
TOC	X
As, Cd, Cr, Cu, Pb, Ni, Sn, Zn	X
% Moisture	X

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	P20-091014-14.5-16.0	9/10/14	1525	Soil	5
12	P20-091014-11.5-12.0	9/10/14	1530		1
13	P21-091114-2.5-4.0	9/11/14	0810		5
14	P21-091114-14.5-16.0	9/11/14	0830		5
15	P21-091114-12.5-13.5	9/11/14	0835		1
16	P19-091114-2.5-4.0	9/11/14	0845		5
17	P19-091114-14.5-16.0	9/11/14	0905		5
18	P18-091114-2.5-4.0	9/11/14	0925		5
19	P18-091114-14.5-16.0	9/11/14	0945		5

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest Environmental	9/12/14	910	* please hold for cyanide analysis Δ please hold for analysis of arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc
<i>[Signature]</i>	OSF	9/12/14	1005	please hold for grain size analysis



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September 23, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-101

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 10, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right from the end of the signature.

David Baumeister
Project Manager

Enclosures

Date of Report: September 23, 2014
Samples Submitted: September 10, 2014
Laboratory Reference: 1409-101
Project: 110-001

Case Narrative

Samples were collected on September 9 and 10, 2014 and received by the laboratory on September 10, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Date of Report: September 23, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101
 Project: 110-001

VOLATILES EPA 8260C
 Page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P5-090914-2.0-4.0					
Laboratory ID:	09-101-01					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.0016	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0099	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	

Date of Report: September 23, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101
 Project: 110-001

VOLATILES EPA 8260C
 Page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P5-090914-2.0-4.0					
Laboratory ID:	09-101-01					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.15	0.0014	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0027	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>123</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>113</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P5-090914-8.5-9.5					
Laboratory ID:	09-101-02					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Acetone	0.0072	0.0066	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.0037	0.0013	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.0020	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0096	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P5-090914-8.5-9.5					
Laboratory ID:	09-101-02					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0026	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0066	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>114</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P10-090914-3.0-4.0					
Laboratory ID:	09-101-03					
Dichlorodifluoromethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.013	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P10-090914-3.0-4.0					
Laboratory ID:	09-101-03					
1,1,2-Trichloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	2.0	0.055	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0019	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0048	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.00096	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>112</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>92</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P10-090914-10.0-12.0					
Laboratory ID:	09-101-04					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Acetone	0.011	0.0052	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.0070	0.0010	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.0027	0.0010	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	0.061	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.37	0.31	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P10-090914-10.0-12.0					
Laboratory ID:	09-101-04					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	13	0.31	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0021	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0052	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>119</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>84</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P9-090914-6.0-8.5					
Laboratory ID:	09-101-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.0021	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	0.0043	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	4.9	0.060	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0093	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P9-090914-6.0-8.5					
Laboratory ID:	09-101-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	34	0.30	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0064	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichloropropane	ND	0.060	EPA 8260C	9-17-14	9-17-14	
n-Propylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
2-Chlorotoluene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
4-Chlorotoluene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
tert-Butylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
sec-Butylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,3-Dichlorobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
p-Isopropyltoluene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,4-Dichlorobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,2-Dichlorobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
n-Butylbenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.30	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
Hexachlorobutadiene	ND	0.30	EPA 8260C	9-17-14	9-17-14	
Naphthalene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.060	EPA 8260C	9-17-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>75</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P9-090914-14.0-16.0					
Laboratory ID:	09-101-06					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	0.0037	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	0.0019	0.0014	EPA 8260C	9-11-14	9-11-14	
Acetone	0.013	0.0070	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.0068	0.0014	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.22	0.079	EPA 8260C	9-17-14	9-17-14	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	2.7	0.079	EPA 8260C	9-17-14	9-17-14	
2-Butanone	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.0026	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.010	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P9-090914-14.0-16.0					
Laboratory ID:	09-101-06					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.0029	0.0013	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0028	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0070	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>123</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>87</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P8-090914-4.0-6.0					
Laboratory ID:	09-101-07					
Dichlorodifluoromethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.0057	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P8-090914-4.0-6.0					
Laboratory ID:	09-101-07					
1,1,2-Trichloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.56	0.042	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0016	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0040	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.00079	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>117</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P8-090914-14.0-16.0					
Laboratory ID:	09-101-08					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Chloromethane	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Vinyl Chloride	0.13	0.081	EPA 8260C	9-16-14	9-16-14	
Bromomethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Chloroethane	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethene	0.0093	0.0016	EPA 8260C	9-16-14	9-16-14	
Acetone	0.017	0.0080	EPA 8260C	9-16-14	9-16-14	
Iodomethane	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Carbon Disulfide	0.011	0.0016	EPA 8260C	9-16-14	9-16-14	
Methylene Chloride	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
(trans) 1,2-Dichloroethene	0.050	0.0016	EPA 8260C	9-16-14	9-16-14	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Vinyl Acetate	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
(cis) 1,2-Dichloroethene	4.5	0.081	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Bromochloromethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Chloroform	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Benzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Trichloroethene	0.0033	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Dibromomethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Bromodichloromethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
2-Chloroethyl Vinyl Ether	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Methyl Isobutyl Ketone	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Toluene	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P8-090914-14.0-16.0					
Laboratory ID:	09-101-08					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Tetrachloroethene	0.0081	0.0016	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
2-Hexanone	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Dibromochloromethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Chlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Ethylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
m,p-Xylene	ND	0.0032	EPA 8260C	9-16-14	9-16-14	
o-Xylene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Styrene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Bromoform	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Isopropylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Bromobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.0080	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P12-090914-4.0-5.5					
Laboratory ID:	09-101-09					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.064	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0079	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Toluene	0.0060	0.0054	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P12-090914-4.0-5.5					
Laboratory ID:	09-101-09					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	1.8	0.053	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	0.0011	0.0011	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	0.0062	0.0022	EPA 8260C	9-11-14	9-11-14	
o-Xylene	0.0017	0.0011	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	0.0011	0.0011	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	0.0019	0.0011	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>84</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P12-090914-14.5-16.0					
Laboratory ID:	09-101-10					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	0.35	0.074	EPA 8260C	9-16-14	9-17-14	
Bromomethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	0.0079	0.0012	EPA 8260C	9-11-14	9-11-14	
Acetone	0.022	0.0061	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.0097	0.0012	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.97	0.074	EPA 8260C	9-16-14	9-17-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	19	0.37	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.0028	0.0012	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0088	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P12-090914-14.5-16.0					
Laboratory ID:	09-101-10					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.15	0.074	EPA 8260C	9-16-14	9-17-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0061	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0024	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,2,3-Trichloropropane	ND	0.074	EPA 8260C	9-16-14	9-17-14	
n-Propylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
2-Chlorotoluene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
4-Chlorotoluene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
tert-Butylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
sec-Butylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,3-Dichlorobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
p-Isopropyltoluene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,4-Dichlorobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,2-Dichlorobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
n-Butylbenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.37	EPA 8260C	9-16-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
Hexachlorobutadiene	ND	0.37	EPA 8260C	9-16-14	9-17-14	
Naphthalene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.074	EPA 8260C	9-16-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>82</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P11-090914-3.8-5.0					
Laboratory ID:	09-101-11					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Acetone	0.011	0.0054	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.0049	0.0011	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
2-Butanone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroform	0.0029	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.15	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0078	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P11-090914-3.8-5.0					
Laboratory ID:	09-101-11					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	29	0.26	EPA 8260C	9-16-14	9-17-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0054	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	0.0014	0.0011	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	0.0048	0.0021	EPA 8260C	9-11-14	9-11-14	
o-Xylene	0.0014	0.0011	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,2,3-Trichloropropane	ND	0.052	EPA 8260C	9-16-14	9-17-14	
n-Propylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
2-Chlorotoluene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
4-Chlorotoluene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
tert-Butylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
sec-Butylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,3-Dichlorobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
p-Isopropyltoluene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,4-Dichlorobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,2-Dichlorobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
n-Butylbenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.26	EPA 8260C	9-16-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
Hexachlorobutadiene	ND	0.26	EPA 8260C	9-16-14	9-17-14	
Naphthalene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.052	EPA 8260C	9-16-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>123</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>76</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P11-090914-14.5-16.0					
Laboratory ID:	09-101-12					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	0.024	0.0013	EPA 8260C	9-17-14	9-17-14	
Bromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	0.0033	0.0013	EPA 8260C	9-11-14	9-11-14	
Acetone	0.019	0.0063	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.026	0.0013	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	0.072	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	12	0.37	EPA 8260C	9-17-14	9-17-14	
2-Butanone	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0092	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P11-090914-14.5-16.0					
Laboratory ID:	09-101-12					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.0036	0.0013	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>124</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>89</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2-090914-4.0-5.5					
Laboratory ID:	09-101-13					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloromethane	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromomethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloroethane	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Acetone	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Iodomethane	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Carbon Disulfide	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Methylene Chloride	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Vinyl Acetate	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloroform	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Benzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Trichloroethene	0.0025	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Toluene	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2-090914-4.0-5.5					
Laboratory ID:	09-101-13					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Tetrachloroethene	0.12	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Hexanone	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
m,p-Xylene	ND	0.0023	EPA 8260C	9-16-14	9-16-14	
o-Xylene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Styrene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromoform	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 10, 2014
 Laboratory Reference: 1409-101
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2-090914-8.0-9.5					
Laboratory ID:	09-101-14					
Dichlorodifluoromethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Acetone	0.017	0.0047	EPA 8260C	9-11-14	9-11-14	Y
Iodomethane	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	0.00099	0.00093	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	0.0022	0.00093	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.0032	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0068	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P2-090914-8.0-9.5					
Laboratory ID:	09-101-14					
1,1,2-Trichloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	0.15	0.00093	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0019	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0047	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.00093	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>125</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>115</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>73-124</i>				

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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P1-090914-2.5-4.0					
Laboratory ID:	09-101-15					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	0.011	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0082	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P1-090914-2.5-4.0					
Laboratory ID:	09-101-15					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	1.0	0.055	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P1-090914-10.5-12.0					
Laboratory ID:	09-101-16					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloromethane	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromomethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloroethane	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Acetone	0.012	0.0060	EPA 8260C	9-16-14	9-16-14	
Iodomethane	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Carbon Disulfide	0.0083	0.0012	EPA 8260C	9-16-14	9-16-14	
Methylene Chloride	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Vinyl Acetate	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chloroform	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Benzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Trichloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Chloroethyl Vinyl Ether	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Methyl Isobutyl Ketone	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Toluene	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P1-090914-10.5-12.0					
Laboratory ID:	09-101-16					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Hexanone	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
m,p-Xylene	ND	0.0024	EPA 8260C	9-16-14	9-16-14	
o-Xylene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Styrene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromoform	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.0060	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P6-090914-2.5-4.0					
Laboratory ID:	09-101-17					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	0.0034	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	0.43	0.060	EPA 8260C	9-16-14	9-17-14	
2-Butanone	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroform	0.0035	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	0.53	0.060	EPA 8260C	9-16-14	9-17-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P6-090914-2.5-4.0					
Laboratory ID:	09-101-17					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	17	0.30	EPA 8260C	9-16-14	9-17-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0023	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	0.0014	0.0011	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	9-12-14	9-12-14	
Naphthalene	0.0016	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>110</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>82</i>	<i>73-124</i>				

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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P6-090914-10.5-12.0					
Laboratory ID:	09-101-18					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Acetone	0.025	0.0064	EPA 8260C	9-12-14	9-12-14	Y
Iodomethane	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	0.033	0.0013	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	0.048	0.0013	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	0.24	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	4.0	0.14	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P6-090914-10.5-12.0					
Laboratory ID:	09-101-18					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	2.0	0.14	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0026	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0064	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>122</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>86</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P7-091014-3.5-5.5					
Laboratory ID:	09-101-19					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	0.0046	0.0012	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P7-091014-3.5-5.5					
Laboratory ID:	09-101-19					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	1.9	0.054	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	0.0030	0.0029	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0072	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>115</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>94</i>	<i>73-124</i>				

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P7-091014-12.0-14.0					
Laboratory ID:	09-101-20					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Chloromethane	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Bromomethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Chloroethane	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Acetone	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Iodomethane	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Carbon Disulfide	0.0041	0.0011	EPA 8260C	9-16-14	9-16-14	
Methylene Chloride	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
(trans) 1,2-Dichloroethene	0.0034	0.0011	EPA 8260C	9-16-14	9-16-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Vinyl Acetate	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
(cis) 1,2-Dichloroethene	0.014	0.0011	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Chloroform	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Benzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Trichloroethene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Toluene	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P7-091014-12.0-14.0					
Laboratory ID:	09-101-20					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Tetrachloroethene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
2-Hexanone	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-16-14	9-16-14	
o-Xylene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Styrene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Bromoform	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>73-124</i>				

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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P4-091014-3.5-5.0					
Laboratory ID:	09-101-21					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	0.0048	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P4-091014-3.5-5.0					
Laboratory ID:	09-101-21					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	0.89	0.055	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>117</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P4-091014-15.0-16.0					
Laboratory ID:	09-101-22					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Acetone	0.0078	0.0060	EPA 8260C	9-12-14	9-12-14	Y
Iodomethane	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	0.0036	0.0012	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	0.0045	0.0012	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	0.076	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P4-091014-15.0-16.0					
Laboratory ID:	09-101-22					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0024	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0060	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>120</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>112</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Laboratory Reference: 1409-101
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P3-091014-4.5-6.0					
Laboratory ID:	09-101-23					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	0.0017	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P3-091014-4.5-6.0					
Laboratory ID:	09-101-23					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	0.22	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0023	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0058	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>116</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P3-091014-14.5-16.0					
Laboratory ID:	09-101-24					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Acetone	0.015	0.0063	EPA 8260C	9-12-14	9-12-14	Y
Iodomethane	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	0.0059	0.0013	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P3-091014-14.5-16.0					
Laboratory ID:	09-101-24					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>115</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P13-091014-2.5-4.0					
Laboratory ID:	09-101-25					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	0.0039	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P13-091014-2.5-4.0					
Laboratory ID:	09-101-25					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	0.92	0.052	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0054	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>127</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>116</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Laboratory Reference: 1409-101
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P13-091014-14.5-16.0					
Laboratory ID:	09-101-27					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Acetone	0.030	0.0081	EPA 8260C	9-12-14	9-12-14	Y
Iodomethane	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	0.013	0.0016	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P13-091014-14.5-16.0					
Laboratory ID:	09-101-27					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0081	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0033	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0016	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.12	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.61	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.61	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.12	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>121</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>87</i>	<i>73-124</i>				

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 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloromethane	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromomethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloroethane	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Acetone	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Iodomethane	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Butanone	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chloroform	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Benzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260C	9-11-14	9-11-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Toluene	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0911S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-11-14	9-11-14	
o-Xylene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Styrene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromoform	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-11-14	9-11-14	
Naphthalene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-11-14	9-11-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>119</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>73-124</i>				

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 Project: 110-001

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 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0912S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Chloromethane	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Bromomethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Chloroethane	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Acetone	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Iodomethane	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
2-Butanone	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Chloroform	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Benzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Toluene	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0912S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-12-14	9-12-14	
o-Xylene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Styrene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Bromoform	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-12-14	9-12-14	
Naphthalene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-12-14	9-12-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>128</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>120</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>102</i>	<i>73-124</i>				

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**VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0916S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Chloromethane	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Bromomethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Chloroethane	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Acetone	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Iodomethane	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
2-Butanone	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Chloroform	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Benzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Toluene	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0916S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-16-14	9-16-14	
o-Xylene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Styrene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Bromoform	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-16-14	9-16-14	
Naphthalene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-16-14	9-16-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>109</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>73-124</i>				

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**VOLATILES EPA 8260C
 METHOD BLANK QUALITY CONTROL**

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0917S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloromethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromomethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloroethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Acetone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Iodomethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Butanone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloroform	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Benzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Toluene	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	

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VOLATILES EPA 8260C
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0917S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-17-14	9-17-14	
o-Xylene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Styrene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromoform	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Naphthalene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>73-124</i>				

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**VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0911S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0452	0.0458	0.0500	0.0500	90	92	56-141	1	15	
Benzene	0.0484	0.0476	0.0500	0.0500	97	95	70-121	2	15	
Trichloroethene	0.0485	0.0474	0.0500	0.0500	97	95	74-118	2	15	
Toluene	0.0480	0.0474	0.0500	0.0500	96	95	75-120	1	15	
Chlorobenzene	0.0458	0.0451	0.0500	0.0500	92	90	75-120	2	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					116	117	65-129			
<i>Toluene-d8</i>					108	107	77-122			
<i>4-Bromofluorobenzene</i>					96	93	73-124			

Date of Report: September 23, 2014
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 Project: 110-001

**VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0912S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0437	0.0462	0.0500	0.0500	87	92	56-141	6	15	
Benzene	0.0467	0.0477	0.0500	0.0500	93	95	70-121	2	15	
Trichloroethene	0.0468	0.0472	0.0500	0.0500	94	94	74-118	1	15	
Toluene	0.0466	0.0481	0.0500	0.0500	93	96	75-120	3	15	
Chlorobenzene	0.0449	0.0451	0.0500	0.0500	90	90	75-120	0	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					116	117	65-129			
<i>Toluene-d8</i>					108	109	77-122			
<i>4-Bromofluorobenzene</i>					93	94	73-124			

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**VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					Recovery	Limits	RPD	Limit		
SPIKE BLANKS										
Laboratory ID:	SB0916S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0462	0.0459	0.0500	0.0500	92	92	56-141	1	15	
Benzene	0.0474	0.0458	0.0500	0.0500	95	92	70-121	3	15	
Trichloroethene	0.0472	0.0454	0.0500	0.0500	94	91	74-118	4	15	
Toluene	0.0476	0.0455	0.0500	0.0500	95	91	75-120	5	15	
Chlorobenzene	0.0463	0.0444	0.0500	0.0500	93	89	75-120	4	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>101</i>	<i>101</i>	<i>65-129</i>			
<i>Toluene-d8</i>					<i>102</i>	<i>100</i>	<i>77-122</i>			
<i>4-Bromofluorobenzene</i>					<i>99</i>	<i>99</i>	<i>73-124</i>			

Date of Report: September 23, 2014
 Samples Submitted: September 10, 2014
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 Project: 110-001

**VOLATILES EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0917S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0490	0.0478	0.0500	0.0500	98	96	56-141	2	15	
Benzene	0.0484	0.0487	0.0500	0.0500	97	97	70-121	1	15	
Trichloroethene	0.0485	0.0475	0.0500	0.0500	97	95	74-118	2	15	
Toluene	0.0477	0.0474	0.0500	0.0500	95	95	75-120	1	15	
Chlorobenzene	0.0460	0.0465	0.0500	0.0500	92	93	75-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	100	65-129			
<i>Toluene-d8</i>					101	100	77-122			
<i>4-Bromofluorobenzene</i>					100	99	73-124			

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TOTAL ORGANIC CARBON
EPA 9060A

Matrix: Soil
Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P13-091014-2.5-4.0					
Laboratory ID:	09-101-25					
Total Organic Carbon	ND	0.14	EPA 9060	9-16-14	9-16-14	

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**TOTAL ORGANIC CARBON
 EPA 9060A
 QUALITY CONTROL**

Matrix: Soil
 Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916S1					
Total Organic Carbon	ND	0.042	EPA 9060	9-16-14	9-16-14	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-101-25							
	ORIG	DUP						
Total Organic Carbon	ND	ND	NA	NA	NA	NA	20	

SPIKE BLANK								
Laboratory ID:	SB0916S1							
	SB	SB		SB				
Total Organic Carbon	45.1	42.1	NA	107	80-120	NA	NA	

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 Project: 110-001

% MOISTURE

Date Analyzed: 9-11-14

Client ID	Lab ID	% Moisture
P5-090914-2.0-4.0	09-101-01	24
P5-090914-8.5-9.5	09-101-02	26
P10-090914-3.0-4.0	09-101-03	8
P10-090914-10.0-12.0	09-101-04	18
P9-090914-6.0-8.5	09-101-05	12
P9-090914-14.0-16.0	09-101-06	22
P8-090914-4.0-6.0	09-101-07	4
P8-090914-14.0-16.0	09-101-08	27
P12-090914-4.0-5.5	09-101-09	5
P12-090914-14.5-16.0	09-101-10	21
P11-090914-3.8-5.0	09-101-11	10
P11-090914-14.5-16.0	09-101-12	21
P2-090914-4.0-5.5	09-101-13	8
P2-090914-8.0-9.5	09-101-14	17
P1-090914-2.5-4.0	09-101-15	7
P1-090914-10.5-12.0	09-101-16	19
P6-090914-2.5-4.0	09-101-17	15
P6-090914-10.5-12.0	09-101-18	23
P7-091014-3.5-5.5	09-101-19	5
P7-091014-12.0-14.0	09-101-20	19
P4-091014-3.5-5.0	09-101-21	5
P4-091014-15.0-16.0	09-101-22	16
P3-091014-4.5-6.0	09-101-23	12
P3-091014-14.5-16.0	09-101-24	28
P13-091014-2.5-4.0	09-101-25	5
P13-091014-14.5-16.0	09-101-27	40



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

*Professional
Analytical
Services*

Sep 23 2014
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
P13-091014-2.5-4.0	Soil	14-A014795	CONV, Grain Size
P13-091014-10.0-11.0	Soil	14-A014796	CONV, Grain Size

Your samples were received on Monday, September 15, 2014. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

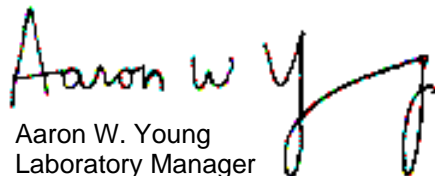
The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to conact me.

Sincerely,


Aaron W. Young
Laboratory Manager

Project #: 110-001

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

Am Test Inc.
 13600 NE 126TH PL
 Suite C
 Kirkland, WA 98034
 (425) 885-1664
 www.amtestlab.com



Professional
 Analytical
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ANALYSIS REPORT

On-Site Environmental
 14648 NE 95th ST
 Redmond, WA 98052
 Attention: David Baumeister
 Project #: 110-001
 All results reported on a dry weight basis.

Date Received: 09/15/14
 Date Reported: 9/23/14

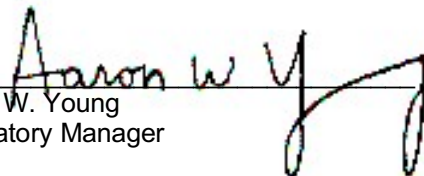
AMTEST Identification Number 14-A014795
 Client Identification P13-091014-2.5-4.0
 Sampling Date 09/10/14

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	91.7	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	0.50 %	GRAVEL	0.90	ASTM D422	ED	09/18/14
- 2	4.00	0.20 %			ASTM D422	ED	09/18/14
-1	2.00	0.20 %			ASTM D422	ED	09/18/14
0	1.00	2.70 %	SAND	84.1	ASTM D422	ED	09/18/14
+1	0.50	38.7 %			ASTM D422	ED	09/18/14
+ 2	0.25	20.6 %			ASTM D422	ED	09/18/14
+ 3	0.125	15.1 %			ASTM D422	ED	09/18/14
+ 4	0.063	7.00 %			ASTM D422	ED	09/18/14
+ 5	0.032	8.00 %	SILT	9.50	ASTM D422	ED	09/18/14
+ 6	0.016	0.80 %			ASTM D422	ED	09/18/14
+ 7	0.008	0.70 %			ASTM D422	ED	09/18/14
+ 8	0.004	< 0.1 %			ASTM D422	ED	09/18/14
+ 9	0.002	0.70 %	CLAY	5.30	ASTM D422	ED	09/18/14
+ 10	0.001	0.50 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	4.10 %			ASTM D422	ED	09/18/14


 Aaron W. Young
 Laboratory Manager

Am Test Inc.
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ANALYSIS REPORT

On-Site Environmental
 14648 NE 95th ST
 Redmond, WA 98052
 Attention: David Baumeister
 Project #: 110-001
 All results reported on a dry weight basis.

Date Received: 09/15/14
 Date Reported: 9/23/14

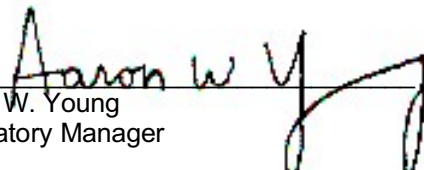
AMTEST Identification Number 14-A014796
 Client Identification P13-091014-10.0-11.0
 Sampling Date 09/10/14

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	84.8	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	< 0.1 %	GRAVEL	0.70	ASTM D422	ED	09/18/14
- 2	4.00	0.10 %			ASTM D422	ED	09/18/14
-1	2.00	0.60 %			ASTM D422	ED	09/18/14
0	1.00	1.70 %	SAND	92.4	ASTM D422	ED	09/18/14
+1	0.50	23.7 %			ASTM D422	ED	09/18/14
+ 2	0.25	45.6 %			ASTM D422	ED	09/18/14
+ 3	0.125	18.8 %			ASTM D422	ED	09/18/14
+ 4	0.063	2.60 %			ASTM D422	ED	09/18/14
+ 5	0.032	0.20 %	SILT	2.20	ASTM D422	ED	09/18/14
+ 6	0.016	1.20 %			ASTM D422	ED	09/18/14
+ 7	0.008	0.50 %			ASTM D422	ED	09/18/14
+ 8	0.004	0.30 %			ASTM D422	ED	09/18/14
+ 9	0.002	< 0.1 %	CLAY	4.70	ASTM D422	ED	09/18/14
+ 10	0.001	< 0.1 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	4.70 %			ASTM D422	ED	09/18/14


 Aaron W. Young
 Laboratory Manager

Am Test Inc.
 13600 NE 126th PL
 Suite C
 Kirkland, WA, 98034
 (425) 885-1664
 www.amtestlab.com



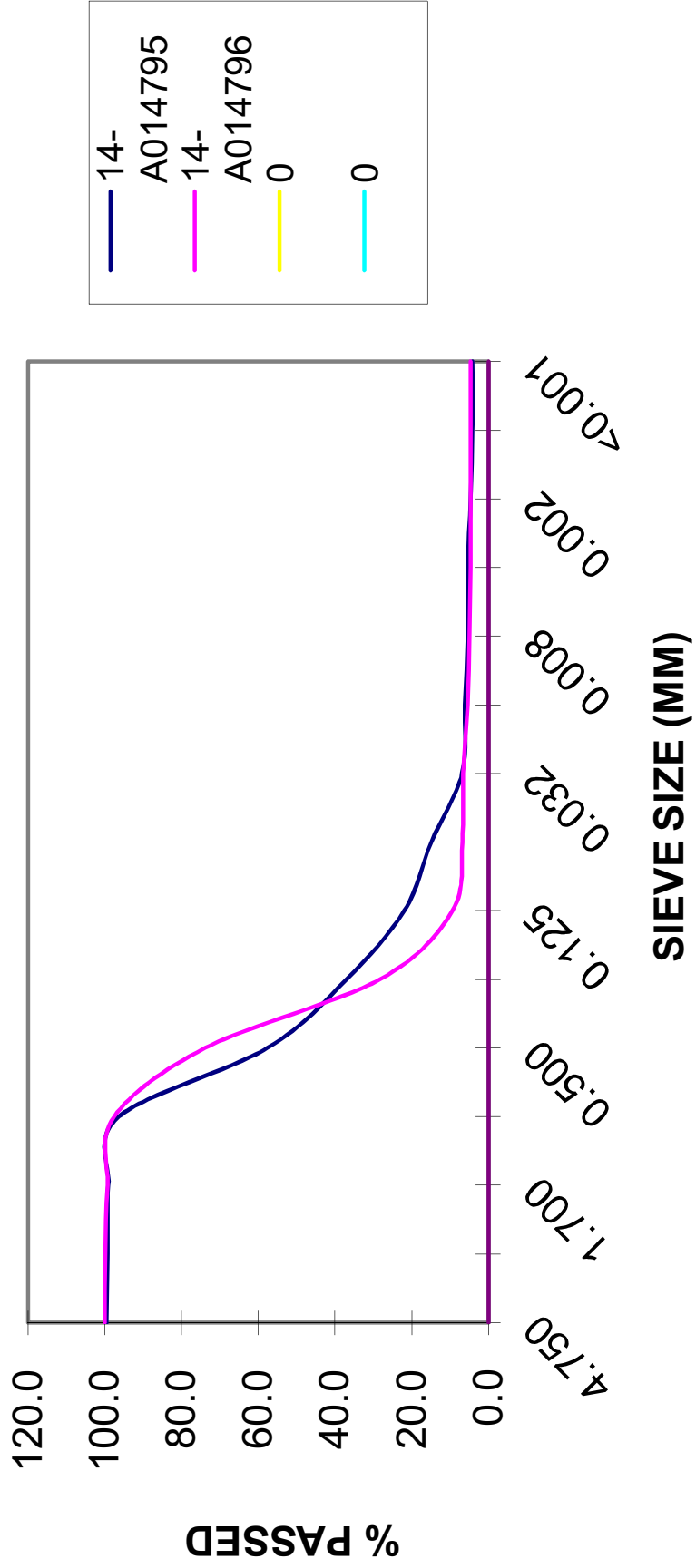
*Professional
 Analytical
 Services*

QC Summary for sample numbers: 14-A014795 to 14-A014796

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
14-A014790	Total Solids	%	81.3	81.4	0.12
14-A014790		%	< 0.1	< 0.1	
14-A014790	- 2	%	< 0.1	0.10	
14-A014790	-1	%	0.20	0.10	67.
14-A014790	0	%	1.80	1.10	48.
14-A014790	+1	%	17.6	19.1	8.2
14-A014790	+ 2	%	47.3	52.2	9.8
14-A014790	+ 3	%	22.0	16.3	30.
14-A014790	+ 4	%	4.30	4.20	2.4
14-A014790	+ 5	%	< 0.1	< 0.1	
14-A014790	+ 6	%	1.20	1.30	8.0
14-A014790	+ 7	%	0.30	0.20	40.
14-A014790	+ 8	%	0.30	0.50	50.
14-A014790	+ 9	%	0.80	0.10	160
14-A014790	+ 10	%	0.60	< 0.1	
14-A014790	> + 10	%	3.40	4.90	36.

GRAIN SIZE ANALYSIS





**Onsite
Environmental Inc.**

14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

Subcontract Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th Pl Kirkland, WA 98034

Phone Number: (425) 885-1664

Date/Time: _____

Turnaround Request:

1 Day 2 Day 3 Day

Standard

Other: _____

Laboratory Reference #: _____

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 110-001

Project Name: _____

09-101

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysis																																										
H795 P13-091014-2-5-4.0		9/10/14		Soil	1	Grain Size ASTM D422 (sieve and hydrometer)																																										
H796 P13-091014-10.0-11.0		9/10/14		Soil	1	Grain Size ASTM D422 (sieve and hydrometer)																																										
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:20%;">Relinquished by:</td> <td style="width:20%;"></td> <td style="width:20%;"></td> <td style="width:20%;"></td> <td style="width:20%;"></td> <td style="width:20%;"></td> <td style="width:20%;"></td> </tr> <tr> <td>Received by:</td> <td></td> <td>OSI AMT</td> <td>9/12/14</td> <td>19:50</td> <td></td> <td></td> </tr> <tr> <td>Relinquished by:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Received by:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Relinquished by:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Received by:</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>							Relinquished by:							Received by:		OSI AMT	9/12/14	19:50			Relinquished by:							Received by:							Relinquished by:							Received by:						
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MVA Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 2 of 3

Turnaround Request
(in working days)

(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TPH analysis 5 Days)

(other) _____

Laboratory Number: 09-101

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Sand Mattress
Project Manager: William (Bill) Council
Sampled by: Paul DeGaulh N. Seafield

Lab ID Sample Identification

Date Sampled Time Sampled Matrix

Number of Containers
NWTPH-HCID
NWTPH-Gx/BTEX
NWTPH-Gx
NWTPH-Dx
Volatiles 8260C
~~Halogenated Volatiles 8260C~~
Semivolatiles 8270D/SIM (with low-level PAHs)
PAHs 8270D/SIM (low-level)
PCBs 8082A
Organochlorine Pesticides 8081B
Organophosphorus Pesticides 8270D/SIM
Chlorinated Acid Herbicides 8151A
Total RCRA Metals
Total MTCA Metals
TCLP Metals
HEM (oil and grease) 1664A
cyanide*
metals (various)
% Moisture

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers	Analysis
1	P5-090914-2.0-4.0	9/9/14	0858	Soil	5	X
2	P5-090914-8.5-9.5		0915			X
3	P10-090914-30-4.0		0947			X
4	P10-090914-10.0-10.0		1008			X
5	P9-090914-6.0-8.5		1120			X
6	P9-090914-14.0-16.0		1135			X
7	P8-090914-4.0-6.0		1153			X
8	P8-090914-14.0-16.0		1206			X
9	P12-090914-4.0-5.5		1250			X
10	P12-090914-14.5-16.0		1300			X

Received/Date	Signature	Company	Date	Time	Comments/Special Instructions
Received	<i>Matt DeGaulh</i>	Pacific Crest	9-16-14	1400	*Hold all samples for cyanide analysis D held for analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc
Relinquished	<i>Paul DeGaulh</i>	Speedy	9-10-14	1400	
Received	<i>Paul DeGaulh</i>	Speedy	9-10-14	1235	
Relinquished	<i>Paul DeGaulh</i>	Speedy	9-10-14	1735	
Received	<i>Paul DeGaulh</i>	Speedy	9-10-14	1735	
Received/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>



OnSite Environmental Inc.
 Analytical Laboratory Testing Services
 14648 NE 95th Street • Redmond, WA 98052
 Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Turnaround Request
 (in working days)
 (Check One)

- Same Day 1 Day
 2 Days 3 Days
 Standard (7 Days)
 (TPH analysis 5 Days)

Laboratory Number: **09-101**

Page 2 of 3

Company: Pacific Crest
 Project Number: 10-001
 Project Name: Sound Haulers
 Project Manager: William (Bill) Carroll
 Sampled by: N. Decard N. Scofield

Date Sampled: 9/9/14
 Time Sampled: 1345
 Matrix: Soil
 Number of Containers: 5

Parameter	Result
NWTPH-HCID	
NWTPH-Gx/BTEX	
NWTPH-Gx	
NWTPH-Dx	
Volatiles 8260C	X
Halogenated Volatiles 8260C	
Semivolatiles 8270D/SIM (with low-level PAHs)	
PAHs 8270D/SIM (low-level)	
PCBs 8082A	
Organochlorine Pesticides 8081B	
Organophosphorus Pesticides 8270D/SIM	
Chlorinated Acid Herbicides 8151A	
Total RCRA Metals	
Total MTCA Metals	
TCLP Metals	
HEM (oil and grease) 1664A	
Cyanide	X
Metals (various)	X
% Moisture	X

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	Number of Containers
11	P1-090914-3.8-5.0	9/9/14	1345	Soil	5
12	P11-090914-14.5-16.0		1400		
13	P2-090914-4.0-5.5		1540		
14	P2-090914-8.0-9.5		1556		
15	P1-090914-2.5-4.0		1610		
16	P1-090914-10.5-12.0		1622		
17	P6-090914-2.5-4.0		1430		
18	P6-090914-10.5-12.0		1443		
19	P7-091014-3.5-5.5	9/10/14	0830		
20	P7-091014-12.0-14.0	9/10/14	0850		

Received	Signature	Company	Date	Time	Comments/Special Instructions
Relinquished	<i>[Signature]</i>	Pacific Crest	9-10-14	1400	* hold for analysis
Received	<i>[Signature]</i>	Speedy	9-10-14	1400	
Relinquished	<i>[Signature]</i>	Speedy	9-10-14	1735	
Received	<i>[Signature]</i>	OnSite Env	9/10/14	1735	
Relinquished	<i>[Signature]</i>				
Received	<i>[Signature]</i>				
Reviewed/Date		Reviewed/Date			Chromatograms with final report <input type="checkbox"/>



OnSite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Page 3 of 3

Laboratory Number: **09-101**

Turnaround Request (in working days)
(Check One)

Same Day 1 Day

2 Days 3 Days

Standard (7 Days)
(TYP analysis 5 Days)

(other) _____

Company: Pacific Crest
 Project Number: 110-001
 Project Name: Sound Northwest
 Project Manager: William/Bill Canwell
 Sampled by: N. Deane/N. Scofield

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
21	P4 - 091014-3.5-5.0	9/10/14	0935	Soil
22	P4 - 091014-3.5-5.0	9/10/14	0945	Soil
23	P3 - 091014-4.5-6.0	9/10/14	1010	Soil
24	P3 - 091014-4.5-16.0	9/10/14	1025	Soil
25	P3 - 091014-2.5-4.0	9/10/14	1105	Soil
26	P3 - 091014-10.0-11.0	9/10/14	1110	Soil
27	P3 - 091014-14.5-16.0	9/10/14	1120	Soil

Number of Containers	NWTPH-HCID	NWTPH-Gx/BTEX	NWTPH-Gx	NWTPH-Dx	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals	Total MTCA Metals	TCLP Metals	HEM (oil and grease) 1664A	Cyanide*	Metals (various) Δ	Grain Size - Sieve + hydramete	Total Organic Carbon	% Moisture
5					X												X	X	X	X	X
5					X												X	X	X	X	X
6					X												X	X	X	X	X
6					X												X	X	X	X	X
5					X												X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
<u>[Signature]</u>	<u>Pacific Crest</u>	<u>9-10-14</u>	<u>1400</u>	<u>please hold for cyanide analysis</u>
<u>[Signature]</u>	<u>Speedy</u>	<u>9-10-14</u>	<u>1420</u>	<u>please hold for potential analysis of arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin, and/or zinc.</u>
<u>[Signature]</u>	<u>Speedy</u>	<u>9-10-14</u>	<u>1735</u>	
<u>[Signature]</u>	<u>OKS</u>	<u>9/10/14</u>	<u>1735</u>	

Relinquished	Received	Relinquished	Received	Reviewed/Date
<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	
<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	<u>[Signature]</u>	



14648 NE 95th Street, Redmond, WA 98052 • (425) 883-3881

September 23, 2014

Bill Carroll
Pacific Crest Environmental, LLC
P.O. Box 952
North Bend, WA 98045

Re: Analytical Data for Project 110-001
Laboratory Reference No. 1409-128

Dear Bill:

Enclosed are the analytical results and associated quality control data for samples submitted on September 12, 2014.

The standard policy of OnSite Environmental, Inc. is to store your samples for 30 days from the date of receipt. If you require longer storage, please contact the laboratory.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning the data, or need additional information, please feel free to call me.

Sincerely,

A handwritten signature in black ink, appearing to read "DB", with a long horizontal line extending to the right from the end of the signature.

David Baumeister
Project Manager

Enclosures

Date of Report: September 23, 2014
Samples Submitted: September 12, 2014
Laboratory Reference: 1409-128
Project: 110-001

Case Narrative

Samples were collected on September 10 and 11, 2014 and received by the laboratory on September 12, 2014. They were maintained at the laboratory at a temperature of 2°C to 6°C.

General QA/QC issues associated with the analytical data enclosed in this laboratory report will be indicated with a reference to a comment or explanation on the Data Qualifier page. More complex and involved QA/QC issues will be discussed in detail below.

Volatiles EPA 8260C Analysis

Per EPA Method 5035A, samples were received by the laboratory in pre-weighed 40 mL VOA vials within 48 hours of sample collection. They were stored in a freezer at between -7°C and -20°C until extraction or analysis.

Any other QA/QC issues associated with this extraction and analysis will be indicated with a footnote reference and discussed in detail on the Data Qualifier page.

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

VOLATILES EPA 8260C
 page 1 of 2

Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P14-091014-2.5-4.0					
Laboratory ID:	09-128-01					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Chloromethane	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Bromomethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Chloroethane	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Acetone	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Iodomethane	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Carbon Disulfide	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Methylene Chloride	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Vinyl Acetate	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
(cis) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
2-Butanone	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Chloroform	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Benzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Trichloroethene	0.0054	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Methyl Isobutyl Ketone	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Toluene	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P14-091014-2.5-4.0					
Laboratory ID:	09-128-01					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Tetrachloroethene	0.22	0.0013	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
2-Hexanone	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-17-14	9-17-14	
o-Xylene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Styrene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Bromoform	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	9-17-14	9-17-14	
Naphthalene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P14-091014-14.5-16.0					
Laboratory ID:	09-128-03					
Dichlorodifluoromethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	0.046	0.0017	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	0.048	0.0017	EPA 8260C	9-17-14	9-18-14	
Acetone	0.057	0.0087	EPA 8260C	9-17-14	9-18-14	Y
Iodomethane	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	0.070	0.0017	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	0.33	0.17	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	37	1.7	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Benzene	0.0032	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P14-091014-14.5-16.0					
Laboratory ID:	09-128-03					
1,1,2-Trichloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	0.0029	0.0017	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0035	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0087	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0017	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>73-124</i>				

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 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P16-091014-2.5-5.0					
Laboratory ID:	09-128-04					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P16-091014-2.5-5.0					
Laboratory ID:	09-128-04					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	0.018	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>100</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P16-091014-15.0-16.0					
Laboratory ID:	09-128-05					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	0.020	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Acetone	0.021	0.0066	EPA 8260C	9-17-14	9-18-14	Y
Iodomethane	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	0.010	0.0013	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	0.015	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Butanone	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Benzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P16-091014-15.0-16.0					
Laboratory ID:	09-128-05					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0026	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0066	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>104</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>102</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>95</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-2.0-6.0					
Laboratory ID:	09-128-06					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Acetone	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Iodomethane	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	0.0035	0.0011	EPA 8260C	9-17-14	9-18-14	
2-Butanone	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Benzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	0.0071	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-2.0-6.0					
Laboratory ID:	09-128-06					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	0.050	0.0011	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0022	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0056	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>112</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>111</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>108</i>	<i>73-124</i>				

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 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-2.0-6.0 DUP					
Laboratory ID:	09-128-07					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Acetone	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Iodomethane	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	0.0030	0.0012	EPA 8260C	9-17-14	9-18-14	
2-Butanone	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Benzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	0.0054	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-2.0-6.0 DUP					
Laboratory ID:	09-128-07					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	0.037	0.0012	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0062	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>108</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>105</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-13.5-16.0					
Laboratory ID:	09-128-08					
Dichlorodifluoromethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	0.075	0.0016	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	0.022	0.0016	EPA 8260C	9-17-14	9-18-14	
Acetone	0.063	0.0080	EPA 8260C	9-17-14	9-18-14	Y
Iodomethane	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	0.059	0.0016	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	0.99	0.49	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	47	0.49	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Benzene	0.0030	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	0.0046	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	

Date of Report: September 23, 2014
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-13.5-16.0					
Laboratory ID:	09-128-08					
1,1,2-Trichloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	0.013	0.0016	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0032	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0080	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0016	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>103</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>96</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>90</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-13.5-16.0 DUP					
Laboratory ID:	09-128-09					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloromethane	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Vinyl Chloride	0.041	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromomethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloroethane	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethene	0.015	0.0013	EPA 8260C	9-17-14	9-18-14	
Acetone	0.031	0.0063	EPA 8260C	9-17-14	9-18-14	Y
Iodomethane	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Carbon Disulfide	0.037	0.0013	EPA 8260C	9-17-14	9-18-14	
Methylene Chloride	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
(trans) 1,2-Dichloroethene	0.90	0.38	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Vinyl Acetate	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
(cis) 1,2-Dichloroethene	41	0.38	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chloroform	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Benzene	0.0020	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Trichloroethene	0.0023	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Toluene	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P17-091014-13.5-16.0 DUP					
Laboratory ID:	09-128-09					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Tetrachloroethene	0.0046	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Hexanone	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-17-14	9-18-14	
o-Xylene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Styrene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromoform	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
Hexachlorobutadiene	ND	0.0063	EPA 8260C	9-17-14	9-18-14	
Naphthalene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-17-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>109</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>101</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P20-091014-2.0-4.0					
Laboratory ID:	09-128-10					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	0.0025	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	0.0083	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P20-091014-2.0-4.0					
Laboratory ID:	09-128-10					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	0.044	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0025	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0062	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>102</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P20-091014-14.5-16.0					
Laboratory ID:	09-128-11					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloromethane	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Vinyl Chloride	0.021	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroethane	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethene	0.012	0.0015	EPA 8260C	9-18-14	9-18-14	
Acetone	0.022	0.0076	EPA 8260C	9-18-14	9-18-14	Y
Iodomethane	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Carbon Disulfide	0.021	0.0015	EPA 8260C	9-18-14	9-18-14	
Methylene Chloride	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
(trans) 1,2-Dichloroethene	0.32	0.15	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Vinyl Acetate	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
(cis) 1,2-Dichloroethene	18	0.15	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Bromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Benzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Trichloroethene	0.017	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Dibromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromodichloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Toluene	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	

Date of Report: September 23, 2014
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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P20-091014-14.5-16.0					
Laboratory ID:	09-128-11					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Tetrachloroethene	0.021	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Hexanone	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Dibromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Ethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
m,p-Xylene	ND	0.0030	EPA 8260C	9-18-14	9-18-14	
o-Xylene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Styrene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromoform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Isopropylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Propylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
4-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
tert-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
sec-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
p-Isopropyltoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Hexachlorobutadiene	ND	0.0076	EPA 8260C	9-18-14	9-18-14	
Naphthalene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>103</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>93</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P21-091114-2.5-4.0					
Laboratory ID:	09-128-13					
Dichlorodifluoromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	0.0054	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	0.018	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P21-091114-2.5-4.0					
Laboratory ID:	09-128-13					
1,1,2-Trichloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	0.043	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0024	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0059	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0012	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>73-124</i>				

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 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P21-091114-14.5-16.0					
Laboratory ID:	09-128-14					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloromethane	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Vinyl Chloride	5.5	0.83	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroethane	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Acetone	0.016	0.0073	EPA 8260C	9-18-14	9-18-14	Y
Iodomethane	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Carbon Disulfide	0.012	0.0015	EPA 8260C	9-18-14	9-18-14	
Methylene Chloride	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
(trans) 1,2-Dichloroethene	0.11	0.0015	EPA 8260C	9-18-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Vinyl Acetate	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
(cis) 1,2-Dichloroethene	6.6	0.83	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Bromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Benzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Trichloroethene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Dibromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromodichloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Toluene	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P21-091114-14.5-16.0					
Laboratory ID:	09-128-14					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Tetrachloroethene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Hexanone	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Dibromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Ethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
m,p-Xylene	ND	0.0029	EPA 8260C	9-18-14	9-18-14	
o-Xylene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Styrene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromoform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Isopropylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Propylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
4-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
tert-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
sec-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
p-Isopropyltoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Hexachlorobutadiene	ND	0.0073	EPA 8260C	9-18-14	9-18-14	
Naphthalene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>105</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>96</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P19-091114-2.5-4.0					
Laboratory ID:	09-128-16					
Dichlorodifluoromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	0.023	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P19-091114-2.5-4.0					
Laboratory ID:	09-128-16					
1,1,2-Trichloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	0.025	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0023	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0057	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0011	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>106</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P19-091114-14.5-16.0					
Laboratory ID:	09-128-17					
Dichlorodifluoromethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Chloromethane	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Vinyl Chloride	4.6	0.17	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Chloroethane	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Trichlorofluoromethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Acetone	0.0079	0.0070	EPA 8260C	9-18-14	9-18-14	Y
Iodomethane	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Carbon Disulfide	0.0062	0.0014	EPA 8260C	9-18-14	9-18-14	
Methylene Chloride	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
(trans) 1,2-Dichloroethene	0.0089	0.0014	EPA 8260C	9-18-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Vinyl Acetate	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
2,2-Dichloropropane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
(cis) 1,2-Dichloroethene	0.24	0.17	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Bromochloromethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Chloroform	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Carbon Tetrachloride	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloropropene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Benzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Trichloroethene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloropropane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Dibromomethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Bromodichloromethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Toluene	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P19-091114-14.5-16.0					
Laboratory ID:	09-128-17					
1,1,2-Trichloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Tetrachloroethene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,3-Dichloropropane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
2-Hexanone	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Dibromochloromethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromoethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Chlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Ethylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
m,p-Xylene	ND	0.0028	EPA 8260C	9-18-14	9-18-14	
o-Xylene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Styrene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Bromoform	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Isopropylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Bromobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
n-Propylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
2-Chlorotoluene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
4-Chlorotoluene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
tert-Butylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
sec-Butylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
p-Isopropyltoluene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
n-Butylbenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
Hexachlorobutadiene	ND	0.0070	EPA 8260C	9-18-14	9-18-14	
Naphthalene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0014	EPA 8260C	9-18-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>106</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>97</i>	<i>73-124</i>				

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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P18-091114-2.5-4.0					
Laboratory ID:	09-128-18					
Dichlorodifluoromethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	0.0018	0.0013	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	0.022	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P18-091114-2.5-4.0					
Laboratory ID:	09-128-18					
1,1,2-Trichloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	0.030	0.0013	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0026	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0064	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0013	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>107</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>103</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
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 Project: 110-001

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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P18-091114-14.5-16.0					
Laboratory ID:	09-128-19					
Dichlorodifluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloromethane	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Vinyl Chloride	0.098	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroethane	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Trichlorofluoromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethene	0.0018	0.0015	EPA 8260C	9-18-14	9-18-14	
Acetone	0.012	0.0075	EPA 8260C	9-18-14	9-18-14	Y
Iodomethane	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Carbon Disulfide	0.0061	0.0015	EPA 8260C	9-18-14	9-18-14	
Methylene Chloride	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
(trans) 1,2-Dichloroethene	0.10	0.0015	EPA 8260C	9-18-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Vinyl Acetate	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
2,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
(cis) 1,2-Dichloroethene	7.9	0.18	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Bromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chloroform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Carbon Tetrachloride	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Benzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Trichloroethene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Dibromomethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromodichloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Toluene	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	

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 Project: 110-001

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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P18-091114-14.5-16.0					
Laboratory ID:	09-128-19					
1,1,2-Trichloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Tetrachloroethene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Hexanone	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Dibromochloromethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromoethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Chlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Ethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
m,p-Xylene	ND	0.0030	EPA 8260C	9-18-14	9-18-14	
o-Xylene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Styrene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromoform	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Isopropylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Bromobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Propylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
2-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
4-Chlorotoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
tert-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
sec-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
p-Isopropyltoluene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
n-Butylbenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
Hexachlorobutadiene	ND	0.0075	EPA 8260C	9-18-14	9-18-14	
Naphthalene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0015	EPA 8260C	9-18-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>99</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>97</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>91</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Laboratory Reference: 1409-128
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0917S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloromethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromomethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloroethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Acetone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Iodomethane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Butanone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chloroform	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Benzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Toluene	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	

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METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0917S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-17-14	9-17-14	
o-Xylene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Styrene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromoform	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-17-14	9-17-14	
Naphthalene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-17-14	9-17-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>110</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>109</i>	<i>73-124</i>				

Date of Report: September 23, 2014
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 Project: 110-001

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0918S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Chloromethane	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Bromomethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Chloroethane	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Acetone	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Iodomethane	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
2-Butanone	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Chloroform	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Benzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Toluene	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	

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VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:		MB0918S1				
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-18-14	9-18-14	
o-Xylene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Styrene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Bromoform	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-18-14	9-18-14	
Naphthalene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-18-14	9-18-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>108</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>107</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>106</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
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Matrix: Soil
 Units: mg/kg

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0919S1					
Dichlorodifluoromethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Chloromethane	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Vinyl Chloride	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Bromomethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Chloroethane	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Trichlorofluoromethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Acetone	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Iodomethane	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Carbon Disulfide	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Methylene Chloride	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
(trans) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Methyl t-Butyl Ether	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Vinyl Acetate	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
2,2-Dichloropropane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
(cis) 1,2-Dichloroethene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
2-Butanone	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Bromochloromethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Chloroform	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1,1-Trichloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Carbon Tetrachloride	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1-Dichloropropene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Benzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Trichloroethene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2-Dichloropropane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Dibromomethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Bromodichloromethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
2-Chloroethyl Vinyl Ether	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
(cis) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Methyl Isobutyl Ketone	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Toluene	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
(trans) 1,3-Dichloropropene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

VOLATILES by EPA 8260C
METHOD BLANK QUALITY CONTROL
 page 2 of 2

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Laboratory ID:	MB0919S1					
1,1,2-Trichloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Tetrachloroethene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,3-Dichloropropane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
2-Hexanone	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Dibromochloromethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromoethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Chlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1,1,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Ethylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
m,p-Xylene	ND	0.0020	EPA 8260C	9-19-14	9-19-14	
o-Xylene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Styrene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Bromoform	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Isopropylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Bromobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,1,2,2-Tetrachloroethane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichloropropane	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
n-Propylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
2-Chlorotoluene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
4-Chlorotoluene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,3,5-Trimethylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
tert-Butylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trimethylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
sec-Butylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,3-Dichlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
p-Isopropyltoluene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,4-Dichlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2-Dichlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
n-Butylbenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2-Dibromo-3-chloropropane	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
1,2,4-Trichlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
Hexachlorobutadiene	ND	0.0050	EPA 8260C	9-19-14	9-19-14	
Naphthalene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
1,2,3-Trichlorobenzene	ND	0.0010	EPA 8260C	9-19-14	9-19-14	
<i>Surrogate:</i>	<i>Percent Recovery</i>	<i>Control Limits</i>				
<i>Dibromofluoromethane</i>	<i>105</i>	<i>65-129</i>				
<i>Toluene-d8</i>	<i>104</i>	<i>77-122</i>				
<i>4-Bromofluorobenzene</i>	<i>104</i>	<i>73-124</i>				

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0917S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0490	0.0478	0.0500	0.0500	98	96	56-141	2	15	
Benzene	0.0484	0.0487	0.0500	0.0500	97	97	70-121	1	15	
Trichloroethene	0.0485	0.0475	0.0500	0.0500	97	95	74-118	2	15	
Toluene	0.0477	0.0474	0.0500	0.0500	95	95	75-120	1	15	
Chlorobenzene	0.0460	0.0465	0.0500	0.0500	92	93	75-120	1	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					100	100	65-129			
<i>Toluene-d8</i>					101	100	77-122			
<i>4-Bromofluorobenzene</i>					100	99	73-124			

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0918S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0470	0.0468	0.0500	0.0500	94	94	56-141	0	15	
Benzene	0.0475	0.0466	0.0500	0.0500	95	93	70-121	2	15	
Trichloroethene	0.0473	0.0462	0.0500	0.0500	95	92	74-118	2	15	
Toluene	0.0463	0.0459	0.0500	0.0500	93	92	75-120	1	15	
Chlorobenzene	0.0457	0.0449	0.0500	0.0500	91	90	75-120	2	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					99	100	65-129			
<i>Toluene-d8</i>					98	97	77-122			
<i>4-Bromofluorobenzene</i>					96	95	73-124			

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

**VOLATILES by EPA 8260C
 SB/SBD QUALITY CONTROL**

Matrix: Soil
 Units: mg/kg

Analyte	Result		Spike Level		Percent Recovery		Recovery	RPD	RPD	Flags
					SB	SBD	Limits	RPD	Limit	
SPIKE BLANKS										
Laboratory ID:	SB0919S1									
	SB	SBD	SB	SBD	SB	SBD				
1,1-Dichloroethene	0.0433	0.0421	0.0500	0.0500	87	84	56-141	3	15	
Benzene	0.0455	0.0446	0.0500	0.0500	91	89	70-121	2	15	
Trichloroethene	0.0468	0.0456	0.0500	0.0500	94	91	74-118	3	15	
Toluene	0.0458	0.0445	0.0500	0.0500	92	89	75-120	3	15	
Chlorobenzene	0.0457	0.0442	0.0500	0.0500	91	88	75-120	3	15	
<i>Surrogate:</i>										
<i>Dibromofluoromethane</i>					<i>100</i>	<i>101</i>	<i>65-129</i>			
<i>Toluene-d8</i>					<i>99</i>	<i>99</i>	<i>77-122</i>			
<i>4-Bromofluorobenzene</i>					<i>98</i>	<i>97</i>	<i>73-124</i>			

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

**TOTAL ORGANIC CARBON
 EPA 9060A**

Matrix: Soil
 Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
Client ID:	P14-091014-2.5-4.0					
Laboratory ID:	09-128-01					
Total Organic Carbon	ND	0.099	EPA 9060	9-16-14	9-16-14	
Client ID:	P20-091014-2.0-4.0					
Laboratory ID:	09-128-10					
Total Organic Carbon	0.58	0.073	EPA 9060	9-16-14	9-16-14	
Client ID:	P21-091114-2.5-4.0					
Laboratory ID:	09-128-13					
Total Organic Carbon	ND	0.080	EPA 9060	9-16-14	9-16-14	

Date of Report: September 23, 2014
 Samples Submitted: September 12, 2014
 Laboratory Reference: 1409-128
 Project: 110-001

**TOTAL ORGANIC CARBON
 EPA 9060A
 QUALITY CONTROL**

Matrix: Soil
 Units: % Carbon

Analyte	Result	PQL	Method	Date Prepared	Date Analyzed	Flags
METHOD BLANK						
Laboratory ID:	MB0916S1					
Total Organic Carbon	ND	0.042	EPA 9060	9-16-14	9-16-14	

Analyte	Result	Spike Level	Source Result	Percent Recovery	Recovery Limits	RPD	RPD Limit	Flags
DUPLICATE								
Laboratory ID:	09-101-25							
	ORIG	DUP						
Total Organic Carbon	ND	ND	NA	NA	NA	NA	20	

SPIKE BLANK								
Laboratory ID:	SB0916S1							
	SB	SB		SB				
Total Organic Carbon	45.1	42.1	NA	107	80-120	NA	NA	

Date of Report: September 23, 2014
Samples Submitted: September 12, 2014
Laboratory Reference: 1409-128
Project: 110-001

% MOISTURE

Date Analyzed: 9-17-14

Client ID	Lab ID	% Moisture
P14-091014-2.5-4.0	09-128-01	4
P14-091014-14.5-16.0	09-128-03	27
P16-091014-2.5-5.0	09-128-04	6
P16-091014-15.0-16.0	09-128-05	22
P17-091014-2.0-6.0	09-128-06	4
P17-091014-2.0-6.0 DUP	09-128-07	4
P17-091014-13.5-16.0	09-128-08	33
P17-091014-13.5-16.0 DUP	09-128-09	23
P20-091014-2.0-4.0	09-128-10	3
P20-091014-14.5-16.0	09-128-11	21
P21-091114-2.5-4.0	09-128-13	3
P21-091114-14.5-16.0	09-128-14	24
P19-091114-2.5-4.0	09-128-16	4
P19-091114-14.5-16.0	09-128-17	27
P18-091114-2.5-4.0	09-128-18	4
P18-091114-14.5-16.0	09-128-19	28



Data Qualifiers and Abbreviations

- A - Due to a high sample concentration, the amount spiked is insufficient for meaningful MS/MSD recovery data.
 - B - The analyte indicated was also found in the blank sample.
 - C - The duplicate RPD is outside control limits due to high result variability when analyte concentrations are within five times the quantitation limit.
 - E - The value reported exceeds the quantitation range and is an estimate.
 - F - Surrogate recovery data is not available due to the high concentration of coeluting target compounds.
 - H - The analyte indicated is a common laboratory solvent and may have been introduced during sample preparation, and be impacting the sample result.
 - I - Compound recovery is outside of the control limits.
 - J - The value reported was below the practical quantitation limit. The value is an estimate.
 - K - Sample duplicate RPD is outside control limits due to sample inhomogeneity. The sample was re-extracted and re-analyzed with similar results.
 - L - The RPD is outside of the control limits.
 - M - Hydrocarbons in the gasoline range are impacting the diesel range result.
 - M1 - Hydrocarbons in the gasoline range (toluene-naphthalene) are present in the sample.
 - N - Hydrocarbons in the lube oil range are impacting the diesel range result.
 - N1 - Hydrocarbons in diesel range are impacting lube oil range results.
 - O - Hydrocarbons indicative of heavier fuels are present in the sample and are impacting the gasoline result.
 - P - The RPD of the detected concentrations between the two columns is greater than 40.
 - Q - Surrogate recovery is outside of the control limits.
 - S - Surrogate recovery data is not available due to the necessary dilution of the sample.
 - T - The sample chromatogram is not similar to a typical _____.
 - U - The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
 - U1 - The practical quantitation limit is elevated due to interferences present in the sample.
 - V - Matrix Spike/Matrix Spike Duplicate recoveries are outside control limits due to matrix effects.
 - W - Matrix Spike/Matrix Spike Duplicate RPD are outside control limits due to matrix effects.
 - X - Sample extract treated with a mercury cleanup procedure.
 - X1 - Sample extract treated with a Sulfuric acid/Silica gel cleanup procedure.
 - Y - The calibration verification for this analyte exceeded the 20% drift specified in method 8260C, and therefore the reported result should be considered an estimate. The overall performance of the calibration verification standard met the acceptance criteria of the method.
 - Z -
- ND - Not Detected at PQL
 PQL - Practical Quantitation Limit
 RPD - Relative Percent Difference



Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664

Professional
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Sep 23 2014
On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister

Dear David Baumeister:

Enclosed please find the analytical data for your project.

The following is a cross correlation of client and laboratory identifications for your convenience.

CLIENT ID	MATRIX	AMTEST ID	TEST
P14-091014-10.0-10.5	Soil	14-A014790	CONV, Grain Size
P20-091014-20-4.0	Soil	14-A014791	CONV, Grain Size
P20-091014-11.5-12.0	Soil	14-A014792	CONV, Grain Size
P21-091114-12.5-13.5	Soil	14-A014793	CONV, Grain Size

Your samples were received on Monday, September 15, 2014. At the time of receipt, the samples were logged in and properly maintained prior to the subsequent analysis.

The analytical procedures used at AmTest are well documented and are typically derived from the protocols of the EPA, USDA, FDA or the Army Corps of Engineers.

Following the analytical data you will find the Quality Control (QC) results.

Please note that the detection limits that are listed in the body of the report refer to the Practical Quantitation Limits (PQL's), as opposed to the Method Detection Limits (MDL's).

If you should have any questions pertaining to the data package, please feel free to contact me.

Sincerely,


Aaron W. Young
Laboratory Manager

Project #: 110-001

BACT = Bacteriological
CONV = Conventionals

MET = Metals
ORG = Organics

NUT=Nutrients
DEM=Demand

MIN=Minerals

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ANALYSIS REPORT

On-Site Environmental
 14648 NE 95th ST
 Redmond, WA 98052
 Attention: David Baumeister
 Project #: 110-001
 All results reported on a dry weight basis.

Date Received: 09/15/14
 Date Reported: 9/23/14

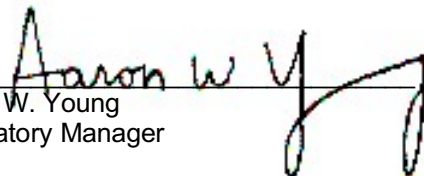
AMTEST Identification Number **14-A014790**
 Client Identification **P14-091014-10.0-10.5**
 Sampling Date **09/10/14, 12:05**

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	81.3	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	< 0.1 %	GRAVEL	0.20	ASTM D422	ED	09/18/14
- 2	4.00	< 0.1 %			ASTM D422	ED	09/18/14
-1	2.00	0.20 %			ASTM D422	ED	09/18/14
0	1.00	1.80 %	SAND	93.0	ASTM D422	ED	09/18/14
+1	0.50	17.6 %			ASTM D422	ED	09/18/14
+ 2	0.25	47.3 %			ASTM D422	ED	09/18/14
+ 3	0.125	22.0 %			ASTM D422	ED	09/18/14
+ 4	0.063	4.30 %			ASTM D422	ED	09/18/14
+ 5	0.032	< 0.1 %	SILT	1.80	ASTM D422	ED	09/18/14
+ 6	0.016	1.20 %			ASTM D422	ED	09/18/14
+ 7	0.008	0.30 %			ASTM D422	ED	09/18/14
+ 8	0.004	0.30 %			ASTM D422	ED	09/18/14
+ 9	0.002	0.80 %	CLAY	4.80	ASTM D422	ED	09/18/14
+ 10	0.001	0.60 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	3.40 %			ASTM D422	ED	09/18/14


 Aaron W. Young
 Laboratory Manager

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ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 110-001
All results reported on a dry weight basis.

Date Received: 09/15/14
Date Reported: 9/23/14

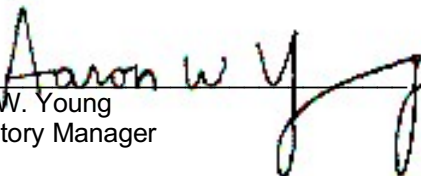
AMTEST Identification Number 14-A014791
Client Identification P20-091014-20-4.0
Sampling Date 09/10/14, 14:50

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	97.4	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	4.40 %	GRAVEL	8.00	ASTM D422	ED	09/18/14
- 2	4.00	0.70 %			ASTM D422	ED	09/18/14
-1	2.00	2.90 %			ASTM D422	ED	09/18/14
0	1.00	7.20 %	SAND	83.3	ASTM D422	ED	09/18/14
+1	0.50	26.9 %			ASTM D422	ED	09/18/14
+ 2	0.25	35.2 %			ASTM D422	ED	09/18/14
+ 3	0.125	12.1 %			ASTM D422	ED	09/18/14
+ 4	0.063	1.90 %			ASTM D422	ED	09/18/14
+ 5	0.032	2.60 %	SILT	3.60	ASTM D422	ED	09/18/14
+ 6	0.016	< 0.1 %			ASTM D422	ED	09/18/14
+ 7	0.008	0.80 %			ASTM D422	ED	09/18/14
+ 8	0.004	0.20 %			ASTM D422	ED	09/18/14
+ 9	0.002	0.30 %	CLAY	5.10	ASTM D422	ED	09/18/14
+ 10	0.001	0.30 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	4.50 %			ASTM D422	ED	09/18/14


Aaron W. Young
Laboratory Manager

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ANALYSIS REPORT

On-Site Environmental
 14648 NE 95th ST
 Redmond, WA 98052
 Attention: David Baumeister
 Project #: 110-001
 All results reported on a dry weight basis.

Date Received: 09/15/14
 Date Reported: 9/23/14

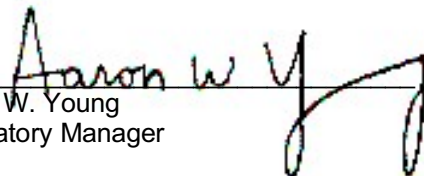
AMTEST Identification Number **14-A014792**
 Client Identification **P20-091014-11.5-12.0**
 Sampling Date **09/10/14, 15:30**

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	84.4	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	0.10 %	GRAVEL	1.80	ASTM D422	ED	09/18/14
- 2	4.00	0.50 %			ASTM D422	ED	09/18/14
-1	2.00	1.20 %			ASTM D422	ED	09/18/14
0	1.00	3.40 %	SAND	84.5	ASTM D422	ED	09/18/14
+1	0.50	17.2 %			ASTM D422	ED	09/18/14
+ 2	0.25	44.2 %			ASTM D422	ED	09/18/14
+ 3	0.125	14.8 %			ASTM D422	ED	09/18/14
+ 4	0.063	4.90 %			ASTM D422	ED	09/18/14
+ 5	0.032	4.70 %	SILT	7.70	ASTM D422	ED	09/18/14
+ 6	0.016	1.20 %			ASTM D422	ED	09/18/14
+ 7	0.008	1.10 %			ASTM D422	ED	09/18/14
+ 8	0.004	0.70 %			ASTM D422	ED	09/18/14
+ 9	0.002	0.90 %	CLAY	6.00	ASTM D422	ED	09/18/14
+ 10	0.001	0.60 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	4.50 %			ASTM D422	ED	09/18/14


 Aaron W. Young
 Laboratory Manager

Am Test Inc.
13600 NE 126TH PL
Suite C
Kirkland, WA 98034
(425) 885-1664
www.amtestlab.com



Professional
Analytical
Services

ANALYSIS REPORT

On-Site Environmental
14648 NE 95th ST
Redmond, WA 98052
Attention: David Baumeister
Project #: 110-001
All results reported on a dry weight basis.

Date Received: 09/15/14
Date Reported: 9/23/14

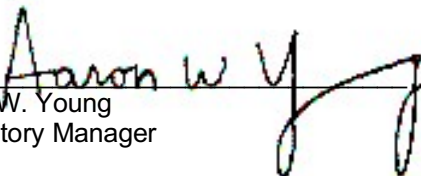
AMTEST Identification Number 14-A014793
Client Identification P21-091114-12.5-13.5
Sampling Date 09/11/14, 08:35

Conventionals

PARAMETER	RESULT	UNITS	Q	D.L.	METHOD	ANALYST	DATE
Total Solids	80.4	%		0.1	SM 2540G	ED	09/19/14

Grain Size Distribution

PHI	OPENING (mm)	% RETENTION	FRACTION	PERCENT	METHOD	ANALYST	DATE
	4.75	6.00 %	GRAVEL	6.10	ASTM D422	ED	09/18/14
- 2	4.00	< 0.1 %			ASTM D422	ED	09/18/14
-1	2.00	0.10 %			ASTM D422	ED	09/18/14
0	1.00	1.10 %	SAND	86.8	ASTM D422	ED	09/18/14
+1	0.50	11.2 %			ASTM D422	ED	09/18/14
+ 2	0.25	45.8 %			ASTM D422	ED	09/18/14
+ 3	0.125	25.1 %			ASTM D422	ED	09/18/14
+ 4	0.063	3.60 %			ASTM D422	ED	09/18/14
+ 5	0.032	< 0.1 %	SILT	2.00	ASTM D422	ED	09/18/14
+ 6	0.016	0.80 %			ASTM D422	ED	09/18/14
+ 7	0.008	1.20 %			ASTM D422	ED	09/18/14
+ 8	0.004	< 0.1 %			ASTM D422	ED	09/18/14
+ 9	0.002	< 0.1 %	CLAY	5.00	ASTM D422	ED	09/18/14
+ 10	0.001	< 0.1 %			ASTM D422	ED	09/18/14
> + 10	< 0.001	5.00 %			ASTM D422	ED	09/18/14


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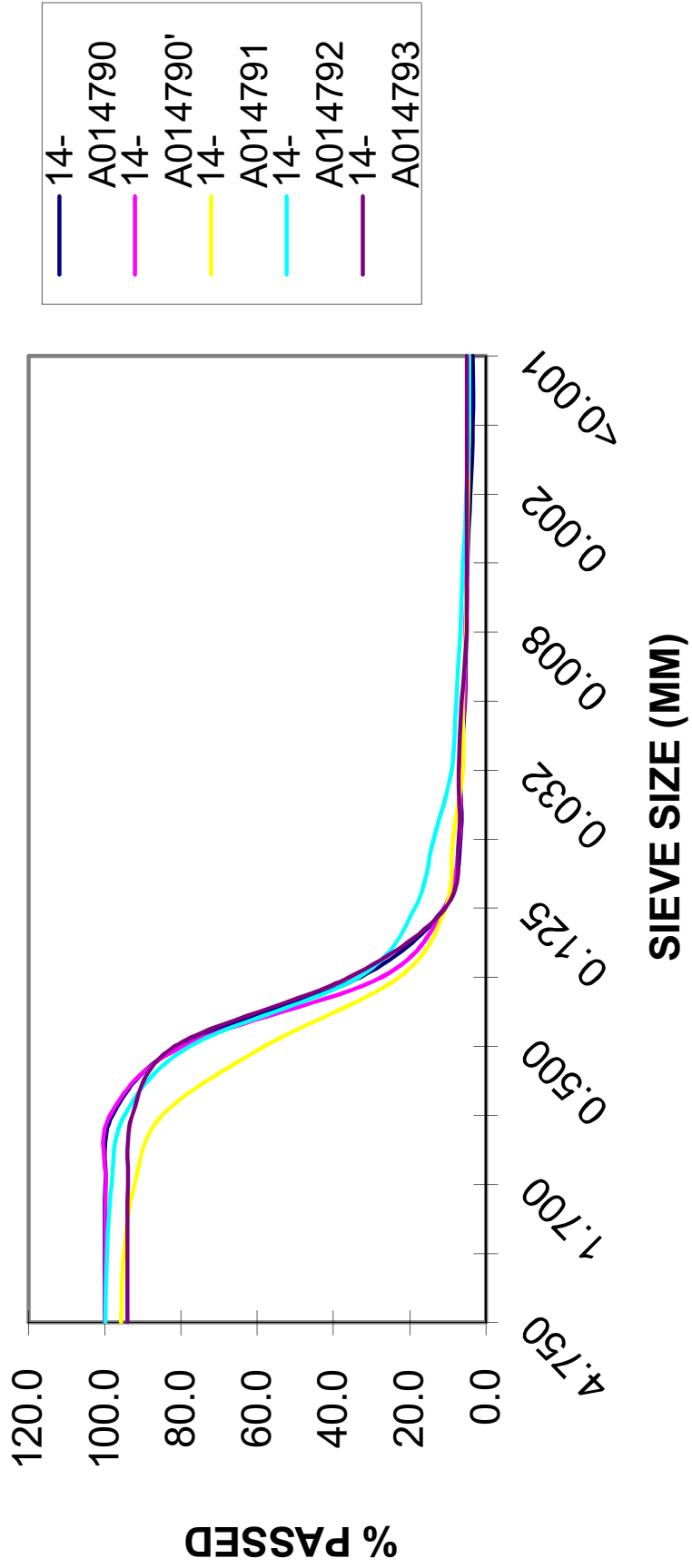
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QC Summary for sample numbers: 14-A014790 to 14-A014793

DUPLICATES

SAMPLE #	ANALYTE	UNITS	SAMPLE VALUE	DUP VALUE	RPD
14-A014790	Total Solids	%	81.3	81.4	0.12
14-A014790		%	< 0.1	< 0.1	
14-A014790	- 2	%	< 0.1	0.10	
14-A014790	-1	%	0.20	0.10	67.
14-A014790	0	%	1.80	1.10	48.
14-A014790	+1	%	17.6	19.1	8.2
14-A014790	+ 2	%	47.3	52.2	9.8
14-A014790	+ 3	%	22.0	16.3	30.
14-A014790	+ 4	%	4.30	4.20	2.4
14-A014790	+ 5	%	< 0.1	< 0.1	
14-A014790	+ 6	%	1.20	1.30	8.0
14-A014790	+ 7	%	0.30	0.20	40.
14-A014790	+ 8	%	0.30	0.50	50.
14-A014790	+ 9	%	0.80	0.10	160
14-A014790	+ 10	%	0.60	< 0.1	
14-A014790	> + 10	%	3.40	4.90	36.

GRAIN SIZE ANALYSIS





14648 NE 95th Street, Redmond, WA 98052 · (425) 883-3881

Subcontract Laboratory: AmTest Laboratories

Attention: Aaron Young

13600 NE 126th Pl Kirkland, WA 98034

Phone Number: (425) 885-1664

Date/Time: _____

Laboratory Reference #: _____

09-128

Turnaround Request:

1 Day 2 Day 3 Day

Standard

Other: _____

Project Manager: David Baumeister

email: dbaumeister@onsite-env.com

Project Number: 116-001

Project Name: _____

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix	# of Cont.	Requested Analysis
14790	P14-D91014-10.0-10.5	9/10/14	1205	S	1	Grain Size
14791	P20-D91014-20-4.0	↓	1450	↓	↓	↓
14792	P20-D91014-11.5-12.0	↓	1530	↓	↓	↓
14793	P21-D91114-12.5-13.5	9/11/14	0835	↓	↓	↓
Signature: _____		Company: Enviromental Inc.		Date: 9/12/14	Time: 1450	Comments/Special Instructions:
Relinquished by:		Company:		Date: 9/12/14	Time: 1450	
Received by: _____		Company: AmTest		Date: 9/12/14	Time: 1450	Comments/Special Instructions:
Relinquished by:		Company:		Date:	Time:	
Received by:		Company:		Date:	Time:	Comments/Special Instructions:
Relinquished by:		Company:		Date:	Time:	
Received by:		Company:		Date:	Time:	Comments/Special Instructions:
Relinquished by:		Company:		Date:	Time:	



MVA Onsite Environmental Inc.

Analytical Laboratory Testing Services
14648 NE 95th Street • Redmond, WA 98052
Phone: (425) 883-3881 • www.onsite-env.com

Chain of Custody

Company: Pacific Crest Environmental
Project Number: 110-001
Project Name: Sound Matters
Project Manager: William (Bill) Caswell
Sampled by: A. Weibenga / M. Scofield

Turnaround Request (in working days)
(Check One)

- Same Day 1 Day
- 2 Days 3 Days
- Standard (7 Days) (TPH analysis 5 Days)
- _____ (other)

Laboratory Number: **09-128**

Lab ID	Sample Identification	Date Sampled	Time Sampled	Matrix
1	P14-091014-2.5-4.0	9/10/14	1150	Soil
2	P14-091014-10.0-10.5	9/10/14	1205	Soil
3	P14-091014-14.5-16.0	9/10/14	1210	Soil
4	P16-091014-2.5-5.0	9/10/14	1240	Soil
5	P16-091014-15.0-16.0	9/10/14	1300	Soil
6	P17-091014-2.0-6.0	9/10/14	1345	Soil
7	P17-091014-2.0-6.0 DUP	9/10/14	1350	Soil
8	P17-091014-13.5-16.0	9/10/14	1415	Soil
9	P17-091014-13.5-16.0 DUP	9/10/14	1420	Soil
10	P20-091014-2.0-4.0	9/10/14	1450	Soil

Number of Containers	Matrix
5	Soil
1	Soil
5	Soil
5	Soil
5	Soil
5	Soil
5	Soil
5	Soil
5	Soil
5	Soil
5	Soil

Number of Containers	Matrix	Volatiles 8260C	Halogenated Volatiles 8260C	Semivolatiles 8270D/SIM (with low-level PAHs)	PAHs 8270D/SIM (low-level)	PCBs 8082A	Organochlorine Pesticides 8081B	Organophosphorus Pesticides 8270D/SIM	Chlorinated Acid Herbicides 8151A	Total RCRA Metals/ MTCA Metals (circle one)	TCLP Metals	HEM (oil and grease) 1664A	Cyanide	metals (various)	Grain Size	Total Organic Carbon	% Moisture
5	Soil	X											X	X	X	X	X
1	Soil																
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X
5	Soil	X											X	X	X	X	X

Signature	Company	Date	Time	Comments/Special Instructions
<i>[Signature]</i>	Pacific Crest	9/10/14	910	* please hold for cyanide analysis
<i>[Signature]</i>	SPB	11	910	
<i>[Signature]</i>	OSF	9/12/14	1005	Δ please hold for analysis of: arsenic, cadmium, chromium, cobalt, copper, lead, mercury, nickel, selenium, silver, tin and/or zinc
				please hold for grain size

**APPENDIX D
POST REMEDIAL INVESTIGATION ACTIVITIES –
BORING LOGS**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

LOG OF BORING P-1

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 1608
 Date/Time Completed : 9-9-2014 / 1630
 Total Boring Depth (bgs) : 12.0'
 Depth to Water ATD (bgs) : 10.5'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0							GP	0.0-2.0 Sandy GRAVEL (65% coarse gravel, 35% fine sand), gray to light brown, dry, no odor.
1					P1-090914- 2.5-4.0 @1610		SP	2.0-7.5 SAND, minor silt (90% medium sand, 10% silt), brown, dry to moist, no odor.
2			95	6.6				
3					-		SP	
4								
5								
6			85	8.1			SP	7.5-8.0 SAND, minor silt (90% medium sand, 10% silt), brown, very moist, no odor.
7					P1-090914 10.5-12.0 @1622		SP	8.0-10.5 SAND, minor silt (90% medium sand, 10% silt), black, very moist, no odor.
8								
9							SP	
10			90	1.3			ML	10.5-12.0 Sandy SILT (70% silt, 30% medium sand), dark gray-black, moist to wet, no odor.
11								
12								Bottom of boring at 12.0 feet below ground surface (bgs).
13								
14								
15								

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-1

(Page 1 of 1)

LOG OF BORING P-2

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 1530
 Date/Time Completed : 9-9-2014 / 1602
 Total Boring Depth (bgs) : 16.0'
 Depth to Water ATD (bgs) : 10.5'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0							GP	0.0-1.5 Sandy GRAVEL (65% coarse gravel, 35% fine sand), gray (rocks) to light brown, dry, no odor.
1							SP	
2			95	6.4	-		SP	1.5-2.5 SAND, minor silt, trace organics (85% fine sand, 10% silt, 5% woody debris), darker brown, moist, no odor.
3								2.5-8.0 SAND, minor silt (90% fine sand, 10% silt), dark brown, moist, no odor.
4					P2-090914-4.0-5.5 @1540		SP	
5								
6			80	5.1				
7								
8					P2-090914-8.0-9.5 @1556		SM	8.0-8.5 Sandy, gravelly SILT (40% silt, 30% fine gravel, 30% medium sand), dark gray-brown, very moist, no odor.
9								8.5-16.0 SAND, minor silt, trace shells (85% medium to coarse sand, 10% silt, 5% shells), dark brown-black, very moist to wet, no odor.
10			95	2.9				
11	▼							
12							SP	
13								
14			80	1.5				
15								
16								

Bottom of boring at 16.0 feet below ground surface (bgs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-2

(Page 1 of 1)

LOG OF BORING P-3

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 1000
 Date/Time Completed : 9-10-2014 / 1025
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			33	2.1	-			1.5-4.5 Gravelly SAND with silt. (50% fine to medium sand, 30% coarse gravel, 20% silt), light to dark brown, dry to moist, no odor.
3							SM	
4								
5					P3-091014-4.5-6.0 @1010			4.5-10.0 SAND (100% medium to coarse sand), brown mottled, moist, no odor.
6			70	2.8				
7							SP	
8								
9								
10				0.7				10.0-14.0 SAND (100% medium to coarse sand), brown mottled, wet, no odor.
11								
12							SP	
13								
14				1.1				14.0-16.0 SILT (100% silt), gray, moist, no odor.
15					P3-091014-14.5-16.0 @1025		ML	
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-3

(Page 1 of 1)

LOG OF BORING P-4

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 0925
 Date/Time Completed : 9-10-2014 / 0955
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 12.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			75				SM	1.5-3.5 Gravelly SAND with silt (50% fine sand, 30% coarse gravel, 20% silt), light brown, dry, no odor.
3								
4					P4-091014-3.5-5.0 @0935			3.5-10.0 SAND, trace shells (95% medium to coarse sand, 5% shells), white (shells) to mottled brown, moist, no odor.
5								
6			100	3.3			SP	
7								
8								
9								
10			100	2.3			SP	10.0-12.0 SAND, trace shells (95% medium to coarse sand, 5% shells), white (shells) to mottled brown, very moist, no odor.
11								
12	▼							12.0-15.0 SAND, trace shells (95% medium to coarse sand, 5% shells), white (shells) to mottled brown, wet, no odor.
13							SP	
14			100					
15				1.0	P4-091014-15.0-16.0 @0945		SM	15.0-16.0 Silty SAND, trace shells (60% coarse sand, 35% silt, 5% shells), gray and black, moist to very moist, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-4

(Page 1 of 1)

LOG OF BORING P-5

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 0845
 Date/Time Completed : 9-9-2014 / 0920
 Total Boring Depth (bcs) : 12.0'
 Depth to Water ATD (bcs) : 9.5'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
1								0.5-4.5 SAND with silt, trace gravel (75% medium sand, 20% silt, 5% coarse gravel), mottled light to dark brown, dry, no odor.
2			80				SM	
3				169	P5-090914- 2.0-4.0 @0858			
4								
5				12.3			SM	4.5-5.5 SAND, minor silt, minor shells, trace gravel (60% medium to coarse sand, 20% silt, 15% shell fragments, 5% gravel), white (shells), light brown, moist, no odor.
6			100					5.5-9.5 SAND, minor silt, trace gravel (75% medium to coarse sand, 20% silt, 5% gravel), light brown, moist, no odor.
7								
8				12.8			SM	
9					P5-090914- 8.5-9.5 @0915			
10			90	5.7			SM	9.5-11.5 SAND, minor silt, trace gravel (75% medium to coarse sand, 20% silt, 5% gravel), light brown, wet, no odor.
11								
12							SM	11.5-12.0 SAND, minor silt, trace gravel (75% medium to coarse sand, 20% silt, 5% gravel), light brown, dry, no odor.
Bottom of boring at 12.0 feet below concrete surface (bcs).								

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-05.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-5

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LOG OF BORING P-6

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 1415
 Date/Time Completed : 9-10-2014 / 1430
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 9.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			60	13.3	P6-090914- 2.5-4.0 @1430		ML	1.5-3.0 SILT with sand (80% silt, 20% fine sand), light brown, dry, no odor.
3								
4				1.2				3.0-9.0 SAND, trace silt (95 medium to coarse sand, 5% silt), dark brown, moist, no odor.
5								
6			90				SP	
7								
8				1.7				
9	▼							9.0-12.8 Silty SAND (65% coarse sand, 35% silt), brown, very moist to wet, no odor.
10			95					
11					P6-090914- 10.5-12.0 @1443		SM	
12								
13							SM	12.8-13.5 SAND, minor silt, trace gravel (60% medium to coarse sand, 20% silt, 5% fine gravel), light brown, moist, no odor.
14			95				SP	13.5-14.5 SAND, trace silt (95% coarse sand, 5% silt), brown/black, very moist, no odor.
15								
15							ML	14.5-16.0 SILT (100% silt), gray, very moist, no odor.
16				0.4				Bottom of boring at 16.0 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-6

(Page 1 of 1)

LOG OF BORING P-7

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 0810
 Date/Time Completed : 9-10-2014 / 0900
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-2.0 CONCRETE.
1								
2							SM	2.0-3.5 SAND with gravel and silt (50% fine sand, 30% coarse gravel, 20% silt), light brown, dry, no odor.
3								
4			95		P7-091014-3.5-5.5 @0830			3.5-10.0 SAND, trace shell (95% medium sand, 5% shell), white (shell) to mottled brown, moist, no odor.
5				0.0				
6							SP	
7								
8			100					
9								
10	▼			6.6			SP	10.0-11.0 SAND, trace shell (95% medium sand, 5% shell), white (shell) to mottled brown, wet, no odor.
11								
12			100		P7-091014-12.5-14.0 @0850		SM	11.0-12.5 SAND, minor silt, trace shells (80% coarse sand, 15% silt, 5% shells), mottled gray/black, very moist to wet, no odor.
13								
14							SM	12.5-14.0 Silty SAND, trace shells (60% coarse sand, 35% silt, 5% shells), mottled grey/black, very moist to wet, no odor.
15								
16			60	1.7			SM	14.0-18.0 SAND, minor silt, trace shells (80% coarse sand, 15% silt, 5% shells), mottled gray/black, very moist to wet, no odor.
17								
18								Bottom of boring at 18.0 feet below concrete surface (bcs).
19								

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-7

(Page 1 of 1)

LOG OF BORING P-8

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 1145
 Date/Time Completed : 9-9-2014 / 1210
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			40	34.2	-		SP	1.5-3.5 Gravelly SAND (60% medium sand, 40% coarse gravel), light brown, dry to moist, no odor.
3								
4							SP	3.5-4.5 SAND (100% medium sand), brown, mottled, dry, no odor.
5					P8-090914-4.0-6.0 @1153		ML	4.5-5.5 Sandy SILT (55% silt, 45% medium sand), light brown, moist, no odor.
6			100	11.9				5.5-9.0 SAND (100% medium sand), mottled, moist.
7							SP	
8								
9							SP	9.0-10.0 SAND, minor silt, trace shell fragments (85% medium to coarse sand, 10% silt, 5% shells), white (shells) to dark brown, moist to very moist, no odor.
10	▼		100	34.2	-		SP	10.0-13.0 SAND, minor silt, trace shell fragments (85% medium to coarse sand, 10% silt, 5% shells), white (shells) to dark brown, wet, no odor.
11							SP	
12								
13								13.0-16.0 Sandy SILT, trace shell (60% silt, 35% medium sand, 5% shell), grey to brown, very moist, no odor.
14			100	NM			ML	
15					P8-090914-14.0-16.0 @1206			
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-8

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LOG OF BORING P-9

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 1110
 Date/Time Completed : 9-9-2014 / 1140
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			20	0.0	-		SP	1.5-4.0 SAND, minor gravel (90% medium sand, 10% coarse gravel), mottled brown, moist, no odor.
3								
4								
5							SP	4.0-6.5 SAND, trace gravel (95% medium sand, 5% coarse gravel), mottled brown, moist, no odor.
6			95	5.9	P9-090901-6.0-8.5 @1120		ML	6.5-7.5 SILT (100% silt), gray, dry to moist, no odor.
7								
8							SP	7.5-9.0 SAND (100% medium sand), dark brown, dry to moist, no odor.
9								
10	▼		100	6.5			SP	9.0-12.0 SAND with gravel, minor silt (60% medium to coarse sand, 30% fine gravel, 10% silt), mottled, moist to very moist, no odor.
11								
12							SP	10.0-12.0 SAND with gravel, minor silt (60% medium to coarse sand, 30% fine gravel, 10% silt), mottled, wet, no odor.
13								
14			100	7.5	P9-090914-14.0-16.0 @1135		ML	12.0-14.0 SAND with gravel, minor silt, trace shells (55% medium to coarse sand, 30% fine gravel, 10% silt, 5% shells), mottled, wet, no odor.
15								
16								14.0-16.0 SILT (100% silt), mottled, wet, no odor.
Bottom of boring at 16.0 feet below concrete surface (bcs).								

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-9

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LOG OF BORING P-10

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 0940
 Date/Time Completed : 9-9-2014 / 1020
 Total Boring Depth (bcs) : 13.5'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
1							GM	0.5-1.5 GRAVEL with silt, with sand (60% coarse gravel, 20% silt, 20% medium sand), light brown, dry, no odor.
2			80	8.9			SM	1.5-4.5 Sandy SILT, minor gravel (50% silt, 40% medium sand, 10% coarse gravel), light to medium brown, dry, no odor.
3					P10-090914-3.0-4.0 @0947		SM	
4								
5								4.5-10.0 SAND, minor silt (90% medium to coarse sand, 10% silt), mottled light to dark brown, moist, no odor.
6			90	20.5	-		SP	
7								
8								
9								
10	▼		100	46.3				10.0-13.5 Silty SAND, trace gravel (60% medium to coarse sand, 35% silt, 5% coarse gravel) mottled light to dark brown, very moist to wet, no odor.
11					P10-090914-10.0-12.0 @1008		SM	
12								
13			20	NM	-			
14								Refusal at 13.5 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-10

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LOG OF BORING P-11

(Page 1 of 1)

Date/Time Started : 9-9-2014 / 1328
 Date/Time Completed : 9-9-2014 / 1405
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5								0.5-3.5 Gravelly SAND (65% medium sand, 35% coarse gravel), light brown, moist, no odor.
2			75	75.3	-		SP	
3.5							SP	3.5-3.8 SAND (100% medium sand), mottled brown, dry to moist, no odor.
4					P11-090914-3.8-5.0 @1345		ML	3.8-4.6 SILT, trace sand (95% silt, 5% fine sand), brown, moist, no odor.
4.6							SP	4.6-6.8 SAND (100% medium sand), brown, moist, no odor.
6			90	2.0			SP	
6.8							SP	6.8-8.0 SAND, trace shells,(95% medium to coarse sand, 5% shell), brown, moist, no odor.
8							ML	8.0-12.0 Sandy SILT (60% silt, 40% fine sand), brown, moist, no odor.
10			95	8.2	-		ML	
12							SM	12.0-15.0 SAND with silt, trace shell fragments (80% sand, 17% silt, 3% shell), brown, very moist, no odor.
14			85	3.6			ML	
14.5					P11-090914-14.5-16.0 @1400		ML	15.0-16.0 SILT, minor sand (90% silt, 10% sand), gray, very moist, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-11.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-11

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LOG OF BORING P-12

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Date/Time Started : 9-9-2014 / 1230
 Date/Time Completed : 9-9-2014 / 1315
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 12.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-1.5 CONCRETE.
1								
2			0	NM	-			1.5-4.0 No recovery.
3								
4					P12-090914-4.0-5.5 @1250		SM	4.0-4.5 SAND with silt (70% medium sand, 30% silt), mottled brown, moist, no odor.
5								4.5-8.0 SAND (100% medium sand), mottled brown, moist, no odor.
6			100	NM			SP	
7								
8								8.0-12.0 SAND (100% medium to coarse sand), brown, moist, no odor.
9								
10			95	4.3	-		SP	
11								
12	▼							12.0-15.0 SAND with silt (70% medium sand, 30% silt) brown, wet, no odor.
13								
14			95	3.2	P12-090914-14.5-16.0 @1300		SM	
15								15.0-16.0 SILT with sand (70% silt, 30% sand) brown, wet, no odor.
16							ML	
Bottom of boring at 16.0 feet below concrete surface (bcs).								

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-12

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LOG OF BORING P-13

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 1055
 Date/Time Completed : 9-10-2014 / 1125
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



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Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
1								0.5-8.5 SAND, trace shells (95% medium sand, 5% shells), mottled brown, dry to moist, no odor.
2			60	1.7				
3					P13-091014-2.5-4.0 @1105			
4							SP	
5								
6			75	4.3				
7								
8								
9							GP	8.5-9.0 Sandy GRAVEL (60% coarse gravel, 40% medium sand), light brown, dry, no odor.
10	▼		90	1.8			SP	9.0-10.0 SAND, trace shells (95% medium sand, 5% shells), mottled brown, dry to moist, no odor.
11					P13-091014-10.0-11.0 @1110			10.0-14.0 Sandy GRAVEL (60% coarse gravel, 40% medium sand), light brown, wet, no odor.
12							GP	
13								
14			100	1.4				14.0-16.0 SILT (100% silt), gray, wet, no odor.
15					P13-091014-14.5-16.0 @1120		ML	
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-13.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-13

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LOG OF BORING P-14

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Date/Time Started : 9-10-2014 / 1145
 Date/Time Completed : 9-10-2014 / 1215
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 9.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5								0.5-5.0 SAND, trace gravel (97% coarse sand, 3% fine gravel) brown, moist, no odor.
2			50	0.0	P14-091014-2.5-4.0 @1150		SP	
5								5.0-7.5 SAND (100% medium sand), brown, moist, no odor.
6			90	0.0			SP	
7.5								7.5-9.0 Silty SAND (60% medium sand, 40% silt), brown, moist, no odor.
8							SM	
9	▼							9.0-11.75 SAND with silt (80% medium sand, 20% silt), brown, very moist to wet, no odor.
10			100	2.8	P14-091014-10.0-10.5 @1205		SM	
11.75								11.75-14.5 SAND with silt (75% medium sand, 25% silt), brown, very moist, no odor.
12							SM	
14			100	115				
14.5					P14-091014-14.5-16.0 @1210		ML	14.5-15.0 SILT with sand (80% silt, 20% fine sand), brown, very moist, no odor.
15							ML	15.0-16.0 SILT (100% silt), gray, wet, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-14

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LOG OF BORING P-16

(Page 1 of 1)

Date/Time Started : 9-10-2014 / 1232
 Date/Time Completed : 9-10-2014 / 1305
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
1								0.5-4.0 SAND, trace gravel, trace shells (90% medium sand, 5% coarse gravel, 5% shells), mottled brown, moist, no odor.
2			45	NM			SP	
3					P16-091014- 2.5-5.0 @1240			
4								4.0-10.0 SAND, trace shells (95% medium sand, 5% shells), mottled brown, moist, no odor.
5			0.8					
6			95				SP	
7								
8			4.8					
9								
10	▼		100	8.3			SP	10.0-11.0 SAND, trace shells (95% medium sand, 5% shells), mottled brown, wet, no odor.
11							SM	11.0-12.0 SAND with silt (70% medium sand, 30% silt), mottled brown, wet, no odor.
12							SM	12.0-12.5 SAND with silt (70% fine to medium sand, 30% silt), mottled brown, wet, no odor.
13								12.5-15.0 SAND with silt (70% medium to coarse sand, 30% silt), mottled brown, wet, no odor.
14			100	5.4			SM	
15					P16-091014- 15.0-16.0 @1300		ML	15.0-16.0 Sandy SILT (60% silt, 40% fine sand), gray, wet, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-16.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-16

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LOG OF BORING P-17

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Date/Time Started : 9-10-2014 / 1322
 Date/Time Completed : 9-10-2014 / 1345
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 10.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5								0.5-5.0 SAND (100% medium sand), brown, moist, no odor.
2			60	0.0				
3					P17-091014-2.0-6.0 @1345		SP	
4					P17-091014-2.0-6.0 dup @1350			
5								5.0-5.5 CONCRETE.
5.5								5.5-8.5 SAND, trace silt (97% medium sand, 3% silt), brown, moist, no odor.
6				0.8				
7							SP	
8								
8.5							SP	8.5-9.0 SAND with gravel (70% coarse sand, 30% medium gravel), light brown, dry, no odor.
9							SP	9.0-10.0 SAND, minor silt (90% medium sand, 10% silt), brown, moist, no odor.
10				2.2				
10								10.0-12.0 SAND, minor silt (90% medium sand, 10% silt), brown, very moist to wet, no odor.
11							SP	
12								
12							SM	12.0-13.0 Silty SAND (60% medium sand, 40% silt), brown, moist, no odor.
13								
13								13.0-15.0 Silty SAND (55% medium sand, 45% silt), brown, very moist, no odor.
14				59.6	P17-091014-13.5-16.0 @1415		SM	
15					P17-091014-13.5-16.0 dup @1420			
15							ML	15.0-16.0 SILT (100% silt), gray, wet, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-17.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-17

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LOG OF BORING P-18

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Date/Time Started : 9-11-2014 / 0905
 Date/Time Completed : 9-11-2014 / 0950
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 11.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5								0.5-7.5 SAND with silt (75% fine sand, 25% silt), light brown, dry, no odor.
2			60	0.5				
3					P18-091114- 2.5-4.0 @0925			
4							SM	
6			95	0.4				
7.5								7.5-8.5 Silty SAND (65% fine sand, 35% silt), light brown, dry, no odor
8							SM	
8.5								8.5-11.0 SAND with silt (70% fine sand, 30% silt), brown, moist, no odor.
10			98	0.1			SM	
11							SM	11.0-11.5 SAND with silt (70% fine sand, 30% silt), dark brown, very moist to wet, no odor.
11.75							ML	11.5-12.0 SILT with sand (85% silt, 15% fine sand), dark brown, very moist, no odor. Layer of shells at 11.75 feet.
12								12.0-14.75 SAND with silt (70% fine sand, 30% silt), dark brown, wet, no odor.
13							SM	
14			95	8.5				
15					P18-091114- 14.5-16.0 @0945			
15							ML	14.75-16.0 SILT with sand (80% silt, 20% fine sand), dark brown, wet, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-18.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : A. Wiebenga / M. Scofield

LOG OF BORING P-18

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LOG OF BORING P-19

(Page 1 of 1)

Date/Time Started : 9-11-2014 / 0840
 Date/Time Completed : 9-11-2014 / 0910
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 12.5'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5							SM	0.5-2.0 Silty SAND (65% fine sand, 35% silt), light brown, dry, no odor.
2			60	0.2			SM	2.0-5.5 SAND with silt (70% fine sand, 30% silt), dark brown, dry, no odor.
3					P19-091114- 2.5-4.0 @0845		SM	
5.5			95	0.2			SM	5.5-7.5 SAND with silt, trace shells (80% fine sand, 15% silt, 15% shells), dark brown, moist, no odor, shell fragments concentrated at 5.5 feet.
7.5							SM	7.5-11.0 SAND with silt (70% fine sand, 30% silt), dark brown, moist, no odor.
10			100				SM	
11							SM	11.0-12.5 Silty SAND (55% fine sand, 45% silt), dark brown, moist, no odor.
12.5				0.3			SM	12.5-15.0 SAND with silt (80% fine sand, 20% silt), dark brown, very moist, no odor.
14			90	5.5			SM	
15					P19-091114- 14.5-16.0 @0905		ML	15.0-16.0 SILT, trace sand (97% silt, 3% fine sand), dark brown, very moist, no odor.
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-19.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : A. Wiebenga / M. Scofield

LOG OF BORING P-19

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LOG OF BORING P-20

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Date/Time Started : 9-10-2014 / 1450
 Date/Time Completed : 9-10-2014 / 1520
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 9.0'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE.
0.5							SP	0.5-2.0 SAND (100% medium sand), light brown, dry, no odor.
2			90	0.0	P20-091014-2.0-4.0 @1450		SP	2.0-4.0 SAND (100% medium to coarse sand), brown, dry, no odor.
4							SP	4.0-5.5 SAND, minor silt (90% medium sand, 10% silt), brown, moist, no odor.
6			100	0.0			SM	5.5-7.0 SAND with silt (80% medium sand, 20% silt), brown, moist, no odor.
7							SM	7.0-9.0 Silty SAND (60% fine sand, 40% silt), light brown, moist, no odor.
9	▼							9.0-15.0 SAND, minor silt (85% medium sand, 15% silt), dark brown, wet, no odor.
12			100	1.4	P20-091014-11.5-12.0 @1530		SM	
14			90	0.0				
15					P20-091014-14.5-16.0 @1525		ML	15.0-16.0 SILT (100% silt)
16								Bottom of boring at 16.0 feet below concrete surface (bcs).

09-24-2014 \\PACIFIC-8E\185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-20.bo

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : M. DeCaro / M. Scofield

LOG OF BORING P-20

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LOG OF BORING P-21

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Date/Time Started : 9-11-2014 / 0805
 Date/Time Completed : 9-11-2014 / 0835
 Total Boring Depth (bcs) : 16.0'
 Depth to Water ATD (bcs) : 12.5'
 Elevation (ft) : N/A
 Drilling Method : Direct Push
 Sampler Type : 4-foot Macro-Core



PACIFIC CREST ENVIRONMENTAL
 WWW.PCENV.COM 425-888-4990

Site: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Water Level ATD	Sample	% Recovery	PID (ppm)	Sample ID	GRAPHIC	USCS	DESCRIPTION
0								0.0-0.5 CONCRETE
1							SM	0.5-2.0 Silty SAND (65% medium sand, 35% silt), light brown, dry, no odor.
2			60	0.1				2.0-4.5 SAND with silt (75% medium sand, 25% silt), dark brown, dry, no odor.
3					P21-091114- 2.5-4.0 @0810		SM	
4								4.5-10.5 Silty SAND (55% fine sand, 45% silt), light brown, dry, no odor.
5								
6			95	0.3			SM	
7								
8								
9								
10			90					
11								10.5-12.5 SAND with silt (75% fine sand, 25% silt), dark brown, moist, no odor.
12				0.5	P21-091114- 12.5-13.5 @0835		SM	
13								12.5-15.0 Silty SAND (65% fine sand, 35% silt), brown, wet, no odor.
14			95	12.4			SM	
15					P21-091114- 14.5-16.0 @0830		ML	15.0-15.5 SILT with sand (80% silt, 20% fine sand), gray/brown, wet, no odor.
16							ML	15.5-16.0 SILT, trace sand (97% silt, 3% fine sand), gray, wet, no odor.
Bottom of boring at 16.0 feet below concrete surface (bcs).								

Drilling Company : ESN
 Drilling Foreman : Trevor Anderson
 Equipment : Geoprobe
 Back-Fill Material : Bentonite/Concrete
 Pacific Crest Rep. : A. Wiebenga / M. Scofield

LOG OF BORING P-21

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09-24-2014 \\PACIFIC-8E185AF\public\Project Files\110 Sound Mattress & Felt Co\Boring Logs\Sept 2014 Borings\P-21.bo

LOG OF WELL AS-1

(Page 1 of 1)

Date/Time Started : 11-6-12/1400
 Date/Time Completed : 11-6-12/1450
 Total Boring Depth : 15.0'
 Total Well Depth : 12.5'
 Depth to water ATD : ~8'
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID	Well: AS-1
0.0-1.5		Concrete						Concrete Surface Seal
1.5-10.0		SAND, trace silt (95% fine to medium sand, 5% silt), brown, moist to wet, no odor.	SP		50	8.3		2" PVC Blank Casing
10.0-13.0		SAND, trace silt (95% fine to coarse sand, 5% silt) dark brown, wet, no odor.	SP		50	0.0		Bentonite Annular Seal
13.0-15.0		SILT, trace sand (95% silt 5% fine sand), brown, wet, no odor.	ML		15			#2/12 Sand Pack
15.0		Bottom of boring at 15.0 feet below concrete slab.						2" PVC 0.010 Slot Screen

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL AS-1

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Log of Boring B-23

(Page 1 of 1)

Date/Time Started : 11-8-12/1052
 Date/Time Completed : 11-8-12/1305
 Total Boring Depth : 30'
 Depth to water ATD : 8.0'
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Robert Shea

Project Number: 110-001

Depth In Feet	Samples	RG Sample	DESCRIPTION	USCS	GRAPHIC	PID (ppm)	% Recovery	Sample ID	
0			0.0-0.5 Concrete						
0.5-5.0			SAND, trace silt, trace gravel (90% fine sand, <5% silt, <5% gravel), dark brown, moist, no odor.	SP		0.0	60		
5.0-10.0			SAND, minor silt, shell fragments (85% fine sand, 15% silt), dark brown, moist, no odor.	SP		0.0	85		
10.0-15.0			Silty SAND (65% fine sand, 35% silt) dark brown, wet, moderate odor.	SM		13.9	70	B23-8.0-12.0 RG	
15.0-17.5			SILT, trace sand (95% silt, 5% fine sand), dark grey, wet, no odor.	ML		0.0	95		
17.5-20.0			Sandy SILT (60% silt, 40% coarse sand), dark grey, wet, no odor.	ML		0.0	80		
20.0-30.0			SAND, trace silt (95% fine to coarse sand, 5% silt), dark brown, wet, no odor.	SP		0.0	65		
30.0			Bottom of boring at 30.0 feet below concrete slab.						
32.0			Groundwater sample taken from 8.0 - 12.0 feet below concrete slab.						
34.0			Groundwater sample taken from 28.0 - 30.0 feet below concrete slab.						

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A. Wiebenga/M. DeCaro

Log of Boring B-23

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Log of Boring B-24


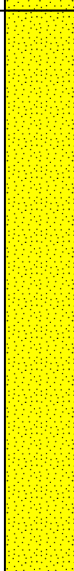
(Page 1 of 1)

Date/Time Started : 11-8-12/1315
 Date/Time Completed : 11-8-12/1345
 Total Boring Depth : 10'
 Depth to water ATD : -
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Robert Shea

Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0-0.5 Concrete					
0.5 - 5.0		SAND, trace silt, trace gravel (90% fine sand, <5% silt, <5% gravel), dark brown, moist, no odor.	SP		60	0.0	B24-0.0-2.0
5.0 - 10.0		SAND, minor silt, shell fragments (85% fine sand, 15% silt), dark brown, moist, no odor.	SP		85	0.0	B24-4.0-6.0
10.0		Bottom of boring at 10.0 feet below concrete slab.					

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A. Wiebenga/M. DeCaro

Log of Boring B-24

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LOG OF WELL MW-16

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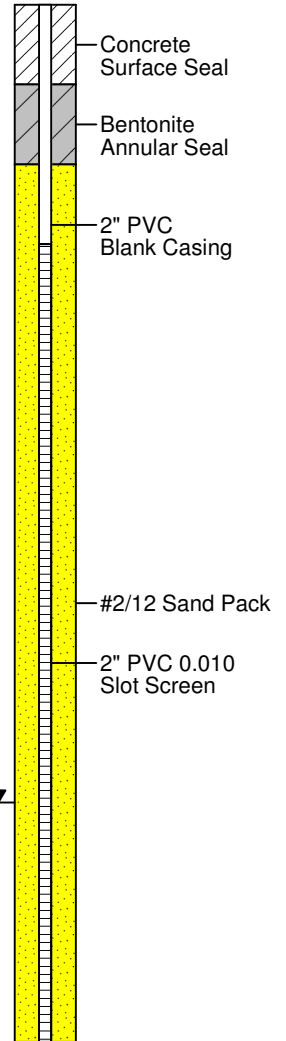
Date/Time Started : 11-6-12/1555
 Date/Time Completed : 11-6-12/1645
 Total Boring Depth : 13.0'
 Total Well Depth : 13.0'
 Depth to water ATD : ~10'
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID	Well: MW-16	
0		0.0-0.5 Concrete						Concrete Surface Seal	
0.5-9.0		SAND, trace silt, trace gravel (90% fine sand, <5% silt, <5% gravel), brown, moist, no odor.						Bentonite Annular Seal	
5.0			SP		65	42.6		2" PVC Blank Casing	
9.0-10.0		SAND, trace silt (95% fine to coarse sand, <5% silt), dark brown, very moist, no odor.						#2/12 Sand Pack	
10.0-12.5		SAND, trace silt (95% fine to coarse sand, <5% silt), dark brown, wet, slight odor.						2" PVC 0.010 Slot Screen	
11.0			SP		90	45.0			
12.5-13.0		SILT with sand (75% silt, 25% fine sand), dark brown, wet, no odor.	ML						
		Bottom of boring at 13.0 feet below concrete slab.							



Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL MW-16

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LOG OF WELL SVE-1

(Page 1 of 1)

Date/Time Started : 11-6-12/1515
 Date/Time Completed : 11-6-12/1535
 Total Boring Depth : 8.0'
 Total Well Depth : 8.0'
 Depth to water ATD : -
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID	
0		No samples collected.						Well: SVE-1
1								
2								
3								
4								
5								
6								
7								
8		Bottom of boring at 8.0 feet below concrete slab.						
9								
10								

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL SVE-1

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LOG OF WELL VMW-1

(Page 1 of 1)

Date/Time Started : 11-6-12/1700
 Date/Time Completed : 11-6-12/1730
 Total Boring Depth : 8.0'
 Total Well Depth : 8.0'
 Depth to water ATD : -
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID	Well: VMW-1
0 1 2 3 4 5 6 7 8 9 10		No samples collected.						
		Bottom of boring at 8.0 feet below concrete slab.						

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL VMW-1

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LOG OF WELL VMW-2

(Page 1 of 1)

Date/Time Started : 11-8-12/0930
 Date/Time Completed : 11-8-12/1020
 Total Boring Depth : 8.0'
 Total Well Depth : 8.0'
 Depth to water ATD : -
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID	Well: VMW-2
0		No samples collected.						<p>Concrete Surface Seal</p> <p>Bentonite Annular Seal</p> <p>2" PVC Blank Casing</p> <p>#2/12 Sand Pack</p> <p>2" PVC 0.010 Slot Screen</p>
1								
2								
3								
4								
5								
6								
7								
8		Bottom of boring at 8.0 feet below concrete slab.						
9								
10								

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL VMW-2

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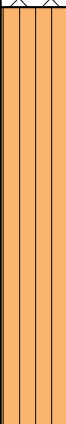
Log of Boring B-15

(Page 1 of 1)

Date/Time Started : 1-14-11 / 0830
 Date/Time Completed : 1-14-11 / 0900
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 4.0 SILT minor sand & gravel (80% silt, 10% fine sand, 10% fine gravel), dark brown, moist, no odor.	ML		10	8.4	B15-4.0
5							
10							

12-19-2012 \\PACIFIC-8E185A\Fpublic\Project Files\110 Sound Mattress & Felt Co\Boring Logs\B-15.bo

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-15

(Page 1 of 1)

Log of Boring B-16

(Page 1 of 1)

Date/Time Started : 1-14-11 / 0913
 Date/Time Completed : 1-14-11 / 1120
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0-4.0 SILT minor sand and gravel (80% silt, 10% fine sand, 10% fine gravel), medium brown, moist, no odor.	ML		80	29.1	B16-4.0
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-16

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Log of Boring B-17

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1134
 Date/Time Completed : 1-14-11 / 1200
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0-2.0 SAND (100% fine sand), medium brown, dry, no odor.	SP				
		2.0-4.0 SILT minor sand and gravel (80% silt, 10% fine sand, 10% fine gravel), medium brown, moist, no odor.	ML		80	31.7	B17-4.0
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-17

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Log of Boring B-18

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1207
 Date/Time Completed : 1-14-11 / 1226
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0-2.0 SAND (100% fine sand), medium brown, dry, no odor.	SP				
		2.0-3.0 SILT minor sand and gravel (80% silt, 10% fine sand, 10% fine gravel), medium brown, moist, no odor.	ML		70	20.1	B18-4.0
		3.0-4.0 SAND (100% fine sand), medium brown, dry, no odor.	SP				
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-18

(Page 1 of 1)

Log of Boring B-19

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1251
 Date/Time Completed : 1-14-11 / 1315
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0-3.5 SILT minor sand and gravel (80% silt, 10% fine sand, 10% fine gravel), medium brown, moist, no odor.	ML		80	37.3	B19-4.0
		3.5-4.0 SAND (100% fine sand), medium brown, dry, no odor.	SP				
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-19

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Log of Boring B-20

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1322
 Date/Time Completed : 1-14-11 / 1353
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.5 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.5-3.0 SILT minor sand and gravel (80% silt, 10% fine sand, 10% fine gravel), medium brown, moist, no odor.	ML		80	15.1	B20-4.0
		3.5-4.0 SAND (100% fine sand), medium brown, dry, no odor.	SP				
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-20

(Page 1 of 1)

Log of Boring B-21

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1406
 Date/Time Completed : 1-14-11 / 1440
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		SAND, 0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0-1.5 SILT with sand (75% silt, 25% fine sand), medium brown, dry, no odor.	ML				
		1.5-2.5 Silty SAND (60% fine sand, 40% silt), medium brown, dry, no odor.	SM		80	8.2	B21-4.0
		2.5-3.0 SILT minor sand (90% silt, 10% fine sand), medium brown, moist, no odor.	ML				
		3.5-4.0 SAND with silt (75% fine sand, 25% silt), medium brown, moist, no odor, some shell fragments.	SM				
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-21

(Page 1 of 1)

Log of Boring B-22

(Page 1 of 1)

Date/Time Started : 1-14-11 / 1449
 Date/Time Completed : 1-14-11 / 1505
 Total Boring Depth : 4 ft
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : Macro-Core



Site Name: Former Sound Mattress and Felt
 Client: Robert Shea
 Project Number: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0		0.0 - 0.5 Concrete	Concrete				
		0.5 - 1.0 GRAVEL (100% coarse gravel), light gray, moist, no odor.	GP				
		1.0 - 2.5 SAND with silt (75% fine sand, 25% silt), medium brown, dry, no odor.	SM		70	10.1	B22-4.0
		2.5 - 4.0 SAND trace silt (95% fine sand, 5% silt), medium brown, dry, no odor.	SP				
5							
10							

Drilling Company : ESN
 Drilling Foreman : Chris
 Equipment : Strataprobe
 Pacific Crest Rep. : Monty Busbee

Log of Boring B-22

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LOG OF WELL MW-16

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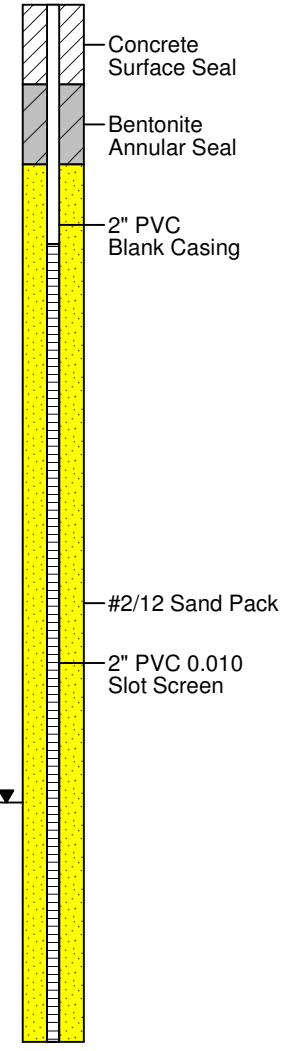
Date/Time Started : 11-6-12/1555
 Date/Time Completed : 11-6-12/1645
 Total Boring Depth : 13.0'
 Total Well Depth : 13.0'
 Depth to water ATD : ~10'
 Elevation (ft) : NA
 Drilling Method : Direct Push
 Sampler Type : -
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Description	USCS	Graphic	% Recovery	PID (ppm)	Sample ID
0.0-0.5	Concrete					
0.5-9.0	SAND, trace silt, trace gravel (90% fine sand, <5% silt, <5% gravel), brown, moist, no odor.	SP	[Yellow stippled pattern]	65	42.6	
9.0-10.0	SAND, trace silt (95% fine to coarse sand, <5% silt), dark brown, very moist, no odor.	SP	[Yellow stippled pattern]	39.4		
10.0-12.5	SAND, trace silt (95% fine to coarse sand, <5% silt), dark brown, wet, slight odor.	SP	[Yellow stippled pattern]	90	45.0	
12.5-13.0	SILT with sand (75% silt, 25% fine sand), dark brown, wet, no odor.	ML	[Orange stippled pattern]			



Bottom of boring at 13.0 feet below concrete slab.

Drilling Company : ESN Northwest
 Drilling Foreman : Don
 Equipment : Geoprobe
 Pacific Crest Rep. : A Wiebenga/M. DeCaro

LOG OF WELL MW-16

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LOG OF WELL MW-17

(Page 1 of 1)

Date/Time Started : 09-09-12/908
 Date/Time Completed : 09-09-12/1200
 Total Boring Depth : 28.8'
 Total Well Depth : 28.8'
 Depth to water ATD : NA
 Elevation (ft) : NA
 Drilling Method : HSA
 Sampler Type : ~2 inch GP macro core
 Drive Hammer (lbs) : -



Site Name: Former Sound Mattress
 and Felt Company Property
 Client: Mr. Robert Shea

Project #: 110-001

Depth In Feet	Samples	Description	USCS	Graphic	% Recovery	Blow Count	PID (ppm)	Sample ID	Well: MW-15
0									
5									
10									
15									
20									
25									
30		Bottom of boring at 28.8 feet bgs.							
35									
40									

Drilling Company : ESN Northwest
 Drilling Foreman : Dan Hardin
 Equipment : -
 Pacific Crest Rep. : Monty Busbee

LOG OF WELL MW-17

(Page 1 of 1)

**APPENDIX E
POST REMEDIAL INVESTIGATION ACTIVITIES –
IN-SITU HYDRAULIC CONDUCTIVITY DATA**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

WELL ID: Sound Mattress Site - Falling Head

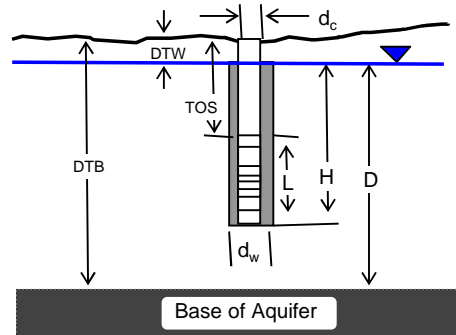
Local ID: MW-11

Date: 9/11/2014

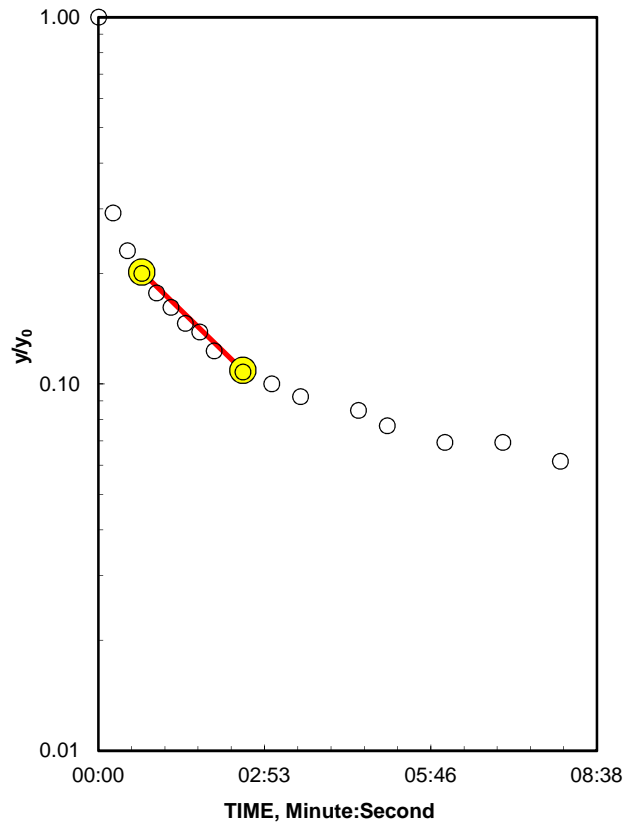
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	8.75 Feet
top of screen (TOS)	5.8 Feet
Base of Aquifer (DTB)	15.8 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	7.05 Feet
$D =$	7.05 Feet
$H =$	7.05 Feet
$L/r_w =$	28.20
y_0 -DISPLACEMENT =	39.59 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.009
$\ln(Re/r_w) =$	2.496
Re =	3.03 cm
Slope =	0.002552 \log_{10}/sec
$t_{90\%}$ recovery =	392 sec

Input is consistent.

K = 0.00022 cm/Second

REMARKS:

Bower and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	7.90
2	0:00:15.0	6.98
3	0:00:30.0	6.90
4	0:00:45.0	6.86
5	0:01:00.0	6.83
6	0:01:15.0	6.81
7	0:01:30.0	6.79
8	0:01:45.0	6.78
9	0:02:00.0	6.76
10	0:02:30.0	6.74
11	0:03:00.0	6.73
12	0:03:30.0	6.72
13	0:04:30.0	6.71
14	0:05:00.0	6.70
15	0:06:00.0	6.69
16	0:07:00.0	6.69
17	0:08:00.0	6.68

WELL ID: Sound Mattress Site - Rising Head

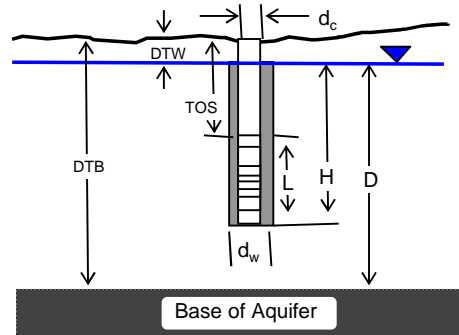
Local ID: MW-11

Date: 9/11/2014

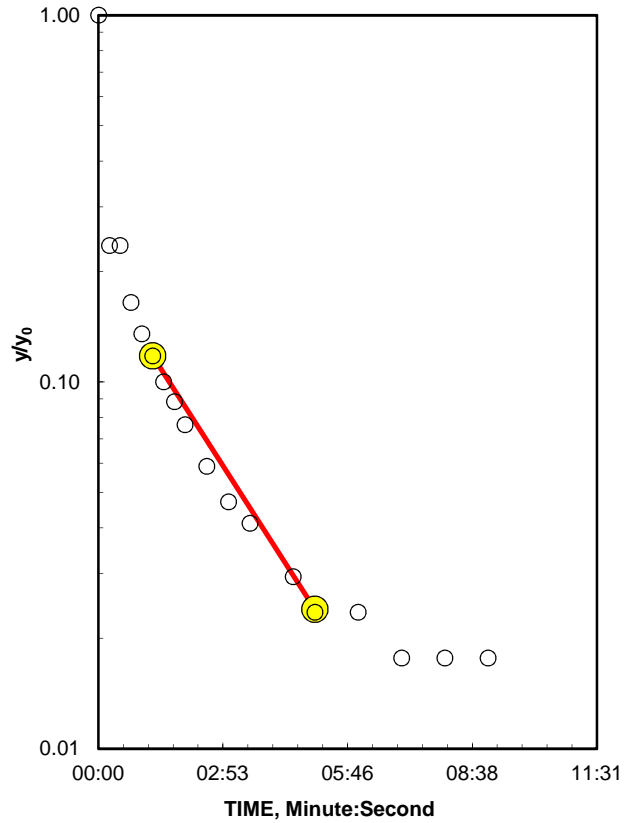
Time: 16:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	8.75 Feet
top of screen (TOS)	5.8 Feet
Base of Aquifer (DTB)	15.8 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	7.05 Feet
$D =$	7.05 Feet
$H =$	7.05 Feet
$L/r_w =$	28.20
y_0 -DISPLACEMENT =	51.78 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.009
$\ln(Re/r_w) =$	2.496
Re =	3.03 cm
Slope =	$0.003074 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	325 sec

Input is consistent.

$K = 0.00026 \text{ cm/Second}$

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	16:00:00.0	5.00
2	16:00:15.0	6.30
3	16:00:30.0	6.30
4	16:00:45.0	6.42
5	16:01:00.0	6.47
6	16:01:15.0	6.50
7	16:01:30.0	6.53
8	16:01:45.0	6.55
9	16:02:00.0	6.57
10	16:02:30.0	6.60
11	16:03:00.0	6.62
12	16:03:30.0	6.63
13	16:04:30.0	6.65
14	16:05:00.0	6.66
15	16:06:00.0	6.66
16	16:07:00.0	6.67
17	16:08:00.0	6.67
18	16:09:00.0	6.67

WELL ID: Sound Mattress Site - Falling Head

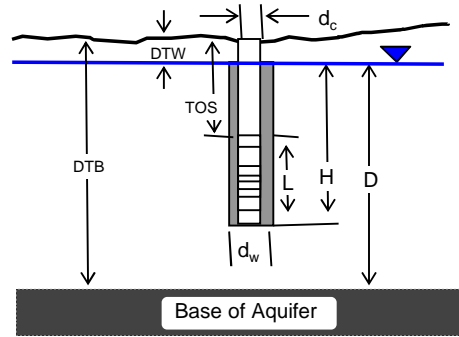
Local ID: MW-13

Date: 10/30/2014

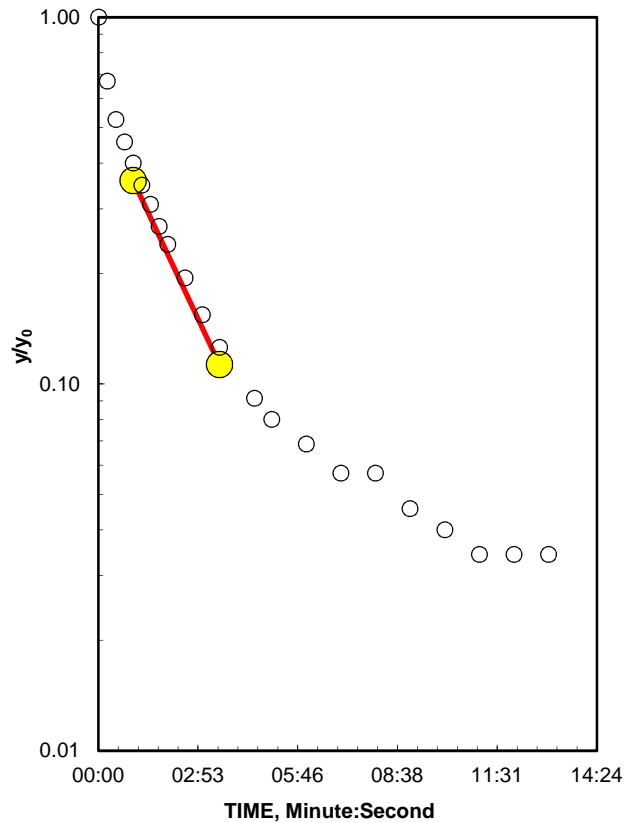
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.85 Feet
top of screen (TOS)	10 Feet
Base of Aquifer (DTB)	20 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	10 Feet
$D =$	13.15 Feet
$H =$	13.15 Feet
$L/r_w =$	40.00
y_0 -DISPLACEMENT =	53.30 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.451
$\ln(Re/r_w) =$	2.951
Re =	4.78 cm
Slope =	$0.003347 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	299 sec

Input is consistent.

$K = 0.00024 \text{ cm/Second}$

REMARKS:

Bower and Rice analysis of slug test, WRR 1976

Entry	Reduced Data	
	Time, Hr:Min:Sec	Water Level
1	0:00:00.0	7.80
2	0:00:15.0	7.22
3	0:00:30.0	6.97
4	0:00:45.0	6.85
5	0:01:00.0	6.75
6	0:01:15.0	6.66
7	0:01:30.0	6.59
8	0:01:45.0	6.52
9	0:02:00.0	6.47
10	0:02:30.0	6.39
11	0:03:00.0	6.32
12	0:03:30.0	6.27
13	0:04:30.0	6.21
14	0:05:00.0	6.19
15	0:06:00.0	6.17
16	0:07:00.0	6.15
17	0:08:00.0	6.15
18	0:09:00.0	6.13
19	0:10:00.0	6.12
20	0:11:00.0	6.11
21	0:12:00.0	6.11
22	0:13:00.0	6.11

WELL ID: Sound Mattress Site - Rising Head

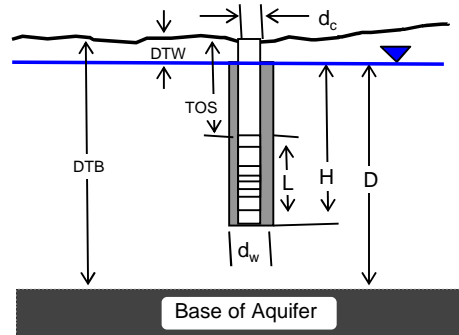
Local ID: MW-13

Date: 10/30/2014

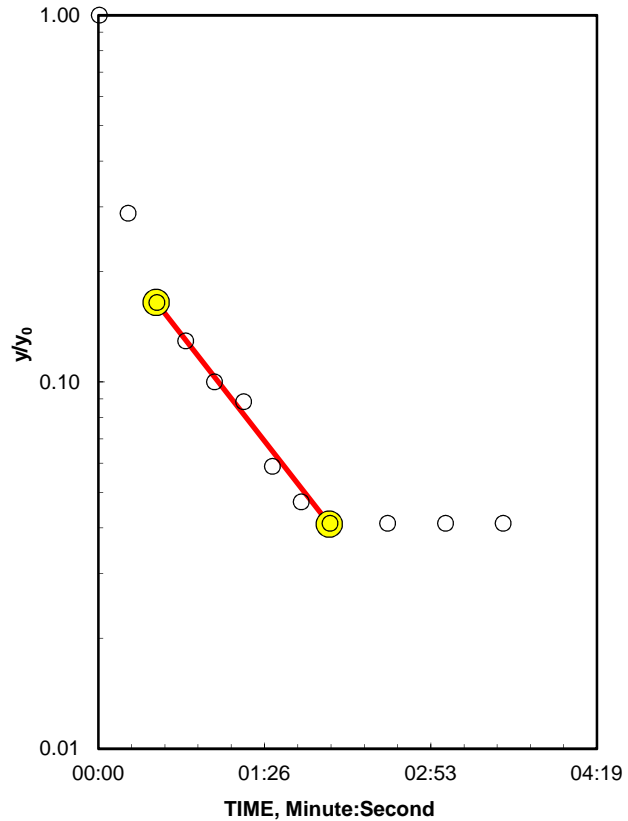
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.85 Feet
top of screen (TOS)	10 Feet
Base of Aquifer (DTB)	20 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	10 Feet
$D =$	13.15 Feet
$H =$	13.15 Feet
$L/r_w =$	40.00
y_0 -DISPLACEMENT =	51.78 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.451
$\ln(Re/r_w) =$	2.951
Re =	4.78 cm
Slope =	$0.006719 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	149 sec

Input is consistent.

K = 0.00048 cm/Second

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	4.50
2	0:00:15.0	5.71
3	0:00:30.0	5.92
4	0:00:45.0	5.98
5	0:01:00.0	6.03
6	0:01:15.0	6.05
7	0:01:30.0	6.10
8	0:01:45.0	6.12
9	0:02:00.0	6.13
10	0:02:30.0	6.13
11	0:03:00.0	6.13
12	0:03:30.0	6.13

WELL ID: Sound Mattress Site - Falling Head

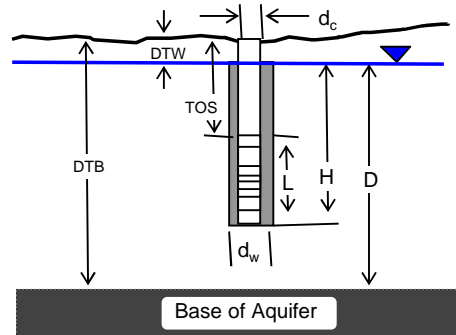
Local ID: MW-14

Date: 10/30/2014

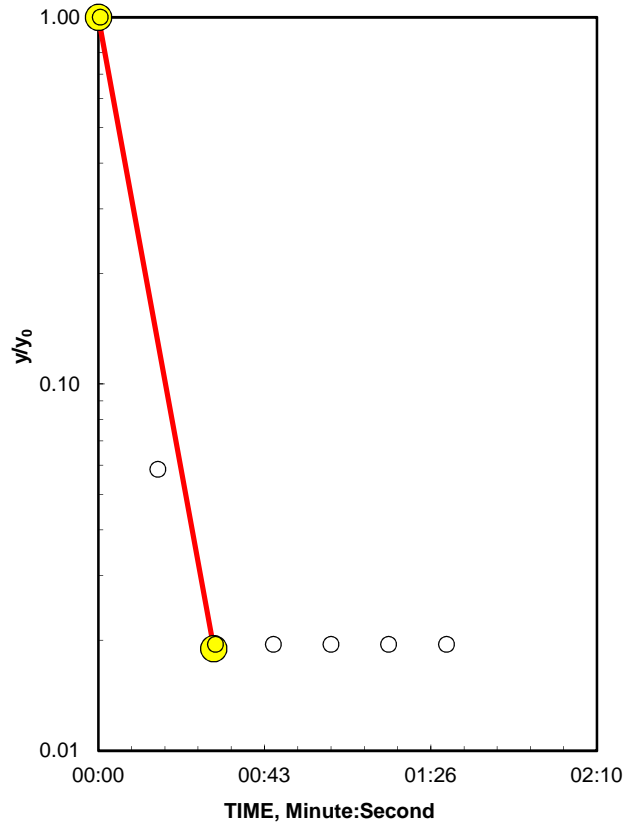
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	5 Feet
Depths to:	
water level (DTW)	5.86 Feet
top of screen (TOS)	6 Feet
Base of Aquifer (DTB)	11 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	5 Feet
$D =$	5.14 Feet
$H =$	5.14 Feet
$L/r_w =$	20.00
y_0 -DISPLACEMENT =	46.90 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	1.726
$\ln(Re/r_w) =$	2.221
Re =	2.31 cm
Slope =	$0.057375 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	17 sec

Input is consistent.

$K = 0.0062 \text{ cm/Second}$

REMARKS:

Bower and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	8.00
2	0:00:15.0	6.55
3	0:00:30.0	6.49
4	0:00:45.0	6.49
5	0:01:00.0	6.49
6	0:01:15.0	6.49
7	0:01:30.0	6.49

WELL ID: Sound Mattress Site - Rising Head

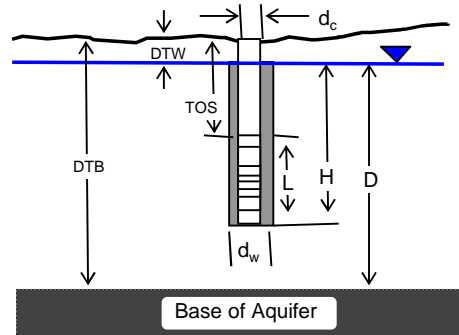
Local ID: MW-14

Date: 10/30/2014

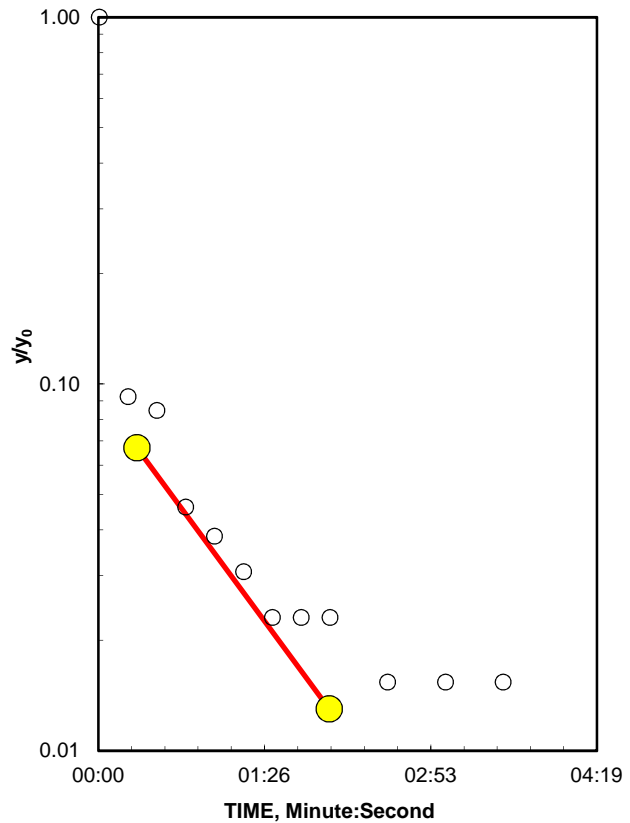
Time: 16:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	5 Feet
Depths to:	
water level (DTW)	5.86 Feet
top of screen (TOS)	6 Feet
Base of Aquifer (DTB)	11 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	5 Feet
$D =$	5.14 Feet
$H =$	5.14 Feet
$L/r_w =$	20.00
y_0 -DISPLACEMENT =	39.59 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	1.726
$\ln(Re/r_w) =$	2.221
Re =	2.31 cm
Slope =	$0.007121 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	140 sec

Input is consistent.

$K = 0.00077 \text{ cm/Second}$

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	16:00:00.0	5.20
2	16:00:15.0	6.38
3	16:00:30.0	6.39
4	16:00:45.0	6.44
5	16:01:00.0	6.45
6	16:01:15.0	6.46
7	16:01:30.0	6.47
8	16:01:45.0	6.47
9	16:02:00.0	6.47
10	16:02:30.0	6.48
11	16:03:00.0	6.48
12	16:03:30.0	6.48

WELL ID: Sound Mattress Site - Falling Head

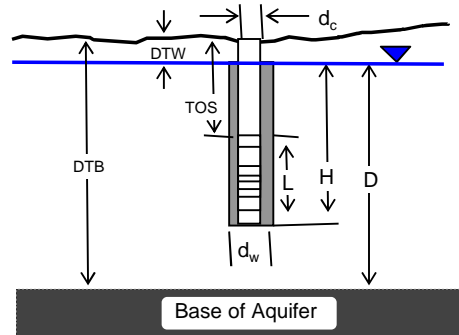
Local ID: MW-16

Date: 9/11/2014

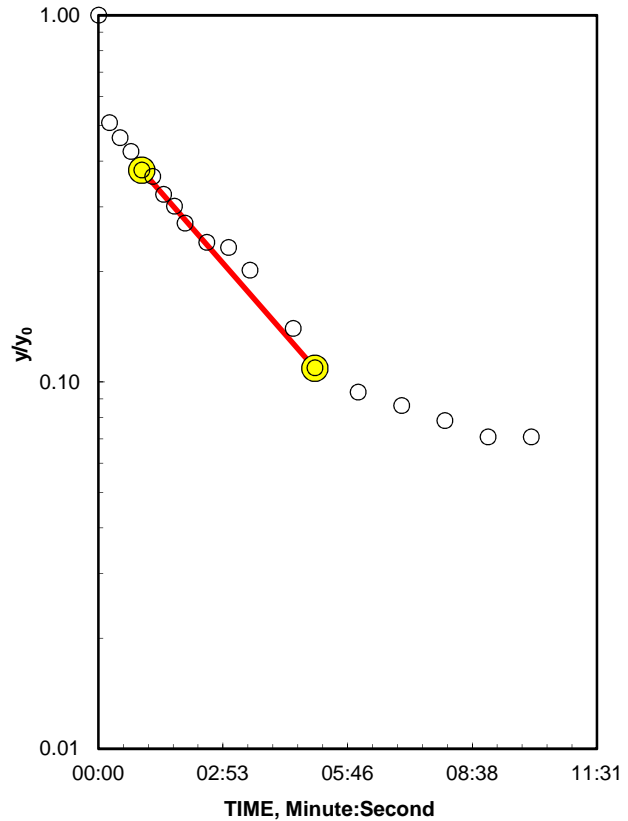
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	9.16 Feet
top of screen (TOS)	3 Feet
Base of Aquifer (DTB)	13 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	3.84 Feet
$D =$	3.84 Feet
$H =$	3.84 Feet
$L/r_w =$	15.36
y_0 -DISPLACEMENT =	39.59 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	1.528
$\ln(Re/r_w) =$	1.991
Re =	1.83 cm
Slope =	$0.00225 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	444 sec

Input is consistent.

$K = 0.00028 \text{ cm/Second}$

REMARKS:

Bower and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	7.50
2	0:00:15.0	6.86
3	0:00:30.0	6.80
4	0:00:45.0	6.75
5	0:01:00.0	6.69
6	0:01:15.0	6.67
7	0:01:30.0	6.62
8	0:01:45.0	6.59
9	0:02:00.0	6.55
10	0:02:30.0	6.51
11	0:03:00.0	6.50
12	0:03:30.0	6.46
13	0:04:30.0	6.38
14	0:05:00.0	6.34
15	0:06:00.0	6.32
16	0:07:00.0	6.31
17	0:08:00.0	6.30
18	0:09:00.0	6.29
19	0:10:00.0	6.29

WELL ID: Sound Mattress Site - Rising Head

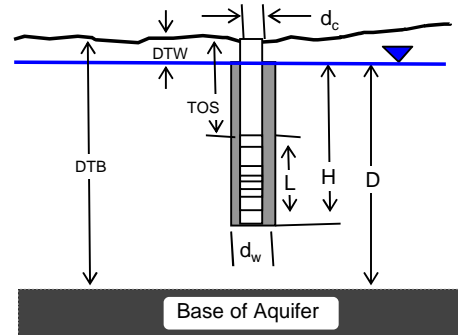
Local ID: MW-16

Date: 9/11/2014

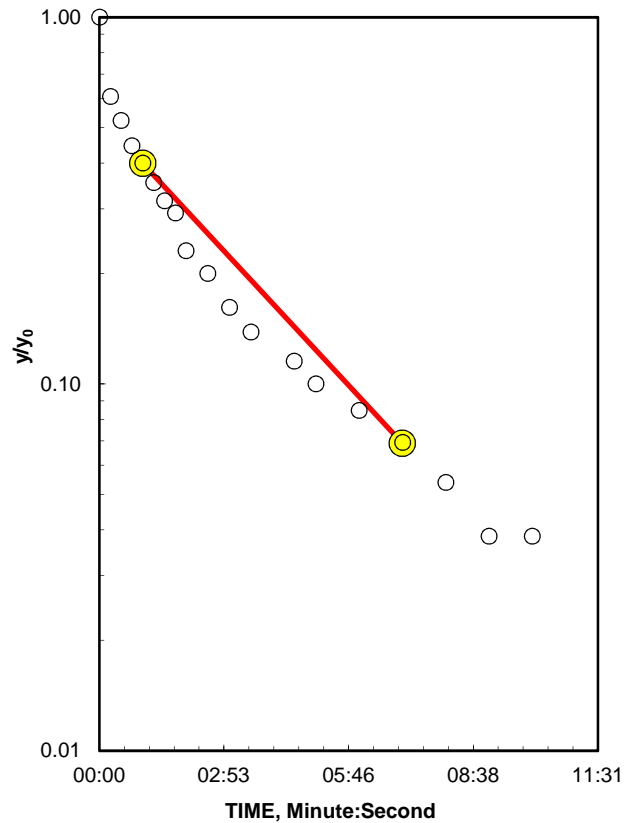
Time: 16:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	9.16 Feet
top of screen (TOS)	3 Feet
Base of Aquifer (DTB)	13 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L _{wetted}	3.84 Feet
D =	3.84 Feet
H =	3.84 Feet
L/r _w =	15.36
Y ₀ -DISPLACEMENT =	39.59 cm
Y ₀ -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	1.528
ln(Re/r _w) =	1.991
Re =	1.83 cm
Slope =	0.00212 log ₁₀ /sec
t _{90%} recovery =	472 sec

Input is consistent.

K = 0.00027 cm/Second

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

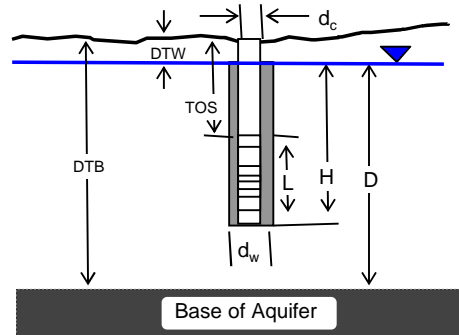
	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	16:00:00.0	5.00
2	16:00:15.0	5.51
3	16:00:30.0	5.62
4	16:00:45.0	5.72
5	16:01:00.0	5.78
6	16:01:15.0	5.84
7	16:01:30.0	5.89
8	16:01:45.0	5.92
9	16:02:00.0	6.00
10	16:02:30.0	6.04
11	16:03:00.0	6.09
12	16:03:30.0	6.12
13	16:04:30.0	6.15
14	16:05:00.0	6.17
15	16:06:00.0	6.19
16	16:07:00.0	6.21
17	16:08:00.0	6.23
18	16:09:00.0	6.25
19	16:10:00.0	6.25

WELL ID: Sound Mattress Site - Falling Head

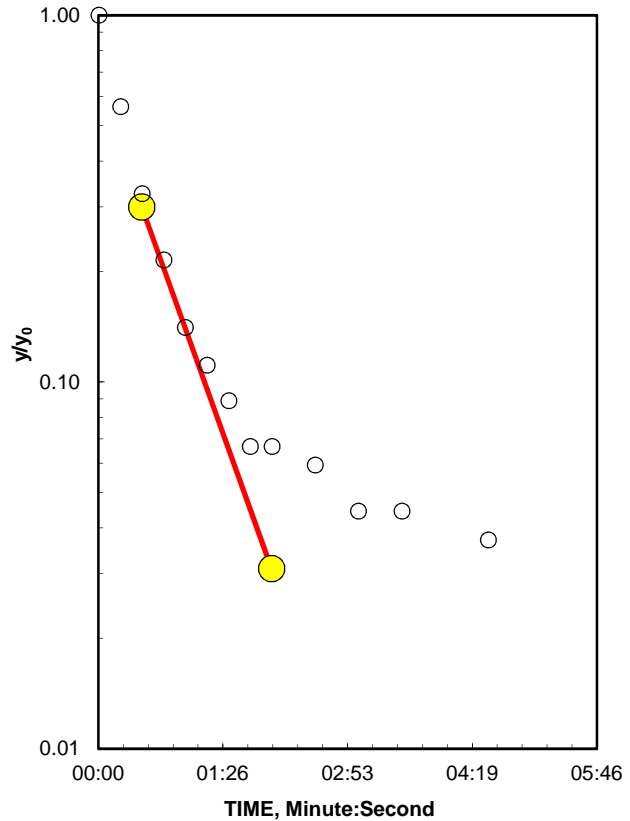
Local ID: MW-6
 Date: 10/30/2014
 Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.06 Feet
top of screen (TOS)	6 Feet
Base of Aquifer (DTB)	16 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	9.94 Feet
$D =$	9.94 Feet
$H =$	9.94 Feet
$L/r_w =$	39.76
y_0 -DISPLACEMENT =	41.12 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.443
$\ln(Re/r_w) =$	2.777
Re =	4.02 cm
Slope =	$0.010953 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	91 sec

Input is consistent.

$K = 0.00074 \text{ cm/Second}$

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	8.75
2	0:00:15.0	8.16
3	0:00:30.0	7.84
4	0:00:45.0	7.69
5	0:01:00.0	7.59
6	0:01:15.0	7.55
7	0:01:30.0	7.52
8	0:01:45.0	7.49
9	0:02:00.0	7.49
10	0:02:30.0	7.48
11	0:03:00.0	7.46
12	0:03:30.0	7.46
13	0:04:30.0	7.45

WELL ID: Sound Mattress Site - Rising Head

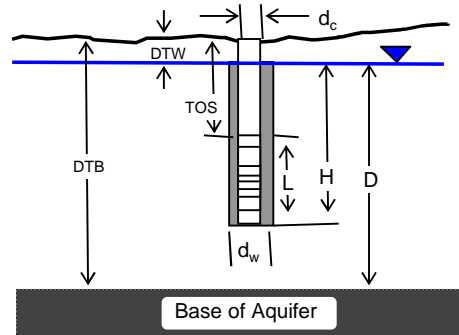
Local ID: MW-6

Date: 10/30/2014

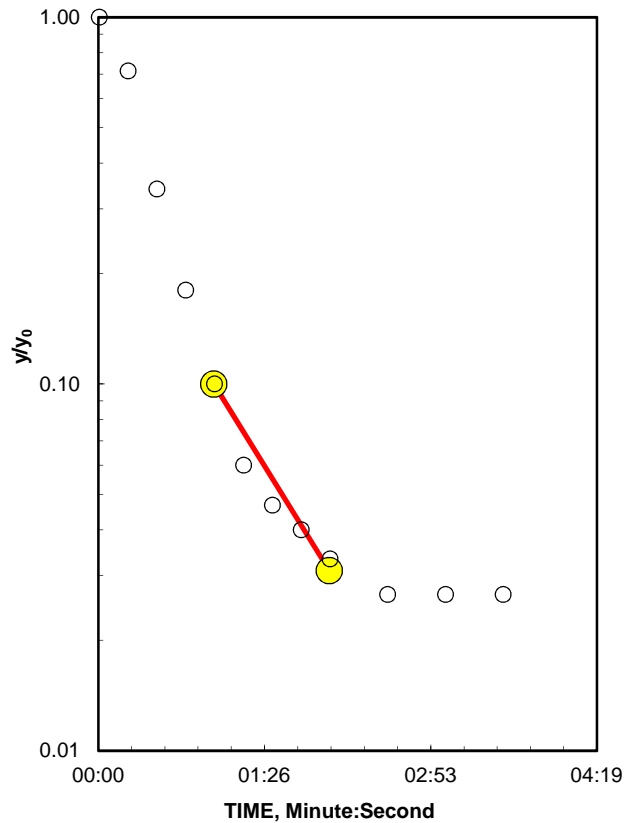
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.06 Feet
top of screen (TOS)	6 Feet
Base of Aquifer (DTB)	16 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- fine sand and silt	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	9.94 Feet
$D =$	9.94 Feet
$H =$	9.94 Feet
$L/r_w =$	39.76
y_0 -DISPLACEMENT =	45.69 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.443
$\ln(Re/r_w) =$	2.777
Re =	4.02 cm
Slope =	$0.008477 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	118 sec

Input is consistent.

K = 0.00058 cm/Second

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	6.00
2	0:00:15.0	6.43
3	0:00:30.0	6.99
4	0:00:45.0	7.23
5	0:01:00.0	7.35
6	0:01:15.0	7.41
7	0:01:30.0	7.43
8	0:01:45.0	7.44
9	0:02:00.0	7.45
10	0:02:30.0	7.46
11	0:03:00.0	7.46
12	0:03:30.0	7.46

WELL ID: Sound Mattress Site - Falling Head

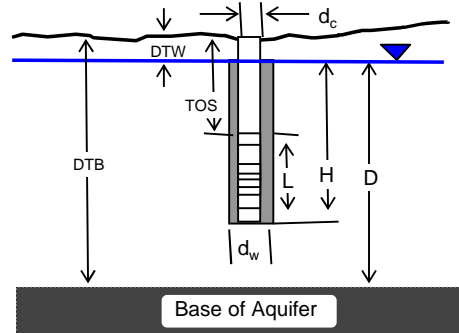
Local ID: MW-7

Date: 9/11/2014

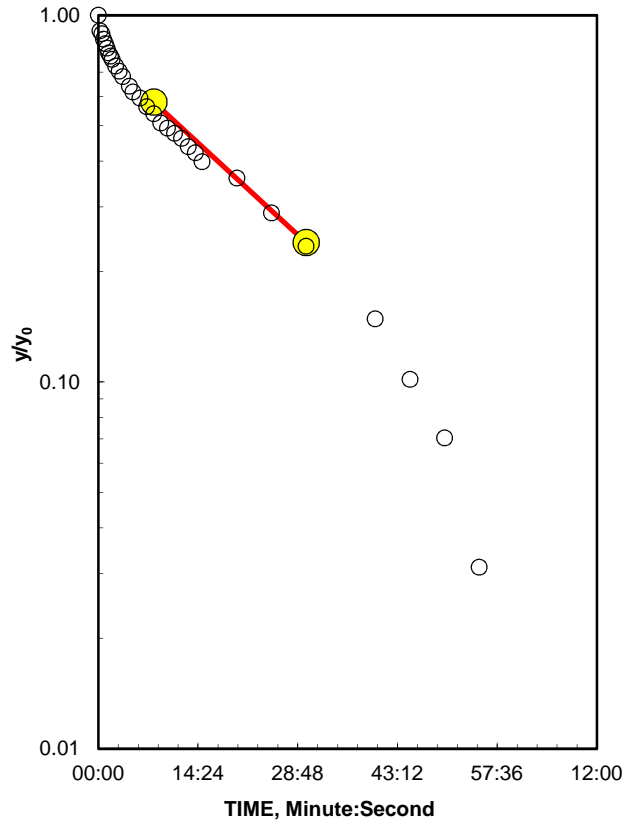
Time: 0:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.22 Feet
top of screen (TOS)	5.5 Feet
Base of Aquifer (DTB)	15.5 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Clay soils (surface)	



Adjust slope of line to estimate K



COMPUTED

L_{wetted}	9.28 Feet
$D =$	9.28 Feet
$H =$	9.28 Feet
$L/r_w =$	37.12
y_0 -DISPLACEMENT =	38.98 cm
y_0 -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.354
$\ln(Re/r_w) =$	2.719
Re =	3.79 cm
Slope =	$0.00029 \log_{10}/\text{sec}$
$t_{90\%}$ recovery =	3445 sec

Input is consistent.

$K = 0.000021 \text{ cm/Second}$

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	0:00:00.0	9.16
2	0:00:15.0	9.04
3	0:00:30.0	9.02
4	0:00:45.0	8.98
5	0:01:00.0	8.95
6	0:01:15.0	8.92
7	0:01:30.0	8.89
8	0:01:45.0	8.87
9	0:02:00.0	8.85
10	0:02:30.0	8.81
11	0:03:00.0	8.78
12	0:03:30.0	8.75
13	0:04:30.0	8.70
14	0:05:00.0	8.67
15	0:06:00.0	8.64
16	0:07:00.0	8.60
17	0:08:00.0	8.57
18	0:09:00.0	8.53
19	0:10:00.0	8.51
20	0:11:00.0	8.49
21	0:12:00.0	8.47
22	0:13:00.0	8.44
23	0:14:00.0	8.42
24	0:15:00.0	8.39
25	0:20:00.0	8.34
26	0:25:00.0	8.25
27	0:30:00.0	8.18
28	0:40:00.0	8.07
29	0:45:00.0	8.01
30	0:50:00.0	7.97
31	0:55:00.0	7.92
32	1:00:00.0	7.89

WELL ID: Sound Mattress Site - Rising Head

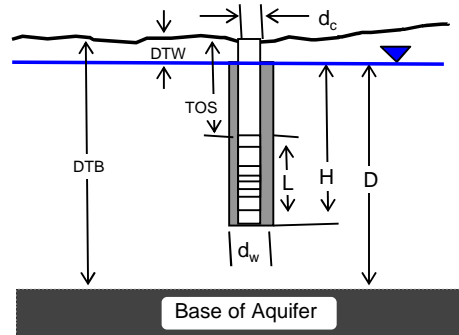
Local ID: MW-7

Date: 9/11/2014

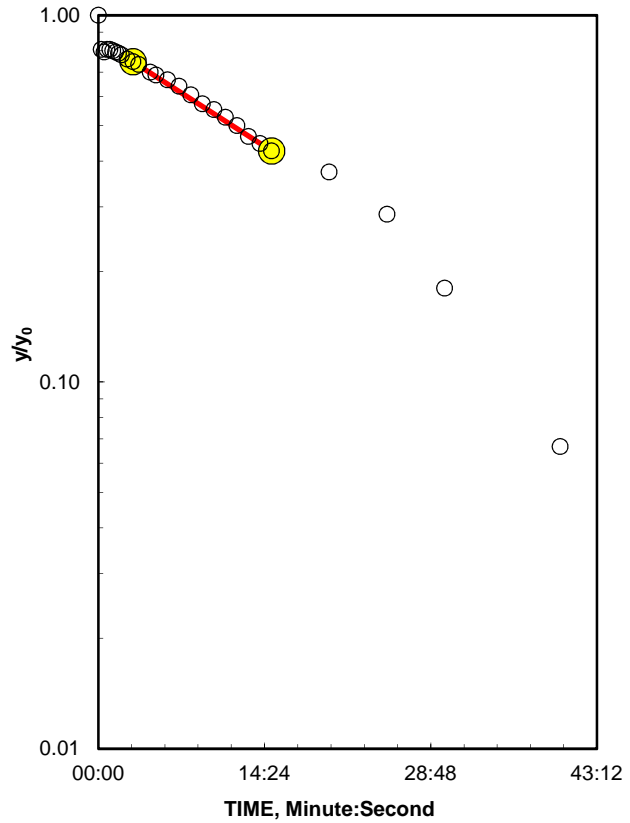
Time: 16:00

INPUT

Construction:	
Casing dia. (d_c)	2 Inch
Annulus dia. (d_w)	6 Inch
Screen Length (L)	10 Feet
Depths to:	
water level (DTW)	6.22 Feet
top of screen (TOS)	5.5 Feet
Base of Aquifer (DTB)	15.5 Feet
Annular Fill:	
across screen --	Coarse Sand
above screen --	Bentonite
Aquifer Material -- Clay soils (surface)	



Adjust slope of line to estimate K



COMPUTED

L _{wetted}	9.28 Feet
D =	9.28 Feet
H =	9.28 Feet
L/r _w =	37.12
Y ₀ -DISPLACEMENT =	45.69 cm
Y ₀ -SLUG =	47.59 cm
From look-up table using L/r_w	
Fully penetrate C =	2.354
ln(Re/r _w) =	2.719
Re =	3.79 cm
Slope =	0.000337 log ₁₀ /sec
t _{90%} recovery =	2964 sec

Input is consistent.

K = 0.000024 cm/Second

REMARKS:

Bouwer and Rice analysis of slug test, WRR 1976

	Reduced Data	
	Time,	Water
Entry	Hr:Min:Sec	Level
1	16:00:00.0	5.50
2	16:00:15.0	5.79
3	16:00:30.0	5.81
4	16:00:45.0	5.79
5	16:01:00.0	5.79
6	16:01:15.0	5.80
7	16:01:30.0	5.81
8	16:01:45.0	5.82
9	16:02:00.0	5.83
10	16:02:30.0	5.86
11	16:03:00.0	5.88
12	16:03:30.0	5.90
13	16:04:30.0	5.95
14	16:05:00.0	5.97
15	16:06:00.0	6.00
16	16:07:00.0	6.04
17	16:08:00.0	6.09
18	16:09:00.0	6.14
19	16:10:00.0	6.17
20	16:11:00.0	6.21
21	16:12:00.0	6.25
22	16:13:00.0	6.30
23	16:14:00.0	6.33
24	16:15:00.0	6.36
25	16:20:00.0	6.44
26	16:25:00.0	6.57
27	16:30:00.0	6.73
28	16:40:00.0	6.90

**APPENDIX F
PILOT TEST FIELD DATA AND ROI CALCULATION**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

Appendix F - Table 1
Soil Vapor Extraction Pilot Study Step Test
Sound Mattress Site
Tacoma, Washington
Pacific Crest Project No.: 110-001

Date	Time	Elapsed Time	Extraction Point		Monitoring Points					COC Vapor Concentration (ppmV)
			SVE-1		VMW-1	VMW-2	MW-11	MW-6	MW-16	Total VOCs - PID
			Applied Vacuum (in. H ₂ O)	Flowrate (cfm)	Distance = 11 feet	Distance = 31 feet	Distance = 67 feet	Distance = 52 feet	Distance = 142 feet	
12/19/2012	12:39	0:00	10	--	0.00	0.00	0.00	0.00	0.00	--
12/19/2012	12:44	0:05	10	131.3	-1.10	0.14	0.02	--	--	17.1
12/19/2012	12:54	0:15	10	128.5	-1.40	-0.26	0.10	0.04	--	18
12/19/2012	13:09	0:30	10	128.5	-2.00	-0.26	-0.14	-0.16	--	18.3
12/19/2012	13:24	0:45	10	128.5	-2.00	-0.26	-0.05	-0.05	--	25
12/19/2012	13:39	1:00	10	128.5	-2.00	-0.26	-0.06	-0.10	0.00	24.4
12/19/2012	13:44	1:05	30	108.0	-4.00	-0.56	-0.10	-0.14	--	64.8
12/19/2012	13:54	1:15	30	108.0	-3.30	-0.42	-0.12	-0.32	--	63.2
12/19/2012	14:09	1:30	30	107.99	-3.60	-0.44	-0.10	-0.12	0.00	62.8
12/19/2012	14:24	1:45	30	107.99	-3.80	-0.60	-0.12	-0.22	--	59.6
12/19/2012	14:39	2:00	60	85.06	-5.60	-0.62	-0.16	-0.37	--	144
12/19/2012	14:49	2:10	60	85.06	-5.30	-0.62	-0.14	-0.22	--	125
12/19/2012	15:09	2:30	60	85.06	-5.00	-0.58	-0.14	-0.38	--	119
12/19/2012	15:24	2:45	60	85.06	-4.80	-0.62	-0.12	-0.17	--	124
12/19/2012	15:39	3:00	60	85.06	-4.80	-0.60	-0.17	-0.17	0.00	121

Notes:

cfm = cubic feet per minute

ppmV = parts per million vapor

TVOCs - Total Volatile Organic Compounds measured with a photoionization detector

in. H₂O = inches of water column

- = not measured

Appendix F - Table 2
Soil Vapor Extraction Pilot Study Constant Rate Test
Sound Mattress Site
Tacoma, Washington
Pacific Crest Project No.: 110-001

Date	Time	Elapsed Time	Extraction Point		Monitoring Points				COC Vapor Concentration (ppmV)
			SVE-1		VMW-1	VMW-2	MW-11	MW-6	
			Applied Vacuum (in. H ₂ O)	Flowrate (cfm)	Distance = 11 feet	Distance = 31 feet	Distance = 67 feet	Distance = 52 feet	TVOCs
12/20/2012	10:15	0:00	40	100.0	-4.20	-0.42	-0.10	-0.14	79.5
12/20/2012	10:20	0:05	30	109.7	-2.80	-0.48	-0.13	-0.14	50.9
12/20/2012	10:30	0:15	30	109.7	-3.00	-0.40	-0.07	-0.20	49.4
12/20/2012	10:45	0:30	30	109.7	-2.80	-0.36	-0.13	-0.19	47.9
12/20/2012	11:00	0:45	30	108.0	-2.20	-0.35	0.00	-0.15	46.6
12/20/2012	11:15	1:00	30	108.0	-3.00	-0.37	0.00	-0.13	46.9
12/20/2012	11:30	1:15	30	108.0	-3.00	-0.34	-0.14	-0.28	47.3
12/20/2012	11:45	1:30	30	108.0	-3.00	-0.36	-0.16	-0.16	45.9
12/20/2012	12:00	1:45	30	107.99	-3.00	-0.55	-0.11	-0.21	44.6
12/20/2012	12:15	2:00	30	109.71	-3.00	-0.36	-0.08	-0.21	47.2
12/20/2012	12:30	2:15	30	109.71	-3.00	-0.40	-0.10	-0.16	48.6
12/20/2012	12:45	2:30	30	107.99	-3.00	-0.33	-0.08	-0.32	47.4
12/20/2012	13:00	2:45	30	107.99	-3.00	-0.33	-0.14	-0.13	48.5
12/20/2012	13:15	3:00	30	109.71	-3.00	-0.36	-0.04	-0.15	45.4

Notes:

cfm = cubic feet per minute

ppmV = parts per million vapor

TVOCs - Total Volatile Organic Compounds measured with a photoionization detector

in. H₂O = inches of water column

Appendix F - Table 3
Air Sparging - Soil Vapor Extraction Pilot Study
Sound Mattress Site
Tacoma, Washington
Pacific Crest Project No.: 110-001

Date:	Time	Elapsed Time	Extraction Point		Air Sparge Point		Monitoring Points				COC Vapor Concentration (ppmV)
			SVE-1		AS-1		VMW-1	VMW-2	MW-11	MW-6	
			Applied Vacuum (in. H ₂ O)	Flowrate (cfm)	Pressure (psi)	Flowrate (cfm)	Pressure (in. H ₂ O)	Pressure (in. H ₂ O)	Pressure (in. H ₂ O)	Pressure (in. H ₂ O)	TVOCs
10/21/2010	13:55	-	30	102.629	20	7.75	-2.4	-0.14	-0.02	-0.14	37.6
10/21/2010	14:00	0:05	30	102.629	20	7.75	-2.2	-0.11	-0.08	-0.34	34.2
10/21/2010	14:10	0:15	30	104.4456	20	7.75	-2	-0.1	-0.04	-0.08	32.5
10/21/2010	14:25	0:30	30	102.629	20	7.75	-1.8	-0.04	0.04	-0.2	30.4
10/21/2010	14:35	0:40	30	102.629	20	7.75	-2	-0.02	0.04	-0.22	29.3
10/21/2010	14:55	1:00	30	104.4456	29	7.75	-1.8	-0.02	0.02	-0.1	27.5

Notes:

cfm = cubic feet per minute

bgs = below ground surface

psi = pounds per square inch

ppmV = parts per million vapor

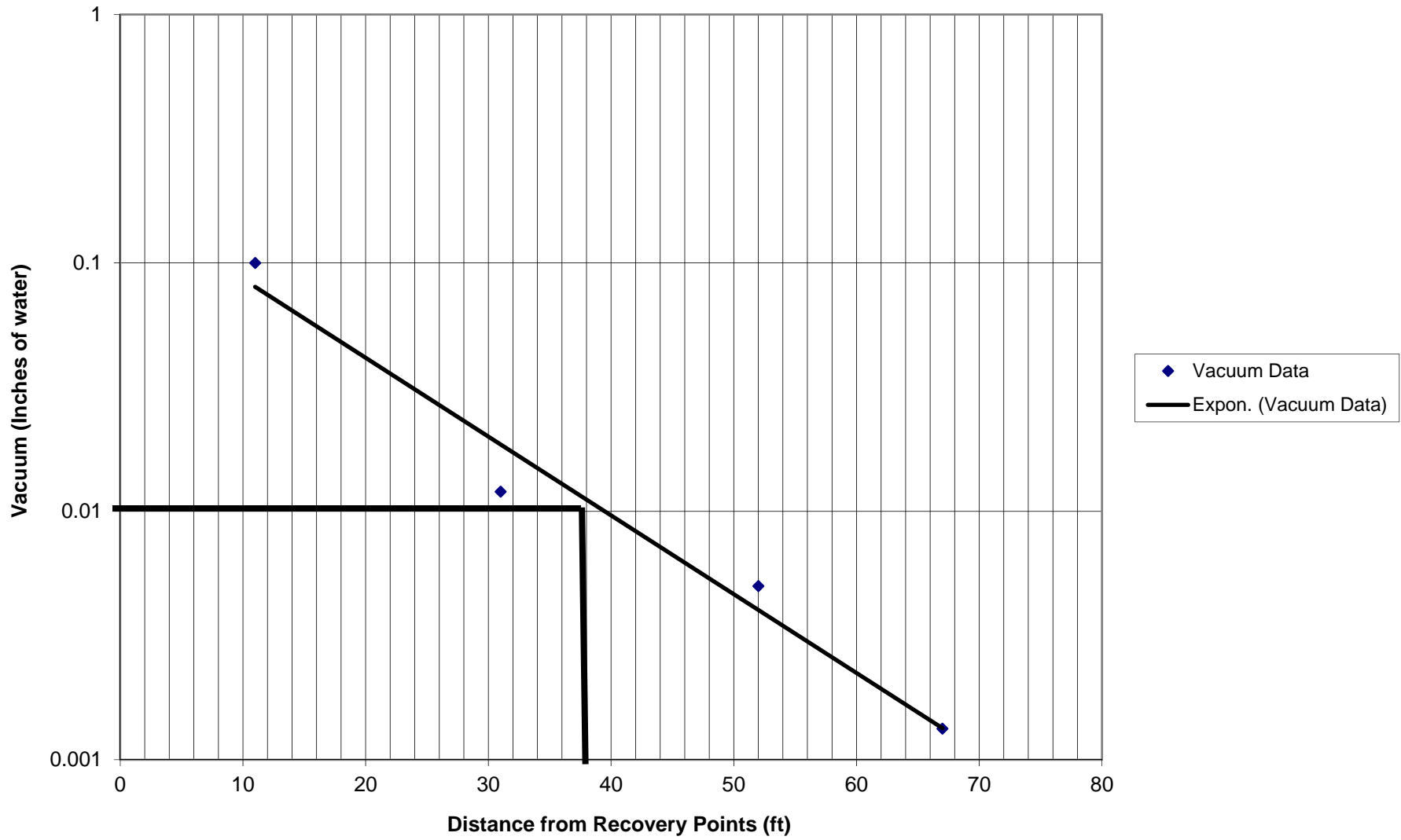
TVOCs - Total Volatile Organic Compounds measured with a photoionization detector

in. H₂O = inches of water column

Appendix F - Table 4
Soil Vapor Extraction Pilot Study - Radius of Influence
Sound Mattress Site
Tacoma, Washington
Pacific Crest Project No.: 110-001

SVE Configuration (SVE Recovery Well)	Vacuum at Recovery Point In H ₂ O	Normalized vacuum In H ₂ O	Time	Vacuum Influence Measurement Location	Vacuum Influence (inches of water)	Distance (in feet) from Recovery Point to Measurement Location			
						VM-1	VM-2	MW-6	MW-11
SVE-1	30	0.1	13:14	VM-1	3.00	11		--	--
SVE-1	30	0.012	13:14	VM-2	0.36	--	31	--	--
SVE-1	30	0.005	13:14	MW-6	0.15	--	--	52	--
SVE-1	30	0.001333333	13:14	MW-11	0.04	--	--	--	67

Effective Radius of Influence



**APPENDIX G
POST REMEDIAL INVESTIGATION ACTIVITIES –
WASTE DISPOSAL DOCUMENTATIONS**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number CESQG	2. Page 1 of 1	3. Emergency Response Phone 206-285-8010	4. Manifest Tracking Number 013258454 JJK			
5. Generator's Name and Mailing Address Sound Mattress and Felt Company 7424 Bridgeport Way, Suite 206 Lakewood WA 98499-8134 425 888-4990		Generator's Site Address (if different than mailing address) 1940 E. 11th St Tacoma, WA 98421-3301					
6. Transporter 1 Company Name Kleen Environmental Technologies, Inc.		U.S. EPA ID Number WAH000004457					
7. Transporter 2 Company Name		U.S. EPA ID Number					
8. Chemical Facility Name and Site Address Chemical Waste Management of the NW 17629 Cedar Springs Lane Arlington, OR 97812 541-454-2030		U.S. EPA ID Number ORD089452353					
9a. HM		9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
				No.	Type		
X	1.	UN3077, Environmentally Hazardous Substance, solid, n.o.s., 9, PG II, ERG#(171) (1,2,Dichloroethene, Trichloroethene)		2	DM	1300	P
X	2.	UN3082, Environmentally Hazardous Substance, Liquid, n.o.s., 9, PG II, ERG#(171) (1,2,Dichloroethene, Trichloroethene)		1	DM	55	G
	3.						
	4.						
14. Special Handling Instructions and Additional Information 9b.1) OR325474, 2 ea x 55 gal 1A2 steel drums 2) OR325475, 1 ea x 55 gal 1A2 steel drums							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offoror's Printed/Typed Name Robert J. Shea				Signature <i>Robert J. Shea</i>			
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name				Signature		Month Day Year	
Transporter 2 Printed/Typed Name				Signature		Month Day Year	
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
Manifest Reference Number: _____ U.S. EPA ID Number _____							
18b. Alternate Facility (or Generator) _____ U.S. EPA ID Number _____							
18c. Signature of Alternate Facility (or Generator) _____ Month Day Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1.		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name				Signature		Month Day Year	

DO NOT DATE

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number CESQG	2. Page 1 of 1	3. Emergency Response Phone 206-285-8010	4. Manifest Tracking Number 006376064 JJK			
5. Generator's Name and Mailing Address Sound Mattress and Felt Company 7424 Bridgeport Way, Suite 206 Lakewood WA 98499-8134 425 888-4990			Generator's Site Address (if different than mailing address) 1940 E. 11th St Tacoma, WA 98421-3301				
6. Transporter 1 Company Name Kleen Environmental Technologies, Inc.			U.S. EPA ID Number WAH000004457				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address Chemical Waste Management of the NW 17629 Cedar Springs Lane Arlington, OR 97812 541-454-2030			U.S. EPA ID Number ORD089452353				
9a. HM			9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		
					No.		
					Type		
					11. Total Quantity		
					12. Unit Wt./Vol.		
					13. Waste Codes		
X	1. UN3077, Environmentally Hazardous Substance Solid, NOS, 9, PG II, ERG#(171)		3	DM	1375	P	
X	2. UN3082, Environmentally Hazardous Substance Liquid, NOS, 9, PG II, ERG #(171)		3	DM	48	G	
	3.						
	4.						
14. Special Handling Instructions and Additional Information 9.b.1) Profile OR304828, 1 x 16 gal + 2 ea x 55 gal steel 1A2 drums. 9.b.2) OR301297, 3 ea x 16 Gal 1A2 steel drums (CESQG Would have designated F002)							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name			Signature		Month	Day	
					Year		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____							
17. Transporter Acknowledgment of Receipt of Materials							
Transporter 1 Printed/Typed Name			Signature		Month	Day	
					Year		
Transporter 2 Printed/Typed Name			Signature		Month	Day	
					Year		
18. Discrepancy							
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection							
18b. Alternate Facility (or Generator) Manifest Reference Number: _____ U.S. EPA ID Number _____							
Facility's Phone: _____							
18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)							
1. _____		2. _____		3. _____		4. _____	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name			Signature		Month	Day	
					Year		

GENERATOR

TRANSPORTER INT'L

DESIGNATED FACILITY

15163

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number CESQG	2. Page 1 of 1	3. Emergency Response Phone 206-285-8010	4. Manifest Tracking Number 010171082 JJK					
5. Generator's Name and Mailing Address Sound Mattress and Felt Company 7424 Bridgeport Way, Suite 206 Lakewood WA 98499-8134				Generator's Site Address (if different than mailing address) 1940 E. 11th St Tacoma, WA 98421-3301						
Generator's Phone: 425 888-4990										
6. Transporter 1 Company Name Kleen Environmental Technologies, Inc.					U.S. EPA ID Number WAH000004457					
7. Transporter 2 Company Name					U.S. EPA ID Number					
8. Designated Facility Name and Site Address Chemical Waste Management of the NW 17629 Cedar Springs Lane Arlington, OR 97812					U.S. EPA ID Number ORD089452353					
Facility's Phone: 541-454-2030										
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes		
		No.	Type							
	X	1. UN3077, Environmentally Hazardous Substance Solid, NOS, 9, PG II, ERG#(171) (Trichloroethene, Tetrachloroethene)		3	DM	1800	P			
	X	2. UN3082, Environmentally Hazardous Substance, Liquid, N.O.S., 9, PG II, ERG#(171) (Trichloroethene, Vinyl Chloride) <i>PLH</i>		3 1	DM	75 55	G			
		3.								
	4.									
14. Special Handling Instructions and Additional Information 9.b.1) Profile OR303172, 3 x 55 gal steel 1A2 drums. (CESQG Would have designated F002) 9.b.2) Profile OR303171, 3 x 55 gal steel 1A2 drums. (CESQG Would have designated F002) <i>PLH</i>										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offorer's Printed/Typed Name Robert Shea					Signature <i>Robert Shea</i>			Month 1	Day 16	Year 13
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____										
17. Transporter Acknowledgment of Receipt of Materials										
Transporter 1 Printed/Typed Name David Wukelic					Signature <i>David Wukelic</i>			Month 1	Day 16	Year 13
Transporter 2 Printed/Typed Name					Signature			Month	Day	Year
18. Discrepancy										
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection										
Manifest Reference Number: _____										
18b. Alternate Facility (or Generator)					U.S. EPA ID Number					
Facility's Phone: _____										
18c. Signature of Alternate Facility (or Generator)								Month	Day	Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1.		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name					Signature			Month	Day	Year

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**APPENDIX H
PRELIMINARY CLEANUP LEVEL TABLES**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

Appendix H - Table 1
Site Risk Calculation
MIW Site
Tacoma, Washington
Pacific Crest No: 104-001

Exposure Pathway	Media of Concern	Contaminant of Concern	Method C Cleanup Level		Target Hazard Quotient	Target Carcinogenic Risk	Site Specific Cleanup Level	Hazard Quotient	Carcinogenic Risk
			Non Carcinogenic	Carcinogenic					
Inhalation	Air (ug/m3)	Tetrachloroethene	4.00E+01	96.2	1	1.00E-05	9.6	0.24	9.98E-07
		Trichloroethene	2.00E+00	6.3	1	1.00E-05	1.4	0.70	2.22E-06
		Vinyl Chloride	1.00E+02	6.5	1	1.00E-05	2.5	0.03	3.85E-06
Ingestion	Soil (mg/kg)	Tetrachloroethene	2.10E+04	62500	1	1.00E-05	0.24	0.00	3.84E-11
		Trichloroethene	1.75E+03	2850	1	1.00E-05	0.036	0.00	1.26E-10
		Cis-1,2-DCE	7.00E+03	NA	1	NA	50.0	0.01	NA
		Cadmium	3.50E+03	NA	1	NA	100.0	0.029	NA
		Copper	1.40E+05	NA	1	NA	200.0	0.001	NA
		Nickel	7.00E+04	NA	1	NA	200.0	0.003	NA
		Zinc	1.05E+06	NA	1	NA	200.0	0.0002	NA
	Groundwater and surface water	Exposure pathway is not complete because groundwater and surface water meet the criteria for non-potability							
Groundwater - Protection of Biota (ug/L)	Vinyl Chloride	1.62E+04	0.18	1	1.00E-06	0.18	0.0014	0.000001	
Total Site Risk for Complete Exposure Pathways								1.0	8.07E-06

**Appendix H - Table 2
Preliminary Screening and Draft FS Cleanup Levels - Groundwater
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001**

Regulation	Screening and Cleanup Levels - Groundwater (µg/L)														
	Metals								HVOCs						
	Arsenic	Cadmium	Chromium	Copper	Lead	Nickel	Tin	Zinc	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane
Ecology Approved Cleanup Levels - November 2010 Opinion Letter	--	--	--	--	--	--	--	--	3.3	30	10,000	10,000	2.4	--	--
MTCA Method A	5	5	50	NE	15	NE	NE	NE	5	5	NE	NE	0.2	200	NE
MTCA Method B - Non-Carcinogen - Ingestion	4.8	8	NE	320	NE	320	9,600	4,800	48	4	16	160	24	16,000	1,600
MTCA Method B - Carcinogen - Ingestion	0.0583	NE	NE	NE	NE	NE	NE	NE	20.8	0.54	NE	NE	0.029	NE	7.68
MTCA Method C - Non-Carcinogen - Ingestion	10.5	17.5	NE	700	NE	700	21,000	10,500	105	8.75	35	350	52.5	35,000	3,500
MTCA Method C - Carcinogen - Ingestion	0.0583	NE	NE	NE	NE	NE	NE	NE	208	9.51	NE	NE	0.29	NE	76.8
Washington Maximum Contaminant Level	10	NE	100	1,300	15	100	NE	NE	5	5			2		
Natural Background	5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Surface Water - Method B - Non-Carcinogen	17.7	40.5	NE	2,880	NE	1,100	NW	16,500	502	118	NE	32,400	6,480	926,000	NE
Surface Water - Method B - Carcinogen	0.0982	NE	NE	NE	NE	NE	NE	NE	99.6	12.8	NE	NE	3.7	NE	NE
Surface Water - Method C - Non-Carcinogen	44.2	101	NE	7,230	NE	2,760	NE	41,400	1,250	295	NE	81,000	16,200	2,310,000	NE
Surface Water - Method C - Carcinogen	2.46	NE	NE	NE	NE	NE	NE	NE	2,490	320	NE	NE	92.3	NE	NE
Surface Water - Aquatic Life Marine/Chronic 173-201A WAC	36	9.3	NE	3.1	8.1	8.2	NE	81	NE	NE	NE	NE	NE	NE	NE
Surface Water - Aquatic Life Marine/Chronic NTR 40 CFR 131	36	9.3	NE	2.4	8.1	8.2	NE	81	NE	NE	NE	NE	NE	NE	NE
Surface Water - Washington Human Health Marine Waters NTR 40 CFR 131 (revised 11/15/16)	0.14	NE	NE	1,300	NE	100	NE	1,000	2.9	0.7	NE	NE	0.18	NE	NE
Surface Water - Aquatic Life Marine/Chronic CWA §304	36	8.8	50	3.1	8.1	8.2	NE	81	29	7	NE	4,000	1.6	200,000	650
Surface Water - Proposed Washington State Human Health Criteria 173-201A WAC	10	NE	NE	1,300	NE	150	NE	2,300	4.9	0.38	NE	600	0.02	47,000	NE
Risk Modified MTCA Method C - Protection of Indoor Air	NV	NV	NV	NV	NV	NV	NV	NV	24.4	5.8	--	--	1.3	--	--

NOTES:

Bold = Preliminary Screening Levels

Bold with blue highlight = Site Specific Screening Levels

Bold with yellow highlight = Retained as Contaminant of Concern - Site Specific Cleanup Level

Bold with green highlight = Draft FS Remediation Level for Zone A

µg/L = micrograms per liter

NE = not established

NV = non-volatile

HVOCs = halogenated volatile organic compounds

**Appendix H - Table 3
Preliminary Screening and Draft FS Cleanup Levels - Soil
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001**

Regulation	Screening and Cleanup Levels - Soil (mg/kg)													
	Metals								HVOCs					
	Arsenic	Cadmium ¹	Chromium	Copper	Lead	Nickel	Tin	Zinc	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1-Dichloroethane
Ecology Approved Cleanup Levels - November 2010 Opinion Letter	NE	NE	NE	NE	NE	NE	NE	NE	0.334	0.296	65	NE	0.057	NE
MTCA Method A - Industrial	20	2	2,000	NE	1,000	NE	NE	NE	0.05	0.03	NE	NE	NE	NE
MTCA Method B - Non-Carcinogen - Dermal Exposure	24	80	NE	3,200	NE	1,600	48,000	24,000	480	40	160	1,600	240	16,000
MTCA Method B - Carcinogen - Dermal Exposure	0.667	NE	NE	NE	NE	NE	NE	NE	476	12	NE	NE	0.67	175
MTCA Method B - Soil Leaching to Groundwater	2.92	6	1,000	1.4	1,620	130	--	560	0.03	0.002	--	--	0.00012	--
MTCA Method C - Non-Carcinogen - Dermal Exposure	1,050	3,500	NE	140,000	NE	70,000	2,100,000	1,050,000	21,000	1,750	7,000	70,000	10,500	700,000
MTCA Method C - Carcinogen - Dermal Exposure	87.5	NE	NE	NE	NE	NE	NE	NE	62,500	2,850	NE	NE	87.5	23,000
Modified Method C - Protection of Indoor Air	NV	NV	NV	NV	NV	NV	NV	NV	0.24	0.036	--	--	0.0075	--
Sediment Management Standards - Marine 173-204 WAC	57	5.1	260	390	450	140	NE	410	--	--	--	--	--	--
Natural Background - Puget Sound	7	1	48	36	24	48	NE	85	--	--	--	--	--	--
TCLP Limit (mg/L)	5	1	5	NE	5	NE	NE	NE	0.7	0.5	NE	NE	0.2	NE
20 X TCLP Limit (mg/kg)	100	20	100	--	100	--	--	--	14	10	--	--	4	--
Risk Modified MTCA Method C - Non-Carcinogen - Dermal Exposure	--	100	--	200	--	200	--	200	--	--	50	--	--	--

NOTES:

¹ Soil and non-potable surface water

Bold = Preliminary Screening Level

Bold with blue highlight = Site Specific Screening Level

Bold with yellow highlight = Draft FS Cleanup Level

Bold with green highlight = Draft FS Remediation Level for Zone A

mg/kg = milligrams per kilogram

NE = not established

-- = not calculated

NV = non-volatile

HVOCs = halogenated volatile organic compounds

TCLP: toxicity characteristic leaching procedure

Appendix H - Table 4
Preliminary Screening and Draft FS Cleanup Levels - Air
Sound Mattress and Felt Company
1940 E. 11th Street
Tacoma, Washington
Pacific Crest No: 110-001

Regulation	Screening and Cleanup Levels - Air (µg/m³)						
	HVOCs						
	Tetrachloroethene	Trichloroethene	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	Vinyl Chloride	1,1,1-Trichloroethane	1,1-Dichloroethane
Ecology Approved Cleanup Levels - November 2010 Opinion Letter	6.57	1.55	122.72	NE	0.99	NE	NE
MTCA Method B - Non-Carcinogen - Inhalation	18.3	0.914	NE	27.4	45.7	2,290	NE
MTCA Method B - Carcinogen - Inhalation	9.6	0.37	NE	NE	0.28	NE	1.56
MTCA Method C - Non-Carcinogen - Inhalation	42	4.9	NE	60	100	5,000	NE
MTCA Method C - Carcinogen - Inhalation	96.2	6.3	NE	NE	6.5	NE	15.6

NOTES:
Bold = Preliminary Screening Level
Bold with yellow highlight = Draft FS Cleanup Level
µg/m³ = micrograms per cubic meter
NE = not established
HVOCs = halogenated volatile organic compounds

**APPENDIX I
ESTIMATED CLEANUP ACTION COSTS**

**DRAFT FOR ECOLOGY REVIEW
FEASIBILITY STUDY REPORT**

**Sound Mattress Site
1940 East 11th Street
Tacoma, Washington**

Pacific Crest PN: 110-001

**Appendix I - Table 1
 Cost Summary for Cleanup Action Alternative No. 1
 Former Sound Mattress and Felt Co. Property
 1940 E. 11th Street
 Tacoma, Washington
 Pacific Crest Project No. 110-001**

Cleanup Scenario No. 1 - Institutional Controls and MNA

Task 1 - PM, Regulatory Oversight, Permitting, and Task Management (NPV)	\$285,691
Task 2 - Cleanup Action Plan	\$11,258
Task 3 -Well Replacement	\$26,564
Task 4 - Groundwater Monitoring Events and Vapor Intrusion Monitoring (NPV)	\$531,980
Task 5 - Progress Reports (NPV)	\$104,267
Task 6 - Quarterly Confirmation Groundwater Monitoring Events (NPV)	\$24,810
Task 7 - Confirmation Soil Sampling (NPV)	\$9,421
Task 8 - Closure Report Preparation (NPV)	\$12,549
Task 9 - Well Abandonment (NPV)	\$15,710
Task 10 - Incremental Cost for Soil Disposal During Construction and Vapor Intrusion Mitigation (NPV)	\$1,783,385

TOTAL ESTIMATED COSTS	\$2,805,633
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Low Estimate (-30%)	\$1,963,943.15	-30%
High Estimate (+50%)	\$4,208,449.61	50%
Discount Rate	0.7%	

Appendix I - Table 2
Cost Summary for Cleanup Action Alternative No. 2
Former Sound Mattress and Felt Co. Property
1940 E. 11th Street
Tacoma, Washington
Pacific Crest Project No. 110-001

Cleanup Alternative No. 2 - Excavation and GE&T

Task 1 - PM, Regulatory Oversight, Permitting, and Task Management (NPV)	\$299,058
Task 2 - Cleanup Action Plan, Engineering Design and Pilot Testing	\$92,836
Task 3 - Well Replacement	\$26,564
Task 4 - Cleanup Action Implementation - Excavation and GE&T Installation, O&M Plan	\$2,577,169
Task 5 - Cleanup Action Implementation - O&M (NPV)	\$796,332
Task 6 - Groundwater Monitoring Events and Vapor Intrusion Monitoring (NPV)	\$304,363
Task 7 - Progress Reports (NPV)	\$76,951
Task 8 - Quarterly Confirmation Groundwater Monitoring Events (NPV)	\$31,889
Task 9 - Confirmation Soil Sampling (NPV)	\$12,109
Task 10 - Closure Report Preparation (NPV)	\$16,129
Task 11 - Well Abandonment (NPV)	\$25,070
Task 12 - Incremental Cost for Soil Disposal During Construction (NPV)	\$735,752

TOTAL ESTIMATED COSTS \$4,994,222

Low Estimate (-30%)	\$3,495,955.34	-30%
High Estimate (+50%)	\$7,491,332.87	50%
Discount Rate	0.50%	

**Appendix I - Table 3
 Cost Summary for Cleanup Action Alternative No. 3
 Former Sound Mattress and Felt Co. Property
 1940 E. 11th Street
 Tacoma, Washington
 Pacific Crest Project No. 110-001**

Cleanup Alternative No. 3 - SVE and ERD			
Task 1 - PM, Regulatory Oversight, Permitting, and Task Management (NPV)		\$176,710	
Task 2 - Cleanup Action Plan		\$92,836	
Task 3 -Well Replacement		\$26,564	
Task 4 - Cleanup Action Implementation - ERD and SVE, O&M Plan		\$485,733	
Task 5 - Cleanup Action Implementation - O&M (NPV)		\$893,289	
Task 6 - Groundwater Monitoring Events and Vapor Intrusion Monitoring (NPV)		\$259,074	
Task 7 - Progress Reports (NPV)		\$71,407	
Task 8 - Quarterly Confirmation Groundwater Monitoring Events (NPV)		\$32,858	
Task 9 - Confirmation Soil Sampling (NPV)		\$12,477	
Task 10 - Closure Report Preparation (NPV)		\$16,619	
Task 11 - Well Abandonment (NPV)		\$25,832	
Task 12 - Incremental Cost for Soil Disposal During Construction (NPV)		\$782,076	
	TOTAL ESTIMATED COSTS	\$2,875,474	
	Low Estimate (-30%)	\$2,012,832.00	-30%
	High Estimate (+50%)	\$4,313,211.43	50%
	Discount Rate	0.50%	

**Appendix I - Table 4
 Cost Summary for Cleanup Action Alternative No. 4
 Former Sound Mattress and Felt Co. Property
 1940 E. 11th Street
 Tacoma, Washington
 Pacific Crest Project No. 110-001**

Cleanup Alternative No. 3 - SVE and ERD			
Task 1 - PM, Regulatory Oversight, Permitting, and Task Management (NPV)		\$122,996	
Task 2 - Cleanup Action Plan		\$92,836	
Task 3 -Well Replacement		\$26,564	
Task 4 - Cleanup Action Implementation - ISCR and SVE, O&M Plan		\$692,067	
Task 5 - Cleanup Action Implementation - O&M (NPV)		\$589,971	
Task 6 - Groundwater Monitoring Events and Vapor Intrusion Monitoring (NPV)		\$212,641	
Task 7 - Progress Reports (NPV)		\$65,724	
Task 8 - Quarterly Confirmation Groundwater Monitoring Events (NPV)		\$33,687	
Task 9 - Confirmation Soil Sampling (NPV)		\$12,792	
Task 10 - Closure Report Preparation (NPV)		\$17,039	
Task 11 - Well Abandonment (NPV)		\$26,484	
Task 12 - Incremental Cost for Soil Disposal During Construction and VI Mitigation (NPV)		\$787,649	
	TOTAL ESTIMATED COSTS	\$2,680,449	
	Low Estimate (-30%)	\$1,876,313.95	-30%
	High Estimate (+50%)	\$4,020,672.75	50%
	Discount Rate	0.50%	